Agenda

PLANNING COMMISSION REGULAR DOCKET TUESDAY, June 11, 2013 – 5:30 P.M. CITY COUNCIL CHAMBERS

- I. <u>PLANNING COMMISSION GATHERING</u> -- 4:30 P.M. (Held in the NDS Conference Room) Commissioners gather to communicate with staff. (4:30-5:30 P.M.)
- II. <u>REGULAR MEETING</u> -- 5:30 P.M.
 - A. COMMISSIONERS' REPORTS
 - B. UNIVERSITY REPORT
 - C. CHAIR'S REPORT
 - D. DEPARTMENT OF NDS
 - E. MATTERS TO BE PRESENTED BY THE PUBLIC NOT ON THE FORMAL AGENDA
 - F. CONSENT AGENDA

(Items removed from the consent agenda will be considered at the end of the regular agenda)

- 1. Minutes April 9, 2013 Regular meeting
- 2. Minutes May 14, 2013 Pre meeting
- 3. Minutes May 14, 2013 Regular meeting

III. JOINT PUBLIC HEARINGS (Beginning at 6:00 P.M.)

- G. JOINT PUBLIC HEARINGS
- 1. <u>ZT-13-04-08 West Main Street Requirements</u> An ordinance to amend and reordain §34-621 and §34-641 Density of the Zoning Ordinance of the Code of the City of Charlottesville, 1990, as amended, to clarify that exclusively multi-family residential buildings are not permitted in the West Main North and West Main South Zoning Districts. Report prepared by Ebony Walden and Brian Haluska, Neighborhood Planners. Presented by Brian Haluska.
- IV. REGULAR AGENDA (continued)
 - H. Critical Slope Waiver Requests
 - a. Seminole Square Expansion
 - b. Pepsi Cola Plan Expansion

I. FUTURE MEETING SCHEDULE

Date and Time	Type	Items
Tuesday June 25, 2013 – 5:00 PM	Work Session	Joint City County Planning Commission
		meeting – LRTP Comp Plan
		Performance Measures
		PUD Ordinance Review
Tuesday, July 9, 2013 – 4:30 PM	Pre- Meeting	
Tuesday, July 9, 2013 – 5:30 PM	Regular	Tonsler Park Master Plan
	Meeting	Meadowbrook Flats 1138 Emmet Street –
		Critical Slopes, Entrance Corridor Review
		Minutes – May 28, 2013 – Work Session

Anticipated Items on Future Agendas

- LID Guideline Review
- Zoning Text Amendment PUD ordinance updates
- Subdivision 803 Rugby Road
- Rezoning Lyman Street
- Special Use Permit 925 East Market Street Entrance Corridor 5th Street Station

PLEASE NOTE: THIS AGENDA IS SUBJECT TO CHANGE PRIOR TO THE MEETING.

PLEASE NOTE: We are including suggested time frames on Agenda items. These times are subject to change at any time during the meeting.

LIST OF SITE PLANS APPROVED ADMINISTRATIVELY 5/1/2013 TO 5/31/2013

None

LIST OF SUBDIVISIONS APPROVED ADMINISTRATIVELY 5/1/2013 TO 5/31/2013

1. TMP 61- 81 & 82 Boundary Adjustment 912 Nassau Street Old Albemarle Surveying, LLC

File No. 1508 Final

Final Signed: 5/14/13 Signed by: Ebony Walden & Genevieve Keller

2. TMP 17-18 Four Residential Lots

Maury Avenue Commonwealth Land Surveying

File No. 1509 Final

Final Signed: 5/24/13 Signed by: Ebony Walden & Genevieve Keller

3. TMP 16-102 One Residential Lot

1830 Jefferson Park Avenue Roger Ray & Associates Inc.

File No. 1510 Final

Final Signed: 5/29/13

Signed by: Ebony Walden & Genevieve Keller

MINUTES CITY OF CHARLOTTESVILLE PLANNING COMMISSION TUESDAY, April 9, 2013 -- 5:30 P.M. CITY COUNCIL CHAMBERS

Commissioners Present:

Ms. Genevieve Keller (Chairperson)

Mr. Dan Rosensweig

Ms. Natasha Sienitsky

Mr. Michael Osteen

Mr. Kurt Keesecker

Mr. John Santoski

Mr. David Neuman, Ex-officio, UVA Office of the Architect

Not Present

Ms. Lisa Green

Staff Present:

Ms. Missy Creasy, AICP, Planning Manager

Mr. Michael Smith, Planner

Mr. Willy Thompson, AICP, Planner

Ms. Kathy McHugh, Housing Specialist

Also Present

Mr. Richard Harris, Deputy City Attorney

II. REGULAR MEETING

Ms. Keller convened the meeting and stated that the Critical Slopes items a and b have been deferred by the applicant and will not be heard this evening.

A. COMMISSIONERS' REPORT

- Ms. Sienitsky-nothing to report
- Mr. Osteen-nothing to report due to being out of town.
- Mr. Rosensweig- attended the HAC meeting and outlined items from their agenda.
- Mr. Keesecker-plans to attend the PACC Tech meeting on April 18th.
- Mr. Santoski-nothing to report.

B. UNIVERSITY REPORT

Mr. Neuman announced Thomas Jefferson's birthday and the associated activities. Founder's Day will be celebrated with a tree planting dedicated to John Casteen.

C. CHAIR'S REPORT –Ms. Keller announced that Natasha Sienitsky has agreed to be on the CHART Committee. She attended the TJPDC meeting and outlined the land use map project in Fluvanna as well as highlighting information shared at the PLACE Task Force meeting.

D. DEPARTMENT OF NDS/STAFF REPORTS/WORK PLAN

Ms. Creasy announced that there will be a work session on April 23 if it is needed.

E. MATTERS TO BE PRESENTED BY THE PUBLIC NOT ON THE FORMAL AGENDA

There were none.

F. CONSENT AGENDA

(Items removed from the consent agenda will be considered at the end of the regular agenda)

- 1. Minutes February 12, 2013 Regular meeting
- 2. Minutes February 26, 2013 Work Session
- 3. Minutes March 5, 2013 Work Session
- 4. Minutes March 12, 2013 Regular meeting
- 5. Minutes March 12, 2013 Pre meeting
- 6. Minutes March 12, 2013 Work Session
- 7. <u>Subdivision</u> Burnett Commons Phase 2 (preliminary and final)
- 8. Zoning Text Initiation Allowances in West Main North & South
- Mr. Rosensweig recused himself from item 7.
- Mr. Osteen made a motion to approve the consent agenda.
- Ms. Sienitsky seconded the motion.

All in favor.

Motion Carries

G. Zoning Text Review

a. Surface Parking Lots and Parking Garages

Ms. Creasy provided the staff report.

The Commission feels that good tools are already in place with the zoning ordinance.

Mr. Rosensweig made a motion to forward this report to Council.

Mr. Santoski seconded the motion.

Sienitsky yes
Osteen yes
Rosensweig yes
Keesecker yes
Santoski yes
Keller yes

Motion carries

1. H. JOINT PUBLIC HEARINGS

1. ZT-13-02-03 - Affordable Dwelling Unit Amendment - An ordinance to amend and reordain §34-12 of the Zoning Ordinance of the Code of the City of Charlottesville, 1990, as amended, to provide reference to the correct Consumer Price Index used to calculate contributions to the City's affordable housing fund. Report prepared by Kathy McHugh, Housing Specialist.

Ms. McHugh provided the staff report.

There were no questions from Commissioners.

Ms. Keller opened the public hearing. With no one to speak, she closed the public hearing.

Mr. Rosensweig made a motion to recommend approval of the Affordable Dwelling Unit Amendment.

Mr. Sienitsky seconded the motion.

Ms. Creasy called the question.

Sienitsky Yes
Osteen Yes
Rosensweig Yes
Keesecker Yes
Santoski Yes
Keller Yes

Motion Carries.

2. CP-13-03-06: (Comprehensive Plan) - The Charlottesville Planning Commission will hold a public hearing on the proposed 2013 Comprehensive Plan for the City of Charlottesville. The purpose of the Comprehensive Plan is to provide a guide, with long-range recommendations, for the coordinated and harmonious development of property within the City. Elements that are addressed in the proposed Plan include Community Values and Characteristics, Land Use, Community Facilities, Economic Sustainability, Environment, Housing, Transportation, Urban Design and Historic Preservation. The Plan also identifies Community Wide Issues; Goals and Objectives, and recommended actions for implementation. Following the public hearing the Planning Commission may approve, amend and approve or disapprove the proposed Comprehensive Plan. If approved, the Commission will recommend the Plan to the Charlottesville City Council. Report prepared by Missy Creasy, Planning Manager

Ms. Creasy provided the staff report.

Ms. Keller opened the public hearing.

Neal Williamson, Free enterprise Forum, feels that a great deal of work has been put into the plan.

Travis Patiella, Southern Environmental Law Center, thanked staff and feels the plan has improved throughout the process.

Bill Emory, 1604 East Market St, would like the Woolen Mills narrative to include revised wording.

Meredith Richards, 1621 Trailridge Rd, gave a brief description of what the plan has done for the rail system, the great revenue Charlottesville has created for the rail system, and how Charlottesville as a whole is improved by adding these stops to their schedule.

Ms. Keller closed the public hearing.

Ms. Creasy stated that a different proposal was presented at the March 26 work session on the Woolen Mills narrative and the neighborhood would like some things added.

Mr. Rosensweig is really blown away with all of the work that was put into the comp plan. He is good with most of the changes. He would like everyone to be mindful and keep the plan positive and inspirational.

Ms. Sienitsky thanked staff and the Commissioners for the great job they have done. She is very satisfied and is comfortable with the changes.

Mr. Osteen is comfortable and complimented staff on a job well done.

Mr. Keesecker is very pleased and appreciates the changes. He has really learned a lot from the community during this process.

Mr. Santoski is concerned that the public doesn't realize how much work goes into this process. He feels they would appreciate it more if they knew. He likes the changes and the links that were added.

Ms. Keller stated that comments will be incorporated and updated on the web page.

Mr. Santoski asked if the navigation process through the document would be easy.

Ms. Creasy stated that links will be provided and the plan will be accessible.

There was a brief discussion about one section of the housing chapter and the wording was resolved.

The Commission is okay with adding the comments Woolen Mills presented.

Mr. Santoski feels that affordable housing is not always low income housing and that needs to be considered.

Ms. Keller was concerned about school statistics for the next five years.

Ms. Creasy stated that the plan does not get into those issues, but some links and statistics are provided. She stated that we do coordinate with the schools.

Ms. Galvin asked if the comp plan is the guide used for review of a PUD application.

Ms. Creasy stated that there is a section in the plan that discusses PUDs and it is one factor for consideration.

Mr. Santoski feels that the Cherry and Ridge project could have a lot of low income households and the impact that has on the schools should be considered.

Ms. Keller stated that data would come from the schools, not the comp plan. You will be able to find some guidance in the plan, but we don't have the background to make judgments on school decisions.

Mr. Rosensweig would like to continue to see references to housing and the impacts on schools.

Mr. Norris wanted to know how integrated housing could be? He feels we need the ability to communicate with the community.

Mr. Emory provided clarification on changes the Woolen Mills neighborhood would like and the changes to the introductory sentence.

Ms. Sienitsky noted that changing the first sentence would be fine. She doesn't like changing the word unique to historic.

Mr. Emory suggested the sentence reading as follows; Unique historic residential community.

Ms. Keller would like to see 6.7 added to the urban design section dedicating parts of the woolen mills conservation neighborhood.

Mark Cabott stated that he likes the changes and commends staff on a job well done.

Summary

The Commissioners feel that staff has done a great job with the Comprehensive plan. They have suggested few changes, but feel they could recommend this plan to City Council.

Mr. Rosensweig made a motion to recommend approval of the resolution for adoption of the 2013 Comprehensive Plan to City Council.

Mr. Keesecker seconded the motion.

Ms. Creasy called the question.

Sienitsky	yes
Osteen	yes
Rosensweig	yes
Keesecker	yes
Santoski	yes
Keller	yes

Motion Carries.

3. <u>SP-13-02-04 –(600 McIntire Road)</u> An application for a special use permit for a family day home of up to 12 children at 600 McIntire Road. The property is further identified on City Real Property Tax Map 34 Parcel 55 having frontage on McIntire Road. The site is zoned R1-S (Residential) and is approximately 0.278 acres or 12,110 square feet. The Land Use Plan generally calls for Single Family. Report prepared by Brian Haluska, Neighborhood Planner. Presented by Mike Smith.

Mr. Smith provided the staff report.

Mr. Rosensweig asked what would be the maximum amount of vehicle trips generated daily. He also inquired about the hours of operation. Mr. Smith provided this information.

Ms. Keller asked if the applicant would be in violation if they operated past 6pm and Mr. Smith stated that they would be if there were more than 5 children present.

The applicant presented the application noting that she did not need an employee at this time but has prepared for that in the future. She stated that most of her students actually walk.

There was discussion concerning the hours of operation, number of students who walk and signage on site.

Ms. Sienitsky asked where people park if the on site spaces are occupied.

The applicant stated that they would park across the street or near the stop sign.

Ms. Keller opened the public hearing.

Mark Cabot, President of the North Downtown Association stated that the neighborhood strongly supports the applicant and it would be beneficial to the neighborhood. He would just like to know what happens when the property is sold. He feels that no sign and hours of operation should be restricted.

With no one left to speak Ms. Keller closed the public hearing.

Ms. Sienitsky's main concern is with safety and parking at the intersection. There appears to be adequate parking.

Ms. Creasy stated that a traffic calming request comes from the neighborhood, but some wording could be added to have it looked at. The Commission discussed traffic concerns in the area.

Mr. Osteen feels this would be appropriate and feels really good about it.

Mr. Santoski is very comfortable with the application.

Ms. Keller would like to see a sign to identify the location.

Mr. Rosensweig said, I move to recommend approval of this application for special use permit in the R-1S zone at 600 McIntire Road to permit the operation of a family day home with the conditions listed in the staff report which is as follows:

1. Hours of operation are limited from 8am-7pm Monday-Friday."

Mr. Keesecker seconded the motion.

Ms. Creasy called the question.

Sienitsky Yes
Osteen Yes
Rosensweig Yes
Keesecker Yes
Santoski Yes
Keller Yes

Motion carries.

Mr. Rosensweig made a second motion to communicate to Council the traffic calming process be undertaken following completion of the roadway projects.

Mr. Santoski seconded the motion.

Sienitsky Yes
Osteen Yes
Rosensweig Yes
Keesecker Yes
Santoski Yes
Keller Yes

4. ZM-12-04-06 (**Stonehenge PUD**): A petition to rezone the property located off of Stonehenge Avenue from R-1S Residential District to Planned Unit Development (PUD) with proffers. Proffers include pedestrian connections to neighboring streets, a unified streetscape throughout

the development, a tree replacement plan, and a landscaped buffer on the northern edge of the property. The property is further identified as Tax Map 60 Parcels 81.8, 91, 120, 120A-C, 121, 122.4-7 having road frontage on Stonehenge Avenue and Quarry Road containing approximately 240,887 square feet of land or 5.53 acres. The PUD zoning allows an applicant to present a proposal independent of established zoning categories for consideration by the governing body. This proposal consists of approximately 26 single family detached dwellings with open space and a density of no greater than 4.7 DUA. The general uses called for in the Land Use Plan of the Comprehensive Plan are for Single-Family Residential. **Report prepared by Brian Haluska, Neighborhood Planner. Presented by Willy Thompson**

Mr. Thompson provided the staff report.

Ms. Keller stated that the PUD and Critical slopes applications will be considered at the same time.

Ms. Creasy stated that City Council suggested that this be brought back to the Planning Commission for further discussion based on the changes presented.

Ms. Keller called for questions from the Commissioners; with no one having questions she opened the public hearing.

Public Hearing

Mr. Steve Miller, 918 Druid Ave, feels that the new drawings are better. He would like to see some language added about the path that could dump water onto his property.

Ms. Marla Zeigler, she feels the applicant has done a much better job.

Michael Henniker, 1006 Druid Ave, is in favor of the new plan but feels he can't really comment on the engineering side.

Martha Dix, 914 Druid Ave, would like to know if the stream will remain in the culvert.

Ms. Keller closed the public hearing.

Discussion

Mr. Keesecker stated that he met with the developers as a committee appointee. He felt the meeting went well and noted the improved streetscape that wouldn't be dominated by cars. He feels there may be some details that may need to be worked out though when looking at the technical aspects.

Mr. Osteen feels the applicant has responded to some of the larger concerns and he could support the project now.

Mr. Santoski is very surprise to see what a great job the applicant has done. He feels this is the best we will see done to this project. He is really not concerned with the Druid connection.

Mr. Rosensweig is still struggling. He doesn't see any consistency with the housing portion of the comp plan.

Ms. Keller is in agreement with Mr. Rosensweig. She appreciates the applicant taking time to redo the plan but does not feel it is harmonious with other houses in Belmont.

The Commission discussed some of the details of the project prior to the applicant's report.

Andy Baldwin, the applicant, stated that they took the recommendations from the previous meeting and went back to the drawing board.

Mr. Osteen asked if the applicant had some architectural designs of the houses and asked for the price range of the homes.

The applicant stated that he has not really made a definite decision, but he is talking with some small custom design home builders now. The applicant stated that the houses will be in the high 200,000 to low 300,000 range.

Mr. Osteen asked if there would be some affordable housing units.

The applicant stated with only 26 units it would be hard to offer affordable units.

Ms. Galvin asked questions concerning the parking areas and requirements for the site. The applicant provided responses.

Mr. Rosensweig feels that the project has come a long way. He feels the connection on Stonehenge makes it a much better project. If affordable housing was included with confirmed design elements, it would be a great project.

Mr. Santoski made a motion to recommend denial of this application to rezone property from R-1S to PUD on the basis that the proposal would not serve the interests of the general public Welfare and good zoning practice.

Mr. Rosensweig seconded the motion.

Ms. Creasy called the question.

Sienitsky No
Osteen No
Rosensweig Yes
Keesecker No
Santoski Yes
Keller Yes

Motion is denied. (It was later noted that since the vote was tie that no decision was made. The original motion made at the previous meeting stands)

5. <u>SUB-13-03-07 – Sidewalk Provisions</u>- An ordinance to amend and reordain §29-182 of the Subdivision Ordinance of the Code of the City of Charlottesville, 1990, as amended, to provide the option of contributing to a sidewalk fund rather than dedicating land and constructing sidewalks for residential lots on existing streets. **Report prepared by Missy Creasy, Planning Manager**

Ms. Creasy provided the staff report.

Ms. Keller opened the public hearing with no one to speak she closed the public hearing.

The Commissioners feel like this is a reasonable request. They expressed concern with the payment but it was noted by staff that this would only come into effect for new single and two family residential units.

Mr. Santoski made a motion to recommend approval of the ordinance to amend and reordain §29-182 of the Subdivision Ordinance of the Code of the City of Charlottesville, 1990, as amended, to provide the option of contributing to a sidewalk fund rather than dedicating land and constructing sidewalks for Residential lots on existing streets as outlined by House Bill 1724.

Ms. Sienitsky seconded the motion

Sienitsky	Yes
Osteen	No
Rosensweig	No
Keesecker	Yes
Santoski	Yes
Keller	Yes

Motion Carries.

Ms. Sienitsky made a motion to adjourn to the second Tuesday in May. Adjourned at 10:12pm.

CITY OF CHARLOTTESVILLE PLANNING COMMISSION PRE MEETING TUESDAY, May 14, 2013 -- 4:30 P.M. NDS CONFERENCE ROOM

Planning Commissioners present

Ms. Genevieve Keller

Mr. Dan Rosensweig

Mr. Kurt Keesecker

Mr. John Santoski

Mr. Mike Osteen

Ms. Lisa Green

Staff Present:

Ms. Missy Creasy, Planning Manager

Mr. Willy Thompson, Neighborhood Planner

Ms. Ebony Walden, Neighborhood Planner

Mr. Brian Haluska, Neighborhood Planner

Mr. Jim Herndon, Planner and ADA Coordinator

Mr. Richard Harris, Deputy City Attorney

The Commission began to gather at 4:30 and was called to order at 5:00pm.

Ms. Keller reviewed the agenda. Mr. Herndon provided an overview of the ADA Transition report noting the addition of information concerning signalized intersections. Mr. Keesecker requested that a map be added to the report showing the locations explained in the narrative. It was asked that Mr. Herndon explain the curb ramping specification priority. Mr. Osteen asked for clarity on the information contained in the cost tables.

Ms. Walden provided an overview of the Carlton project and answered a question concerning off site improvement allowances.

Mr. Thompson provided an overview of the Garrett Street application.

The discussion adjourned at 5:25pm.

MINUTES CITY OF CHARLOTTESVILLE PLANNING COMMISSION TUESDAY, May 14, 2013 -- 5:30 P.M. CITY COUNCIL CHAMBERS

Commissioners Present:

Ms. Genevieve Keller (Chairperson)

Ms. Natasha Sienitsky

Ms. Lisa Green

Mr. Kurt Keesecker

Mr. John Santoski

Mr. Michael Osteen

Mr. Dan Rosensweig

Mr. David Neuman, Ex-officio, UVA Office of the Architect

Staff Present:

Ms. Missy Creasy, AICP, Planning Manager

Mr. Willy Thompson, AICP, Neighborhood Planner

Ms. Ebony Walden, AICP, Neighborhood Planner

Also Present

Mr. Richard Harris, Deputy City Attorney

Ms. Keller convened the meeting at 5:30.

A. COMMISSIONERS' REPORT

- Mr. Santoski-Nothing to report
- Mr. Keesecker- PACC Tech met in April with presentations on the Envision Sustainability Rating system at the University and development activities for the City, County and UVA.
- Mr. Rosensweig noted that the HAC will meet on May 15, 2013.
- Mr. Osteen participated in the BAR and Tree Commission meetings this month. He highlighted the
 collaboration underway to gain placement of trees along Water Street Extended as part of the City
 Walk project.
- Ms. Green –MPO TECH will meet May 21, 2013.

B. UNIVERSITY REPORT

Mr. Newman stated that PACC meets this Thursday with a report on the Envision Process and a report from Weldon Cooper on recent demographic estimates. University Commencement will take place this weekend.

C. CHAIR'S REPORT

Ms. Keller noted that the Comprehensive Plan will be heard by Council on May 20. She also provided updates of the work of the PLACE committee and upcoming meetings associated with the SIA project.

D. DEPARTMENT OF NDS/STAFF REPORTS/WORK PLAN

Ms. Creasy announced that two commissioner terms would end in August and those are currently advertised. She outlined future work session topics and noted that with Mr. Thompson leaving and the end of the Livability grant, there would be neighborhood planner staff changes occurring in the next few weeks.

E. MATTERS TO BE PRESENTED BY THE PUBLIC NOT ON THE FORMAL AGENDA There were none.

F. CONSENT AGENDA

(Items removed from the consent agenda will be considered at the end of the regular agenda)

- 1. Minutes April 9, 2013 Pre meeting
- 2. Minutes March 26, 2013 Work Session

Mr. Santoski made a motion to approve the consent agenda.

Mr. Keesecker seconded the motion.

All in favor

Motion Carries

Meadowcreek Stream Valley Master Plan Report

Brian Daly, Director of Parks and Recreation introduced the presentation and turned the time to Chris Gensic to present.

Commissioners provided the following feedback:

- Look for ways to reduce costs for garden plots for low income populations.
- Formalized trail connections where needed.

No formal action was required.

III. JOINT PUBLIC HEARINGS

1. <u>ADA Transition Plan:</u> The Charlottesville Planning Commission will hold a joint public hearing on the proposed ADA Transition Plan for the City of Charlottesville. The purpose of the ADA Transition Plan is to provide a guide to assure that all City facilities and services are accessible to persons with disabilities. The Plan identifies specific structural and programmatic changes that need to be implemented to assure equitable access for all City citizens and guests. Following the public hearing the Planning Commission may approve, amend and approve or disapprove the proposed ADA Transition Plan. **Report prepared by James Herndon, Planner**.

Mr. Herndon presented the staff report. Update of the plan began in January 2012. The plan was compiled over many meetings and cooperative efforts. The Plan is being proposed as part of the current Comprehensive Plan update.

- Mr. Keesecker asked if maps will be included.
- Mr. Herndon stated all changes requested at the pre-meeting, including maps and cost estimates, will be addressed.
- Ms. Green had questions regarding pedestrian crossings.
- Mr. Herndon stated there is an online process that can accommodate complaints and additional language will be added to the plan.
- Ms. Keller asked what consideration was given to people using walkers.
- Mr. Herndon responded that review was done concerning people with varying mobility.
- Mr. Santoski asked if public housing will incorporate universal design and it was noted that public housing does not fall under the City's transition plan. CRHA has their own requirements.
- Mr. Keesecker asked regarding City development standards and those areas needing creative solutions, will there be ways to improve these areas? It was noted that this is possible.
- Mr. Santoski noted that at the pre-meeting there was conversation about overgrowth and utility poles blocking access and he felt this should be addressed. These action items are included in the Plan
- Ms. Keller opened the public hearing. No one present spoke so she closed the public hearing.

Mr. Rosensweig is concerned about the standard adopted from VDOT about dual ramps. He is worried that this makes the intersection larger and more unsafe. He would like to accommodate movability without sacrificing safety. He would like to charge staff with the task of balancing this scenario.

Mr. Herndon noted that a developer should consider doing two ramps and even though it is more expensive, less right-of-way would be used. Staff could write something that says right-of-way should be limited as much as possible and one way to do this is to use two ramps instead of one.

The Commission asked Mr. Herndon to draft some language to address concerns noted for comment.

Ms. Green provided a thank you for the comprehensive and well-done document. She would like to see mapping and the timing of pedestrian crossings addressed. For the events on the downtown mall, too often, accessible parking is blocked off and should be a priority. She would like to see phone applications that allow people to file complaints.

Mr. Rosensweig made a motion to recommend approval of the proposed ADA Transition Plan with the following recommendations:

- An additional section be added concerning inspection of electronic pedestrian signal devices and their timing.
- Add language to encourage developers to minimize the size of intersections where diagonal curb ramps are provided, as much as possible.
- Promote the on-line reporting of ADA issues and investigate the development of a mobile app.
- Review the Facilities Cost Table.
- Add a Graphic (Map) of the location of corners without curb ramps in the Plan
- Provide Language for examine location of Drop-Off Points
- Add Language addressing people using walkers and canes

Mr. Keesecker seconded the motion

With no further discussion Ms. Creasy called the question.

Sienitsky Yes
Green Yes
Keesecker Yes
Santoski Yes
Keller Yes
Osteen Yes
Rosensweig Yes

The motion carries.

2. <u>SP-13-02-05</u> – (1335 Carlton Ave): An application for a special use permit to allow for residential use (up to 21 dwelling units per acre) in the Manufacturing – Industrial zoning district at the property located at 1335 Carlton Avenue. The property is further identified on City Real Property Tax Map 56 Parcels 43, 43.1 and 43.2 with frontage on Carlton Avenue. The site is zoned M-I (Manufacturing – Industrial) and is approximately 4.855 acres or 211,484 square feet. The Land Use Plan generally calls for Industrial. **Report prepared by Brian Haluska, Neighborhood Planner. Presented by Ebony Walden.**

Ms. Walden presented the staff report.

Ms. Keller asked what considerations were given to the traffic concerns.

Ms. Walden noted that traffic was a concern, but there was not a recommendation that seemed appropriate for this project. Such recommendations typically include widening the road or adding a stoplight and neither is appropriate in this case.

Mr. Rosensweig and Ms. Keller made disclosures and stated that they can remain impartial.

Ms. Sienitsky asked staff to comment on the traffic comparisons between the current use and proposed use and this information was provided.

Ms. Green asked if there is an age restriction for units on this site and that is not being provided.

Questions about transit and cut through traffic, potential road widening, sidewalk connections, lighting, landscaping and open space, and type of housing mix proposed were also asked and answered.

Mr. Santoski asked about the loss of M-I land. How important is that loss? It was pointed out that the Comprehensive Plan designates these areas for more diverse uses such as the kind being proposed and part of the project is currently underway with support from the City.

Staff provided process clarifications and Ms. Keller asked for the applicant's presentation.

Chris Murray made a presentation about the PACE program, the funding mechanisms, parking expectations, and neighborhood communication.

Scott Collins provided details on the site. They will be widening Carleton Road, which will allow for intermittent parking. A lot of the traffic will be absorbed by JAUNT bus travel. Landscaping is showed on the site plan. He presented an updated version of the site plan at that meeting. Regarding lighting, the applicant recognizes the elevations and that the buildings will help shield the parking lot lighting.

Ms. Green asked questions concerning the parking calculations attempting to gain clarification on the reason for discrepancies throughout the materials. It was noted that 20 additional spaces are provided for the PACE center and no more than the requirement will be constructed for the housing.

Questions were asked of the applicant in reference to the elevations of the buildings and site, pedestrian connections, massing and scale, lighting, open space, and landscaping.

Ms. Keller opened the public hearing.

Bill Emory noted he was not informed of the site plan conference. Lighting is a concern for the neighborhood and he wants to make sure it is addressed properly on this site.

With no other speakers, Ms. Keller closed the public hearing.

Ms. Keller asked about the timetable for the tax credit application. Mr. Murray noted that they cannot make application unless they have an approved SUP and plan to apply as soon as possible if the permit is received.

Ms. Smith asked about the breakdown of affordable housing on the site which led to additional discussion concerning the affordable housing planning for this site. The unit mix will depend on funding availability.

There was discussion of deferring the application to allow for additional information to address impacts this development may have however the applicant would like to continue forward as there is a funding application due on June 1st.

Ms. Walden noted that the Commission has identified the issues and potential conditions for projects in the past. The issues regarding unit mix and site layout cannot be answered in the next month so deferring would not be beneficial. She pointed out the standards of review and stated that the Commission should craft the conditions they believe will offset the impacts.

Some Commissioners expressed concern but moved forward to identifying the potential impacts of the development.

Mr. Keesecker noted that considering conformity to the Comprehensive Plan, the development is not taking advantage of connectivity and should have more front doors and connections to the open space. The community building should be more integrated to the site.

Mr. Santoski noted that the lighting with the back of the building could be an issue and perhaps more trees could be planted. He expressed concern with the Franklin intersection and would like to see it improved.

- Mr. Rosensweig plans to make some general comments to Council independent of the motion.
- Ms. Green agreed with increased interconnectivity and appropriate lighting.

Ms. Sienitsky supports the height condition, limiting the parking to the minimum requirements, connectivity and lighting. She noted there may be consideration for an affordable housing condition.

Ms. Keller asked if they can include an affordable housing condition. Mr. Harris noted that is already part of the project and the standard of review should be followed.

Ms. Keller summarized the list of conditions.

Mr. Rosensweig noted that the site plan is not in the SUP purview. He moved to recommend approval per motion with following conditions:

- 1. The maximum height of buildings on the property shall not exceed 50 feet
- 2. A minimum of 15% affordable housing as defined by residents earning up to 60% of median income.
- 3. Provision of an entrance feature to all buildings that front on Carlton
- 4. No more parking than required by city code
- 5. Full cut off lighting
- 6. Work with CAT for the inclusion of a bus stop/shelter if deemed feasible or appropriate.
- 7. Retain trees greater than 6" in caliper in open space area on east side of site.
- 8. Provide pedestrian linkages between buildings and open space on site and the neighborhood.

Ms. Sienitsky seconded the motion.

Following discussion, the motion was amended to include:

8. Provide pedestrian linkage between buildings and open space on site and the neighborhood.

With no further discussion Ms. Creasy called the question.

Sienitsky Yes

Green Yes
Keesecker No
Santoski Yes
Keller Yes
Osteen Yes
Rosensweig Yes

The motion carries.

Ms. Keller is very disappointed that the Planning Commission has just now seen this application and that there was not more guidance in determining the conditions.

Mr. Rosensweig also wanted the following general comments and suggestions to be forwarded to City Council regarding traffic and circulation patterns in this neighborhood. He recommended that City Council look at traffic patterns in the overall area and find areas for improvements, including the Franklin intersection and the potential to one way Franklin. He also suggested reincorporating parking along Carleton.

Mr. Keesecker noted there's not a mechanism to handle this site in the same way as a PUD. This process let us down.

1. <u>Closing of a portion of Garrett Street:</u> A petition to close a dead end portion of Garrett Street for a distance of approximately 100 feet long adjacent to 204 Ridge Street including paved and unpaved areas, sidewalk and stairs leading to Ridge Street. The portion of this street is located adjacent to City Real Estate Tax Map 28 Parcel 143. **Report prepared by Willy Thompson, Neighborhood Planner**

Mr. Thompson presented the staff report and provided updates on questions asked since the report was completed.

Ms. Green asked if we have ever closed a roadway due to crime reports. No one was aware of a similar situation.

Mr. Santoski asked why the City is not maintaining this area better with this number of concerns.

Mr. Norris asked what would happen to the steps if the street was closed and it was noted the applicant would then own the area and could close them. He also asked if the police had reviewed the site for CPTED issues and it was noted that Mr. Finkle reviewed the site and had no further recommendations.

Leah Watson, applicant and property owner, provided a history of her ownership of the house. She was not aware of the activities which were occurring on this property at the time and found out later from the previous owner that there had been concerns. She is only interested in safety, not in increasing the size of her lot. Ms. Watson provided information on the current parking situation and that the area is used for a turn around for those who get lost. She understands the need for connectivity but noted that there are no crosswalks at the top of the steps and it is only a few extra steps to reach Monticello or South Street to access downtown. She provided updates to the crime and calls for service data provided as part of the application.

Mr. Norris asked what physical changes to the site she would make if the closing occurred. Ms. Watson noted that a gate could be placed across the steps and fencing on Garrett Street.

Ms. Keller opened the public hearing

Lawrence Keys, 400 Oakmont Street, asked how far people would need to travel if this portion of the street were closed.

Ms. Keller closed the public hearing.

Mr. Thompson noted that there would be no change to the Oakmont Street area.

Ms. Keller noted her concern for the applicant but felt that the street closing would be premature. Ms. Sienitsky agreed that it would be wise to wait for the outcome of the SIA. It is hoped those results will be available over the summer. Ms. Keller noted that law enforcement and maintenance can address this concern and the pedestrian connection should remain. Commissioners continued to provide suggestions to improve the area.

Ms. Sienitsky made a motion to recommend deferral of this application

Mr. Osteen seconded.

With no further discussion Ms. Creasy called the question.

Sienitsky	Yes
Green	Yes
Keesecker	No
Santoski	Yes
Keller	No
Osteen	Yes
Rosensweig	Yes

The motion carries.

The meeting was adjourned at 9:58 pm.

CITY OF CHARLOTTESVILLE NEIGHBORHOOD DEVELOPMENT SERVICES



MEMORANDUM

To: Planning Commission

Missy Creasy AICP, Planning Manager

From: Ebony Walden AICP, Neighborhood Planner

Brian Haluska AICP, Neighborhood Planner

Date: May 7, 2013

Re: West Main Density Zoning Text Amendment

PROBLEM

Upon reviewing the code for the West Main North District Corridor with a potential developer, staff found an inconsistency in the density regulations in this section. The matrix in 34-796 notes that multifamily developments in this district are required to be mixed use. Similarly 34-619 states that there shall be no ground floor residential uses fronting on West Main Street. Both of these regulations prohibit any solely residential development from occurring in this district. However, the density regulations in 34-621 puts a 43 (DUA) dwelling unit per acre cap on mixed use development while allowing solely residential development of up to 200 DUA by special permit.

The West Main South District Corridor regulations are similar in wording and also include a density provision for "other residential development." This is obviously a mistake in the wording since the only residential density allowed would be in a mixed use project. Thus staff is recommending changes to both the West Main Street North and South sections which reflect the intent of the ordinance.

Staff is aware that there will be a study done of West Main Street in the near future which could significantly change the zoning regulations in both the north and south districts. That process could take up to a year to study and enact zoning changes. This change is not an attempt to revise the zoning regulations, but to make sure the regulations are clear and meet the original intent of the ordinance. In talking with the Director who was here at the time of the zoning changes and reviewing previous documents, staff believes that the original intent was to allow a mixed use building to have 43 DUA by-right and up to 200 DUA per acre by Special Use Permit in WMN and 240 DUA in WMS. The purpose and intent the code section relating "other residential development," is unclear and not consistent with the regulation in the matrix or the additional regulations prohibiting ground floor residential in both of these zones.

OBJECTIVE

To clarify the language in the code so that it is clear what density is allowed by right and what is allowed by special use permit in the West Main North and South Districts for a mixed use development.

The following code section is coming forward for consideration:

Draft Code Language

West Main North - Sec. 34-621. - Density.

- (a) Mixed use. For a mixed use building or development, residential Residential density shall not exceed forty-three (43) DUA; however, up to two hundred (200) DUA may be allowed by special use permit.
- (b) Other residential development. Residential density shall not exceed twenty-one (21) DUA; however, up to two hundred (200) DUA may be allowed by special use permit.

(5-19-08(3); 9-15-08(2))

West Main South - Sec. 34-641. - Density.

- (a) Mixed use. For a mixed use building or development, residential density shall not exceed forty-three (43) DUA; however, up to two hundred forty (240) DUA may be allowed by special use permit.
- (b) Other residential development. Residential density shall not exceed forty-three (43) DUA.





REQUEST FOR A WAIVER: CRITICAL SLOPES

PLANNING COMMISSION REGULAR MEETING DATE OF PLANNING COMMISSION MEETING: June 11, 2013

Project Planner: Michael Smith **Date of Staff Report:** May 31, 2013

Applicant: Seminole Square Shopping Center

Applicant's Representative: Scott Collins, Collins Engineering

Current Property Owner: Towers Limited Partnership

Application Information

Property Street Address: 129, 151, 159, 167, 123, 175 & 185 Seminole Court

Tax Map/Parcel #: Tax Map 41C, Parcel 3.1

Total Square Footage/Acreage Site: 818, 928 square feet (18.8 acres) **Comprehensive Plan (Land Use Plan) Designation:** Commercial

Current Zoning Classification: HW- Highway Corridor

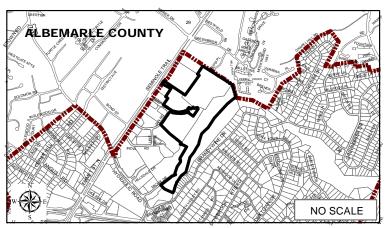
Tax Status: No delinquent taxes

Applicant's Request

Mr. Collins, on behalf of Sequel Investors Limited Partnership, is requesting a waiver from Section 34-1120(b) of the City Code, relating to the protection of critical slopes, to allow for the construction of two, segmented retaining walls, totaling 1180' in length, along the northern portion of the Seminole Square Shopping Center property, containing existing slopes greater than or equal to 25%. Existing critical slopes include 67,953 square feet (1.56 acres) or approximately 8 percent of the property.

The applicant is seeking approval of the waiver request in order to "accommodate space for additional parking and the potential for additional building space that will be lost to the Hillsdale Drive extension."

Vicinity Map



Standard of Review

Purpose and Intent

Per the language stated in Sec 34-1120(b)(1), the "critical slope provisions" are intended to protect topographical features that have a slope in excess of the grade established and other characteristics in the following ordinance for the following reasons and whose disturbance could cause one (1) or more of the following negative impacts:

- a. Erosion affecting the structural integrity of these features.
- b. Stormwater and erosion-related impacts on adjacent properties.
- c. Stormwater and erosion-related impacts to environmentally sensitive areas such as streams and wetlands.
- d. Increased stormwater velocity due to loss of vegetation.
- e. Decreased groundwater recharge due to changes in site hydrology.
- f. Loss of natural or topographical features that contribute substantially to the natural beauty and visual quality of the community such as loss of tree canopy, forested areas and wildlife habitat.

These provisions are intended to direct building locations to terrain more suitable to development and to discourage development on critical slopes for the reasons listed above, and to supplement other regulations and policies regarding encroachment of development into stream buffers and floodplains and protection of public water supplies.

As stated in Sec.34-1120(6)(d), the planning commission shall make a recommendation to city council in accordance with the criteria set forth in this section, and city council may thereafter grant a modification or waiver upon making a finding that:

(i) The public benefits of allowing disturbance of a critical slope outweigh the public benefits of the undisturbed slope(public benefits include, but are not limited to, stormwater and erosion control that maintains the stability of the property and/or the quality of adjacent or environmentally sensitive areas; groundwater recharge;

- reduced stormwater velocity; minimization of impervious surfaces; and stabilization of otherwise unstable slopes); or
- (ii) Due to unusual size, topography, shape, location, or other unusual physical conditions, or existing development of a property, one (1) or more of these critical slopes provisions would effectively prohibit or unreasonably restrict the use, reuse or redevelopment of such property or would result in significant degradation of the site or adjacent properties.

No modification or waiver granted shall be detrimental to the public health, safety or welfare, detrimental to the orderly development of the area or adjacent properties, or contrary to sound engineering practices.

In granting a modification or waiver, city council may allow the disturbance of a portion of the slope, but may determine that there are some features or areas that cannot be disturbed. These include, but are not limited to:

- (i) Large stands of trees;
- (ii) Rock outcroppings;
- (iii) Slopes greater than 60%.

City council shall consider the potential negative impacts of the disturbance and regrading of critical slopes, and of resulting new slopes and/or retaining walls. City council may impose conditions as it deems necessary to protect the public health, safety or welfare and to insure that development will be consistent with the purpose and intent of these critical slopes provisions. Conditions shall clearly specify the negative impacts that they will mitigate. Conditions may include, but are not limited to:

- (i) Compliance with the "Low Impact Development Standards" found in the City Standards and Design Manual.
- (ii) A limitation on retaining wall height, length, or use;
- (iii) Replacement of trees removed at up to three-to-one ratio;
- (iv) Habitat redevelopment;
- (iv) An increase in storm water detention of up to 10% greater than that required by city development standards;
- (v) Detailed site engineering plans to achieve increased slope stability, ground water recharge, and/or decrease in stormwater surface flow velocity;
- (vi) Limitation of the period of construction disturbance to a specific number of consecutive days;
- (vii) Requirement that reseeding occur in less days than otherwise required by City Code.

Project Review / Analysis

The applicant has provided information in the attached critical slopes waiver application for each item discussed below. The planning commission shall make a recommendation to city council, upon making one or more of the following findings:

*Staff comments are in bold

1. The public benefits of allowing disturbance of a critical slope outweigh the public benefits of the undisturbed slope (public benefits include, but are not limited to, stormwater and erosion control that maintains the stability of the property and/or the quality of adjacent or environmentally sensitive areas; groundwater recharge; reduced stormwater velocity; minimization of impervious surfaces; and stabilization of otherwise unstable slopes).

The applicant is utilizing finding #1 as justification for approval of a critical slope waiver, stating that the public benefit of Hillsdale Drive Extended outweighs the impact to critical slopes.

The proposed design for Hillsdale Drive includes significant grading within the existing SWM facility to accommodate the installation and filling operation for the culvert required to provide access across the facility. Installation of the proposed retaining wall(s) will prohibit the grading operation for Hillsdale Drive.

The design of Hillsdale Drive Extended has been with the help, cooperation and direction of Seminole Square whose representatives have served on the Steering Committee for Hillsdale Drive Extended since its inception. In 1990, representatives of Seminole Square and several other businesses in that area approached City and County officials with the Hillsdale Drive concept. The concept was seen as a means to provide better access to local businesses and alternative transportation choices for the community without needing to drive along Route 29. It has been designed as a low speed (25 mph), 2 lane local facility with dedicated left turn lanes and numerous access points serving existing businesses along the corridor. Due to the location (a previously developed commercial corridor) right of way costs were always expected to be high (current estimate is \$16 million). The City agreed to pursue funding for design and construction for the corridor only if the impacted property owners donated necessary right of way for the improvements. Of the 27.37 acres owned by Seminole Square, 1.214 acres of right of way and 0.27 acres of utility easements will be requested for donation.

Applicant's justification for Finding #1

a. Erosion affecting the structural integrity of those features.

The applicant states that although there are signs of erosion on parts of the slope, for the most part, the wooded vegetation is holding the slopes in place. The applicant believes that by installing the retaining wall system, the walls will lock in the fill material and prevent future erosion along the slope. **Staff believes that installing the retaining walls will prevent possible future erosion as the slopes will be structurally stabilized.**

b. Stormwater and erosion-related impacts on adjacent properties.

The applicant states that the existing stormwater management facility (SWM) will not experience a decrease in capacity as a result of installing the retaining walls. Staff believes an engineering analysis needs to be provided that reflects the applicant's statement. This information should include an outline of assumptions, routing calculations, and any other data associated with this analysis. This analysis should be based on the proposed improvements, in conjunction with the proposed improvements at the Pepsi Bottling Facility and current conditions. If the applicant believes this facility will not experience a decrease in capacity, staff request that stormwater calculations be provided that justify that statement.

c. Stormwater and erosion-related impacts to environmentally sensitive areas such as streams and wetlands.

The applicant states that no streams or wetlands are proposed to be impacted. Staff has received verification from the Army Corps of Engineers that no permits are necessary for the work proposed.

d. Increased stormwater velocity due to loss of vegetation.

The applicant states that increases in stormwater velocity will be mitigated with a proposed rain garden facility. Staff believes installation of the rain garden can mitigate potential increases in stormwater velocity.

e. Decreased groundwater recharge due to changes in the site hydrology.

The applicant states that the proposed rain garden and pervious surface material will provide an opportunity for the run-off to drain into the ground before being discharged into the existing SWM facility. **Staff believes installation of the rain garden and pervious surface material can allow for groundwater recharge.**

f. Loss of natural topographic features that contribute substantially to the natural beauty and visual quality of the community such as loss of tree canopy, forested areas, and wildlife habitat.

The applicant has proposed landscaping at the base, between, and on top of the proposed retaining walls. The existing vegetation is mostly scrub trees. Staff believes the proposed landscaping appropriately mitigates the loss of tree canopy.

Staff Recommendation

The applicant has yet to provide the following information necessary to review this proposal:

1. An engineered analysis reflecting the applicant's statement that the existing SWM will not see a decrease in capacity.

Staff has requested this information on many occasions and the applicant has chosen not to comply. As a result of the lack of information, the application fails to address the potential negative impact of critical slopes provision "b."

Staff believes the applicant does not fully meet the criteria for finding #1 and recommends denial of the waiver request. If the waiver request is approved, staff requests that the following condition be included:

1. The City vacate the existing stormwater management easement.

If the critical slope waiver is granted and the easement is not vacated, staff recommends that an access road be constructed as part of the construction of the retaining wall to allow the City to adequately maintain the facility. The existing easement would have to be expanded to include the access road.

Suggested Motions

- 1. "I move to recommend approval of the critical slope waiver for Tax Map 41C, Parcel 3.1, Seminole Court on the grounds that [use one of the two findings]."
- 2. "I move to recommend approval of the critical slope waiver for Tax Map 41C, Parcel 3.1, Seminole Court [use one of the two findings], with the following conditions..."
- 3. "I move to recommend denial of the critical slope waiver for Tax Map 41C, Parcel 3.1, Seminole Court

Enclosures
Waiver Application
Applicant's narrative
Site Plan

P13-0010



WAIVER REQUEST FORM

Please Return To: City of Charlottesville

Department of Neighborhood Development Services

PO Box 911, City Hall Charlottesville, Virginia 22902

Telephone (434) 970-3182

) 970-3182 Fax (434) 970-3359



For a Critical Slopes Waiver Request, please include one of the following application fees: \$75 for single-family or two-family projects; \$500 for all other project types. *additional application form required

For all other Waiver Requests, please include one of the following application fees: \$50 for single-family or two-family projects; \$250 for all other project types.

	12/645 Applicant Name (Colleg Enblockiller)/SERNOLA REPORTED TO PROPERTY REPORTS STORY
	FCT, SUM K CHARLOTHSULLE, 4 22902 SHOPPIN
Phone (H) 44-293-3719 (V	W) <u>434-293-3719</u> (F)
Email: Scott @ College Bublingering	f. Can
Waiver Requested (review Zoning Ordinand	ce for items required with waiver submissions):
Sidewalk *Contact Staff for Supplemental Requirements	Drainage/Storm Water Management Off-street Parking
*	and the second s
Site Plan Review	Lighting
Landscape	Signs
Setbacks	X Critical Slopes *additional application form required
Communication Facilities	Other
Stream Buffer Mitigation Plan	
Otreath build willigation Plan	
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434 293 3719 PH 434 293 3719 FX

www.collins-engineering.com

January 18, 2013 Updated 3/18/2013 Further Updated 5/10/13

City of Charlottesville Department of Neighborhood Development Services P.O. Box 911 Charlottesville, VA 22902

RE: Seminole Square Expansion - Critical Slopes Waiver Request Supplement

Please allow this letter to serve as our formal request for a critical slope waiver to allow an impact to the critical slopes along the northern portion of the Seminole Square Shopping Center property ("Shopping Center"). The property's current use is a retail shopping center.

Applicant: Collins Engineering / Great Eastern Management Company, as agent for Sequel Investors Limited Partnership, Lessee under long-term Ground Lease

("Sequel")

Property Owner: Towers Limited Partnership, et.al, and Lessor under long-term

Ground Lease ("Towers")

Existing Conditions:

This area to the north of the site with the existing, but mostly man made critical slopes is primarily wooded. This area was graded and these slopes were created almost 30 years ago when the property was first developed back in 1985. 2:1 and 3:1 slopes were used to establish the grades of the current Shopping Center. Overall the existing bank is in fair condition, there are some areas that show signs of erosion while other portions of the bank are holding up better. There is a currently a creek and existing stormwater management facility along this area with the critical slopes. The city currently has a stormwater management easement in this area up to the 416 contour elevations, which easement was designed to accommodate a 100 year flood event. The proposed improvements and impacts to the critical slopes would not affect the existing stormwater management facility or stream along the northern property as they would begin at the 418 contour elevation.

Project Description:

The reason for the critical slope waiver request for the project is to prepare the property for the pending redevelopment improvements that were designed to help mitigate impacts to the Shopping Center as a result of the extension of the Hillsdale Drive. Currently, the city has designed the future Hillsdale Drive to extend through the Shopping Center property, impacting large portions of the parking lot and a section of one of the retail

buildings. This extension will have a major effect on the overall existing usable area of the Shopping Center. The proposed project will accommodate space for additional parking and the potential for additional building space that will be lost to the Hillsdale Drive extension. A series of two (2) retaining walls will be constructed on the north side of the property (outside of the existing 416 contour elevation stormwater management easement) to create an area behind the existing buildings for additional parking for the Shopping Center.

Total Site Area: 18.8 acres

Zoning: existing HW (Highway Corridor)

Percentage of Area greater than or equal to 25% slopes:

1.56 acres of the site's 18.8 acres, or 8% of the site area

Finding #1:

Hillsdale Drive extension is an integral part of the future Charlottesville transportation network. A large portion of right-of-way (approximately 2 acres) necessary for the Hillsdale Drive extension cuts through the middle of the Shopping Center's North Wing parking lot and portion of one of the buildings. This roadway extension will serve the public as a secondary (parallel) roadway system along Route 29, providing an alternate road option that will service the community and help alleviate the congestion on Route 29. This public benefit far outweighs the impact to the man-made critical slopes along the northern portion of the property that were created with the filling of the property back in 1985 to create the Shopping Center. A series of retaining walls will be installed along this portion of the site and these walls will lock in the fill material along this area, creating a stabilized bank. Below this area is an existing stormwater management facility for the Shopping Center and Pepsi Cola Bottling company properties. This facility will remain as-is, with no impacts to the current capacity of the facility to handle stormwater from the respective properties. The future impervious area created with the impacts to the critical slopes will be treated with a rain garden and/or the installation of pervious surfaces in addition to draining to this stormwater management facility.

If there was an alternative layout or alignment of Hillsdale Drive that did not impact the Shopping Center, then additional parking would not be necessary for the site. However, City Council has accepted the current alignment and agreed to start the negotiations on acquiring the necessary right of way along this alignment. With the roadway extension, the impact to the buildings and overall parking on the Shopping Center property will need to be mitigated, and this option allows for the expansion of the parking for the property to meet the parking demands of the retail facility and also allows for the potential to replace some of the building space that will be lost to the Hillsdale project.

Erosion affecting the structural integrity of those features:

Currently, this mostly man made critical slope (which was created in 1985) is showing some signs of erosion on parts of the slope. The wooded vegetation, for the most part, is holding the slopes in place; however, there are many areas where erosion has occurred

over the years. With the installation of the retaining wall system, this will prevent any additional erosion along this steep bank. The walls will lock in the fill material and prevent it from future erosion.

Stormwater and erosion-related impacts on adjacent properties:

The downstream area below this proposed critical slope impact is an existing stormwater management facility, which is owned/leased by Towers and Sequel and by Pepsi Cola Bottling Company, but is contractually (by deed) maintained by, and subject to an easement in favor of, the City. The Pepsi Cola Bottling Company is also proposing to impact the existing critical slopes on its property as well for the same reasons, to allow the Hillsdale Drive Extension to be constructed on Pepsi property for the overall benefit of the community. The functionality of the existing stormwater management facility owned/leased by Towers and Sequel and by Pepsi Cola will not be adversely impacted by impacts of these critical slopes. The retaining walls will be constructed prior to and in combination with the filling of this area to prevent erosion related issues. Most of the drainage area to this slope is captured with the existing curb and gutter system on the top of the slope, which prevents a lot of the run-off from sheet-flowing down the banks.

Stormwater and erosion-related impacts to environmentally sensitive areas such as streams and wetlands:

No streams or wetlands are proposed to be impacted with the filling and impacts of the critical slopes on this property. The existing stream below this area is part of the existing stormwater management facility, and no impacts are proposed. The local office of the USCOE has confirmed that since there will be no fill placed below the ordinary high watermark of the stream flowing within the existing stormwater management facility, no Corps permit is required.

Increased stormwater velocity due to loss of vegetation:

The increase of stormwater velocity due to the loss of vegetation and future impervious area will be mitigated with a proposed rain garden facility below the proposed parking area and by the installation of pervious surface material for the parking lot. A rain garden will collect the run-off and provide water quality and detention, prior to releasing the flow into the existing stormwater management facility, which provides additional treatment and detention for any surface run-off that does not penetrate the pervious surfaces of the proposed parking area. These measures will compensate for the increase in velocity due to the loss of vegetation in this area.

Decreased groundwater recharge due to changes in the site hydrology:

The impacts to these critical slopes do not have much effect or change on the groundwater or site hydrology. There is not a lot of drainage area to these critical slope areas and the slopes themselves limit the ability for run-off to be absorbed into the ground before running down the slopes into the existing streams. However, the installation of a rain garden below the future parking lot areas and the installation of pervious surface material will provide an opportunity for the run-off to drain into the ground before being discharged into the existing swm facility.

Loss of natural or topographic features that contribute substantially to the natural beauty and visual quality of the community such as loss of tree canopy, forested areas and wildlife habitat:

The benefit of Hillsdale Drive outweighs the overall impacts to this area, including the loss of (mostly scrub) tree canopy. Trees and the wildlife habitat within the existing limits of the stormwater management facility will still remain and will be preserved. Newly installed landscaping proposed on the site plan at the base, between, and on top of the retaining walls can only improve the visual quality of the slopes.

Additional attachments:

Please see the Site plan amendment for additional information and exhibits for this request.

Please let me know if you have any questions or need any additional information to review this critical slope analysis.

Sincerely,

Scott Collins, PE

SEMINOLE SQUARE EXPANSION

SITE PLAN AMENDMENT

CITY OF CHARLOTTESVILLE, VIRGINIA

PROJECT DATA:

THE OWNER/CLIENT OF THIS PROPERTY IS: TOWERS LIMITED PARTNERSHIP ET. AL. GREAT EASTERN MANAGEMENT

CHARLOTTESVILLE, VA 22905 THESE PLANS HAVE BEEN PREPARED BY COLLINS ENGINEERING, INC. 200 GARRETT STREET SUITE K

> CHARLOTTESVILLE, VA 22902 TELEPHONE: (434) 293-3719 FACSIMILE: (434) 293-2813

SOURCE OF SURVEY/INFORMATION: SURVEY FOR THIS SITE PLAN AMENDMENT IS FROM THE FIELD SURVEY CONDUCTED BY COMMONWEALTH LAND SURVEYING, LLC DATED AUGUST 4, 2011 AND UPDATED OCTOBER, 2012. ADDITIONAL OFFSITE SURVEYED INFORMATION IN THE PROXIMITY OF THE PEPSI PLANT IS BASED OFF A SURVEY BY JENNINGS STEPHENSON, P.C. IN JANUARY OF 2007. STORM SEWER RIM & INVERT ELEVATIONS LOCATED IN SEMINOLE SQUARE IS PROVIDED BY A LICENSED LAND SURVEYOR AT MERIDIAN PLANNING GROUP IN JANUARY OF 2012. THE MISS UTILITY TICKET NUMBER IS 8227901423-00B.

ZONING: TMP 41C-3.1: HW- HIGHWAY CORRIDOR ZONING (NO DISTURBANCE TO ENTRANCE CORRIDOR

UNAFFECTED WESTERN PORTION OF PARCEL UNDER ENTRANCE CORRIDOR DESIGNATION)

LOCATION/ADDRESS OF PROJECT: 129 SEMINOLE COURT, CHARLOTTESVILLE, VA 22901 151 SEMINOLE COURT, CHARLOTTESVILLE, VA 22901 159 SEMINOLE COURT. CHARLOTTESVILLE, VA 22901 167 SEMINOLE COURT, CHARLOTTESVILLE, VA 22901 123 SEMINOLE COURT, CHARLOTTESVILLE, VA 22901 175 SEMINOLE COURT, CHARLOTTESVILLE, VA 22901

185 SEMINOLE COURT, CHARLOTTESVILLE, VA 22901 FLOODPLAIN: THERE IS NO FLOODPLAIN ON THE SUBJECT PARCEL PER THE FEMA FLOOD INSURANCE RATE MA NUMBER 51003C. PANEL 0278D, DATED FEBRUARY 4, 2005.

STREAM BUFFER: THE PROPOSED IMPROVEMENTS OF THIS PROPERTY AS SHOWN ON THE PLAN SHALL NOT IMPAC

THE STREAM BUFFER LOCATED ON THE ADJACENT PROPERTY. BUILDING HEIGHT: EXISTING BUILDING HEIGHT TO REMAIN UNCHANGED PROPOSED USE: THE CONSTRUCTION OF A RETAINING WALL SYSTEM BEHIND SEMINOLE SQUARE SHOPPING CENTER

FOR THE INSTALLATION OF PERMEABLE PAVERS. TOTAL ACREAGE OF SITE: 18.806 ACRES

TOTAL LAND DISTURBED: 1.75 ACRES

SITE PHASING: PROJECT CONSTRUCTION AND E&S TO OCCUR IN ONE PHASE.

CRITICAL SLOPES: THERE ARE EXISTING MAN-MADE CRITICAL SLOPES ON THE SUBJECT PROPERTY, THE AMOUNT OF CRITICAL SLOPES AND IMPACTED CRITICAL SLOPES ARE SHOWN ON SHEET 2.

NO PARKING CHANGES PROPOSED AT THIS TIME. A FUTURE PHASE WILL CREATE ADDITIONAL PARKING SPACES AND THE HILLSDALE DRIVE FUTURE EXTENSION.

PUBLIC UTILITIES: THE SITE WILL BE SERVED BY EXISTING PUBLIC WATER AND SEWER STORMWATER MANAGEMENT AND STORM DRAINAGE:

THE PROPOSED EXPANSION INCORPORATES PERMEABLE PAVERS TO PROVIDE STORMWATER QUALITY TREATMENT AND DETENTION, THE PERMEABLE PAVERS SHALL ACT AS AN INFILTRATING DEVICE PROVIDING RECHARGE FOR THE GROUND WATER. ANY EXCESS RUNOFF NOT INFILTRATED FROM THE PERMEABLE PAVERS SHALL BE DIRECTED TO THE PROPOSED RAIN GARDENS FOR FURTHER INFILTRATION WHERE THE RUNOFF RECEIVES ADDITIONAL STORMWATER QUALITY TREATMENT AND DETENTION. ALSO NOTE THE POST-DEVELOPMENT WATERSHED AREA HAS NOT BEEN MODIFIED, AND CONTINUES TO FLOW IN THE SAME DIRECTION & LOCATION AS PRE-DEVELOPMENT CONDITIONS

AREAS DEDICATED FOR PUBLIC USE: CURRENTLY, THERE IS NO LAND ON THIS PROPERTY THAT IS PROPOSED TO BE RESERVED OR DEDICATED FOR PUBLIC USE.

SUBJECT PARCEL 41C-3.1 LOT COVERAGE AND PROPOSED USES

TOTAL LOT AREA: 18.806 ACRES EXISTING LOT COVERAGE NOT PROPOSED TO CHANGE WITH THIS SITE PLAN AMENDMENT.

WITH THE EXCEPTION OF THE RETAINING WALL IMPROVEMENTS, NO IMPERVIOUS AREAS ARE PROPOSED WITH THIS PLAN. THEREFORE A SWM ANALYSIS IS NOT REQUIRED WITH THIS SET OF PLANS. ALSO NOTE THE POST-DEVELOPMENT DRAINAGE CHARACTERISTICS HAVE NOT BEEN MODIFIED OR INCREASED, AND CONTINUE TO FLOW IN THE SAME DIRECTION & LOCATION AS PRE-DEVELOPMENT CONDITIONS.

OPEN SPACE AREA TOTAL: UNCHANGED AT THIS TIME

WATER DEMAND: EXISTING WATER DEMAND UNCHANGED SIGNAGE: THE CURRENT SIGNAGE FOR THE PROPERTY IS EXISTING AND SHALL REMAIN, AND NO CHANGES TO THE

CURRENT SIGNAGE IS PROPOSED WITH THIS PLAN. INGRESS AND EGRESS: UNCHANGED - FUTURE DEVELOPMENT WILL INCLUDE THE HILLSDALE DRIVE EXTENSION PER

BUILDING/LOT SETBACKS: HW-HIGHWAY CORRIDOR ZONING:

FRONT: 5' MIN. AND 30' MAXIMUM SIDE/REAR:

20' ADJACENT TO LOW DENSITY RESIDENTIAL DISTRICT

WITHOUT DAMAGING THE LOCK AND DOOR SYSTEM.

SUPPRESSION SYSTEM CONTROL VALVES.

MATERIAL ARRIVES ON THE SIT

OF EACH WORKDAY.

NO SETBACK ADJACENT TO SIMILAR DENSITY DISTRICT

SITE TRIP GENERATION: UNCHANGED NO FIRE HYDRANTS ARE PROPOSED, HOWEVER THERE ARE THREE EXISTING FIRE HYDRANTS THAT SURROUND THE EXISTING BUILDING. ALSO, THE ADJACENT PROPERTY CONTAINS TWO FIRE HYDRANTS. FIRE HYDRANT #08250 MAINTAINED A STATIC PRESSURE OF 90 PSI WHILE FIRE HYDRANT #08255 WAS OPENED AND RELEASED A FLOW

COLLINS ENGINEERING SHALL NOT HAVE AUTHORITY OVER CONTRACTOR'S WORK, SAFETY PRECAUTIONS, SCHEDULES, OR COMPLIANCE WITH LAWS AND REGULATIONS. WE SHALL NOT ASSUME RESPONSIBILITY FOR ANY CONSTRUCTION BEGUN

ALL SIGNAGE AND PAVEMENT MARKINGS SHALL BE CONSISTENT WITH THE MUTCD.

IFC 505-THE BUILDING STREET NUMBER TO BE PLAINLY VISIBLE FROM THE STREET FOR EMERGENCY

IFC 506.1-AN APPROVED KEY BOX SHALL BE MOUNTED TO THE SIDE OF THE FRONT OR MAIN ENTRANCE. THE

CONTROL VALVES SHALL REMAIN CLEAR AND UNOBSTRUCTED BY LANDSCAPING, PARKING OR OTHER OBJECTS. THE FIRE MARSHAL'S OFFICE NO LONGER ALLOWS ANY TYPE OF LANDSCAPING TO BE PLACED IN FRONT OF AND WITHIN 5 FEET OF FIRE H. DRANTS, FIRE PUMP TEST HEADERS, FIRE DEPARTMENT CONNECTIONS OR FIRE

AN APPROVED WATER SUPF Y FOR FIRE PROTECTION SHALL BE MADE AVAILABLE AS SOON AS COMBUSTIBLE

IFC 1404.2-WASTE DISPOSAL OF COMBUSTIBLE DEBRIS SHALL BE REMOVED FROM THE BUILDING AT THE END

IFC 1404.6-CUTTING AND WELDING. OPERATIONS INVOLVING THE USE OF CUTTING AND WELDING SHALL BE

DONE IN ACCORDANCE WITH CHAPTER 26, OF THE INTERNATIONAL FIRE CODE, ADDRESSING WELDING AND

IFC 1414.1-FIRE EXTINGUISHERS SHALL BE PROVIDED WITH NOT LESS THAN ONE APPROVED PORTABLE FIRE

REQUIRED VEHICLE ACCESS FOR FIRE FIGHTING SHALL BE PROVIDED TO ALL CONSTRUCTION OR DEMOLITION

DEPARTMENT CONNECTIONS. VEHICLE ACCESS SHALL BE PROVIDED BY EITHER TEMPORARY OR PERMANENT

ROADS, CAPABLE OF SUPPORTING VEHICLE LOADING UNDER ALL WEATHER CONDITIONS. VEHICLE ACCESS

SITES. VEHICLE ACCESS SHALL BE PROVIDED TO WITHIN 100 FEET OF TEMPORARY OR PERMANENT FIRE

ALL PAVEMENT SHALL BE CAPABLE OF SUPPORTING FIRE APPARATUS WEIGHTING 75,000 LBS. IFC 1404.1-SMOKING TO BE ALLOWED IN ONLY DESIGNATED SPACES WITH PROPER RECEPTACLES.

9. IFC 1410.1-ACCESS TO THE BUILDING DURING DEMOLITION AND CONSTRUCTION SHALL BE MAINTAINED.

EXTINGUISHER AT EACH STAIRWAY ON ALL FLOOR LEVELS WHERE COMBUSTIBLE MATERIALS HAVE

SHALL BE MAINTAINED UNTIL PERMANENT FIRE APPARATUS ACCESS ROADS ARE AVAILABLE.

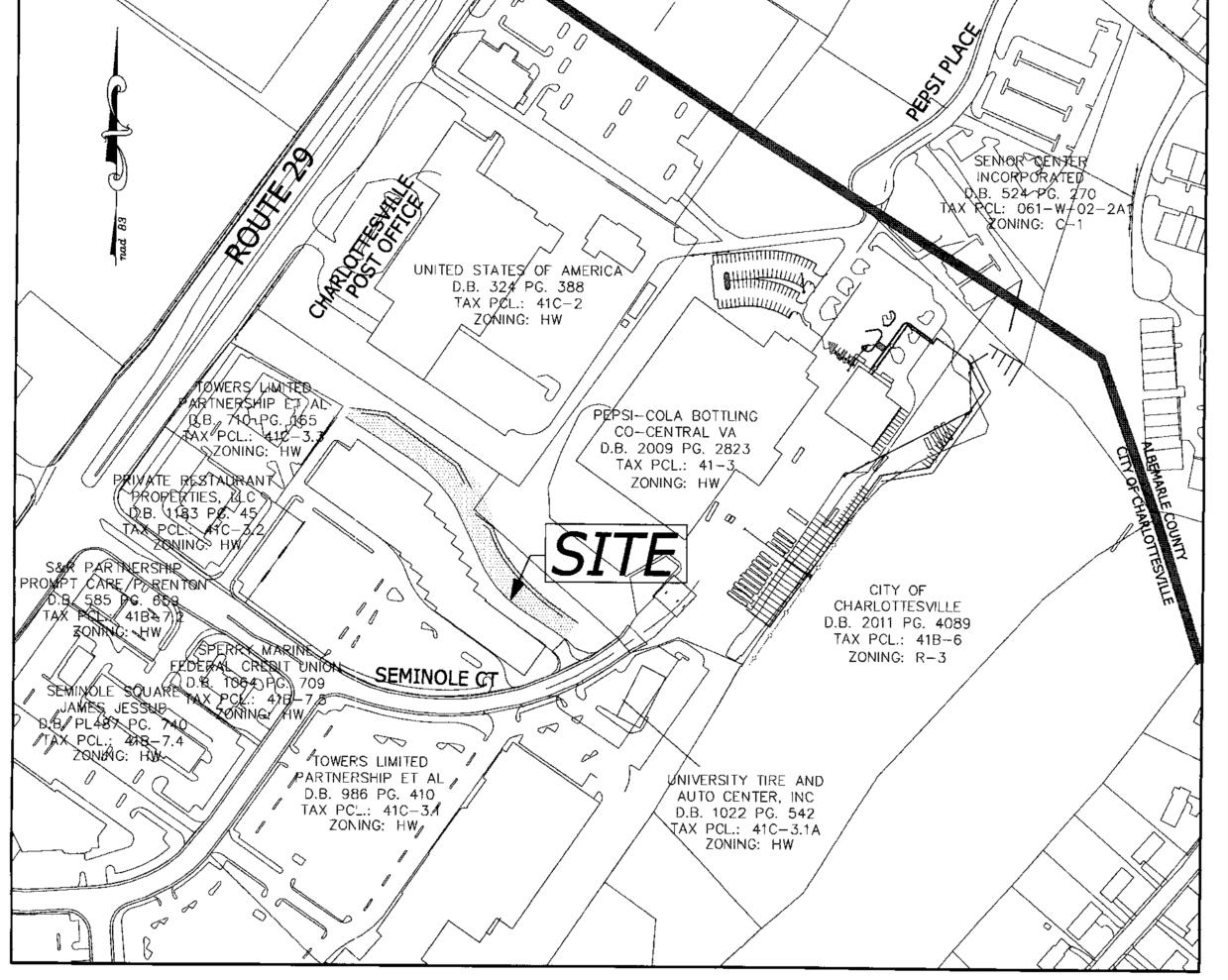
OVERHEAD WIRING OR OTHER OBSTRUCTIONS SHALL BE HIGHER THAN 13 FEET 6 INCHES.

14. ALL SIGNS SHALL BE IN ACCORDANCE WITH ARTICLE IX, SECTION 34-1020 CITY CODE.

CHARLOTTESVILLE FIRE DEPARTMENT CARRIES THE KNOX BOX MASTER KEY. A KNOX BOX KEY BOX CAN BE

FIRE HYDRANTS, FIRE PUMP TEST HEADER FIRE DEPARTMENT CONNECTIONS OR FIRE SUPPRESSION SYSTEM

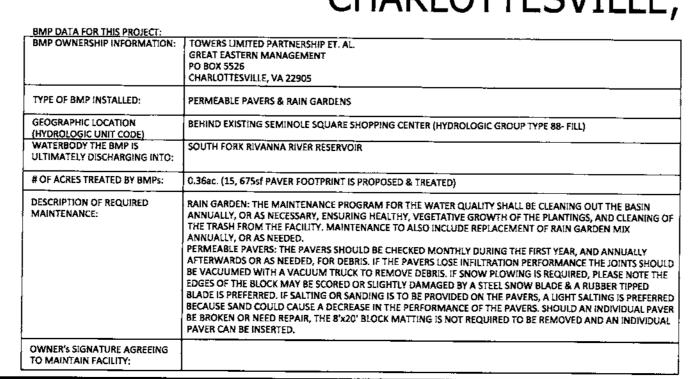
ORDERED BY GOING ONLINE TO WWW.KNOXBOX.COM. THE KNOX BOX ALLOWS ENTRY TO THE BUILDING

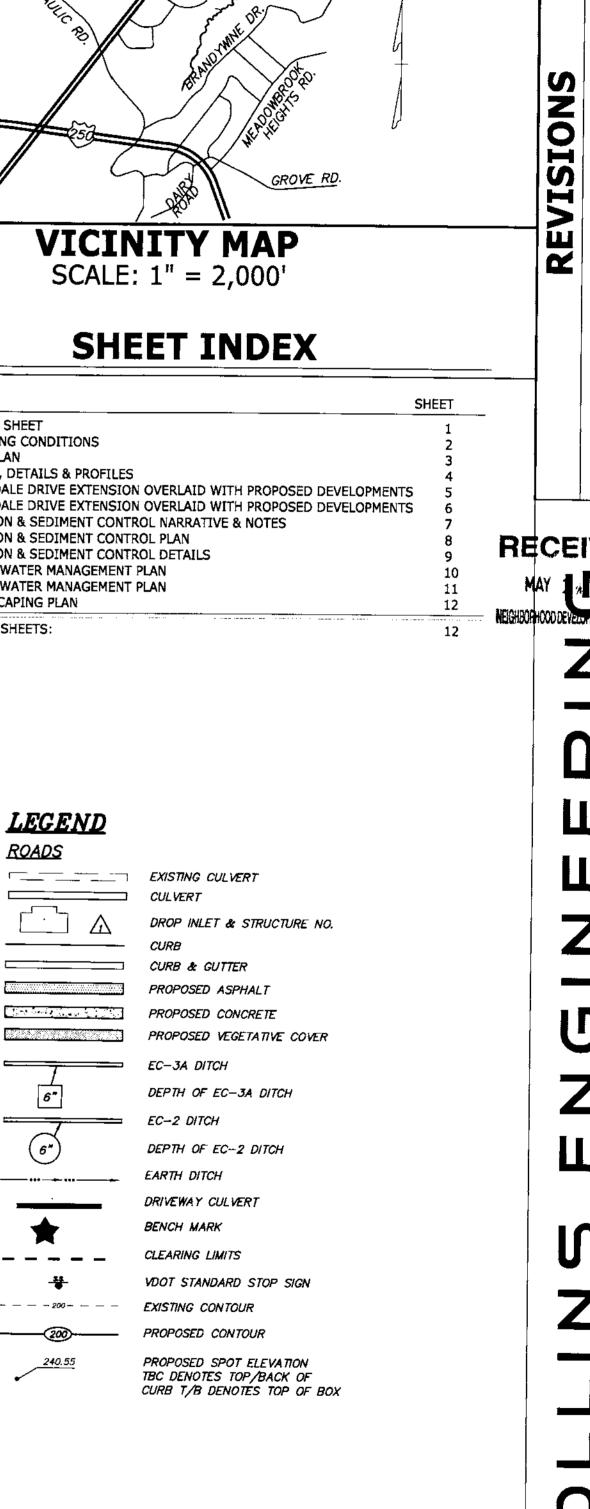


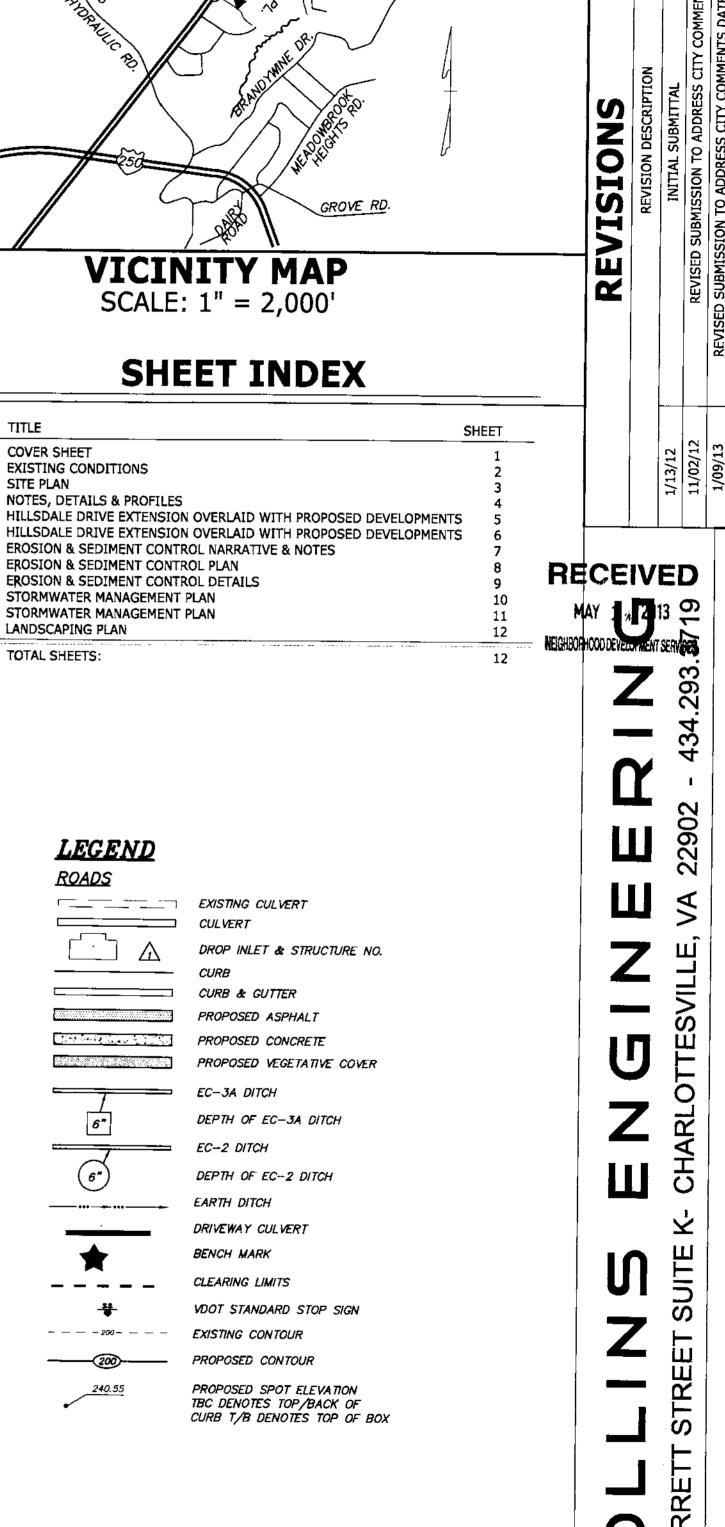
SHEET LAYOUT SCALE: 1" = 200'

OWNER & DEVELOPER

TOWERS LIMITED PARTNERSHIP ET. AL. GREAT EASTERN MANAGEMENT P.O. BOX 5526 CHARLOTTESVILLE, VA 22905







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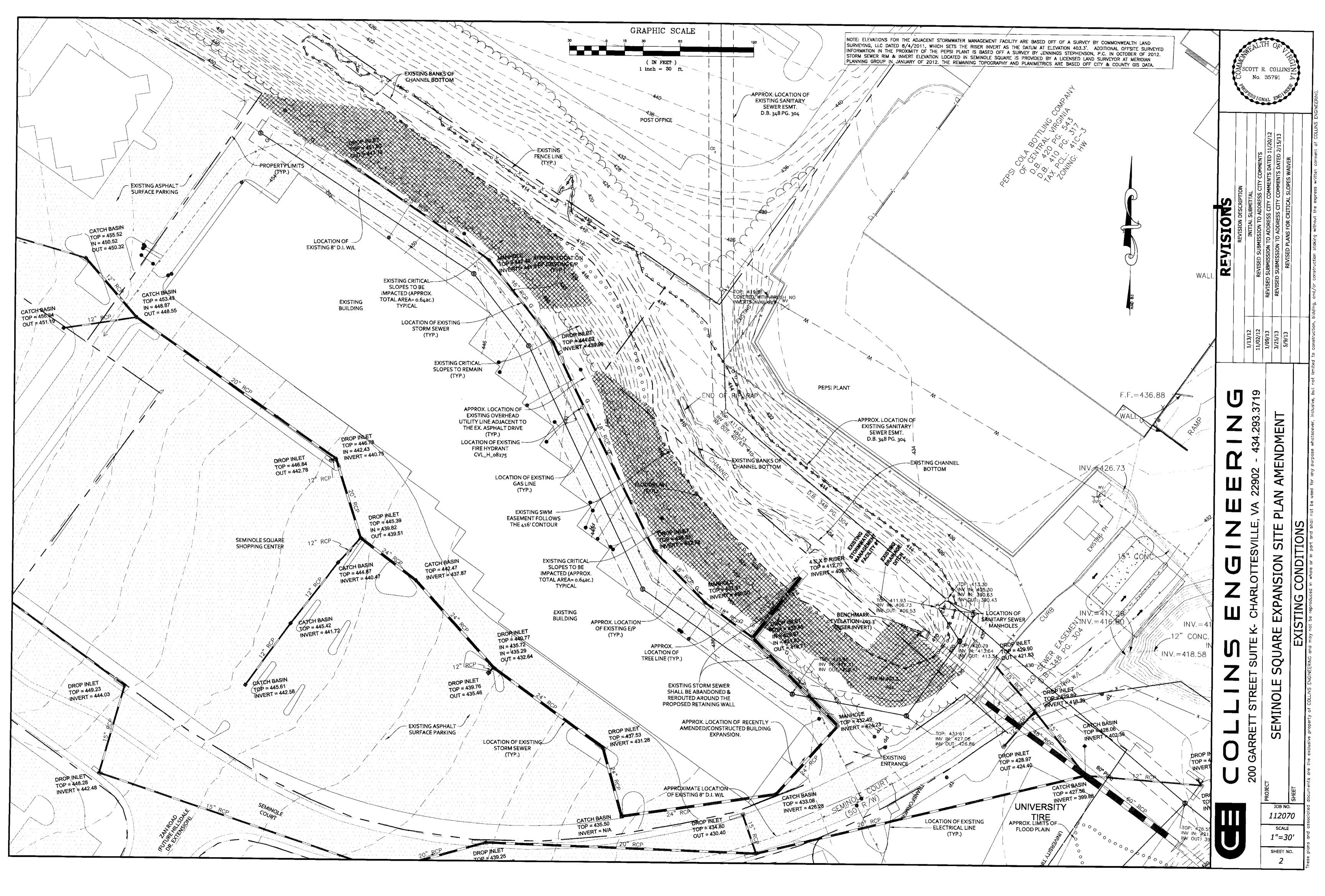
SCALE

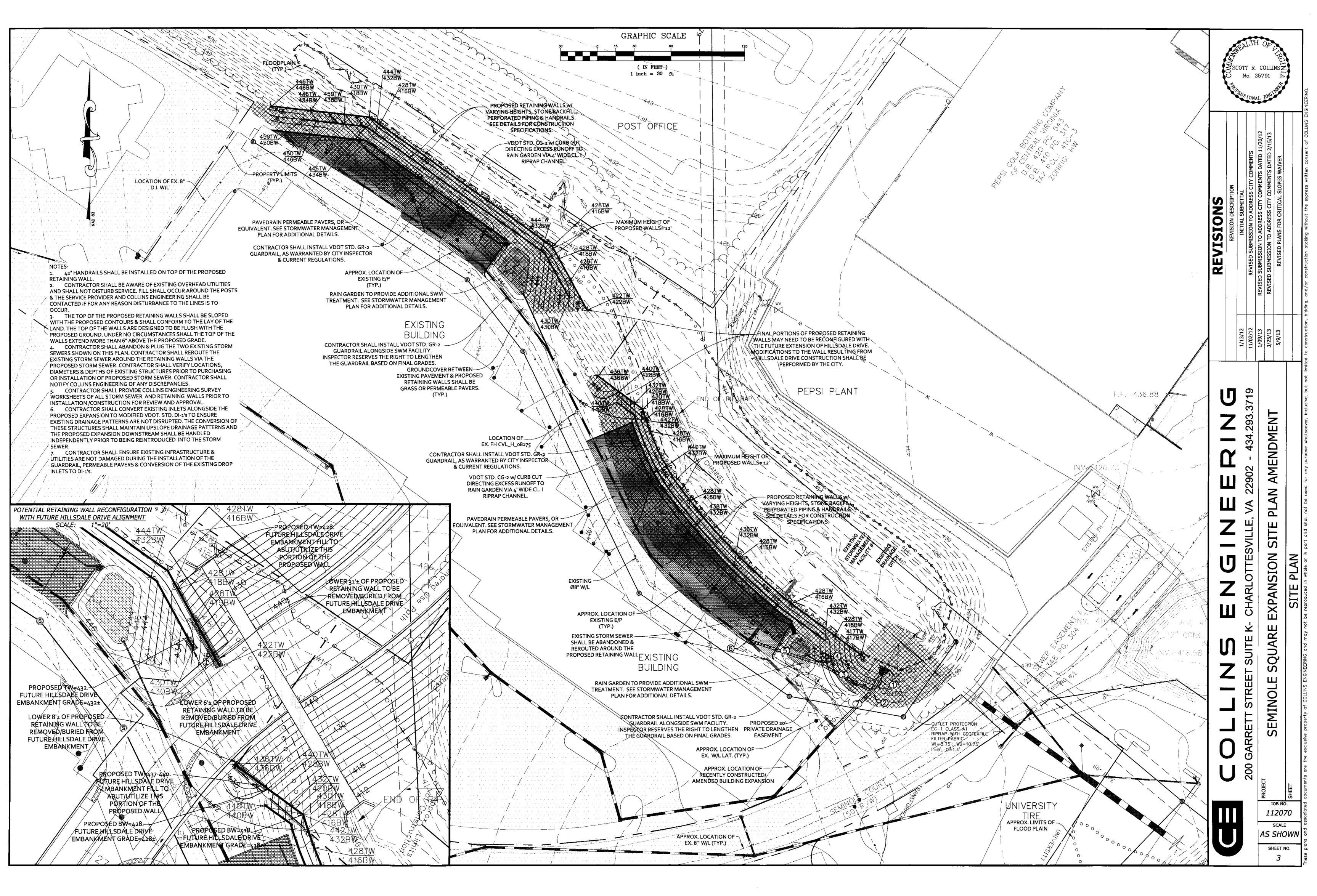
SHEET NO.

200

COV

SIGNATURE PANEL DIRECTOR, NEIGHBORHOOD DEVELOPMENT





REPAIRED AT CONTRACTOR'S EXPENSE, 2. THE CONTRACT DOCUMENTS DO NOT GUARANTEE THE EXISTENCE NON-EXISTENCE OR LOCATION OF UTILITIES. CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OR THE NON-EXISTENCE OF UTILITIES. AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION, CONTRACTOR SHALL NOTIFY MISS UTILITY (1-800-552-7001) AND/OR THE RESPECTIVE UTILITY COMPANIES FOR GAS, WATER, SEWER, POWER, PHONE AND CABLE. CONTRACTOR SHALL TIMELY ARRANGE TO HAVE THE VARIOUS UTILITIES LOCATED, AND TO HAVE THEM REMOVED OR RELOCATED, OR TO DETERMINE THE METHOD OF PROTECTION ACCEPTABLE TO THE RESPECTIVE OWNER, IF THE METHOD OF PROTECTION IS NOT OTHERWISE SPECIFIED. CONTRACTOR SHALL CONDUCT ITS WORK IN THE VICINITY OF EXISTING UTILITIES IN ACCORDANCE WITH THE RESPECTIVE UTILITY'S RULES AND REGULATIONS. NO BUILDING OR WALL FOUNDATION SHALL BE CONSTRUCTED WITHIN 10 FEET OF ANY STORM, SANITARY, WATER, OR GAS LINE, ANY COST INCURRED FOR REMOVING, RELOCATIONS OR PROTECTING UTILITIES SHALL BE BORNE BY CONTRACTOR UNLESS INDICATED OTHERWISE. CONTRACTOR SHALL EXCAVATE TO LOCATE BURIED UTILITIES FAR ENOUGH IN ADVANCE OF ITS WORK TO ALLOW FOR HORIZONTAL AND /OR VERTICAL ADJUSTMENTS TO ITS WORK AND/OR THE UTILITIES. NO ADJUSTMENT IN COMPENSATION OR SCHEDULE WILL BE ALLOWED FOR DELAYS RESULTING FROM CONTRACTOR'S FAILURE TO CONTACT AND COORDINATE WITH UTILITIES.

3. WHEN THE WORK CROSSES EXISTING UTILITIES, THE EXISTING UTILITIES SHALL BE ADEQUATELY SUPPORTED AND PROTECTED FROM DAMAGE DUE TO THE WORK. ALL METHODS FOR SUPPORTING AND MAINTAINING THE EXISTING UTILITIES SHALL BE APPROVED BY THE RESPECTIVE UTILITY COMPANY AND/OR THE ENGINEER. CONTRACTOR SHALL EXERCISE CARE TO INSURE THAT THE GRADE AND ALIGNMENT OF EXISTING UTILITIES ARE MAINTAINED AND THAT NO JOINTS OR CONNECTIONS ARE DISPLACED. BACKFILL SHALL BE CAREFULLY PLACED AND COMPACTED TO PREVENT FUTURE DAMAGE OR SETTLEMENT TO EXISTING UTILITIES. ANY UTILITIES REMOVED AS PART OF THE WORK, AND NOT INDICATED TO BE REMOVED OR ABANDONED, SHALL BE RESTORED USING MATERIALS AND INSTALLATION EQUAL TO THE UTILITY'S STANDARDS.

4. CONTRACTOR SHALL NOTIFY LANDOWNERS, TENANTS AND THE ENGINEER PRIOR TO THE INTERRUPTION OF ANY SERVICES. SERVICE INTERRUPTIONS SHALL BE KEPT TO A MINIMUM,

5. CONTRACTOR SHALL COORDINATE WITH THE CITY TO LOCATE SIGNAL LOOP DETECTORS AND CONDUITS IN ORDER TO AVOID DAMAGE TO THEM. CONTRACTOR SHALL REIMBURSE THE CITY FOR REPAIRING ANY DAMAGE TO SIGNAL LOOP DETECTORS AND CONDUITS CAUSED BY CONTRACTOR'S FAILURE

6. ALL RECTANGULAR WATER METER BOXES LOCATED IN SIDEWALKS SHALL BE REPLACED WITH ROUND ONES. THE ADJUSTMENT OF ALL MANHOLE TOPS. WATER VALVE BOXES. GAS VALVE BOXES AND WATER METER BOXES SHALL BE THE RESPONSIBILITY OF CONTRACTOR, COSTS ARE TO BE INCLUDED UNDER THE VARIOUS UNIT BID ITEMS. NO SEPARATE PAYMENT WILL BE

7. THE CONTRACTOR SHALL NOTIFY THE CITY UTILITIES DIVISION AT LEAST TWO FULL WORKING DAYS IN ADVANCE TO ARRANGE GAS SERVICE LINE ADJUSTMENTS TO BE PERFORMED BY THE CITY. 8. ALL WATER METER, VALVES AND FIRE HYDRANT ADJUSTMENTS/RELOCATIONS

SHALL BE PERFORMED BY THE CONTRACTOR.

1.ALL FORMS SHALL BE INSPECTED BY THE ENGINEER BEFORE ANY CONCRETE IS PLACED. THE ENGINEER MAY REQUIRE CONTRACTOR, AT NO ADDITIONAL COST, TO REMOVE AND REPLACE CONCRETE PLACED PRIOR TO OR WITHOUT

2.ALL MATERIAL INSIDE FORMS SHALL BE CLEAN AND FREE OF ALL ROCKS AND OTHER LOOSE DEBRIS. SUB-BASE MATERIAL SHALL BE COMPACTED BY

3.CONCRETE SHALL NOT BE PLACED UNLESS THE AIR TEMPERATURE IS AT LEAST 40 DEGREES FAHRENHEIT (F) IN THE SHADE AND RISING 4.CONCRETE SHALL NOT BE PLACED UNTIL STEEL DOWELS HAVE BEEN INSTALLED IN EXISTING CONCRETE IN ACCORDANCE WITH CITY STANDARDS.

5.1/2" PREMOLDED EXPANSION JOINT MATERIAL SHALL BE PLACED AT A MAXIMUM OF 30' INTERVALS ON NEW SIDEWALK, CURB, CURB & GUTTER, AT EACH END OF DRIVEWAY ENTRANCES, AT EACH END OF HANDICAP RAMPS SOME POINT ON ENTRANCE WALKS AND STEPS ADJUSTMENTS, AND ALONG BUILDINGS AND WALLS WHERE NEW CONCRETE SIDEWALKS ARE PLACED

6.ALL EXISTING CURBS, CURB & GUTTER, SIDEWALK AND STEPS TO BE REMOVED SHALL BE TAKEN OUT TO THE NEAREST JOINT. DEMOLITION AND DISPOSAL COST TO BE INCLUDED IN OTHER UNIT BID ITEMS. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.

7.ALL EXISTING GRANITE CURB SHALL REMAIN THE PROPERTY OF THE CITY OF CHARLOTTESVILLE, IT SHALL BE REMOVED AND DELIVERED BY THE CONTRACTOR TO THE CITY'S PUBLIC WORKS COMPLEX. COST TO BE INCLUDED UNDER THE VARIOUS UNIT BID ITEMS. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK. 8.STREET PAVEMENT STRUCTURE AND PATCHING SHALL BE EXTENDED FROM

THE FRONT OF NEW CONCRETE TO THE EXISTING PROJECTION OF THE SOUND STREET EDGE AS DIRECTED BY THE ENGINEER. 9.DRIVEWAY ADJUSTMENTS ARE TO BE DONE IN GENTLE TRANSITIONS RATHER THAN ABRUPT BREAKS AT THE BACK OF WALKS. GRAVEL DRIVEWAYS ABOVE

STREET GRADE SHALL BE PAVED FOR A MINIMUM DISTANCE OF 20' BEYOND THE BACK OF THE SIDEWALK OR CURB & GUTTER APRON WHERE APPLICABLE AFTER PERMISSION IS GRANTED BY THE OWNER. 10.EXISTING ASPHALT CONCRETE PAVEMENT SHALL BE SAW CUT AND REMOVED AS PER THE SPECIFICATIONS. REMOVAL SHALL BE DONE IN SUCH A MANNER AS TO NOT TEAR, BULGE OR DISPLACE ADJACENT PAVEMENT, EDGES SHALL BÉ CLEAN AND VERTICAL, ALL CUTS SHALL BE PARALLEL OR PERPENDICULAR

11.DISPOSAL OF ALL EXCESS MATERIAL IS THE RESPONSIBILITY OF CONTRACTOR.

TO THE DIRECTION OF TRAFFIC.

1.CONTRACTOR SHALL EXERCISE CARE, ESPECIALLY AT INTERSECTIONS AND GUTTER LINES, TO PROVIDE POSITIVE DRAINAGE. ANY AREAS WHERE WATER IS IMPOUNDED SHALL BE CORRECTED BY CONTRACTOR AT NO ADDITIONAL COST POSITIVE DRAINAGE OF ALL ROADWAY AREAS TO THE STORM DRAIN INLETS OR OTHER ACCEPTABLE DRAINAGE CHANNELS AS NOTED ON THE PLANS IS REQUIRED.

2.CONTRACTOR SHALL MAINTAIN EXISTING STREAMS, DITCHES, DRAINAGE STRUCTURES, CULVERTS AND FLOWS AT ALL TIMES DURING THE WORK. CONTRACTOR SHALL PAY FOR ALL PERSONAL INJURY AND PROPERTY DAMAGE WHICH MAY OCCUR AS A RESULT OF FAILING TO MAINTAIN ADEQUATE **DRAINAGE**

3.ALL PIPES, DI'S AND OTHER STRUCTURES SHALL BE INSPECTED BY THE ENGINEER BEFORE BEING BACKFILLED OR BURIED. THE ENGINEER MAY REQUIRE CONTRACTOR, AT NO ADDITIONAL COST, TO UNCOVER AND RE-COVER SUCH STRUCTURES IF THEY HAVE BEEN BACKFILLED OR BURIED WITHOUT SUCH INSPECTION. 4.ALL CATCH BASINS ENCOMPASSED WITHIN NEW CONSTRUCTION SHALL BE

CONVERTED TO DROP INLETS. 5.CLASS | RIP RAP MODIFICATIONS ALLOWS FOR A REDUCTION IN STONE DEPTH FROM 2.0' TO A MINIMUM OF 1.0' AS DIRECTED BY THE ENGINEER

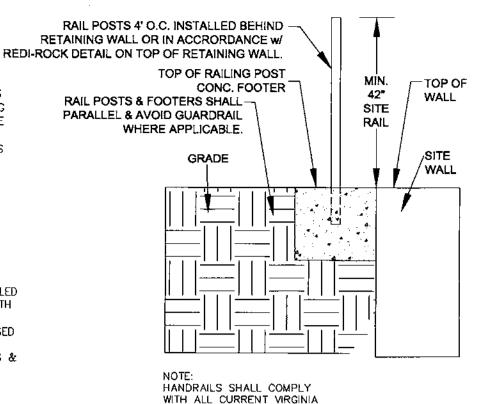
6.REMOVED PIPE SHALL BE THE PROPERTY OF CONTRACTOR AND IF NOT SALVAGED FOR RE-USE, SHALL BE DISPOSED OF LAWFULLY. 7.ALL STORM SEWER PIPE AND DROP INLETS SHALL BE CLEARED OF DEBRIS AND ERODED MATERIAL PRIOR TO FINAL ACCEPTANCE.

8.ALL STORM SEWER PIPE JOINTS SHALL BE SEATED AND SEALED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. 9.ALL EXISTING ROOF DRAINS AND OTHER DRAINAGE CONDUIT TIED INTO EXISTING PIPE SHALL BE TIED INTO NEW PIPE WHERE MODIFICATIONS ARE PROPOSED.

1. GUARDRAILS ARE REQUIRED FOR DECKS, PORCHES & WALLS ELEVATED MORE THAN 30" IN HEIGHT. GUARDRAILS MUST BE A MINIMUM OF 42" TALL, UNLESS SURROUNDING A POOL, AT WHICH POINT THE MINIMUM HEIGHT SHALL BE

2. FASTENERS SHALL BE POWDER COATED #10 STAINLESS STEEL THROUGHOUT. 3. ALL WORK SHALL COMPLY WITH CURRENT VIRGINIA UNIFORM STATEWIDE BUILDING CODE. 4. PLANS & RETAINING WALLS APPROVED FOR PERMIT SUBJECT TO APPROVAL OF CONSTRUCTION. 5. RAILING SHALL WITHSTAND A CONCENTRATED LOAD OF 350+lbs AT A MINIMUM. 6. ALUMINUM ALLOY SHALL WITHSTAND A MINIMUM PRESSURE OF 35,000psi THROUGHOUT 7. PICKET SPACING SHALL BE 3 1/8" WIDE

8.THE FINAL DESIGN OF THE RETAINING WALLS PROPOSED & SEALED WITH THESE PLAN SHALL BE CONFIRMED BY THE CONTRACTOR WITH THE MANUFACTURER'S LICENSED PROFESSIONAL STRUCTURAL ENGINEER, AND CERTIFIED. TO ENSURE COMPLIANCE WITH PROPOSED PRODUCT. SHOULD ANY CONCERNS BE DISCOVERED THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PURCHASING & INSTALLATION OF THE RETAINING WALL INFRASTRUCTURE.



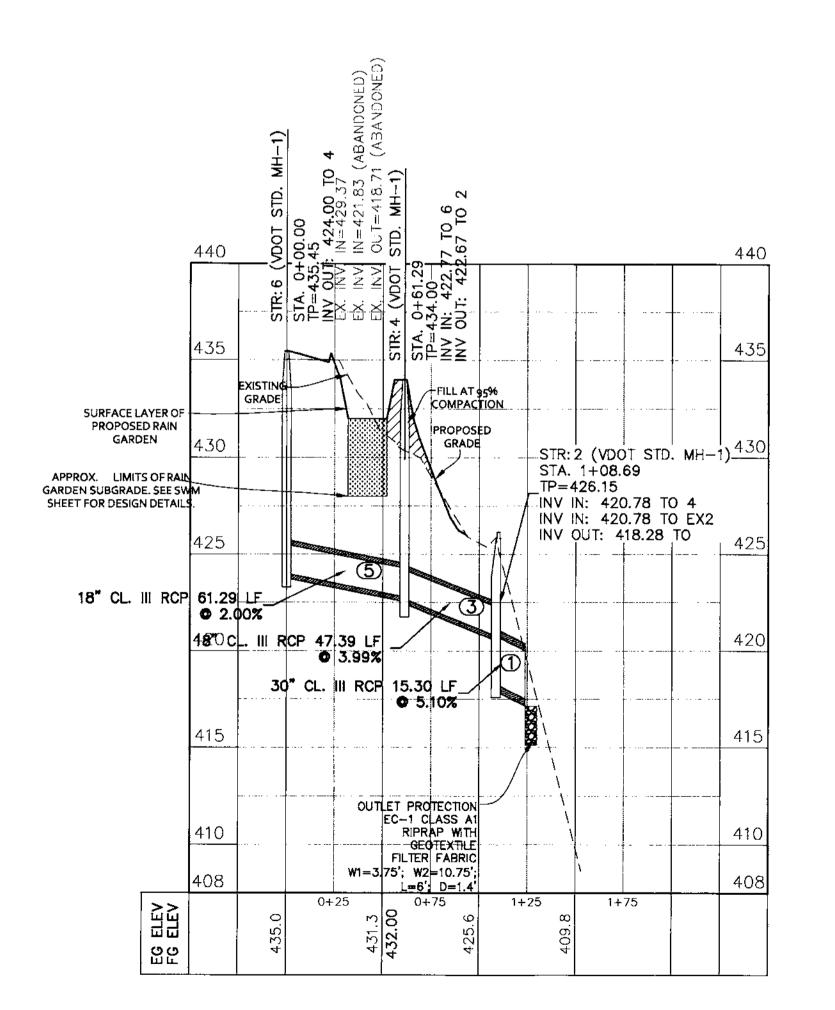
BUILDING CODE REGULATIONS.

PENETRATE 1ST LAYER OF GEO-GRID, OR

TOP ADJACENT SURFACE.

- 2" SQUARE GATE POST (TYP.) RAIL POSTS SHALL BE 4' O.C. FENCE -RAIL GAPS SHALL HAVE A MAX. GAP 1 1/8" x 0.70" ALUMINUM TOP OF 4" & TOP OF RAIL AT WALKING SURFACE SHALL BE A MIN. OF 3'-6" IN // %" SQUARE ALUMINUM -__1" SQUARE ALUMINUM SIDE 4" MAX. ─ TOP OF RETAINING WALL w/ GEO-TECH. REINFORCEMENT. FENCE POSTS SHALL

> SCHEMATIC OF RETAINING WALL RAIL DETAIL NOT TO SCALE



REROUTED STORM SEWER- STR. 6 - OUT

<u>SCALE:</u> 1"=5' (V) 1"=50' (H) 1. The contractor shall generate a separate final design/cutsheets of the retaining wall system performed by a structural engineer for construction and these designs are not part of this set of plans. The retaining wall designs shown on these plans are approximate in nature and are subject to change with the final design performed by a licensed professional structural engineer. This applies to all retaining walls shown on this set of plans.

2. Contractor shall notify Collins Engineering with the final designs of the retaining walls prior to construction for

3. The following redi-rock block sizes with respect to the wall heights are an approximation. These values are subject to change with the structurally engineered walls, by others, and are provided for informational purposes only to assist with price and quantity estimations.

Wall Heights Above Block Sizes Block Sizes Proposed Grade Above Grade Below Grade* 0-4.5 28" and 41" 28" and 41" 28" and 41" 0-10.5 28" and 41" 28", 41" and 60" 0-13' 28", 41" and 60"

NOTE: ALL ROADWAY EMBANKMENT MATERIAL SHALL

INCHES IN THICKNESS BEFORE COMPACTION OVER THE

ENTIRE ROADBED AREA IN ACCORDANCE WITH VDOT

NOTE: MINIMUM 3' OF COVER MUST BE MAINTAINED

NOTE: MINIMUM 1' OF VERTICAL SEPARATION FROM

NOTE: ALL PIPE IS CLASS III RCP, UNLESS NOTED

AND TESTED BY A GEOTECHNICAL ENGINEER TO

NOTE: ALL FILL SHALL BE PLACED 95% COMPACTION

ENSURE COMPACTION IS REACHED AND MAINTAINED.

APPROX. LOCATION

OF EXISTING S/L

(INV.=429.73)

24" CL. III RCP

55 5

42.26 LF-

9 8.16%

NOTE: VDOT STD. IS-1 REQUIRED ON ALL

SUCCESSIVE UNIFORM LAYERS NOT MORE THAN 8

2007 ROAD AND BRIDGE SPECIFICATION 303.04.

OVER W/L

STRUCTURES

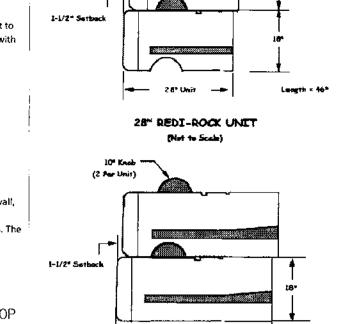
OTHERWISE.

STORM SEWER & W/

CONSIST PREDOMINANTLY OF SOIL AND BE PLACED IN

* Concrete extension footers for block retaining walls may be required. This is possible for the entire length of the wall, but is most likely only required for wall heights in excess of 15 feet. An appropriately compacted foundation with backfilled stone and drain pipes in accordance with current regulations are required for the entire length of the walls. The retaining walls shall also be reinforced with geogrid strips.

IT IS INTENDED THAT THE RETAINING WALLS HAVE A MAXIMUM HEIGHT OF 12' TO PROVIDE COVERAGE FROM THE BOTTOM GROUND LEVEL TO THE TOP OF GRADE. GRADING BETWEEN THE WALLS SHALL SLOPE AT 2:1 TO MINIMIZE WALL HEIGHTS, HOWEVER WALL HEIGHTS MAY VARY DURING THE CONSTRUCTION PROCESS.



28", 41" OR 60" REDI-ROCK UNIT

ADD ANCHOR BLOCKS TO ALL STORM SEWER PIPE STEEPER THAN 12%.

ENSURE THAT ALL STORM PIPES HAVE A MINIMUM OF 12" COVER OVER

CONTRACTOR SHALL ADHERE TO ALL CURRENT CITY STANDARDS.

STATE & BUILDING CODES DURING CONSTRUCTION OF RETAINING WALL.

THE PIPES AT ALL TIMES

GRADE

STA. 1+08.69

∔INV IN: 420.78 TO 4

INV OUT: 418.28 TO

TP=426.15

STORM SEWER & GRADING OPERATIONS.

CONVEX CURVE DETAIL (Not to Scale) Anchor To Redi-Rack Unit Core brill Ento Tay Unit and proof PS Around Part ======= 28", 41" or 60" Unit ------- Length = 4

BENERAL NOTES - RESC ACION

10 STRIP VEGETATIVE AND ORGANIC SOIL PROM THE WALL AND GEOGRAP ALLEMENT. DENOTALL EXCAVATED SCORES.

3.0 DO NOT EXCAVATE SEYOND EXCAVATION LINES SHOW ON SLANGUMLESS OFFECTED BY THE SECTEMBERS ENGINEER TO REMOVE UNSUIT TABLE SOIL

40 CONTRACTOR SHARL ENSURE TEMPORARY EXCAVATIONS ARE STABLE

CRECOMMENT TION AND SHALL BE A MENURAL LEADNESS TRACK

LAYER SUPPORTED BY WANTSTURBED SOIL OR EMEDIAGENED FIL

ALTERNATE FENCE POST DETAIL

AND PROVIDE EXCAVATION SUPPORT IF MEEDED 30 GEOTECHNICAL BHICKER SHALL VERLIFY FOUNDATION SODE AS BEDIE COMPETENT PER THE DESIGN PARAMETS 6.0 LÉVELING PAD SHARL CONSIST OF COMPACTED SAND, GRAVE

WIDTH OF LEVELING PAD SHALL BE 40 INCHES FOR 28" LINITS. WIDTH OF LENGLINE PAD SHALL NESS ENGINES FOR 42" UNITS WITH COPIE PRESENTED SHALL SETT THIS ES POR 60" UNITS.

7.0 A 4-INCHOIAMETER SCOTTED HOPE DRAIDWASE FIRE SHALL SE INSTALLED MONTHS THE WALL AND CONNECT TO WESPICARS INSTALLED AT

THE PERMIT GRADE TO DAYLIGHT (SEE DRAIN DETAIL). BD DRAININGE AGGREGATE SHALL CONSIST OF CLEAN ANGLIAR GRAVE (VOOT NO. 37 STONE) WITH A MINERUIS IZ" THEODOESS, MEETING THE FOLLOWING GRADATION AS DETERMINED IN ACCORDANCE WITH ASTA 0-422

1/2 INCH

9.0 REDE-ROCK UNITED MOLDED DEMENSTORES SHALL BE 18 DINGLES HEGH.

(29" UNITS), 41 INCHES FROM FACE TO REAR (41" UNITS AND 60 TRICHES PROM PACE TO REAR (60" UNITS) AND SHALL NOT DEFFER MORE THUNKS IN DEVIATION IN THE FACE WEIGHT OF REDE-ROCK 20" GRADABLE TOP UNETS = 1,2231.85 WEIGHT OF REDI-ROCK 28T MIDDLE LANDTS = 1 A30 LSES WEIGHT OF REDT-ROCK 41" MIDDLE UNETS + 2,351 LBS + WERGHT OF MEDI-E-OCK 41" BOTTOM UNITS = 2,466 LBS : WEIGHT OF REDIT-ROCK OF MIDDLE UNITS = 3290 LAS

44 INCHES WIDE ALONG THE FACE AND 28 INCHES FROM FACE TO REAR

200 A 1-1/2 ENDY SETMACE PER UNET SHALL BE MAINTAINED FOR PROPER BATTER (LE. 4 DEIREE CANT FROM VERTICAL)

IND FIRED ADJUSTMENTS OF BLOCK ALLEMAENT MAY BE MADE WITH THE USE OF SHEAS OR ASPHALT SHENGLES TO RAISE

All No. 67 Stone In Backfill Wedge Chamfor Back of Unit As Required For Mecassary Curveture Min 12* Thick No. 57 Stone 28", 41" or 60" Redi-Reck Unit Open Jaint (Wesphole) at Mast 40" Q.C. Notch Out Stock - Drain to Doylight

DRAIN DETAIL (Net to Scale) All No. 87 Stone In Backfill Wedow

12.0 ENERHEDED FELL SHALL CONSEST OF ALL VOOT NO. 57 STONE

MEETING THE POLLOWING GRADATDON, AS DETERMENED DI ACCORDANCE WITH ASTIN D-422.

ONCAVE CURVE DETAIL

0

S

Residual Sail

Min 12" VDOT No. 57 Store

≷SCOTT R. COLLINS'Z

No. 35791

ISO. A VICTURATIONY PRATE TRAINER SHALL BE USED TO DENSIFY MOD'T NO. ST STONE. COMPACTION TESTS CAN ME WATHED VIVENE VIDOT NO. 57 STONE IS USED AS REINFORCED FILL.

HAD MALL OTHER ENGINEERED FILL SHALL CONSIST OF ONISITE SOIL CLASSIFIED AS ON, OF, GM, GC, SW, SP, SM, SC, CLOR HE WHEIGH ARE PRODE OF CHARACTS OR OTHER DOLETERICUS, NICHASCIL MATERIALS. NATINEBRED FILL SHALL BE FLACED EN S-ENCHSLETTS AND COMPACTED TO A MINEMAN OF 95% OF MAXIMAN STANDARD PROCTOR DENSITY (ASTALD-696), COMPACTION TESTS SHALL SEPERFORMED AS THE WALL IS INSTALLED. COMPACTION WITHIN 3 FEET OF THE WALL SHALL BE LIKETED TO HAND-OPERATED EQUIPMENT

PROVINCE AS A GRADE SEPARATOR BETWEEN THE STONE AND THE SOIR FILL SLOPE ABOVE THE WALL WHERE APRITYABLE M.O. FILL RUACED WITHIN 12 INCHES FROM THE TOP OF THE WALL AND TO RE-ESTABLISH GRADE ALONG THE SLOPE SHALL CONSIST OF INORGANIC SOIL, MICE OF DEBALS OR OTHER DELETERICALS MATERIALS, AND MEET THE RINGHUM SOIL SHEAR STRENGTH VALUES AS OUTLINED IN THE DESIGN PARAMETERS FOR

BLO FILTER FAIREC (REPAPE 140N OR EQUEVALENT) SHALL BE

RETAINED SOIL - NOTE 4. 17.0 COMPACTION SHALL BE TO A MINERALE OF 95% OF MAXIMUM STANDARD PROCTOR DENSITY (ASTIN 0-696), COMPACTION TESTS SHALL BE PERFORMED AS THE WALL IS INSTALLED. COMPACTION WITHOU SPEET OF THE WALL SHALL ME LIMITED TO HAND. CHERNATED EQUIDANENT

BO CONTRACTOR SHALL SLOPE SITE GRADES TO DERECT SURFACE RUNOFF AWAY FROM WALL AT END OF EACH DAY TO AVOID WATER DAMAGING THE WALL WHILE UNDER CONSTRUCTION 1940 MAY SURFACE CRAIDWASE PEATURES, FINESH GRADING, PA VENENT

OR TURE SHALL BE INSTALLED IMMEDIATELY AFTER WALL IS COMPLETE 200 IF STITE AND SOIL CONDITIONS, WALL SECRETRY, OR WALL LOADDING ARE DEPTENENT THAN THE DRAWDINGS AND THE DESIGN MARAMETERS. THE CONTRACTOR MUST CONTACT THE WALL DESIGN ENGINEER PRICE TO PROCEEDING WITH THE CONSTRUCTION OF

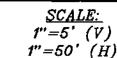
21.0 DETAIL FOR GLANDBALL POSTS AT THE TOP OF THE WALL

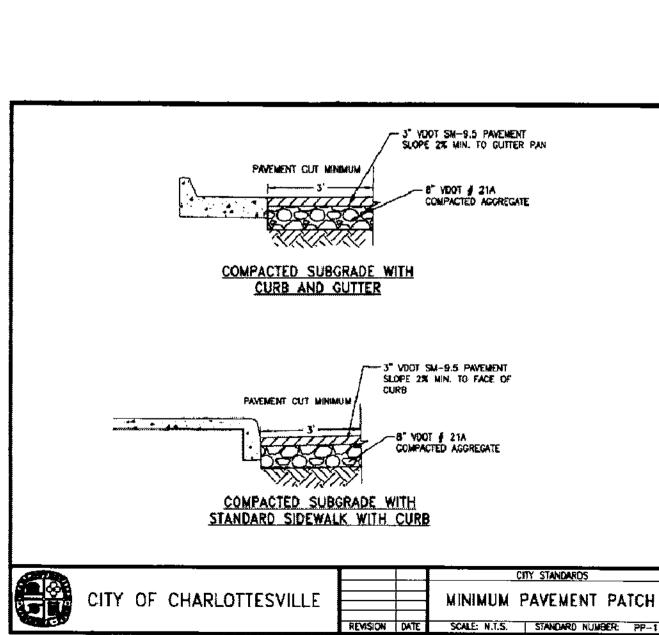
- 3" VOOT SM-9.5 PAVEMENT SLOPE 2% MIN. TO GUITER PAN CURB AND GUTTER SLOPE 2% MIN. TO FACE OF COMPACTED SUBGRADE WITH STANDARD SIDEWALK WITH CURI CITY OF CHARLOTTESVILLE MINIMUM PAVEMENT PATCH

STR: 2 (VDOT STD. MH-1) INV IN: 420.78 TO EX2

REROUTED STORM SEWER- STR. EX2 - STR. 2

0+25





112070 SCALE AS SHOWN SHEET NO.

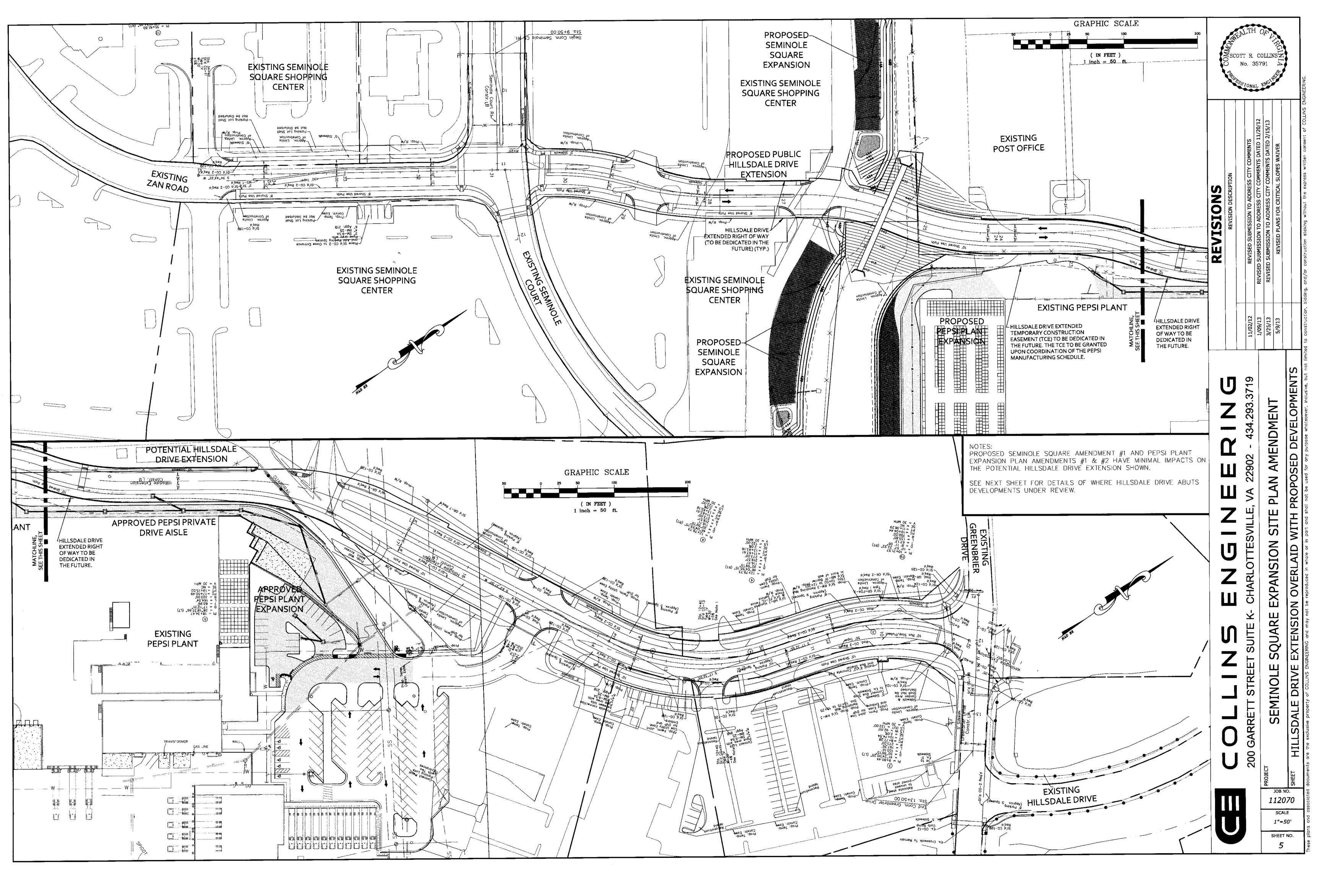
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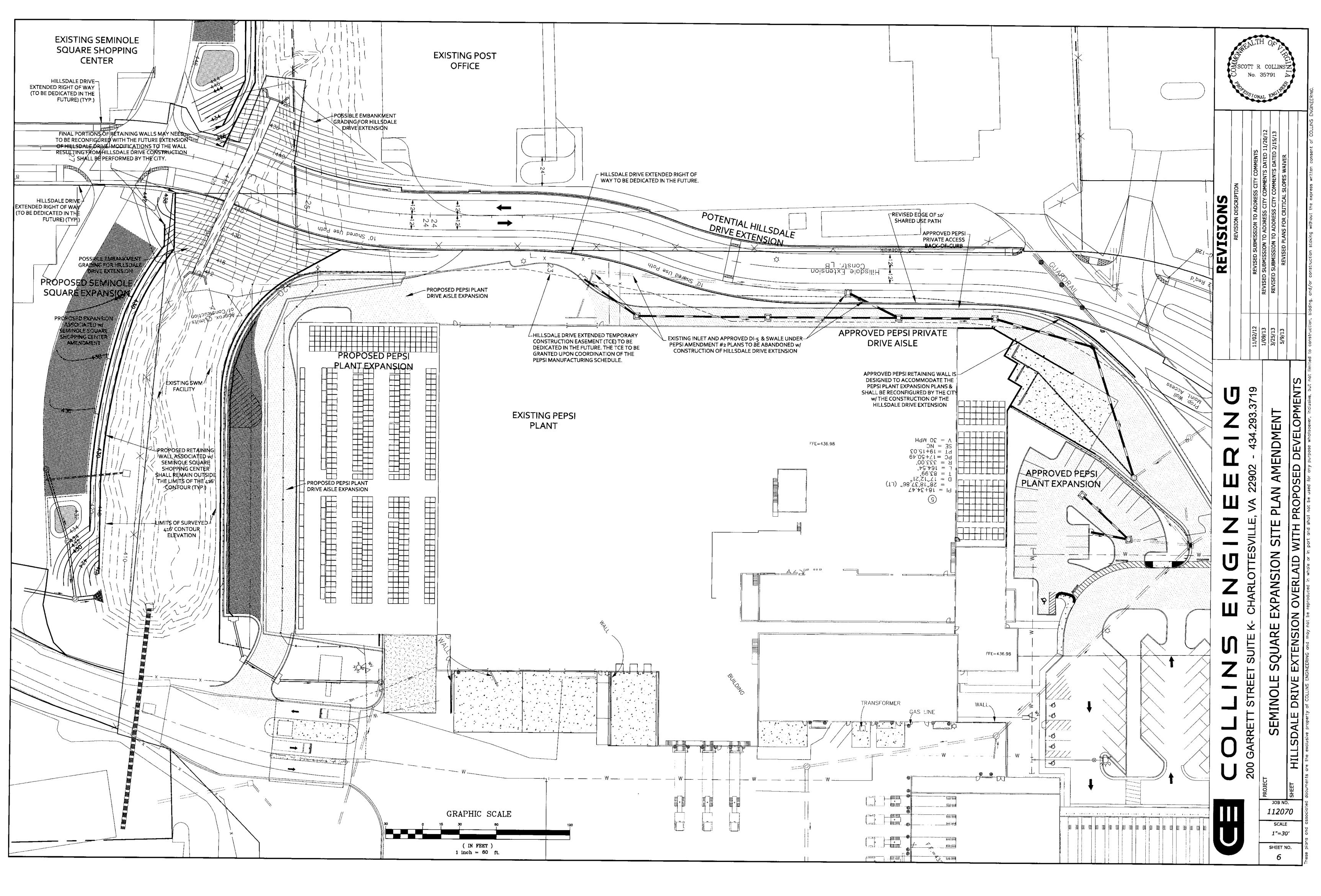
PLAN

EXPANSION

UARE

0





DUST CONTROL

GENERAL NOTES

THE OWNER/CLIENT OF THIS PROPERTY IS TOWERS LIMITED PARTNERSHIP ET AL GREAT EASTERN MANAGEMENT P.O. BOX 5526

CHARLOTTESVILLE. VA 22905 2. THESE PLANS HAVE BEEN PREPARED BY: COLLINS ENGINEERING, INC 200 GARRETT STREET SUITE N

CHARLOTTESVILLE, VA 22902

TELEPHONE: (434) 293-3719 FACSIMILE: (434) 293-2813 5. SOURCE OF INFORMATION/SURVEY: ELEVATIONS FOR THE ADJACENT STORMWATER MANAGEMENT FACILITY ARE BASED OFF OF A SURVEY BY COMMONWEALTH LAND SURVEYING, LLC DATED 8/4/2011, WHICH SETS THE RISER INVERT AS THE DATUM AT ELEVATION 403.3'. ÁDÓITIONAL OFFSITE SURVEYED INFORMATION IN THE PROXIMITY OF THE PEPSI PLANT IS BASED OFF A SURVEY BY JENNINGS STEPHENSON, P.C. IN JANUARY OF 2007. THE REMAINING TOPOGRAPHY AND PLANIMETRICS ARE BASED OFF CITY & COUNTY GIS DATA. FIELD VERIFIED BY COLLINS ENGINEERING IN SUMMER OF 2012.

6. ZONING TMP 41C-3.1: HW-HIGHWAY CORRIDOR ZONING (NO DISTURBANCE TO ENTRANCE CORRIDOR -UNAFFECTED WESTERN PORTION OF PARCEL UNDER ENTRANCE CORRIDOR DESIGNATION)

TAX MAP AND PARCEL NUMBER: TMP 41C-3.1 8. USGS DATUM: NAD 83 (1994)

9. LOCATION/ADDRESS OF PROJECT: 129 SEMINOLE COURT, CHARLOTTESVILLE, VA 22901 151 SEMINOLE COURT, CHARLOTTESVILLE, VA 22901 159 SEMINOLE COURT, CHARLOTTESVILLE, VA 22901 167 SEMINOLE COURT, CHARLOTTESVILLE, VA 22901

123 SEMINOLE COURT, CHARLOTTESVILLE, VA 22901

175 SEMINOLE COURT, CHARLOTTESVILLE, VA 22901 185 SEMINOLE COURT, CHARLOTTESVILLE, VA 22901 10. TOTAL ACREAGE OF SITE: 18.806 ACRES 11. SITE PHASING: THE SITE CONSTRUCTION AND E&S WILL OCCUR IN ONE PHASE

* COLLINS ENGINEERING SHALL NOT HAVE AUTHORITY OVER CONTRACTOR'S WORK, SAFETY PRECAUTIONS, SCHEDULES, OR COMPLIANCE WITH LAWS AND REGULATIONS. WE SHALL NOT

ASSUME RESPONSIBILITY FOR ANY CONSTRUCTION STARTED PRIOR TO PLAN APPROVAL.

12. PUBLIC UTILITIES: THE SITE WILL BE SERVED BY EXISTING PUBLIC WATER AND SEWER.

EROSION & SEDIMENT CONTROL

STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. STRUCTURAL PRACTICES USED IN THIS SECTION CONSIST OF THE FOLLOWING:

3.01

3.02

3.14

3.29

3.31

3.35

3.38

A STABILIZED PAVED CONSTRUCTION ENTRANCE WITH A WASH RACK LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS ON A CONSTRUCTION SITE. TO REDUCE THE AMOUNT OF MUD TRANSPORTED ONTO PAVED PUBLIC ROADS BY MOTOR VEHICLES OR RUNOFF. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS SHOWN ON THE PLANS TO REDUCE THE AMOUNT SEDIMENT TRANSPORTED ONTO PUBLIC ROADWAYS.

A TEMPORARY SEDIMENT BARRIER CONSISTING OF A SYNTHETIC FILTER FABRIC STRETCHED ACROSS AND ATTACHED TO SUPPORTING POSTS AND ENTRENCHED, TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT FROM DISTURBED AREAS DURING CONSTRUCTION OPERATIONS IN ORDER TO PREVENT SEDIMENT FROM LEAVING THE SITE, AND TO DECREASE THE VELOCITY OF SHEET FLOWS AND LOW-TO-MODERATE LEVEL CHANNEL FLOWS. THE SILT FENCE BARRIERS SHALL BE INSTALLED DOWN SLOPE OF AREAS WITH MINIMAL GRADES TO FILTER SEDIMENT LADEN RUNOFF FROM SHEET FLOW AS INDICATED. THEY SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND MAINTAINED IN ACCORDANCE WITH THE VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK (VESCH).

A SEDIMENT FILTER OR AN EXCAVATED IMPOUNDING AREA AROUND A STORM DRAIN DROP INLET OR CURB INLET. TO PREVENT SEDIMENT FROM ENTERING STORM DRAINAGE SYSTEMS PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA. INLET PROTECTION APPLIES WHERE STORM DRAIN INLETS ARE TO BE MADE OPERATIONAL BEFORE PERMANENT STABILIZATION OF THE CORRESPONDING DISTURBED DRAINAGE AREA.

3.11 TEMPORARY RIGHT-OF-WAY DIVERSION: A RIDGE OF COMPACTED SOIL OR LOOSE ROCK OR GRAVEL CONSTRUCTED ACROSS DISTURBED

RIGHTS—OF—WAY AND SIMILAR SLOPING AREAS. TO SHORTEN THE FLOW LENGTH WITHIN A SLOPING RIGHT-OF-WAY, THEREBY REDUCING THE EROSION POTENTIAL BY DIVERTING STORM RUNOFF TO A STABILIZED OUTLET. GENERALLY, EARTHEN DIVERSIONS ARE APPLICABLE WHERE THERE WILL BE LITTLE OR NO CONSTRUCTION TRAFFIC WITHIN THE RIGHT-OF-WAY. GRAVEL STRUCTURES ARE MORE APPLICABLE TO ROADS AND OTHER RIGHTS-OF-WAY WHICH ACCOMMODATE VEHICULAR TRAFFIC.

3.15 TEMPORARY SLOPE DRAIN: A FLEXIBLE TUBING OR CONDUIT EXTENDING FROM THE TOP TO THE BOTTOM OF A CUT OR FILL SLOPE. TO TEMPORARILY CONDUCT CONCENTRATED STORMWATER RUNOFF SAFELY DOWN THE FACE OF A CUT OR FILL SLOPE WITHOUT CAUSING EROSION ON OR BELOW THE SLOPE, USE ON CUT OR FILL SLOPES WHERE THERE IS A POTENTIAL FOR UPSLOPE FLOWS TO MOVE OVER THE FACE OF THE SLOPE CAUSING EROSION AND PREVENTING ADEQUATE STABILIZATION.

3.29 SURFACE ROUGHENING: PROVIDING A ROUGH SOIL SURFACE WITH HORIZONTAL DEPRESSIONS CREATED BY OPERATING A TILLAGE OR OTHER SUITABLE IMPLEMENT ON THE CONTOUR, OR BY LEAVING SLOPES IN A ROUGHENED CONDITION BY NOT FINE-GRADING THEM. THESE SHALL BE PERFORMED ON SLOPES

3.31 TEMPORARY SEEDING: THE ESTABLISHMENT OF A TEMPORARY VEGETATIVE COVER ON DISTURBED AREAS BY SEEDING WITH APPROPRIATE RAPIDLY GROWING ANNUAL PLANTS. TO REDUCE EROSION AND SEDIMENTATION BY STABILIZING DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 30 DAYS. TO REDUCE DAMAGE FROM SEDIMENT AND RUNOFF TO DOWNSTREAM OR OFF-SITE AREAS, AND TO PROVIDE PROTECTION TO BARE SOILS EXPOSED DURING CONSTRUCTION UNTIL PERMANENT VEGETATION OR OTHER EROSION CONTROL MEASURES CAN BE ESTABLISHED.

3.32 PERMANENT STABILIZATION:
THE ESTABLISHMENT OF PERENNIAL VEGETATIVE COVER ON DISTURBED AREAS BY PLANTING SEED. TO REDUCE EROSION AND DECREASE SEDIMENT YIELD FROM DISTURBED AREAS. TO PERMANENTLY STABILIZE DISTURBED AREAS IN A MANNER THAT IS ECONOMICAL, ADAPTABLE TO SITE CONDITIONS, AND ALLOWS SELECTION OF THE MOST APPROPRIATE PLANT MATERIALS. TO IMPROVE WILDLIFE HABITAT. TO ENHANCE NATURAL BEAUTY. UPON COMPLETION OF CONSTRUCTION ACTIVITIES, ALL AREAS WILL RECEIVE A PERMANENT VEGETATIVE COVER.

3.35 MULCHING: APPLICATION OF PLANT RESIDUES OR OTHER SUITABLE MATERIALS TO THE SOIL SURFACE. TO PREVENT EROSION BY PROTECTING THE SOIL SURFACE FROM RAINDROP IMPACT AND REDUCING THE VELOCITY OF OVERLAND FLOW. TO FOSTER THE GROWTH OF VEGETATION BY INCREASING AVAILABLE MOISTURE AND PROVIDING INSULATION AGAINST EXTREME HEAT AND COLD. AREAS WHICH HAVE BEEN PERMANENTLY SEEDED SHOULD BE MULCHED IMMEDIATELY FOLLOWING SEEDING. AREAS WHICH CANNOT BE SEEDED BECAUSE OF THE SEASON SHOULD BE MULCHED USING ORGANIC MULCH. MULCH MAY BE USED TOGETHER WITH PLANTINGS OF TREES, SHRUBS, OR CERTAIN GROUND COVERS WHICH DO NOT PROVIDE ADEQUATE SOIL STABILIZATION BY

THEMSELVES. CAN BE USED IN CONJUNCTION WITH TEMPORARY SEEDING.

3.38 TREE PRESERVATION AND PROTECTION: PROTECTION OF DESIRABLE TREES FROM MECHANICAL OR OTHER INJURY DURING LAND DISTURBING AND CONSTRUCTION ACTIVITY. TO ENSURE THE SURVIVAL OF DESIRABLE TREES WHERE THEY WILL BE EFFECTIVE FOR EROSION AND SEDIMENT CONTROL, WATERSHED PROTECTION, LANDSCAPE BEAUTIFICATION, DUST AND POLLUTION CONTROL, NOISE REDUCTION, SHADE AND OTHER ENVIRONMENTAL BENEFITS WHILE THE LAND IS BEING CONVERTED FROM FOREST TO URBAN-TYPE USES. APPLIES IN TREE-INHABITED AREAS SUBJECT TO LAND DISTURBING ACTIVITIES.

3.39 DUST CONTROL:
REDUCING SURFACE AND AIR MOVEMENT OF DUST DURING LAND DISTURBING, DEMOLITION AND CONSTRUCTION ACTIVITIES. TO PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES AND REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES WHICH MAY PRESENT HEALTH HAZARDS, TRAFFIC SAFETY PROBLEMS OR HARM ANIMAL OR PLANT LIFE. DUST CONTROL MEASURES SHALL BE EMPLOYED TO PREVENT SURFACE AND AIR MOVEMENT OF DUST DURING CONSTRUCTION. MEASURES EMPLOYED SHALL BE IN ACCORDANCE WITH THE

EROSION 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 <u>VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK</u> 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

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 APPROVING AUTHORITY. ES-7: ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL

APPROVAL BY THE PLAN APPROVING AUTHORITY.

MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED. ES-8: DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED WATER 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 CONTROL NOTES

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

ALL EROSION AND SEDIMENT CONTROL MEASURES 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.

3. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING 4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE

MAINTAINED ON THE SITE AT ALL TIMES. 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 APPROVING AUTHORITY.

6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY. 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 IS ACHIEVED. 8. During Dewatering operations, water will be pumped into an approved FILTERING DEVICE 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 10. ALL FILL MATERIAL TO BE TAKEN FROM AN APPROVED, DESIGNATED BORROW AREA. 11. ALL WASTE MATERIALS SHALL BE TAKEN TO AN APPROVED WASTE AREA, EARTH FILL

SHALL BE INERT MATERIALS ONLY, FREE OF ROOTS, STUMPS, WOOD, RUBBISH, AND 12. BORROW OR WASTE AREAS ARE TO BE RECLAIMED WITHIN 7 DAYS OF COMPLETION PER ZONING ORDINANCE SECTION 5.1.28.

13. ALL INERT MATERIALS SHALL BE TRANSPORTED IN COMPLIANCE WITH CURRENT CITY 14. BORROW. FILL OR WASTE ACTIVITY INVOLVING INDUSTRIAL-TYPE POWER EQUIPMENT SHALL BE LIMITED TO THE HOURS OF 7:00 AM TO 9:00 PM. 15. BORROW, FILL OR WASTE ACTIVITY SHALL BE CONDUCTED IN A SAFE MANNER THAT

MAINTAINS LATERAL SUPPORT, OR ORDER TO MINIMIZE ANY HAZARD TO PERSONS. PHYSICAL DAMAGE TO ADJACENT LAND AND IMPROVEMENTS, AND DAMAGE TO ANY PUBLIC STREET BECAUSE OF SLIDES, SINKING, OR COLLAPSE. 16. THE DEVELOPER SHALL RESERVE THE RIGHT TO INSTALL, MAINTAIN, REMOVE OR CONVERT TO PERMANENT STORMWATER MANAGEMENT FACILITIES

EROSION CONTROL MEASURES REQUIRED BY THIS PLAN REGARDLESS OF THE SALE OF ANY LOT, UNIT, BUILDING OR OTHER PORTION OF THE PROPERTY. 17. TEMPORARY STABILIZATION SHALL BE TEMPORARY SEEDING AND MULCHING. SEEDING IS TO BE APPLIED AT 50-100 LBS/ACRE FROM SEPTEMBER 1 TO FEBRUARY 15 AND SHALL CONSIST OF A 50/50 MIX OF ANNUAL RYEGRASS AND CEREAL WINTER RYE. FROM FEBRUARY 16 TO APRIL 30 SEEDING SHALL BE APPLIED AT 60-100 LBS/ACRE AND CONSIST OF ANNUAL RYE GRASS. FROM MAY 1 TO AUGUST 31 SEEDING SHALL BE APPLIED AT 50 LBS/ACRE AND CONSIST OF GERMAN MILLET. STRAW MULCH IS TO BE APPLIED AT 70-90 LBS PER 1,000 SF. ALTERNATIVES ARE SUBJECT TO APPROVAL BY

THE EROSION CONTROL INSPECTOR. 18. PERMANENT STABILIZATION SHALL BE LIME AND FERTILIZER, PERMANENT SEEDING, AND MULCH. AGRICULTURAL GRADE LIMESTONE SHALL BE APPLIED AT 90LBS/1000SF, INCORPORATED INTO THE TOP 4-6 INCHES OF SOIL, FERTILIZER SHALL BE APPLIED AT 1000LBS/ACRE AND CONSIST OF A 10-20-10 NUTRIENT MIX. PERMANENT SEEDING SHALL BE APPLIED AT 150LBS/ACRE AND CONSIST OF 128 LBS KENTUCKY 31 FESCUE AND 2 LBS RED TOP GRASS, AND 20 LBS SEASONAL NURSE CROP PER TABLE 3.32-D BELOW. STRAW MULCH IS TO BE APPLIED AT 70-90 LBS PER 1,000SF. ALTERNATIVES ARE SUBJECT TO APPROVAL BY THE EROSION CONTROL INSPECTOR.

19. MAINTENANCE: ALL MEASURES ARE TO BE INSPECTED WEEKLY AND AFTER EACH RAINFALL. ANY DAMAGE OR CLOGGING TO STRUCTURAL MEASURES IS TO BE REPAIRED IMMEDIATELY. SILT TRAPS ARE TO BE CLEANED WHEN 50% OF THE WET STORAGE VOLUME IS FILLED WITH SEDIMENT. ALL SEEDED AREAS ARE TO BE RESEEDED WHEN NECESSARY TO ACHIEVE A GOOD STAND OF GRASS. SILT FENCE AND DIVERSION DYKES WHICH ARE COLLECTING SEDIMENT TO HALF THEIR HEIGHT MUST BE CLEANED AND REPAIRED IMMEDIATELY

20. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE REMOVED WITHIN 30 DAYS OF FINAL SITE STABILIZATION, WHEN MEASURES ARE NO LONGER NEEDED, SUBJECT TO APPROVAL BY THE EROSION CONTROL INSPECTOR. 21. THE E&S INSPECTOR HAS THE AUTHORITY TO ADD OR DELETE E&S CONTROLS AS

BASIN OR TRAP CAN BE REMOVED WITHOUT WRITTEN AUTHORIZATION.

NECESSARY IN THE FIELD AS SITE CONDITIONS CHANGE. IN ADDITION, NO SEDIMENT

DESCRIPTION OF EROSION & SEDIMENT CONTROL MEASURES:

EROSION AND SEDIMENT CONTROL MEASURES:

IT IS ANTICIPATED TO USE A CONSTRUCTION ENTRANCE, SUPER SILT FENCE, SURFACE ROUGHENING, INLET PROTECTION, A RIGHT-OF-WAY DIVERSION, TEMPORARY AND PERMANENT SEEDING, TREE PROTECTION FENCING, AND DUST CONTROL TO CONTROL SURFACE DRAINAGE AND EROSION. TEMPORARY SEEDING WILL BE USED IMMEDIATELY FOLLOWING ALL LAND DISTURBANCE ACTIVITIES. TEMPORARY STOCKPILE AREAS WILL BE MAINTAINED FROM TOPSOIL THAT WILL BE STRIPPED FROM AREAS TO BE GRADED AND STORED FOR LATER SPREADING. STOCKPILE LOCATIONS SHALL BE ON SITE AND SHALL BE STABILIZED WITH A TEMPORARY VEGETATIVE COVER. PERMANENT SEEDING WILL BE PERFORMED FOR ALL AREAS WHICH WILL NO LONGER BE EXCAVATED AND WHERE CONSTRUCTION ACTIVITIES HAVE CEASED. PERMANENT SEEDING SHALL ALSO BE PERFORMED FOR ALL DENUDED AREAS WHICH WILL BE LEFT DORMANT FOR A YEAR OR MORE. SELECTION OF SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR APPLIED. TEMPORARY SEEDING WILL BE PERFORMED FOR ALL DENUDED AREAS WHICH WILL BE LEFT DORMANT FOR MORE THAN SEVEN DAYS. THESE AREAS SHALL BE SEEDED WITH FAST GERMINATING VEGETATION IMMEDIATELY FOLLOWING GRADING OF THOSE AREAS, SELECTION OF SEED MIXTURE WILL DEPEND ON THE TIME OF

3.02 CONSTRUCTION ENTRANCE - A CONSTRUCTION ENTRANCE WILL BE INSTALLED AT THE PROPOSED ENTRANCE ALONG SEMINOLE COURT TO PROTECT THE STREET.

3.05 SILT FENCE - SUPER SILT FENCE WILL BE INSTALLED ALONG THE DOWNSTREAM BOUNDARIES OF THE SITE EAST OF THE PROJECT. 3.07 STORM DRAIN INLET PROTECTION - INLET PROTECTION TO BE INSTALLED AT EACH EXISTING STORM BOX IN THE VICINITY, AS WELL AS ON EACH PROPOSED STORM INLET AS SHOWN ON THE PLANS.

3.11 TEMPORARY RIGHT-OF-WAY DIVERSION - A RIGHT-OF-WAY DIVERSION SHALL BE INSTALLED AT THE PROPOSED ENTRANCE TO THE SITE. 3.15 TEMPORARY SLOPE DRAIN - FLEXIBLE 6" SLOPE DRAINS WILL BE PLACED

AS SHOWN ON THE PLANS. 3.29 SURFACE ROUGHENING— SURFACE ROUGHENING SHALL BE APPLIED TO ALL STEEP SLOPES IN EXCESS OF 2:1

3.31 TEMPORARY SEEDING - TEMPORARY SEEDING SHALL BE INSTALLED WHERE SHOWN ON THE PLANS.

3.32 PERMANENT SEEDING — PERMANENT SEEDING SHALL BE INSTALLED WHERE SHOWN ON THE PLANS. 3.35 MULCHING - APPLICATION OF PLAN RESIDUES OR OTHER SUITABLE

3.38 TREE PRESERVATION AND PROTECTION — TREE PROTECTION FENCING SHALL BE INSTALLED AROUND THOSE TREES AND BUSHES MARKED TO BE PRESERVED WHERE SHOWN ON THE PLANS.

3.39 DUST CONTROL - DUST CONTROL SHALL BE INSTALLED WHERE SHOWN ON

STORMWATER MANAGEMENT:

MATERIALS TO THE SOIL SURFACE.

THE PROPOSED EXPANSION INCORPORATES PERMEABLE PAVERS TO PROVIDE STORMWATER QUALITY TREATMENT AND DETENTION. THE PERMEABLE PAVERS SHALL ACT AS AN INFILTRATING DEVICE PROVIDING RECHARGE FOR THE GROUND WATER. ANY EXCESS RUNOFF NOT INFILTRATED FROM THE PERMEABLE PAVERS SHALL BE DIRECTED TO THE PROPOSED BIORETENTION BASINS FOR FURTHER INFILTRATION WHERE THE RUNOFF RECEIVES ADDITIONAL STORMWATER QUALITY TREATMENT AND DETENTION. ALSO NOTE THE POST-DEVELOPMENT WATERSHED AREA HAS NOT BEEN MODIFIED, AND CONTINUES TO FLOW IN THE SAME DIRECTION & LOCATION AS PRE-DEVELOPMENT CONDITIONS.

MAINTENANCE:

IN GENERAL, DURING CONSTRUCTION THE RLD OR CONTRACTOR ON-SITE WILL CHECK ALL EROSION AND SEDIMENT CONTROL MEASURES DAILY AND AFTER EACH SIGNIFICANT RAINFALL. MONITORING REPORTS WILL BE REQUIRED FROM THE RLD IF NEEDED. SPECIFIC ATTENTION WILL BE GIVEN TO THE FOLLOWING ITEMS:

a. SEDIMENT BASINS AND/OR TRAPS WILL BE CLEANED AND MAINTAINED IN ACCORDANCE WITH THE VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK. b.ALL GRAVEL OUTLETS WILL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP THAT WILL PREVENT PROPER DRAINAGE. IF THE GRAVEL IS CLOGGED BY SEDIMENT, THE GRAVEL WILL BE REMOVED AND CLEANED, OR IT WILL BE REPLACED. c. ALL SILT FENCE BARRIERS WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC AND REPAIRED AS REQUIRED. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHED HALF WAY TO THE TOP OF THE BARRIER.

d. ALL SEEDED AREAS WILL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED. IN CASE OF EMERGENCY, THE PRIMARY CONTACT FOR THE PROJECT WILL BE THE RLD OR CONTRACTOR ON-SITE. IN ADDITION, THE ENGINEER, MR. SCOTT COLLINS MAY BE CONTACTED AT 434-987-1631. UPON COMPLETION OF THE PROJECT, THE OWNER WILL BE RESPONSIBLE FOR SITE MAINTENANCE.

EROSION CONTROL NOTES & NARRATIVE

PROJECT DESCRIPTION:

THE PURPOSE OF THIS LAND DISTURBANCE ACTIVITY IS TO CREATE A FUTURE PARKING EXPANSION AREA FOR THE SEMINOLE SQUARE SHOPPING CENTER. THIS PLAN PROPOSES TO GRADE A FLAT GRASSY AREA ALONG THE EASTERN BOUNDARY OF THE SITE UTILIZING A PROPOSED RETAINING WALLS. THE PROJECT WILL BEGIN CONSTRUCTION IN THE SUMMER OF 2013 AND CONCLUDE IN THE FALL OF 2013. THE TIME FOR COMPLETION WILL BE APPROXIMATELY 6 MONTHS. PORTIONS OF STORM SEWER ARE PROPOSED TO BE REROUTED AROUND THE RETAINING WALL. EXISTING SITE CONDITIONS:

THE AREA EAST OF THE EXISTING SEMINOLE SQUARE SHOPPING CENTER IS CURRENTLY PAVED AND DRAINED WITH CURB AND GUTTER. THE AREA OF THE PARKING EXPANSION IS CURRENTLY SLOPING TO THE EAST, WOODED, AND DRAINS TO AN EXISTING MANMADE SWM FACILITY, WHICH IS ADJACENT TO THE SITE AND PROTECTED WITH A STORMWATER MANAGEMENT EASEMENT.

THE PORTION OF THE SITE PROPOSED TO BE DISTURBED IS CURRENTLY CAPTURED BY AN EXISTING DRAINAGE DITCH AND STORMWATER MANAGEMENT FACILITY. THIS FACILITY RELEASES DRAINAGE TO THE EXISTING MEADOW CREEK WATERWAY.

THE PROPOSED DEVELOPMENT RESULTS IN NO INCREASE IN IMPERVIOUS AREA. THE PROPOSED GRADED AREA WILL BE SEEDED. THE EASTERN PORTION OF THE SITE DISTURBANCE SHALL REMAIN ABOVE THE 416

CONTOUR. NO DISTURBANCE SHALL OCCUR AT OR BELOW THE 416 CONTOUR DUE TO AN EXISTING SWM EASEMENT.

<u>ADJACENT AREAS:</u>

THIS SITE IS BORDERED BY ROUTE 29 TO THE NORTHWEST, THE PEPSI—COLA PLANT AND THE POST OFFICE TO THE NORTH AND NORTHEAST, MEADOW CREEK TO THE SOUTHEAST, AND A SHOPPING CENTER AND HYDRAULIC ROAD TO THE SOUTH & SOUTHWEST. THE DRAINAGE FROM THE PROPOSED DEVELOPMENT DRAINS TO MEADOW CREEK, BUT IS INTERCEPTED BY STORM SEWER AND AN EXISTING STORMWATER MANAGEMENT FACILITY. THE CONTRACTOR SHALL ENSURE THAT NO RUNOFF ESCAPES THE SITE. SUPER SILT FENCE, DUST CONTROL, INLET CONTROL, AND A RIGHT—OF—WAY DIVERSION SHALL BE UTILIZED TO AVOID CONTAMINATION OF ADJACENT PROPERTIES OR

OFFSITE LAND DISTURBANCE: NO OFFSITE LAND DISTURBANCE IS PROPOSED BEYOND WHAT IS PROPOSED WITH THIS SET OF PLANS.

THERE ARE NO SOIL BOUNDARIES WITHIN THE PROJECT LIMITS. SOILS ARE URBAN SOIL, SEE SOIL DESCRIPTION THIS PAGE & LABEL ON PHASE I OF THE ESC PLAN.

<u>CRITICAL AREAS:</u> THE PROPOSED DEVELOPMENT SHALL PRESERVE AND PROTECT THE EXISTING DRAINAGE DITCH AND SWM EASEMENT TO THE EAST OF THE WORK, AS WELL AS THE EXISTING CRITICAL SLOPES TO REMAIN. APPROXIMATELY 1.56ac. OF THE SITE'S 18.8ac (8%) HAS SLOPES GREATER THAN OR EQUAL TO 25%. TREE PROTECTION FENCING SHALL BE INSTALLED AS A FIRST STEP IN LAND DISTURBANCE. GRADING AND DIGGING OPERATIONS SHALL REMAIN WITHIN THE SUBJECT PARCEL, WITHIN EXISTING EASEMENTS OR BY THE DIRECTION AND PERMISSION OF OFFSITE OWNERS.

SOIL DESCRIPTION

91 - URBAN LAND-0% TO 25% SLOPES. SOURCE MATERIAL RESIDUUM WEATHERED FROM GRANITE AND GNEISS. 10 INCHES TO DENSE MATERIAL. LINEAR CONVEX DOWN AND ACROSS-SLOPE SHAPE. VERY LOW TO HIGH KSAT O TO 13.04 IN/HR. (SEE ESC PLAN FOR SOIL BOUNDARY & NAME)

REFERENCE: WEB SOIL SURVEY ONLINE DATABASE, FOUND AT http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

SCOTT R. COLLINS No. 35791

EROSION CONTROL NOTES & NARRATIVE

<u>SEQUENCE OF CONSTRUCTION:</u>

NOTIFY THE CITY OF CHARLOTTESVILLE AND PUBLIC WORKS DEPARTMENT TO SCHEDULE A PRE-CONSTRUCTION MEETING AS REQUIRED.

FLAG THE INITIAL LIMITS OF DISTURBANCE AND INSTALL TREE PROTECTION FENCING. NO EROSION CONTROL MEASURES MAY BE REMOVED DURING THE CONSTRUCTION PROCESS WITHOUT THE APPROVAL FROM THE INSPECTOR ON THE PROJECT

4. INSTALL THE PAVED CONSTRUCTION ENTRANCE AND WASH RACK LOCATED AT THE PROPOSED TRUCK ENTRANCE AS SHOWN ON THE PLANS. CONSTRUCTION ENTRANCE TO BE INSTALLED WHERE CONSTRUCTION VEHICLE ROUTES INTERSECT PAVED 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 PUBLIC ROAD SURFACE, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTING TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. CONTRACTOR SHALL

ENSURE THE CONSTRUCTION ENTRANCE/WASH RACK DRAINS TO AN ADEQUATE E&SC MEASURE. INSTALL THE INITIAL E&SC CONSTRUCTION MEASURES AS SHOWN ON THE EROSION CONTROL SHEET THIS INCLUDES TREE PROTECTION, A CONSTRUCTION ENTRANCE, INLET PROTECTION, A GRAVEL BERM RIGHT-OF-WAY DIVERSION, SILT FENCE FOR THE STOCKPILE LOCATION AND SUPER SILT FENCE AS SHOWN ON THE PLAN. PERIMETER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP WITH ANY LAND DISTURBANCE ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

ONCE ALL THE INITIAL EROSION CONTROL MEASURES HAVE BEEN INSTALLED AND THE CITY INSPECTOR HAS APPROVED THEM, THE CONTRACTOR SHALL BEGIN CLEARING AND GRADING FOR THE INSTALLATION OF THE NORTHERN RETAINING WALLS. THE CONSTRUCTION OF THESE WALLS SHALL OCCUR NEXT AND SHALL OCCUR PRIOR TO THE CONSTRUCTION OF THE SOUTHERN RETAINING WALL SYSTEM. IN THE EVENT THE CONTRACTOR REQUIRES OFFSITE FILL MATERIAL, THE CONTRACTOR SHALL ENSURE THE BARROW SITE HAS A CURRENT APPROVED E&S PLAN, AS REQUIRED BY THE LOCALITY. WORK ASSOCIATED WITH THE CONSTRUCTION OF THE RETAINING WALL SYSTEM SHALL OCCUR ON THE TOP SIDE TO REDUCE POTENTIAL IMPACTS TO THE DOWNSTREAM CHANNEL. IN THE EVENT HEAVY RAINFALL OCCURS DURING THE CONSTRUCTION OF THE WALLS, THE RETAINING WALLS SHALL ACT AS A TEMPORARY SEDIMENT TRAPPING DEVICE. DURING THE TIME OF THE NORTHERN RETAINING WALL CONSTRUCTION THE EXISTING PARKING AREA SHALL BE USED AS A STAGING AREA FOR THE WALL MATERIALS AND CONSTRUCTION EQUIPMENT. A TEMPORARY 4' DEPRESSED SUMP SHALL BE INSTALLED AT THE BASE OF THE FILL OPERATIONS TO PROVIDE ADDITIONAL TREATMENT, AS SHOWN ON THE PLANS. THE SUMP AREA SHALL BE MAINTAIN OPERATIONAL AS LONG AS POSSIBLE.

ONCE CONSTRUCTION HAS BEEN COMPLETED FOR THE NORTHERN RETAINING WALLS AND FILLING OPERATIONS HAVE CEASED, THE CONTRACTOR SHALL STABILIZE THIS AREA & RELOCATE THE CONTRACTOR STAGING AND PARKING AREA OFF OF THE EXISTING DELIVERY ROAD TO THE STABILIZED GROUND UPSLOPE OF THE WALLS. AT THIS TIME THE REMAINING DEMOLITION, CLEARING, AND GRADING OF THE SITE CAN OCCUR AND THE CONTRACTOR CAN BEGIN INSTALLATION OF THE SOUTHERN RETAINING WALL SYSTEM AND STORM SEWER REROUTING.

8. DURING CONSTRUCTION OF THE SOUTHERN RETAINING WALL SYSTEMS THE CONSTRUCTION ACTIVITY SHALL OCCUR ON THE TOP SIDE TO REDUCE POTENTIAL IMPACTS TO THE DOWNSTREAM CHANNEL. IN THE EVENT HEAVY RAINFALL OCCURS DURING THE CONSTRUCTION OF THE WALLS, THE RETAINING WALLS SHALL ACT AS A TEMPORARY SEDIMENT TRAPPING DEVICE. A TEMPORARY 4' DEPRESSED SUMP SHALL BE INSTALLED AT THE BASE OF THE FILL OPERATIONS TO PROVIDE ADDITIONAL TREATMENT, AS SHOWN ON THE PLANS. THE SUMP AREA SHALL BE MAINTAIN OPERATIONAL AS LONG AS POSSIBLE 9. ONCE ALL RETAINING WALLS ARE INSTALLED, THE SITE IS STABILIZED, SIGNIFICANT FILL OPERATIONS HAVE CEASED AND THE SITE IS AT GRADE THE CONTRACTOR CAN INSTALL THE PERVIOUS PAVERS.

DESIGN SPECIFICATIONS & PAVEDRAIN STANDARDS AND SHALL CLEAN AND REPLACE THE STONE AS NECESSARY PRIOR TO INSTALLATION OF THE PERMEABLE PAVERS. 10. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

PERMANENT 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 (UNDISTURBED) FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR

UNDERDRAIN SYSTEMS AND RAIN GARDENS. CONTRACTOR SHALL ENSURE PAVEDRAIN STONE BASE MEETS

12. MAINTAIN ALL EROSION CONTROL MEASURES AS SPECIFIED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, REMOVING ONLY WHEN APPROVED BY THE LOCAL PROGRAM ADMINISTRATOR IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

13. 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 ADMINISTRATOR. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

14. ONCE THE SITE IS STABILIZED AND THE INSPECTOR HAS GIVEN APPROVAL, THE CONTRACTOR CAN REMOVE THE REMAINING EROSION CONTROL MEASURES.

REVISIONS	REVISION DESCRIPTION	INITIAL SUBMITTAL	REVISED SUBMISSION TO ADDRESS CITY COMMENTS	REVISED SUBMISSION TO ADDRESS CITY COMMENTS DATED 1	REVISED SUBMISSION TO ADDRESS CITY COMMENTS DATED 2	REVISED PLANS FOR CRITICAL SLOPES WAIVER	
		12	/12	13	13	13	

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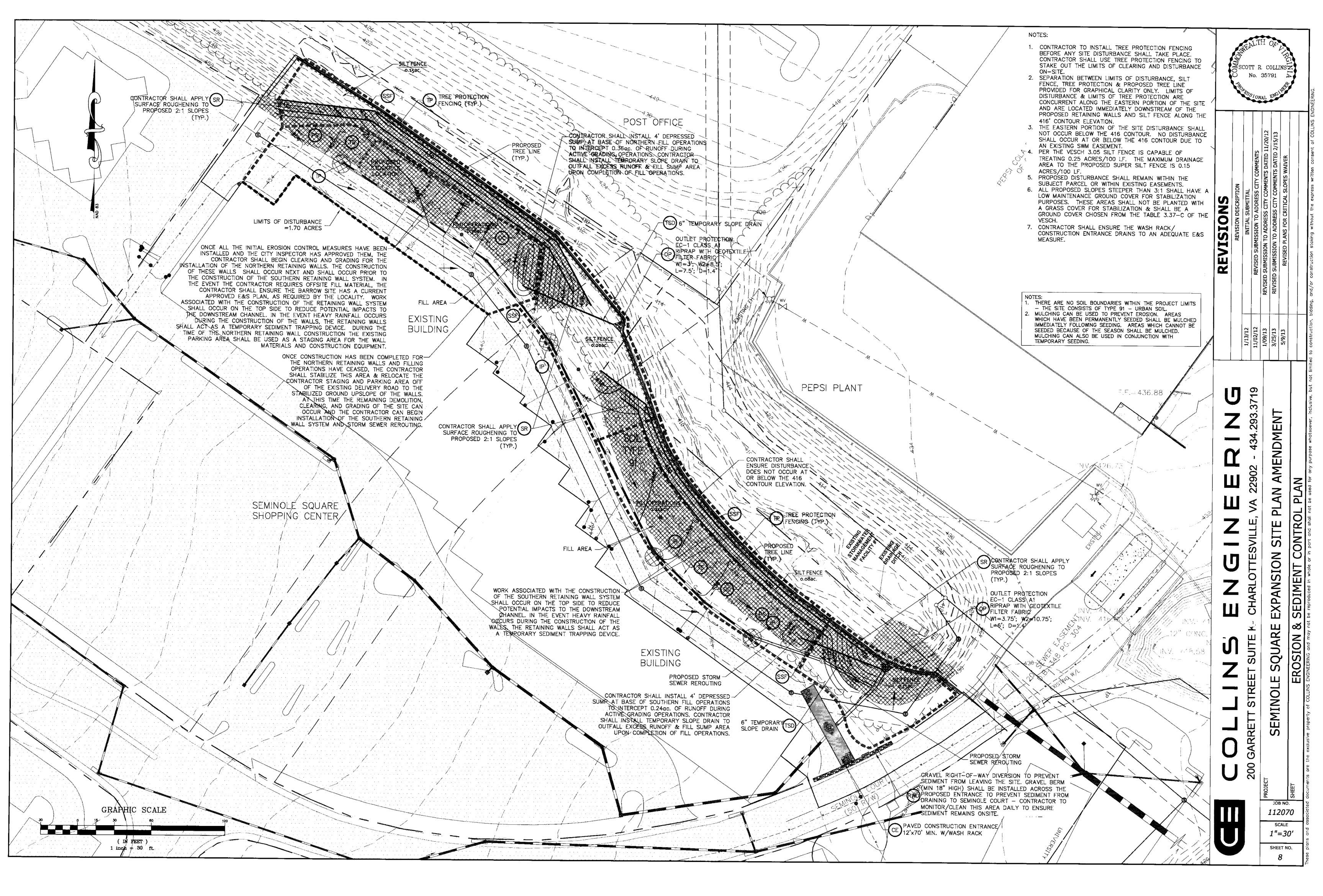
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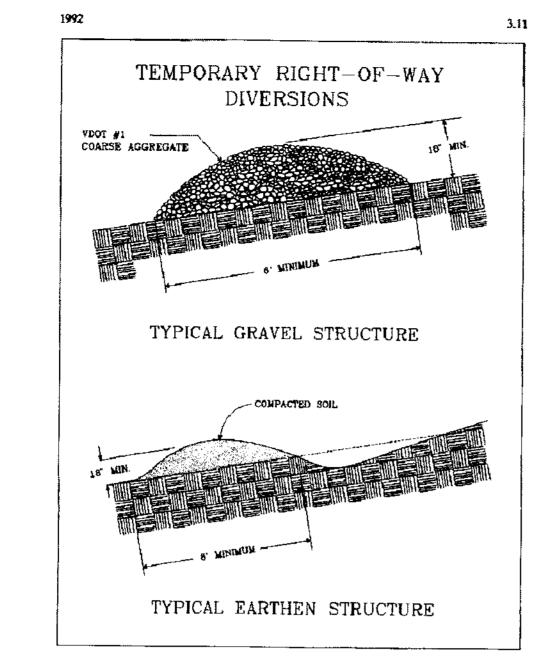
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NARR

112070 SCALE



Source: Va. DSWC



Source: Va. DSWC

Anionic Asphalt Emulsion 7:1 Coarse Spray 1,200 Latex Emulsion 12.5:1 Fine Spray 235 Resin in Water 4:1 Fine Spray 300 Acrylic Emulsion (Non-Traffic) 7:1 450 Coarse Spray Acrylic Emulsion

3.5:1

TABLE 3.39-A

ADHESIVES USED FOR DUST CONTROL

Water

(Adhesive: Water)

Dilution

Source: Va. DSWC

(Traffic)

Adhesive

TABLE 3.31-C TEMPORARY SEEDING PLANT MATERIALS, SEEDING RATES, AND DATES

-	SEEDING	RATE		NORTH [®]			SOUTI	Hp.	
SPECIES	Acre	1,000 A ²	3/1 lo 4/30	5/L to 8/15	8/15 to 11/1	2/15 to 4/30	5/1 to 9/1	9/1 to 11/15	PLANT CHARACTERISTICS
OATS (Avena sativa)	3 bu. (up to 100 lbs., not less than 50 lbs.)	2 lbs.	x	-	-	х	- -	: •	Use spring varieties (e.g., Noble).
RYE ^d (Secule cereale)	2 bu. (up to 110 lbs., not less than 50 lbs.)	2.5 lbs.	х	•	х	x	-	Х	Use for late full scedings, winter cover. Tolerates cold and low moisture.
GERMAN MILLET (Soturia italica)	50 lbs.	арргох. 1 16.	•	х	•	-	х	-	Warm-season annual. Dies at first frost. May be added to summer mixee.
ANNUAL RYEGRASS* (Lotium multi-florum)	60 lbs.	11/2 lbs.	X	-	х	Х	-	X	May be added in mixes. Will mow out of most stands.
WEEPING LOVEGRASS (Erzerostis curvuls)	15 Iba.	5½ ozs.	•	x	-	•	x	-	Warm-season perennial. May busch. Tolerates hot, dry slopes and acid, infertile soils. May be added to mixes.
KOREAN LESPEDEZA° (Lauraleza stimulacea)	25 lbs.	approx. 1½ fbs.	х	х	-	x	x	•	Warm season amual legume. Tolerates acid soils. May be added to mixes.

Northern Piedmont and Mountain region. See Plates 3,22-1 and 3.22-2. Southern Piedmont and Coastal Plain.

May be used as a cover crop with spring seeding.
May be used as a cover crop with fall seeding.
X May be planted between these dates.
May not be planted between these dates.

TEMPORARY SLOPE DRAIN SECTION VIEW NOTE: SEDIMENT MAY BE CONTROLLED AT OUTLET IF UPLAND PONDING WILL CREATE PROBLEMS EARTHEN DIKE (COMPACTED) SECTION A - A

Source: Va. DSWC

Plate 3.15-1

Plate 3.38-2

STONE CONSTRUCTION ACCESS -3" SM-2A ASPHALT TOP COURSE 2% -6" MIN. 21A AGGREGATE BASE	
PROFILE	
*MUST EXTEND FULL WIDTH OF INGRESS AND EGRESS OF THE CONSTRUCTION ACCESS ACC	
<u>PLAN</u>	
12' MIN.————————————————————————————————————	
WILLIAM BEEREREE	
FILTER CLOTH—	
SECTION A-A	

Plate 3.11-1

A minimum water tap of 1 inch must be installed with a minimum 1 inch ballcock shutoff valve supplying a wash hose with diameter or 1.5 inches for adequate constant pressure. Wash water must be carried away from the entrance to an approved settling area to remove sediment. All sediment shall be prevented from entering storm drains, ditches or watercourses.

> PAVED WASH RACK NO SCALE

ORGA	NIC MULCH M	TABLE 3.35-A	APPLICATION RATES							
RATES:										
MULCHES:	Per Acre		NOTES:							
Straw or Hay	1½ - 2 tons (Minimum 2 tons for winter cover)	Per 1000 sq. ft. 70 - 90 lbs.	Free from weeds and coarse matter. Must be anchored. Spread with mulch blower or by hand.							
Fiber Mulch	Minimum 1500 lbs.	35 lbs.	Do not use as mulch for winter cover or during hot, dry periods.* Apply as slurry.							
Corn Stalks	4 - 6 tons	185 - 275 lbs.	Cut or shredded in 4-6" lengths. Air-dried. Do not use in fine turf areas. Apply with mulch blower or by hand.							
Wood Chips	4 - 6 tons	185 - 275 lbs.	Free of coarse matter. Airdried. Treat with 12 lbs nitrogen per ton. Do not use in fine turf areas. Apply with mulch blower, chip handler, or by hand.							
Bark Chips or Shredded Bark	50 - 70 cu. yds.	1-2 cu. yds.	Free of coarse matter. Airdried. Do not use in fine turf areas. Apply with mulch blower, chip handler, or by hand.							

Application

Gallons/Acre

Rate

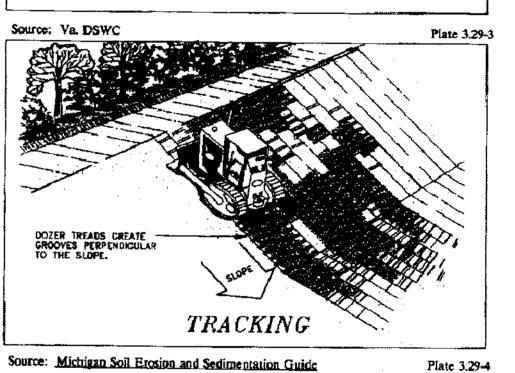
Type of

Nozzle

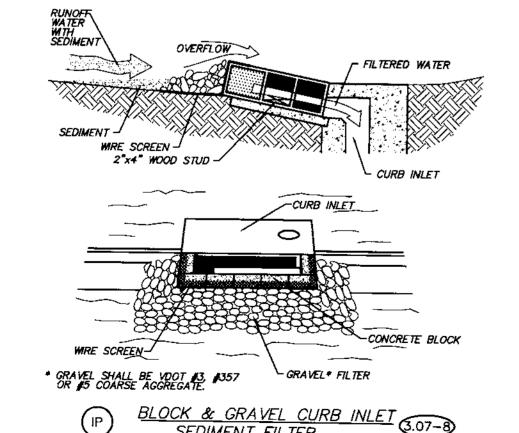
Coarse Spray

Source: Va. DSWC





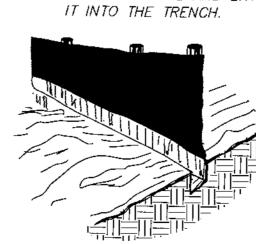
III - 278



NO SCALE

1. SET POSTS AND EXCAVATE A 4"X4" TRENCH UPSLOPE ALONG THE LINE OF POSTS.

2. STAPLE WIRE FENCING TO THE POSTS.



3. ATTACH THE FILTER FABRIC TO

THE WIRE FENCE AND EXTEND

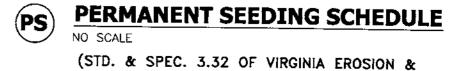
4. BACKFILL AND COMPACT THE EXCAVATED SOIL.

EXTENSION OF FABRIC AND WIRE INTO THE TRENCH.

SILT FENCE (WITH WIRE SUPPORT) NO SCALE (STD. & SPEC. 3.05 OF VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK, 3RD ED.)

GENERAL SLOPE (3:1 OR LESS)	TOTAL LBS PER ACRE
KENTUCKY 31 FESCUE RED TOP GRASS	128 LBS. 2 LBS.
SEASONAL NURSE CROP	20 LBS.
SEASONAL NURSE CROP	150 LBS
FEBRUARY 16 THROUGH APRIL MAY 1 THROUGH AUGUST 15	ANNUAL RYE FOXTAIL MILLET
AUGUST 16 THROUGH OCTOBER NOVEMBER THROUGH FEBRUARY 15	ANNUAL RYE WINTER RYE
NOTES:	
1. LIME AND FERTILIZER NEEDS SHALL E	BE DETERMINED BY SOI

TESTS AND APPLIED IN ACCORDANCE WITH VESCH STD. 3.32. 2. SEEDINGS TO BE MULCHED IMMEDIATELY UPON COMPLETION OF SEED APPLICATION, IN ACCORDANCE W/ VESCH STD 3.35.



SEDIMENT CONTROL HANDBOOK, 3RD ED.)

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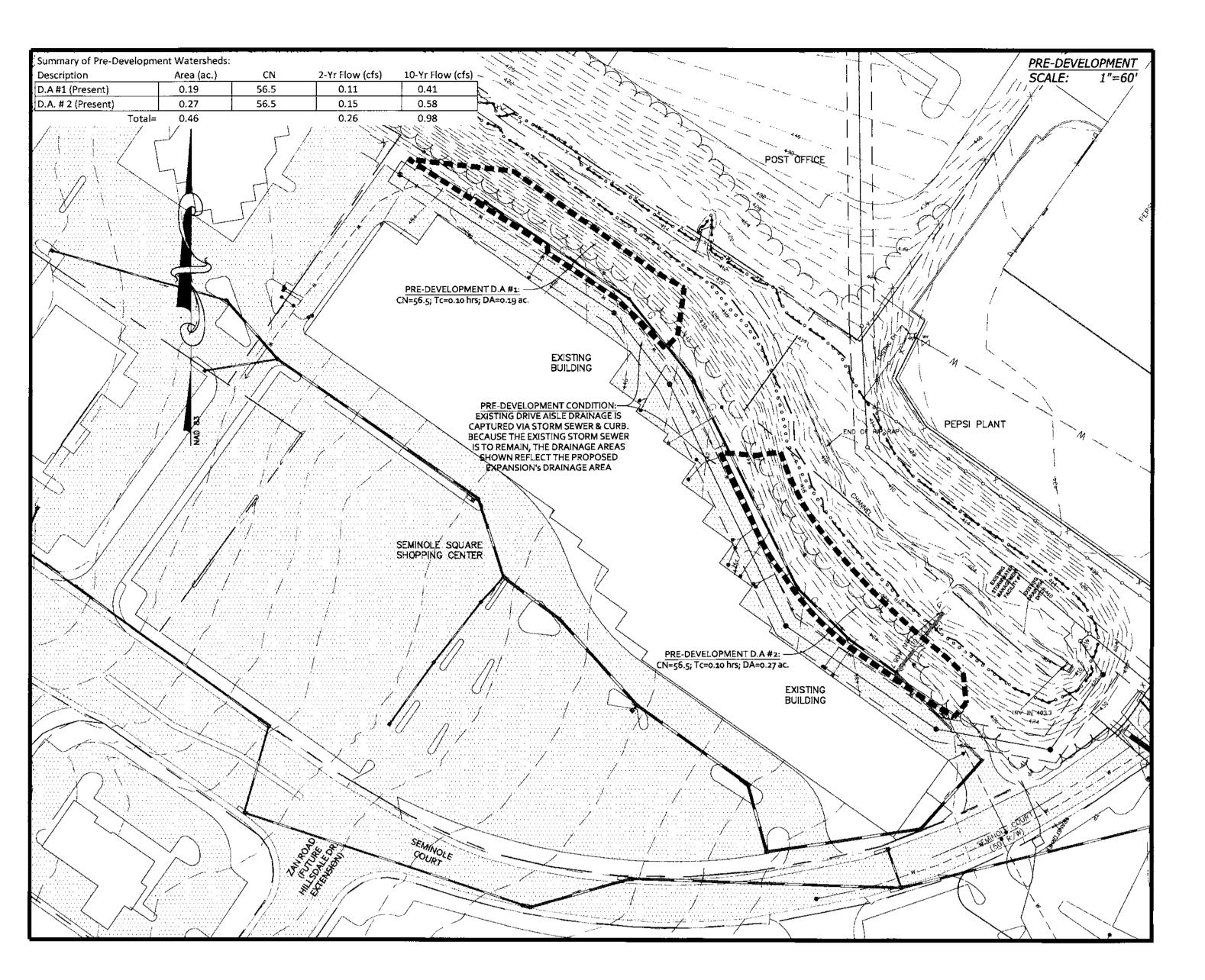
112070 SCALE SHEET NO.

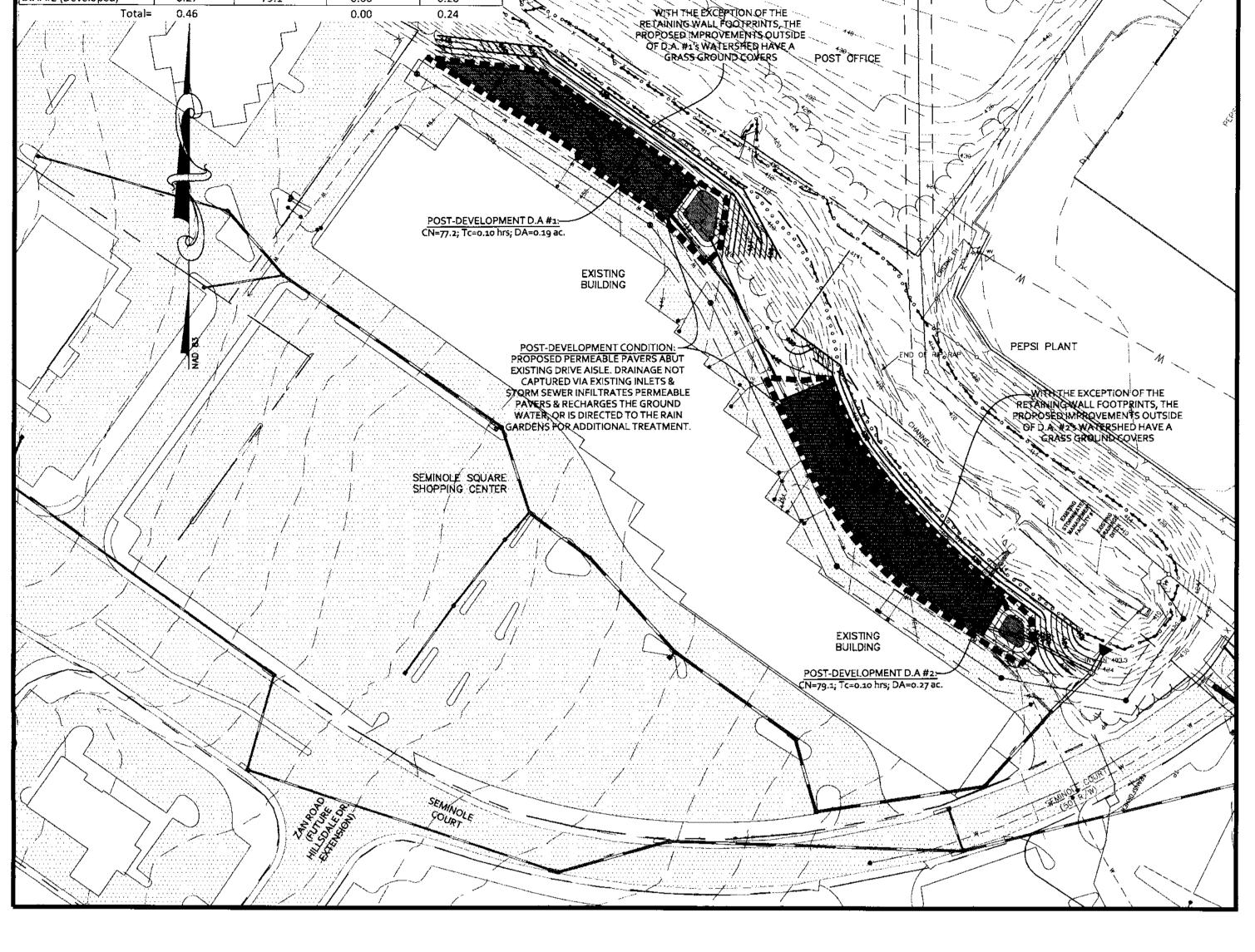
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Summary of Post-Development Watersheds:

Area (ac.)

0.19

0.27

77.2

2-Yr Flow (cfs)

0.00

0.00

Area of Rain

ELEVATIONS/AREAS:

Inlet coeff. Ke 0.500

Equation constant set 3 Invert (ft) 427.000

432 432.67 433.17 433.67 434

10-Yr Flow (cfs)

0.20

Description

D.A. #1 (Developed)

Elevation (ft)	Area of Rain Garden #1 Contours (sf)	Permeable Stone	e Pavers & e Base	*Void Area of Permeable Pavers & Stone Base (sf)	Interpolated Elevations in Pavers, Stone Base & Rain Garden #1 (ft)	Interpolated Available Area in Pavers, Stone Base & Rain Garden #1 (sf)	Interpolated Available Volume in Pavers, Stone Base & Rain Garden #1 (cf)
444	640	0	(Stone)	2240	444	2880	0
444.67	778	8"	(Stone)	2240	444.67	3018	1,976
445.17	889	14"	(Stone)	1960	445.17	2849	3,442
445.67	1006	20"	(Pavers)	255	445.67	1261	4,443
446	1087	24"	-	-	446	1087	4,830
		*Values as: 40% void sį		void space for #57 stone a ? stone.	nd		

ROUTING CALCULATIONS FOR D.A. #1 SWM FACILITIES

ELEVATION	VS/AREAS:		INFLOW HYDROGRAPH	I DATA
Basin: Seminole Square- Post-Dev	DA No. 1 Tota	I Available Storage	2-Yr 24-Hr Peak Post-Dev. Sto	rm Even
January Service Service 1 636 Service		ii Available Storage	Area (acres)	0.190
5 Conto	ır Areas		CN	77.200
	f) Computed	Vol.(cv)		Type :
		0.0	rainfall, P (in)	3.700
* 1 *	_	3.2	time of conc. (hrs)	0.1000
		7·5	time increment (hrs)	0.0200
· · · · · ·	1.00 16		time limit (hrs)	30.000
		8.9	fudge factor	
••			routed	
Start_Elevation(ft) 4	44.00 Vol.(cy)	0.00	peak flow (cfs)	0.384
_ , ,			peak time (hrs)	11.917
CONTROL STR	UCTURES.	•	volume (cy)	40.68
2 Outlet St	uctures		10-Yr 24-Hr Peak Post-Dev. Sto	em Even
Outlet stru	cture o		Area (acres)	
Wei	r		CN CN	0.190 77.200
name: 24" Gi	rate Inlet		Ç.T	Type 2
diameter (in			rainfali, P (in)	5.600
side angle	0.000		time of conc. (hrs)	0.1000
coefficien	t 3.300		time increment (hrs)	0.0200
invert (ft)	444.500		time limit (hrs)	
multipl	e 1		fudge factor	30.000
discharge	into riser		routed	1.00
transition at (fi	0.608			
orifice coef	0.500		peak flow (cfs)	0.760
orifice area (si			peak time (hrs)	11.917
•			volume (cy)	80.439
Outlet stru Cuive				
name:Ba				
multip				
_	out of riser			
D (in)	8.000			
h (in)	0.000			
Length (ft)	•			
Slope	0.005			
Manning's Inlet coeff. K	•			
iniet coem. K Equation constar				
EDUATION CONSTAN	itset 2			

Equation constant set 3 Invert (ft) 440.230

DOUTED	OUTFLOWS:
KOUIED	OUTFLOWS:
r 24-Hr Peak	Post-Dev. Storm Event
inflow (cfs)	0.383 at 11.92 (hrs)
	0.000 at 0.00 (hrs)
ter level (ft)	444.376 at 24.12 (hrs)
	(cy) 40.68a

10-Yr 24-Hr Peak Post-Dev. Storm Event inflow (cfs) 0.756 at 11.92 (hrs) discharge (cfs) 0.035 at 12.40 (hrs) water level (ft) 444-514 at 12.44 (hrs) storage (cy) 55.859

Garden #2 Contours (sf)		ne Base	Permeable Pavers & Stone Base (sf)	in Pavers, Stone Base & Rain Garden #2 (ft)	Pavers, Stone Base & Rain Garden #2 (sf)	in Pavers, Stone Base & Rain Garden #2 (cf)
312	0	(Stone)	3550	432	3862	0
408	8"	(Stone)	3550	432.67	3958	2,620
486	14"	(Stone)	3106	433.17	3592	4,506
571	20"	(Pavers)	404	433.67	975	5,580
630	24"	-	-	434	630	5,842
	*Values a	assume 35%	void space for #57 stone a	nd		
	40% void	space for #2	stone.			

ROUTING CALCULATIONS FOR D.A. #2 SWM FACILITIES

INFLOW HYDROGRAPH DATA:

	· · · · · · · · · · · · · · · · · · ·
5 Contour Areas	2-Yr 24-Hr Peak Post-Dev. Storm Event
Elevation(ft) Area(sf) Computed Vol.(cy)	Area (acres) 0.270
432.00 3862.00 0.0	CN 79.100
432.67 3958.00 97.0	Type 2
433.17 3592.00 166.9	rainfall, P (in) 3.700
433.67 975.00 206.6	time of conc. (hrs) 0.1000
434.00 630.00 216.4	time increment (hrs) 0.0200
	time limit (hrs) 30.000
Start_Elevation(ft) 432.00 Vol.(cy) 0.00	fudge factor 1.00
·	routed true
	peak flow (cfs) 0.593
	peak time (hrs) 11.917
CONTROL STRUCTURES:	volume (cy) 62.763
name:24" Grate Inlet	Hydrograph 1
diameter (in) 24.000	SCS
side angle 0.000	10-Yr 24-Hr Peak Post-Dev. Storm Event
coefficient 3.300	Area (acres) 0.270
invert (ft) 432.500	CN 79.100
multiple 1	Type 2
discharge into riser	rainfall, P (in) 5.600
transition at (ft) o.608	time of conc. (hrs) 0.1000
orifice coef. 0.500	time increment (hrs) 0.0200
orifice area (sf) 3.142	time limit (hrs) 30.000
Audia a con	fudge factor 1.00
Outlet structure 1	routed true
Culvert	peak flow (cfs) 1.142
name:Barrel	peak time (hrs) 11.917
multiple 1	volume (cy) 120.941
discharge out of riser	
D (in) 8.000	
h (in) 0.000	
Length (ft) 11.000	
Slope 0.364	
Manning's n 0.013	
Inlet coeff Ke a coa	

ROUTED	OUTFLOWS:
2-Yr 24-Hr Peak	Post-Dev. Storm Event
inflow (cfs)	0.590 at 11.92 (hrs)
discharge (cfs)	0.000 at 0.00 (hrs)
water level (ft)	432.435 at 24.10 (hrs)
storage	e (cy) 62.762

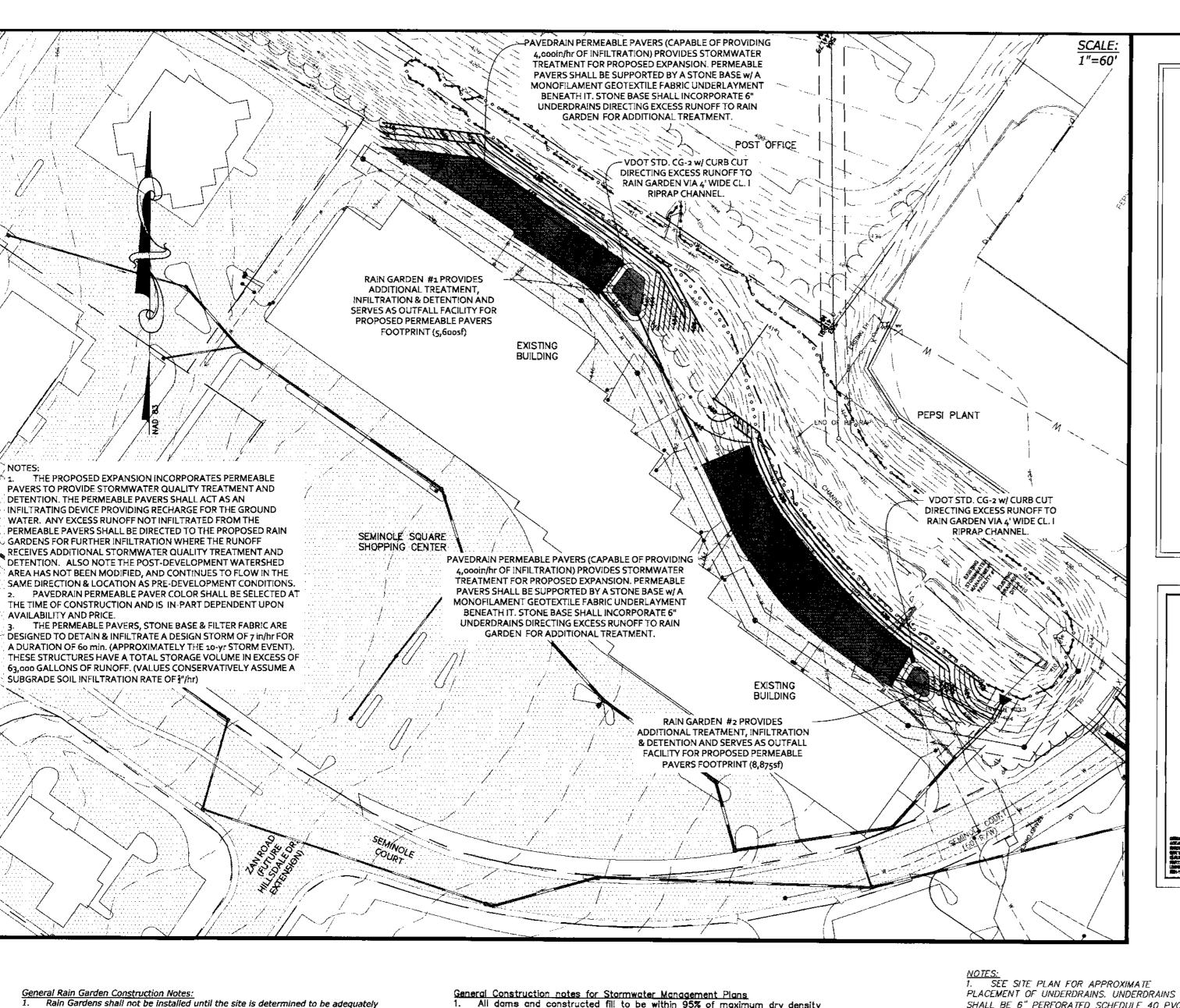
Interpolated Elevations Interpolated Available Area in Interpolated Available Volume

10-Yr 24-Hr Peak Post-Dev. Storm Event inflow (cfs) 1.137 at 11.92 (hrs) discharge (cfs) 0.198 at 12.14 (hrs) water level (ft) 432.545 at 12.14 (hrs) storage (cy) 78.747

200 AS SHOWN

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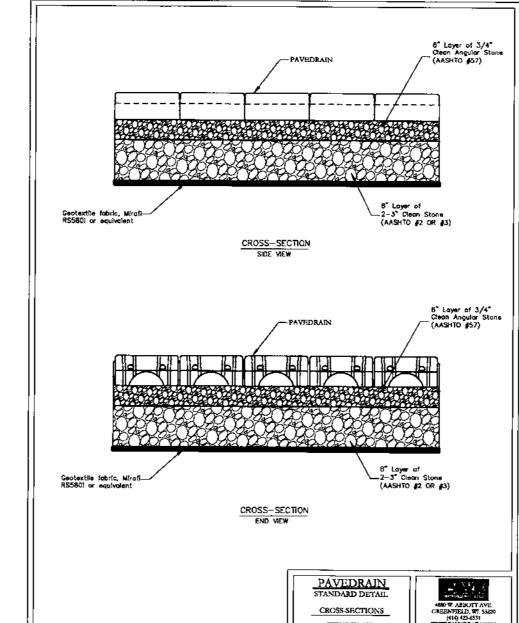
SQUARE

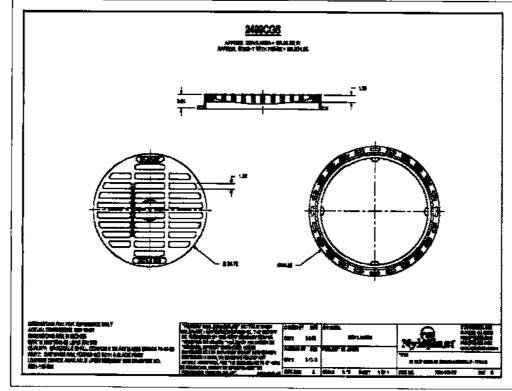


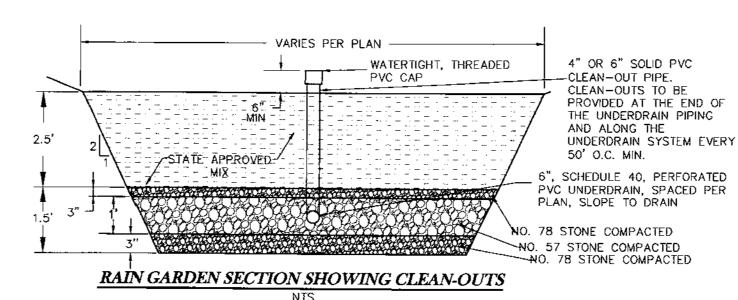
General Construction notes for Stormwater Management Plans

1. All dams and constructed fill to be within 95% of maximum dry density and 2% of optimum moisture content. All fill material to be approved by a SHALL BE 6" PERFORATED SCHEDULE 40 PVC PIPE, OR EQUIVALENT, AAA2 0.5% SLOPE (MIN.) geotechnical engineer. A geotechnical engineer is to be present during & BE PROVIDED ACROSS ENTIRE WIDTH @ 20' construction of dams. Pipe and riser joints are to be watertight within stormwater 2. UNDERDRAINS SHALL HAVE 4" SOLID PVC

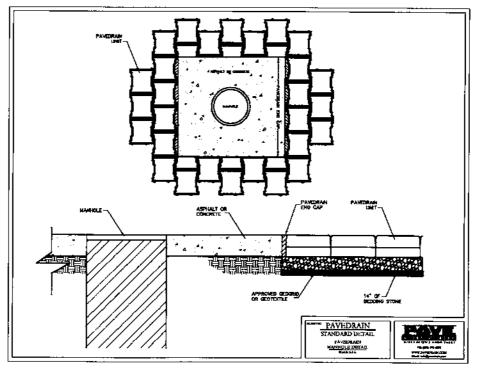
management facilities.
3. For temporary sediment traps or basins which are to be converted to CLEANOUT PIPES W/ WATERTIGHT, THREADED PVC CAPS THROUGHOUT. permanent stormwater management facilities; conversion is not to take place 3. PAVEDRAIN UNDERDRAINS SHALL OUTFALL until the site is stabilized, and permission has been obtained from the City INTO THE RAIN GARDENS. RAIN GARDEN UNDERDRAINS SHALL OUTFALL INTO THE STORM

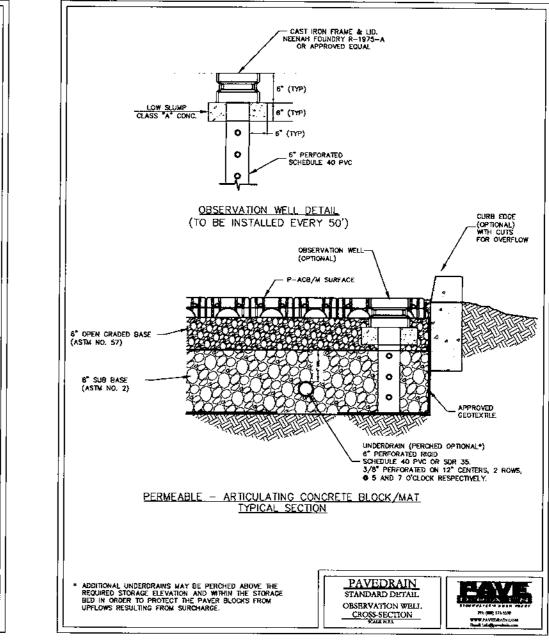


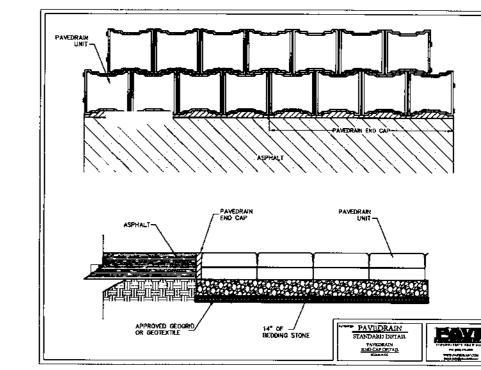




P-ACB/M SURFACE 8" SUB BASE (ASTM NO. 2) Underdrain (Perched Optional*)
6" Perforated Rigd
- Schedule 40 PVC or SDR 35.
3/8" Perforated on 12" Centers, 2 Rows,
6 5 and 7 O'CLOCK RESPECTIVELY. CROSS-SECTION







BECAUSE THE SOIL UNDERNEATH THE PROPOSED LOCATION OF THE PAVERS IS SUBJECT TO FILL AND CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL CONDUCT A GEOTECHNICAL INVESTIGATION OF THE SOIL UNDERNEATH THE PROPOSED PAVERS AFTER FINAL GRADE HAS BEEN ARCHIVED TO DETERMINE THE INFILTRATION AND CBR RATINGS. CONTRACTOR SHALL PROVIDE THE ENGINEER WITH THESE RESULTS PRIOR TO ORDERING AND INSTALLATION OF THE STONE BASE FOR THE PERMEABLE PAVERS TO ENSURE AN ADEQUATE DESIGN. FINAL DESIGN OF PERMEABLE PAVER SYSTEM IS SUBJECT TO CHANGE AND IS DEPENDENT UPON SITE OR APPROVED IMPORT SOIL DATA.

2. STONE BASE FOR PERMEABLE PAVERS SHALL BE CLEAN & DOUBLE WASHED IN ACCORDANCE WITH DCR REGULATIONS. "CLEAN" STONE IS SCREENED TO SIZE AND THE BULK OF THE FINES/DUST IS REMOVED, BUT THERE IS STILL DUST ON THE STONE. "WASHED" STONE IS WASHED THROUGH THE SCREENING PROCESS AND/OR MANUALLY WASHED.

3. WHERE UNDERDRAIN CLEANOUTS ARE PROPOSED WITHIN PAVED AREAS & ARE SUBJECT TO VEHICULAR TRAFFIC, CLEANOUTS SHALL BE ENCASED IN \$18" CONCRETE FOR UPPER 24".
THE CLEANOUT FRAME & LID SHALL BE CONSTRUCTED OF CAST IRON, OR A SIMILAR MATERIAL THAT IS STRUCTURALLY FORTIFIED.

Technical Bulletin 7 Minimum Standard 3.02 _ 1/8" sine pinted brook attached with 3/8" factorier 360 McGhee Road BMP DEBRIS CAGE Reshorter 7s 2005

TB7 - 3

CONTROL COMPONENTS SHALL BE STAINLESS STEEL OR GALVANIZED METAL

NOTE: IN ACCORDANCE w/ VSMH 3.02, ALL TRASH RACK & DEBRIS

PER VDOT SPECIFICATIONS. TRASH RACKS ATTACHED TO CONCRETE STRUCTURES SHALL BE SECURED W/ STAINLESS STEEL ANCHOR BOLTS.

stabilized by the City inspector(s).

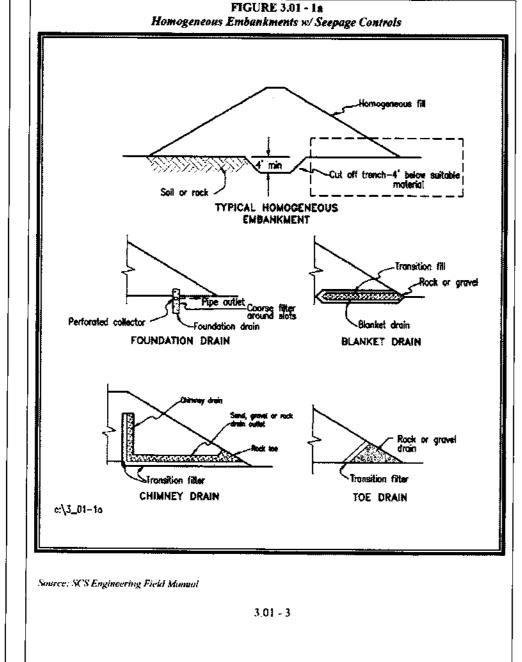
under-drain installation and the soil mix.

2. The City inspector(s) must inspect the under-drain installation and approve the soil

mix prior to backfilling the rain garden, and approve the completed installation.

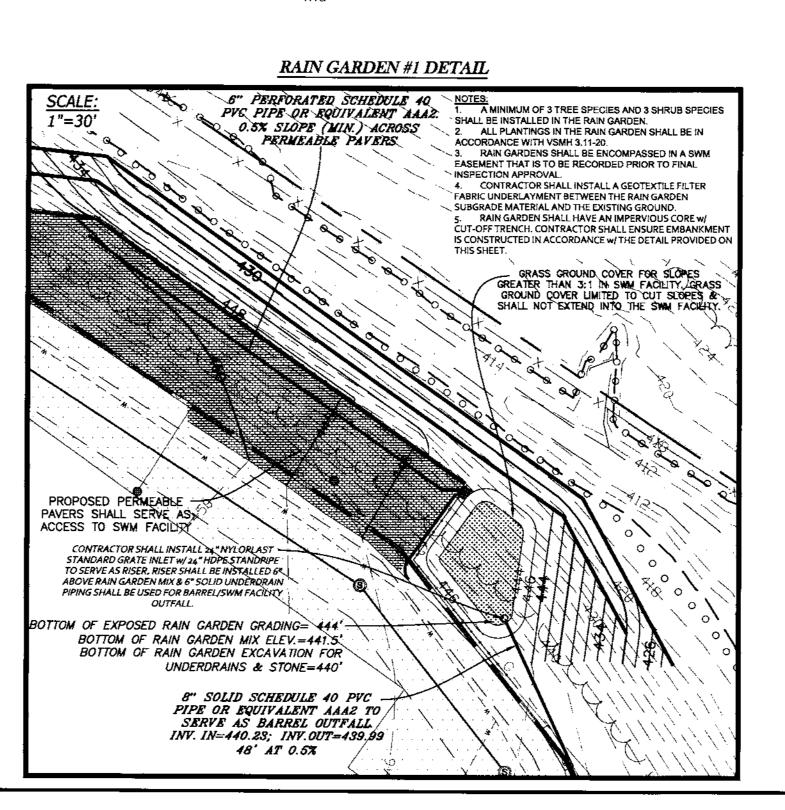
backfilling the rain garden and request an inspection and approval of the

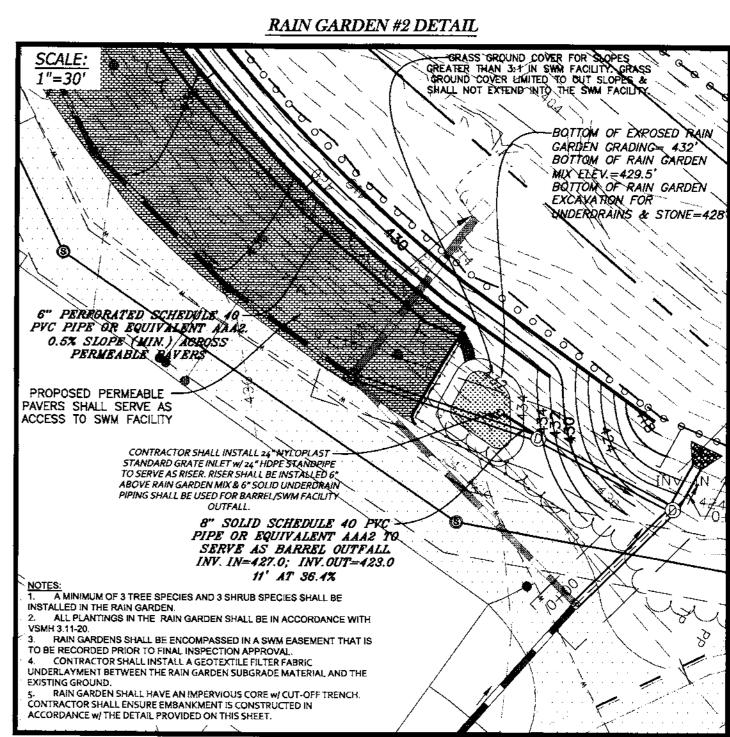
Contractor shall contact the City inspector(s) 24 hours prior to

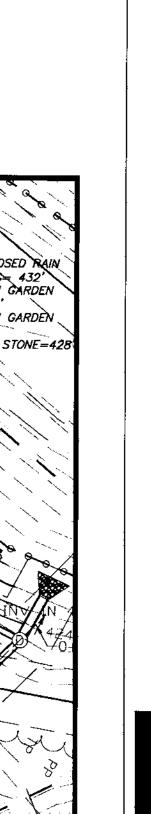


inspector(s).









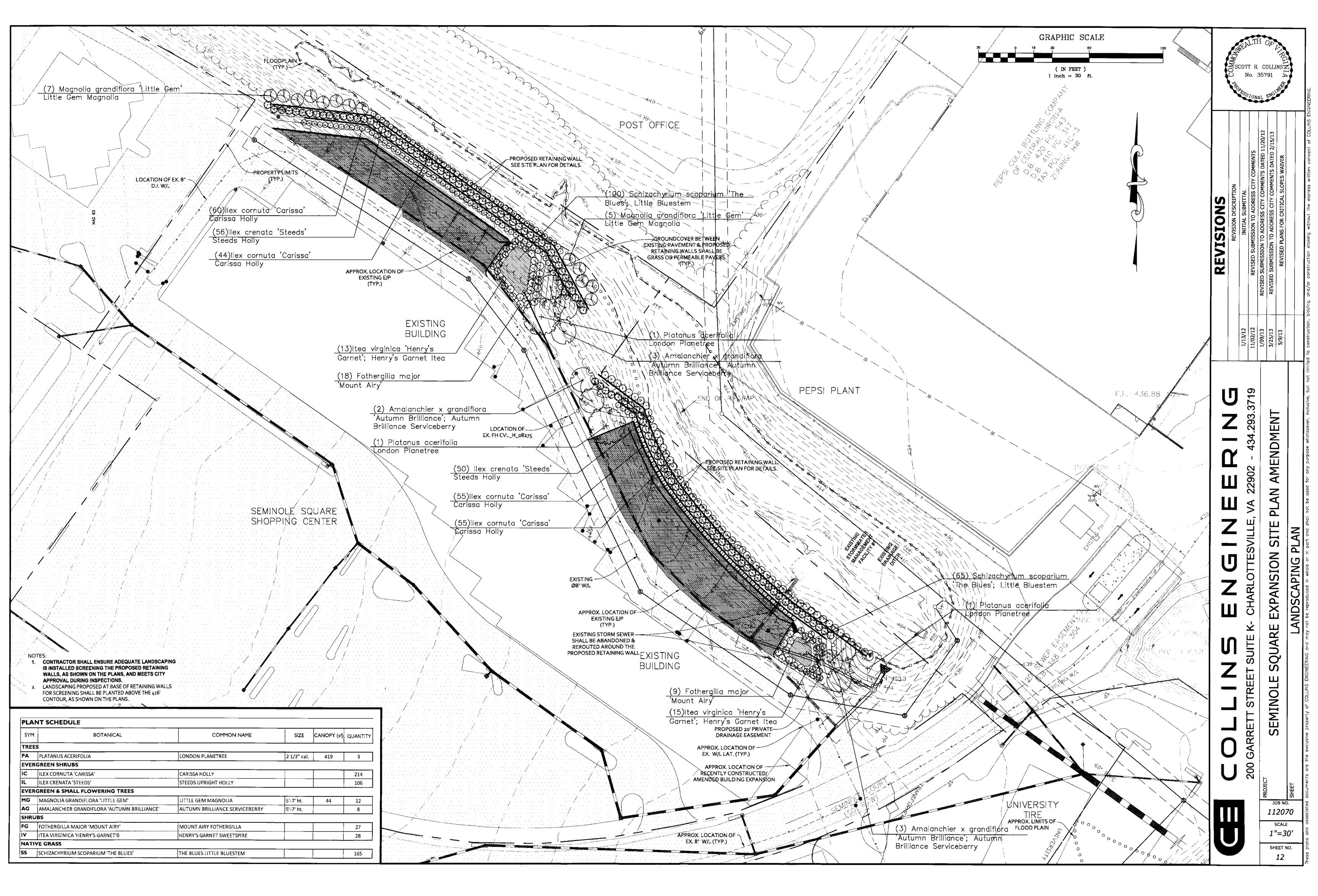
112070 SCALE AS SHOWN SHEET NO.

AME 22902 PLAN **EXPANSION** SQUARE

MANAGEMENT

PLAN not be used

STORMWATER MIM







REQUEST FOR A WAIVER: CRITICAL SLOPES

PLANNING COMMISSION REGULAR MEETING DATE OF PLANNING COMMISSION MEETING: June 11, 2013

Project Planner: Michael Smith Date of Staff Report: May 31, 2013 Applicant: Pepsi Bottling Company

Applicant's Representative: Scott Collins, Collins Engineering

Current Property Owner: Pepsi Bottling Company

Application Information

Property Street Address: 1150 Pepsi Place

Tax Map/Parcel #: Tax Map 41C, Parcel 3 & Tax Map 41B, Parcel 6
Total Square Footage/Acreage Site: 666, 468 square feet (15.3 acres)
Comprehensive Plan (Land Use Plan) Designation: Industrial

Current Zoning Classification: HW- Highway Corridor

Tax Status: No delinquent taxes

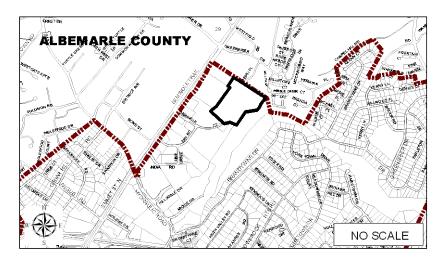
Applicant's Request

Mr. Collins, on behalf of Pepsi Bottling Company, is requesting a waiver from Section 34-1120(b) of the City Code, relating to the protection of critical slopes, to allow for the construction of a 365' of retaining wall along the southern portion of the Pepsi Bottling Company property, containing existing slopes greater than or equal to 25%. Existing critical slopes include 76, 665 square feet (1.76 acres) or approximately 11.5 percent of the property. The applicant's project would impact 26,571 square feet (.61-acre) or 10.7 percent of the property.

Currently, the applicant has a site plan amendment in review that proposes an expansion into the area of critical slopes in order to supply parking and access for Pepsi's fleet of trucks. The critical slopes are covered with trees of varying sizes and types and appear stable with no signs of erosion.

The applicant is seeking approval of a critical slopes waiver on the grounds that the public benefit of retaining the current design of Hillsdale Drive Extended outweighs the public benefit of disturbing critical slopes. The applicant states that as a result of the current design for Hillsdale Drive Extended, Pepsi Bottling Company is restricted to only expanding within the southern portion of their property. The applicant states this expansion into the southern portion of the site is necessary for Pepsi to meet their overall facility's needs for the future. The applicant states this expansion is based off of a 30 year program forecast for Pepsi that was completed five years ago.

Vicinity Map



Standard of Review

Purpose and Intent

Per the language stated in Sec 34-1120(b)(1), the "critical slope provisions" are intended to protect topographical features that have a slope in excess of the grade established and other characteristics in the following ordinance for the following reasons and whose disturbance could cause one (1) or more of the following negative impacts:

- a. Erosion affecting the structural integrity of these features.
- b. Stormwater and erosion-related impacts on adjacent properties.
- c. Stormwater and erosion-related impacts to environmentally sensitive areas such as streams and wetlands.
- d. Increased stormwater velocity due to loss of vegetation.
- e. Decreased groundwater recharge due to changes in site hydrology.
- f. Loss of natural or topographical features that contribute substantially to the natural beauty and visual quality of the community such as loss of tree canopy, forested areas and wildlife habitat.

These provisions are intended to direct building locations to terrain more suitable to development and to discourage development on critical slopes for the reasons listed above, and to supplement other regulations and policies regarding encroachment of development into stream buffers and floodplains and protection of public water supplies.

As stated in Sec.34-1120(6)(d), the planning commission shall make a recommendation to city council in accordance with the criteria set forth in this section, and city council may thereafter grant a modification or waiver upon making a finding that:

- (i) The public benefits of allowing disturbance of a critical slope outweigh the public benefits of the undisturbed slope(public benefits include, but are not limited to, stormwater and erosion control that maintains the stability of the property and/or the quality of adjacent or environmentally sensitive areas; groundwater recharge; reduced stormwater velocity; minimization of impervious surfaces; and stabilization of otherwise unstable slopes); or
- (ii) Due to unusual size, topography, shape, location, or other unusual physical conditions, or existing development of a property, one (1) or more of these critical slopes provisions would effectively prohibit or unreasonably restrict the use, reuse or redevelopment of such property or would result in significant degradation of the site or adjacent properties.

No modification or waiver granted shall be detrimental to the public health, safety or welfare, detrimental to the orderly development of the area or adjacent properties, or contrary to sound engineering practices.

In granting a modification or waiver, city council may allow the disturbance of a portion of the slope, but may determine that there are some features or areas that cannot be disturbed. These include, but are not limited to:

- (i) Large stands of trees;
- (ii) Rock outcroppings;
- (iii) Slopes greater than 60%.

City council shall consider the potential negative impacts of the disturbance and regrading of critical slopes, and of resulting new slopes and/or retaining walls. City council may impose conditions as it deems necessary to protect the public health, safety or welfare and to insure that development will be consistent with the purpose and intent of these critical slopes provisions. Conditions shall clearly specify the negative impacts that they will mitigate. Conditions may include, but are not limited to:

- (i) Compliance with the "Low Impact Development Standards" found in the City Standards and Design Manual.
- (ii) A limitation on retaining wall height, length, or use;
- (iii) Replacement of trees removed at up to three-to-one ratio;
- (iv) Habitat redevelopment;

- (iv) An increase in storm water detention of up to 10% greater than that required by city development standards;
- (v) Detailed site engineering plans to achieve increased slope stability, ground water recharge, and/or decrease in stormwater surface flow velocity;
- (vi) Limitation of the period of construction disturbance to a specific number of consecutive days;
- (vii) Requirement that reseeding occur in less days than otherwise required by City Code.

Project Review / Analysis

The applicant has provided information in the attached critical slopes waiver application for each item discussed below. The planning commission shall make a recommendation to city council, upon making one or more of the following findings:

*Staff comments are in bold.

1. The public benefits of allowing disturbance of a critical slope outweigh the public benefits of the undisturbed slope (public benefits include, but are not limited to, stormwater and erosion control that maintains the stability of the property and/or the quality of adjacent or environmentally sensitive areas; groundwater recharge; reduced stormwater velocity; minimization of impervious surfaces; and stabilization of otherwise unstable slopes).

The applicant is utilizing finding #1 as justification for approval of a critical slope waiver. The applicant notes that the current design of Hillsdale Drive Extended prevents any future expansion of the facility to the west and to the north, restricting future develop to the south, where the critical slopes are located. The applicant states that expanding the building and parking lot within the location of critical slopes is necessary for the Pepsi facility to continue operating effectively.

The proposed design for Hillsdale Drive includes significant grading within the existing SWM facility to accommodate the installation and filling operation for the culvert required to provide access across the facility. Installation of the proposed retaining wall(s) will prohibit this grading operation for Hillsdale Drive.

The design of Hillsdale Drive Extended has been with the help, cooperation and direction of Pepsi whose representatives have served on the Steering Committee for Hillsdale Drive Extended since its inception. In 1990, representatives of the Pepsi Bottling Company and several other businesses in that area approached City and County officials with the Hillsdale Drive concept. The concept was seen as a means to provide better access to local businesses and alternative transportation choices for the community without needing to drive along Route 29. It has been designed as a low speed (25 mph), 2 lane local facility with dedicated left turn lanes and numerous access points serving existing businesses along the corridor. Due to the location (a previously developed commercial corridor) right of way costs were always expected to be high (current estimate is \$16 million). The City agreed to pursue funding for

design and construction for the corridor only if the impacted property owners donated necessary right of way for the improvements. Of the 15.3 acres owned by Pepsi, 1.55 acres of right of way, 0.11 acres of permanent easement and 0.07 acres of utility easements will be requested for donation.

Applicant's justification for Finding #1

a. Erosion affecting the structural integrity of those features.

The applicant states there although there are signs of erosion on parts of the slope, for the most part, the wooded vegetation is holding the slopes in place. The applicant believes that by installing the retaining wall system, the walls will lock in the fill material and prevent future erosion along the slope. **Staff believes that installing the retaining walls will prevent possible future erosion as the slopes will be structurally stabilized.**

b. Stormwater and erosion-related impacts on adjacent properties.

The applicant states that the existing stormwater management facility (SWM) will not experience an increase in capacity as a result of installing the retaining walls. Staff believes an engineering analysis needs to be provided that reflects the applicant's statement. This information should include an outline of assumptions, routing calculations, and any other data associated with this analysis. This analysis should be based on the proposed improvements, in conjunction with the proposed improvements at Seminole Square and current conditions. If the applicant believes this facility will not experience a decrease in capacity, staff requests that stormwater calculations be provided that justify that statement.

c. Stormwater and erosion-related impacts to environmentally sensitive areas such as streams and wetlands.

The applicant states that no streams or wetlands are proposed to be impacted. Staff has received verification from the Army Corps of Engineers that no permits are necessary for the work proposed.

d. Increased stormwater velocity due to loss of vegetation.

The applicant states that increases in stormwater velocity will be mitigated with an existing SWM facility located on Pepsi's property, along with the installation of pervious surface material for the proposed parking lot expansion. Staff believes the existing SWM facility and proposed pervious pavement will mitigate potential increases in stormwater velocity.

e. Decreased groundwater recharge due to changes in the site hydrology.

The applicant states that impact to the critical slopes will not have an impact on groundwater recharge. The applicant states the existing SWM facility located on Pepsi's property and the proposed impervious surface material property will provide an opportunity for groundwater recharge before being discharged into the existing SWM facility and outfall system. Staff believes the existing SWM facility and proposed pervious pavement will allow for groundwater recharge.

f. Loss of natural topographic features that contribute substantially to the natural beauty and visual quality of the community such as loss of tree canopy, forested areas, and wildlife habitat.

The applicant has proposed landscaping at the base and top of the proposed retaining walls. The existing vegetation is mostly scrub trees. Staff believes the proposed landscaping could appropriately mitigate the loss of tree canopy.

Staff Recommendation

The applicant has yet to provide the following information necessary to review this proposal:

1. An engineered analysis reflecting the applicant's statement that the existing SWM will not see a decrease in capacity.

Staff has requested this information on many occasions and the applicant has chosen not to comply. As a result of the lack of information, the application fails to address the potential negative impact of critical slopes provision "b."

Staff believes the applicant does not fully meet the criteria for finding #1 and recommends denial of the waiver request.

If the waiver request were to be approved, staff notes the importance of including the following condition:

1. The City vacate the existing stormwater management easement.

Suggested Motions

- 1. "I move to recommend approval of the critical slope waiver for Tax Map 41C, Parcel 3, and Tax Map 41B, Parcel 6, 1150 Pepsi Place on the grounds that [use one of the two findings]."
- 2. "I move to recommend approval of the critical slope waiver for Tax Map 41C, Parcel 3, and Tax Map 41B, Parcel 6, 1150 Pepsi Place [use one of the two findings], with the following conditions...."

3. "I move to recommend denial of the critical slope waiver for Tax Map 41C, Parcel 3, and Tax Map 41B, Parcel 6, 1150 Pepsi Place."

Enclosures

Waiver Application Applicant's narrative Site Plan

THE OWNER/CLIENT OF THIS PROPERTY PEPSI-COLA BOTTLING COMPANY 1159 PEPSI PLACE BOX 9035 CHARLOTTESVILLE, VA 22909 TELEPHONE: (434) 293-3719 FACSIMILE: (434) 293-2813 SOURCE OF SURVEY/INFORMATION: SURVEY FOR THIS SITE PLAN AMENDMENT IS FROM THE FIELD SURVEY CONDUCTED BY COMMONWEALTH LAND SURVEYING, LLC DATED AUGUST 4, 2011 AND UPDATED OCTOBER, 2012. ADDITIONAL OFFSITE SURVEYED INFORMATION IN THE PROXIMITY OF THE PEPSI PLANT IS BASED OFF A SURVEY BY JENNINGS STEPHENSON, P.C. IN JANUARY OF 2007. THE MISS UTILITY TICKET NUMBER IS B227901423-00B. ZONING: TMP 41C-3: HW- HIGHWAY CORRIDOR ZONING (NOT LOCATED IN THE ENTRANCE CORRIDOR) & TMP 41B-6: R-3 TAX MAP AND PARCEL NUMBER: TMP 41C-3 AND 41B-6 USGS DATUM: NAD 83 LOCATION/ADDRESS OF PROJECT: 1150 PEPSI PLACE, CHARLOTTESVILLE VA 22906 FLOODPLAIN: A PORTION OF THIS PROPERTY IS LOCATED IN ZONES 'X' AND 'AE' AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP NUMBER 51003C, PANEL 0278D, DATED FEBRUARY 4, 2005. THE PROPOSED DEVELOPMENT DOES NOT IMPACT THE 100-YEAR FLOODPLAIN & IS OUTSIDE THE LIMITS OF THE FLOODPLAIN. STREAM BUFFER: THE PROPOSED IMPROVEMENTS OF THIS PROPERTY AS SHOWN ON THE PLAN SHALL NOT IMPACT THE STREAM BUFFER LOCATED ON THE ADJACENT PROPERTY, WHICH IS ALSO OWNED BY THE APPLICANT. BUILDING HEIGHT: EXISTING BUILDING: 20' (2 STORIES) PROPOSED USE: PEPSI-COLA BOTTLING COMPANY PLANT AND WAREHOUSE TOTAL ACREAGE OF SITE: 15.3 ACRES TOTAL LAND DISTURBED: 2.17 ACRES (E&S PLAN HAS BEEN SUBMITTED SEPARATELY) SITE PHASING: PROJECT TO OCCUR IN ONE PHASE. THE SITE E&S WILL OCCUR IN TWO PHASES. CRITICAL SLOPES: THERE ARE EXISTING CRITICAL SLOPES ON THE SUBJECT PROPERTY. THE CRITICAL SLOPES AND THE AMOUNT OF CRITICAL SLOPES PROPOSED TO BE IMPACTED ARE SHOWN ON SHEET 2 AND A WAIVER WILL BE REQUESTED PRIOR TO THE UPCOMING DEADLINE FOR THE DISTURBANCES. PARKING REQUIREMENTS: (APPROVED WITH FINAL SITE PLAN) City Parking Requirements: 1 SPACE/400 GSF OF AREA DEVOTED TO OFFICE 1 SPACE/2 EMPLOYEES 1 SPACE/COMPANY VEHICLE STORED ON-SITE OFFICE SPACE: 4,800 GSF • 1 SPACE/300 SF + 1 HAND. SPACE/25 SPACES = 16 SPACES MAXIMUM WORKING SHIFT: 72 PERSONS • 1 SPACE/2 EMPLOYEES = 36 SPACES OWNED/LEASED VEHICLES: 72 TRUCKS/CARS/TRAILERS = 72 SPACES LOADING SPACES: 16 SPACES = 16 SPACES TOTAL SPACES REQUIRED: 140 SPACES CAR SPACES: 84 SPACES HANDICAP SPACES: 4 SPACES OWNED/LEASED VEHICLE SPACES (WITHIN YARD): 70 SPACES LOADING SPACES: 22 SPACES ADDITIONAL PARKING SPACES REQUIRED: OFFICE SPACE: 8000 GSF • 1 SPACE/400 SF = 21 SPACES ADDITIONAL 30 NEW EMPLOYEES = 15 SPACES ADDITIONAL VEHICLE SPACES: APPROX. 11 VEHICLES = 11 SPACES ADDITIONAL LOADING SPACES: APPROX. 10 VEHICLES = 10 SPACES TOTAL ADDITIONAL SPACES REQUIRED: 133 SPACES

THERE ARE 273 SPACES REQUIRED, AND 277 SPACES PROVIDED. (APPROVED WITH ORIGINAL FINAL SITE PLAN) 13 NEW TRUCKS SPACES PROVIDED FOR A NEW TOTAL OF 290 SPACES

CAR SPACES: 75 NEW SPACES + 69 EXISTING SPACES = 144 CAR SPACES

HANDICAP SPACES: INCLUDED WITH CAR SPACES (4 SPACES) OWNED/LEASED VEHICLE SPACES (WITHIN YARD): 107 SPACES

LOADING SPACES: 10 SPACES + 16 SPACES = 26 LOADING SPACES

PUBLIC UTILITIES: THE PLANT IS SERVED BY EXISTING PUBLIC WATER AND SEWER. THE CURRENT AND PROPOSED EXPANSIONS OF THE FACILITY WILL NOT RELOCATE THE EXISTING UTILITIES TO THE BUILDING, BUT A FIRE HYDRANT WILL NEED TO BE RELOCATED AND THE ADJACENT WATER SHALL BE REROUTED.

TOTAL SPACES PROVIDED: 277 SPACES

THE APPROVED PLAN ANALYZES THE EXISTING AND PROPOSED RUN-OFF TO ENSURE THE PONDS ARE SIZED ADEQUATELY FOR THE STORMWATER REQUIREMENTS, STORM SEWER AND CURB & GUTTER ARE USED TO CHANNEL RUN-OFF FROM THE SITE. IN GENERAL. THE PREVIOUSLY APPROVED PLANS AND RECENTLY CONSTRUCTED INFRASTRUCTURE REDIRECTED DRAINAGE AND ENSURED ADEQUATE

MANAGEMENT (SWM) FACILITY. THIS RUNOFF THEN DRAINED TO THE SUBJECT PROPERTY VIA A PIPE OUTFALL AND DITCH TO THE LOCATION OF THE RECENTLY CONSTRUCTED PARKING LOT. THIS DRAINAGE THEN ENTERED THE SOUTHERN SWM FACILITY. HOWEVER IN ACCORDANCE WITH THE PREVIOUSLY APPROVED PLANS, THE NEWLY CONSTRUCTED INFRASTRUCTURE REDIRECTS THE NORTHERN, OFFSITE DRAINAGE TOTALING 5.25 ac. TO THE NORTHERN SWM FACILITY VIA STORM SEWER. THIS REDUCED THE DRAINAGE FLOWING TO THE SOUTHERN SWM RESULTING FROM THIS AMENDMENT EXPANSION IS NOW INDEPENDENT OF THE DRAINAGE FROM THE OFFSITE, ADJACENT PROPERTY AND THE RECENTLY CONSTRUCTED PARKING, AND OUTFALLS TO THE SOUTHERN SWM FACILITY WHERE IT IS IN COMPLIANCE WITH SWM QUANTITY AND

THE DRAINAGE AREA TO THE SOUTHERN SWIM FACILITY WAS ANALYZED FOR BOTH SWIM QUALITY AND QUANTITY AND THE EXISTING SWIM FACILITY WAS FOUND TO BE IN COMPLIANCE WITH CITY AND STATE REGULATIONS. THUS NO CHANGES ARE REQUIRED TO THE APPROVED PEPSI-COLA BOTTLING COMPANY PLANT EXPANSION SITE PLAN STORMWATER MANAGEMENT PLAN BY COLLINS ENGINEERING, LLC. DATED JULY 16, 2007 FOR STORMWATER

IN ADDITION TO ACHIEVING STORMWATER COMPLIANCE THROUGH THE APPROVED SOUTHERN SWM FACILITY, THIS PLAN PROPOSES THE USE OF PERMEABLE PAVERS. THE PERMEABLE PAVERS FOOTPRINT/AREA IS APPROXIMATELY EQUAL TO THE ADDITIONAL EXPANSION PROPOSED. THEREFORE THE PERMEABLE PAVERS PROVIDE SUPPLEMENTAL STORMWATER QUALITY TREATMENT AND DETENTION FOR THE EXPANSION ABOVE & BEYOND MINIMUM REQUIREMENTS. THE PERMEABLE PAVERS SHALL ACT AS AN INFILTRATING DEVICE PROVIDING RECHARGE FOR THE GROUND WATER. ANY EXCESS RUNOFF NOT INFILTRATED FROM THE PERMEABLE PAVERS SHALL BE DIRECTED TO THE APPROVED SOUTHERN SWM FACILITY FOR FURTHER INFILTRATION WHERE THE RUNOFF RECEIVES ADDITIONAL STORMWATER QUALITY

THE NORTHERN SWM FACILITY ONSITE WAS INCREASED SLIGHTLY WITH THE PREVIOUSLY APPROVED PLANS & UNDERWENT MINOR MODIFICATIONS. AND WITH THIS EXPANSION (NOT PART OF THIS SET OF PLANS) THE OVERALL DRAINAGE FOR BOTH SWM FACILITIES ARE COLLECTIVELY LESS THAN THE EXISTING ROUTED SWM FACILITIES' OUTFALLS. THUS, MEETING STORMWATER MANAGEMENT REQUIREMENTS.

THIS DRY RETENTION BASIN & PERMEABLE PAVERS, LOCATED IN H.U.C. 02080204, WILL BE OWNED BY THE PEPSI COLA BOTTLING COMPANY AND MAINTENANCE IS THE RESPONSIBILITY OF THE PEPSI COLA BOTTLING COMPANY. THE FACILITIES DISCHARGE INTO MEADOW CREEK AND TREAT 6.08 gc. THE MAINTENANCE PROGRAM FOR THE DRY RETENTION BASIN SHALL BE THE CLEANING OUT OF THE FACILITY ANNUALLY, OR AS NEEDED, MONITORING WASHOUT OF SOIL AND REPLACING AS NECESSARY, ENSURING HEALTHY VEGETATIVE GROWTH, AND CLEANING OF TRASH FROM THE BASIN. THE MAINTENANCE PROGRAM FOR THE PERMEABLE PAVERS SHOULD CONSIST OF THE FOLLOWING: THE PAVERS SHOULD BE CHECKED MONTHLY DURING THE FIRST YEAR, AND ANNUALLY AFTERWARDS OR AS NEEDED, FOR DEBRIS. IF THE PAVERS LOSE INFILTRATION PERFORMANCE THE JOINTS SHOULD BE VACUUMED WITH A VACUUM TRUCK TO REMOVE DEBRIS. IF SNOW PLOWING IS REQUIRED, PLEASE NOTE THE EDGES OF THE BLOCK MAY BE SCORED OR SLIGHTLY DAMAGED BY A STEEL SNOW BLADE & A RUBBER TIPPED BLADE IS PREFERRED. IF SALTING OR SANDING IS TO BE PROVIDED ON THE PAVERS, A LIGHT SALTING IS PREFERRED BECAUSE SAND COULD CAUSE A DECREASE IN THE PERFORMANCE OF THE PAVERS. SHOULD AN INDIVIDUAL PAVER BE BROKEN OR NEED REPAIR, THE 8'x20' BLOCK MATTING IS NOT

REQUIRED TO BE REMOVED AND AN INDIVIDUAL PAVER CAN BE INSERTED. AREAS DEDICATED FOR PUBLIC USE: CURRENTLY, THERE IS NO LAND ON THIS PROPERTY THAT IS PROPOSED TO BE RESERVED OR

SUBJECT PARCEL 41C-3 LOT COVERAGE AND PROPOSED USES: TOTAL LOT AREA: 15.3 ACRES

BUILDING AREA TOTAL: 4.20 ACRES (27.5%) BUILDING AREA (EXISTING): 3.54 ACRES BUILDING AREA (PROPOSED): 0.66 ACRES

PARKING/TRAVEL/SIDEWALK AREA TOTAL: 4.86 ACRES (31.7%) PARKING/TRAVEL/SIDEWALK AREA (EXISTING): 5.30 ACRES PARKING/TRAVEL AREA (PROPOSED): -0.44 AC NET; 0.23 ACRES ADDED; 0.67 ACRES REMOVED

OPEN SPACE AREA TOTAL: 6.24 ACRES (40.8%)WATER DEMAND: PUBLIC WATER PROVIDED VIA THE CITY EXISTS ONSITE & THE PROPOSED EXPANSION WILL UTILIZE THE EXISTING WATER METER FEED & METER. SIGNAGE: THE CURRENT SIGNAGE FOR THE PROPERTY IS EXISTING AND SHALL REMAIN, AND NO CHANGES TO THE CURRENT

SIGNAGE IS PROPOSED WITH THIS PLAN. INGRESS AND EGRESS: CURRENTLY, PEPSI-COLA TRUCKS INGRESS AND EGRESS THE PROPERTY BY WAY OF SEMINOLE COURT AND EMPLOYEES INGRESS AND EGRESS MAINLY BY WAY OF PEPSI PLACE AND GREENBRIAR ROAD. NO CHANGES TO THE CURRENT INGRESS AND EGRESS OF THE PROPERTY ARE PROPOSED WITH THE PROPOSED AND FUTURE EXPANSIONS OF THE SITE AS SHOWN ON THE PROPERTY. THERE IS AN EXISTING 30' ACCESS EASEMENT EASEMENT TO THE NORTHEAST OF THE PROPERTY THAT SHALL ALSO REMAIN. THIS ACCESS EASEMENT IS ALSO PART OF THE CITY/COUNTY CURRENT PLAN FOR THE PLACES 29 CORRIDOR

BUILDING/LOT SETBACKS: HW-HIGHWAY CORRIDOR ZONING: FRONT: 5' MIN. AND 30' MAXIMUM 20' ADJACENT TO LOW DENSITY RESIDENTIAL DISTRICT NO SETBACK ADJACENT TO SIMILAR DENSITY DISTRICT

R-3 RESIDENTIAL ZONING: FRONT: 25' MIN. SIDE/REAR:

CORNER, SIDE STREET 20' SIDE MIN. SITE TRIP GENERATION: TRAFFIC IMPACT NUMBERS ARE BASED ON THE ITE TRIP GENERATION MANUAL, 8TH EDITION. CODE 140 WAS USED FOR THE INDUSTRIAL SPACE WITH 250 EXPECTED EMPLOYEES. ADT: RATE - 533 VPD (2.13 VPD/EMPLOYEE * 250 EMPLOYEES)

AM PEAK: RATE - 100 VPH (73 VPH ENTER/27 VPH EXIT) PM PEAK: RATE - 90 VPH (40 VPH ENTER/50 VPH EXIT)

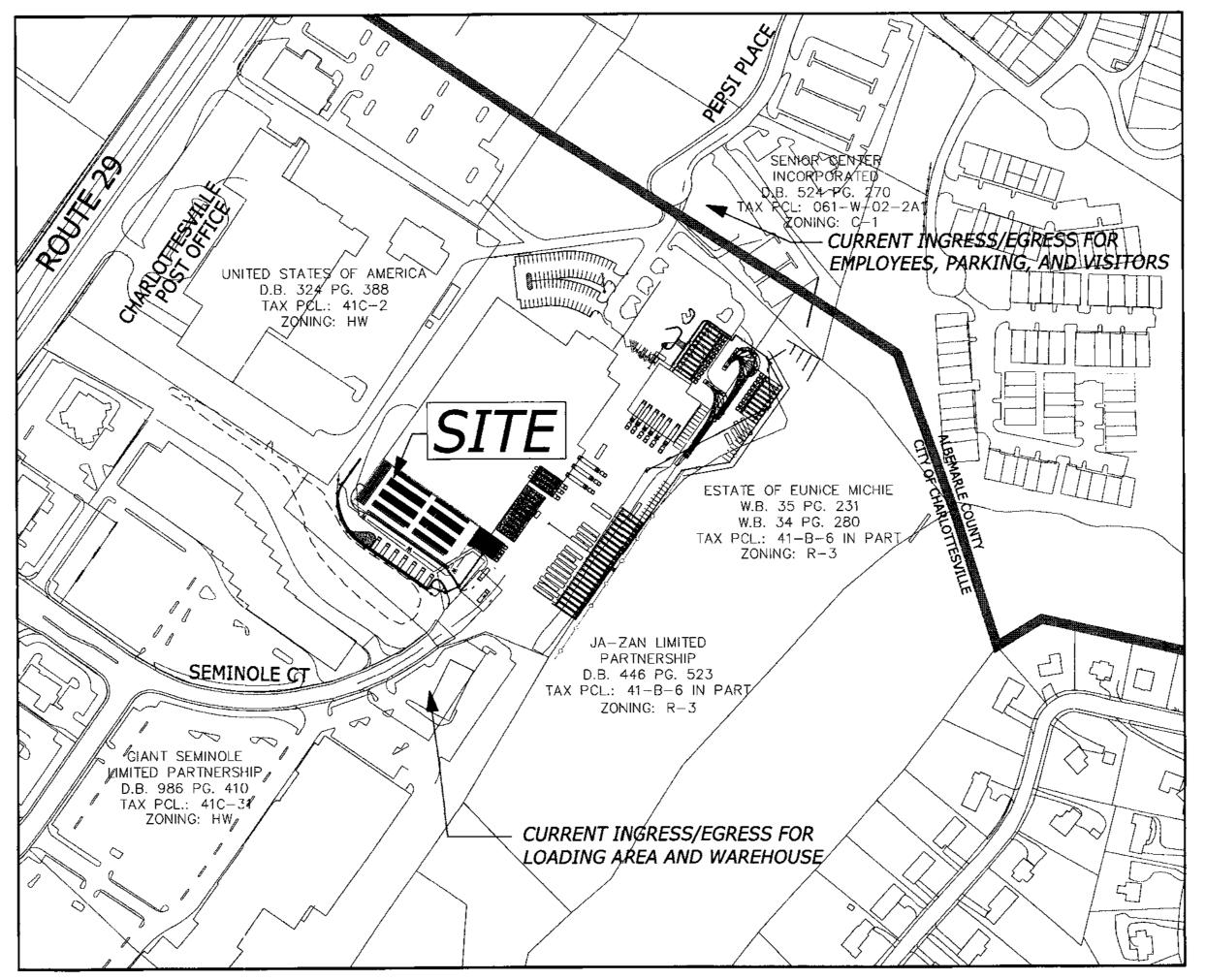
AN EXISTING FIRE HYDRANT SHALL BE UTILIZED TO THE SOUTH & A PROPOSED FIRE HYDRANT TO THE NORTH WILL REPLACE AN THE APPROVED ADDITIONAL IMPERVIOUS LOADING RESULTING FROM THE ORIGINAL SITE PLAN IS 55,996sf. THIS VALUE INCLUDES THE PERMEABLE PAVERS, THOUGH THE APPLICANT CONSIDERS THE PAVERS TO BE NON IMPERVIOUS.

COLLINS ENGINEERING SHALL NOT HAVE AUTHORITY OVER CONTRACTOR'S WORK, SAFETY PRECAUTIONS, SCHEDULES, OR COMPLIANCE WITH LAWS AND REGULATIONS. WE SHALL NOT ASSUME RESPONSIBILITY FOR ANY CONSTRUCTION BEGUN PRIOR TO PLAN

PEPSI-COLA BOTTLING COMPANY

PLANT EXPANSION SITE PLAN AMENDMENT

CITY OF CHARLOTTESVILLE, VIRGINIA



SHEET LAYOUT SCALE: 1'' = 200'

OWNER & DEVELOPER

PEPSI-COLA BOTTLING COMPANY 1150 PEPSI PLACE CHARLOTTESVILLE, VA 22901

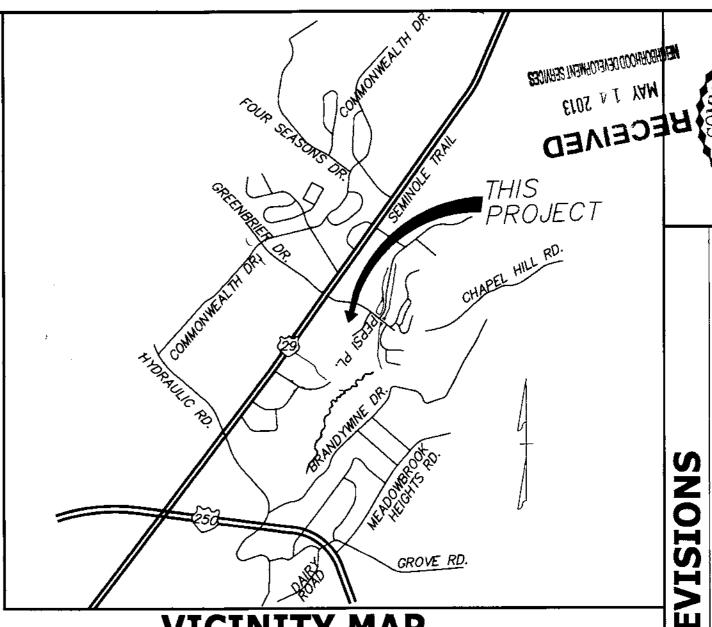
MANAGEMENT PLAN BY COLLINS ENGINEERING, LLC. DATED JULY 16, 2007. BMP DATA FOR THIS PROJECT:

BMP OWNERSHIP INFORMATION: PEPSI COLA BOTTLING CO L150 PEPSI PLACE CHARLOTTESVILLE, VA 22901 TYPE OF BMP INSTALLED: DRY RETENTION BASIN LABELED "SOUTHERN POND" & PERMEABLE PAVER ADJACENT TO THE SEMINOLE COURT ENTRANCE INTO THE PEPSI FACILITY. (HYDROLOGIC GROUP TYPE 88-FILL) (HYDROLOGIC UNIT CODE)
WATERBODY THE BMP IS ULTIMATELY DISCHARGING INTO 21.86ac. (6.08ac. IS TREATED VIA THE "SOUTHERN POND") # OF ACRES TREATED BY BMPs: DRY RETENTION BASIN: THE MAINTENANCE PROGRAM FOR THE WATER QUALITY SHALL BE CLEANING OUT THE CLEANING OF THE TRASH FROM THE FACILITY. FOR THE PERMEARIE PAYERS: THE PAYERS SHOULD BE CHECKED MONTHLY DURING THE FIRST YEAR, AND ANNUALLY AFTERWARDS OR AS NEEDED, FOR DEBRIS. IF THE PAVERS LOSE INFILTRATION PERFORMANCE THE JOINTS SHOULD BE VACUUMED WITH A VACUUM TRUCK TO REMOVE DEBRIS. IF SNOW PLOWING IS REQUIRED, PLEASE NOTE THE EDGES OF THE BLOCK MAY BE SCORED OR SLIGHTLY DAMAGED BY A STEEL SNOW BLADE & A RUBBER TIPPED BLADE IS PREFERRED. IF SALTING OR SANDING IS TO BE PROVIDED ON THE PAVERS, A LIGHT SALTING IS PREFERRED BECAUSE SAND COULD CAUSE A DECREASE IN THE PERFORMANCE OF THE PAVERS. SHOULD AN INDIVIDUAL PAVER BE BROKEN OR NEED REPAIR, THE 8'x20' BLOCK MATTING IS NOT REQUIRED TO BE REMOVED AND AN INDIVIDUAL PAVER CAN BE INSERTED. OWNER'S SIGNATURE AGREEING TO MAINTAIN FACILITY:

NOTE: DRY RETENTION BASIN BMP APPROVED

EXPANSION SITE PLAN - STORMWATER

UNDER PEPSI-COLA BOTTLING COMPANY PLANT



VICINITY MAP SCALE: 1" = 2,000

SHEET INDEX

TITLE **COVER SHEET EXISTING CONDITIONS DRAINAGE PLAN & COMPUTATIONS PROFILES & VEHICULAR MOVEMENT NOTES & DETAILS** STORMWATER MANAGEMENT PLAN HILLSDALE DRIVE EXTENSION OVERLAID WITH PROPOSED DEVELOPMENTS HILLSDALE DRIVE EXTENSION OVERLAID WITH PROPOSED DEVELOPMENTS **EROSION & SEDIMENT CONTROL NARRATIVE & NOTES EROSION & SEDIMENT CONTROL PLAN PHASES I & IA EROSION & SEDIMENT CONTROL PLAN PHASE II EROSION & SEDIMENT CONTROL DETAILS** LANDSCAPING PLAN

LEGEND

EXISTING CULVERT

DROP INLET & STRUCTURE NO.

PROPOSED ASPHALT PROPOSED CONCRETE PROPOSED VEGETATIVE COVER PROPOSED BIOFILTER VEGETATION

PROPOSED CONTOUR PROPOSED SPOT ELEVATION TBC DENOTES TOP/BACK OF CURB T/B DENOTES TOP OF BOX DEPTH OF EC-2 DITCH DRIVEWAY CULVERT BENCH MARK

VDOT STANDARD STOP SIGN EXISTING CONTOUR

DEPTH OF EC-3A DITCH

ALL SIGNAGE AND PAVEMENT MARKINGS SHALL BE CONSISTENT WITH THE MUTCO. IFC 505-THE BUILDING STREET NUMBER TO BE PLAINLY VISIBLE FROM THE STREET FOR EMERGENCY

IFC 506.1-AN APPROVED KEY BOX SHALL BE MOUNTED TO THE SIDE OF THE FRONT OR MAIN ENTRANCE. THE CHARLOTTESVILLE FIRE DEPARTMENT CARRIES THE KNOX BOX MASTER KEY. A KNOX BOX KEY BOX CAN BE ORDERED BY GOING ONLINE TO WWW.KNOXBOX.COM. THE KNOX BOX ALLOWS ENTRY TO THE BUILDING WITHOUT DAMAGING THE LOCK AND DOOR SYSTEM. FIRE HYDRANTS, FIRE PUMP TEST HEADER, FIRE DEPARTMENT CONNECTIONS OR FIRE SUPPRESSION SYSTEM

CONTROL VALVES SHALL REMAIN CLEAR AND UNOBSTRUCTED BY LANDSCAPING, PARKING OR OTHER OBJECTS THE FIRE MARSHAL'S OFFICE NO LONGER ALLOWS ANY TYPE OF LANDSCAPING TO BE PLACED IN FRONT OF AND WITHIN 5 FEET OF FIRE HYDRANTS, FIRE PUMP TEST HEADERS, FIRE DEPARTMENT CONNECTIONS OR FIRE SUPPRESSION SYSTEM CONTROL VALVES.

AN APPROVED WATER SUPPLY FOR FIRE PROTECTION SHALL BE MADE AVAILABLE AS SOON AS COMBUSTIBLE MATERIAL ARRIVES ON THE SITE. ALL PAVEMENT SHALL BE CAPABLE OF SUPPORTING FIRE APPARATUS WEIGHTING 75,000 LBS.

IFC 1404.1-SMOKING TO BE ALLOWED IN ONLY DESIGNATED SPACES WITH PROPER RECEPTACLES. IFC 1404.2-WASTE DISPOSAL OF COMBUSTIBLE DEBRIS SHALL BE REMOVED FROM THE BUILDING AT THE END OF EACH WORKDAY.

IFC 1410.1-ACCESS TO THE BUILDING DURING DEMOLITION AND CONSTRUCTION SHALL BE MAINTAINED. 10. IFC 1404.6-CUTTING AND WELDING. OPERATIONS INVOLVING THE USE OF CUTTING AND WELDING SHALL BE DONE IN ACCORDANCE WITH CHAPTER 26, OF THE INTERNATIONAL FIRE CODE, ADDRESSING WELDING AND

11. IFC 1414.1-FIRE EXTINGUISHERS SHALL BE PROVIDED WITH NOT LESS THAN ONE APPROVED PORTABLE FIRE EXTINGUISHER AT EACH STAIRWAY ON ALL FLOOR LEVELS WHERE COMBUSTIBLE MATERIALS HAVE

12. REQUIRED VEHICLE ACCESS FOR FIRE FIGHTING SHALL BE PROVIDED TO ALL CONSTRUCTION OR DEMOLITION SITES. VEHICLE ACCESS SHALL BE PROVIDED TO WITHIN 100 FEET OF TEMPORARY OR PERMANENT FIRE DEPARTMENT CONNECTIONS. VEHICLE ACCESS SHALL BE PROVIDED BY EITHER TEMPORARY OR PERMANENT ROADS, CAPABLE OF SUPPORTING VEHICLE LOADING UNDER ALL WEATHER CONDITIONS. VEHICLE ACCESS SHALL BE MAINTAINED UNTIL PERMANENT FIRE APPARATUS ACCESS ROADS ARE AVAILABLE. 13. OVERHEAD WIRING OR OTHER OBSTRUCTIONS SHALL BE HIGHER THAN 13 FEET 6 INCHES. 14. ALL SIGNS SHALL BE IN ACCORDANCE WITH ARTICLE IX. SECTION 34-1020 CITY CODE.

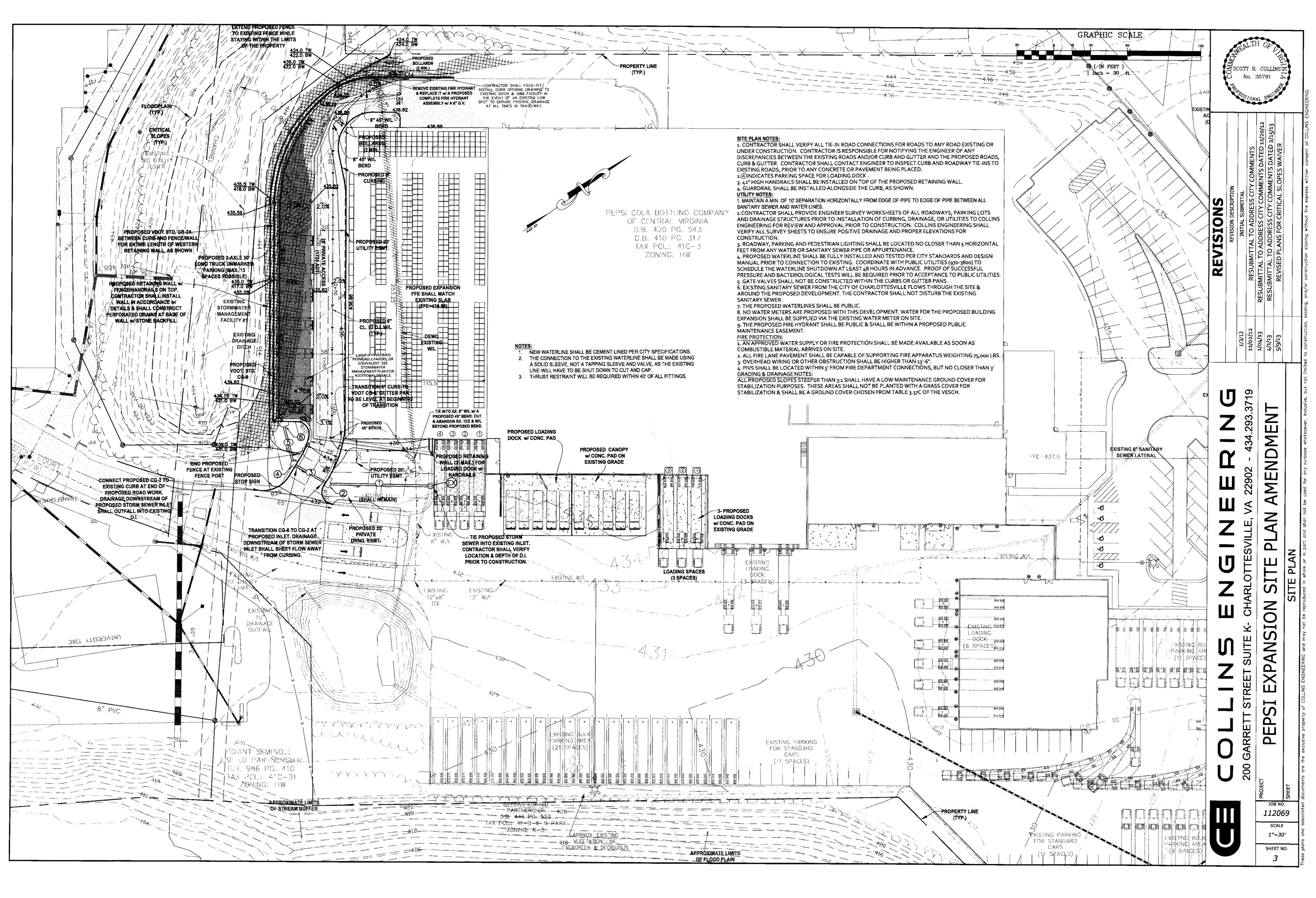
SIGNATURE PANEL

DIRECTOR, NEIGHBORHOOD DEVELOPMEN

V

112069





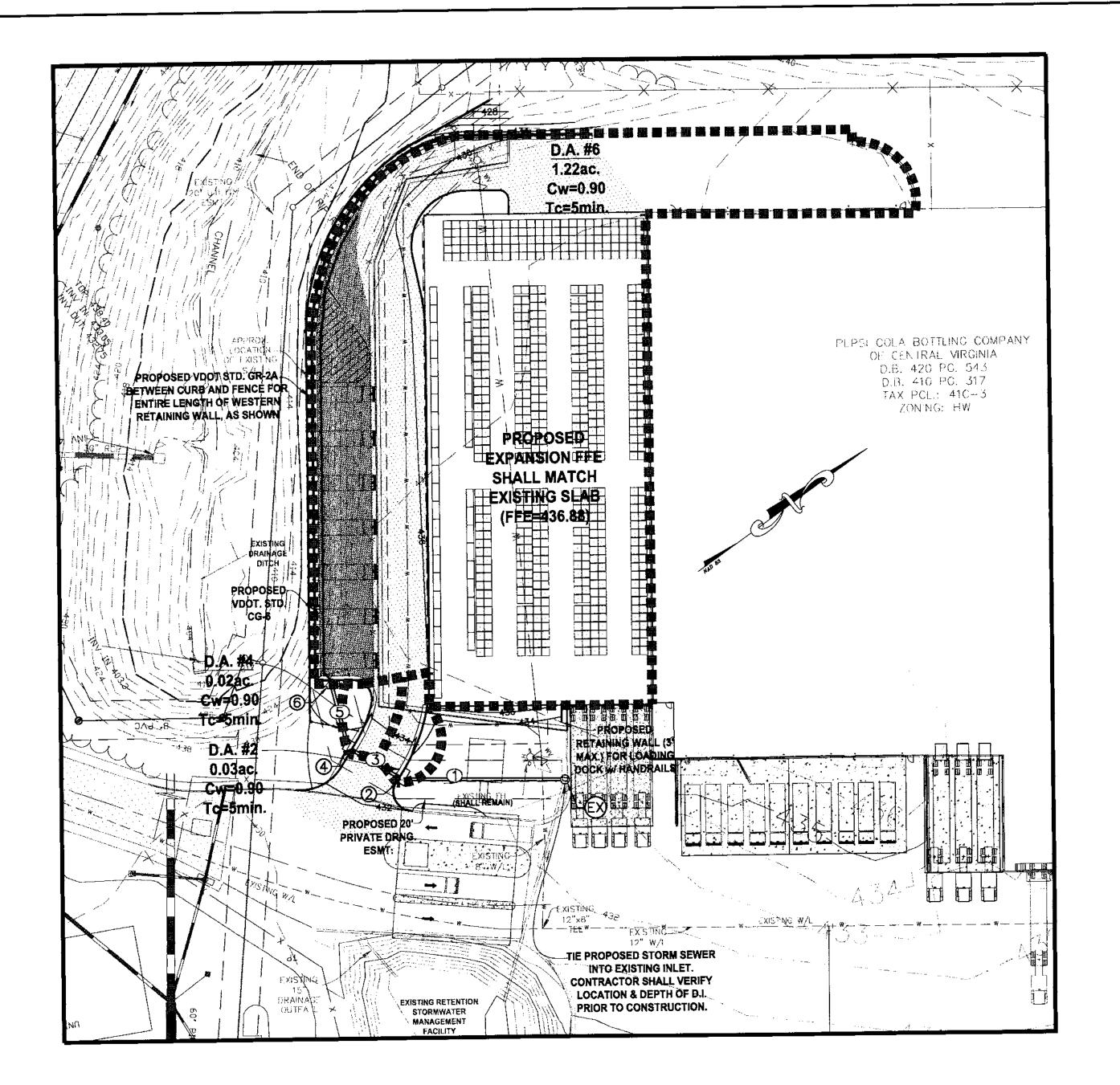


Table 7: Grade Inlet Design Table

ensity nnings Co		4.00		(Intensi	ty is 4	in/hr fo	r sprea	d, and	6.5 in/l	hr for cap	oscity a	nd dep	oth)							·						
nnings G	Demoie	Inlet	0.013			Hydrok	YIV				Curb an	d Gutt	er				Inlet									
,	Plan Label	VDOT DI type	L, throat length (ft)	A, Drainage area (acres)	C, rational coeff.	5	Q, flow incr. (cfs)	Ob, carry-over (cfs)	Qt, total flow	S, gutter longitudinal slope (fVft)	Sx, lame cross slope (fl/fl)	W, gutter width (ft)	Sw. gutter cross-slope (fl/ft)	Ž,	Eo, frontal flow ratio in gutter W	a, 12W(Sw-Sx)+ 2"local depr. (In)	S'w = 84(12M)	Se = Sx+S'W(Eo)	Lt, require throat length (fl)	1 1 80		Ci. flow intercepted	OO.O Carry-over	carry-over to inlet		
2		3B	6.0	0.03	0.90	0.027	0.11	0.00	0,11	0.050	0.020	2.0	0.083	4.17	1.00	3.52	0.15	0.17					++		<u></u> -	
		3B	4.0	0.02	0.90	0.018	0.07	0.00	0.07	0.050	0.020	2.0	0.083	4.15	1.00	3.51	0.15	0.17	3.00	1.33	and the second	0.07	0.00	- 1		

Table 7: Grade Inlet Design Table

ensity	E	3.50		(Intensi	ty is 4	in/hr fo	r sprea	ed, and	6.5 in/	hr for ca	pacity a	nd de	pth)												
nnings C	oefficie	ent, n is Inlet	0.013	··············		Hydrok	~~~				Curb an	rd Gu	tter				Inlet				· · · · ·				
•	Plan Labei	VDOT Di type	L, throat length (ft)	A, Drainage area (acres)	C, rational coeff.	3	Q, flow Incr. (cfs)	Qb. carry-over (cfs)	Qt. total flow	S, gutter longitudinal slope (ft/ft)	Sx. lane cross slope (fVft)	W, gutter width (ft)	Sw. gutter cross-slope (fVft)	X SIMO	Eo, frontal flow ratio in gutter W	a, 12W(SW-Sx)+ 2"local depr. (in)	S'w = 8/(12W)	Se = Sx+S'W(Eo)	Lt, require throat length (fl)	n/1	O flow internented	<u> </u>	carry-over to inlet		
	<u> </u>	38	6.0	0.03	0.90	0.027	0.18	0.00	0.18	0.050	0.020	2.0	0.083	4.1500	0.99		0.1463	0,1649	4.38			0.00			
	+	3B	4.0	0.02	0.90	 			0.12	0.050	0.020	2.0	0.083	4.1500	1.00	3.512	0.1463	0.1663	3.68	1.09	0.12	0.00	-	<u></u>	_

- -	Design Year:	10	'		<u>.</u> F	roject	:	Peps	i Expar	sion			_]	ob#:	112069			Pro	epared	by:	FGM, P
INLET	OUTLIET WATER		Đ	Q	S	Н						JUNCTR	ONLOSS		·				FINAL	NLET WATER	RM
STATION	S URFACE ELEV			N.W	:		V	Н	Q-	V	Q*V	V /2g	н	ANGLE	Н	н	1.311	.5H	н	SURFACE ÉLÉV	ELEV
<u>.</u>				<u> </u>								 1					_				
	420.77	120.25	15	13.41	0.043	5.18	10.9	0.5		<u> </u>				_							
EX DI	1								7.6	6.2	47	0.6	0.21	0	0	0.67	0.87	0.44	5.62	426.39	432.96
	428.48	83.77	15	7.57	0.014	1.15	6.2	0.1									<u> </u>	ļ <u> </u>			
2					1	_			7.4	6.0	45	0.6	0.20	75	0.3466	0.69	NA	0.35	1.50	429.98	432.8
	429.98	32.71	15	7.42	0.013	0.43	6.0	0.1													<u> </u>
4				<u> </u>	1		<u> </u>		7.3	6.0	44	0.6	0.19	150	0.3866	0.72	NA	0.36	0.79	430.77	432.86
<u> </u>	430.77	33.81	15	7.32	0.013	0.43	6.0	0.1										<u>L</u>			<u> </u>
6			\vdash	 	<u> </u>								0.00	135	0	0.14	NA	0.07	0.50	431.27	434.7

L&D 229								-	(COUNTY	Charlo	tte sville						
J&D 229	510	RM SE	WER	DESI	GN CON	WPUTA	A TION	IS				DESIGNE	D BY	FGM, I	PE		3/21/2013	
	_, .											CHECKE) BY	FGM, PE		DATE	3/21/2013	
	<u> </u>	AREA	RUN-			INLET	RAIN-	RUN-						FULL			RUN-	
FROM	то	DRAIN.	OFF	CA	CA	TIME	FALL	OFF	INV.	INV.				FLOW	VEL.	FLOW	OFF	VEL.
		"A"	COEF.	INCRE-	ACCUM-	tc	I-10 yr.	Q	ELEV.	ELEV.	LEN.	SLOPE	DIA.	RATE	10 yr.	TIME	100 yr.	100 yr
		acres	С	MENT	ULATED	min.	in/hr	c.f.s.	IN	OUT	ft.	%	in.	c.f.s.	i.p.s.	sec.	c.f.s.	f.p.s.
- 1 -	- 2 -	- 3 -	-4-	- 5 -	-6-	-7-	-8-	-9-	- 10 -	-11-	- 12 -	- 13 -	- 14 -	- 15 -	- 16 -	- 17 -	- 18 -	- 19 -
6	4	1.22	0.9	1.10	1.10	5.00	6.67	7.32	431.25	429.31	33.81	5.74%	15.00	15.48	12.39	2.7	9.6	13.
4	2	0.02	0.9	0.02	1.12	75	6.65	7.42	429.21	428.75	32.71	1.40%	15.00	7.64	7.09	4.6	9.8	8.
2	EX DI	0.03	0.9	0.03	1.14	5.12	6.63	7.57	428.65	427.48	83.77	1.40%	15.00	7.64	7.10	11.8	10.0	8.
EX DI	SWM	1 1	0.9	0.90	2.04	5.32	6,56	13.41	426,73	419.77	120.25	5.79%	15.00	15.54	14.22	8.5	17.6	14.

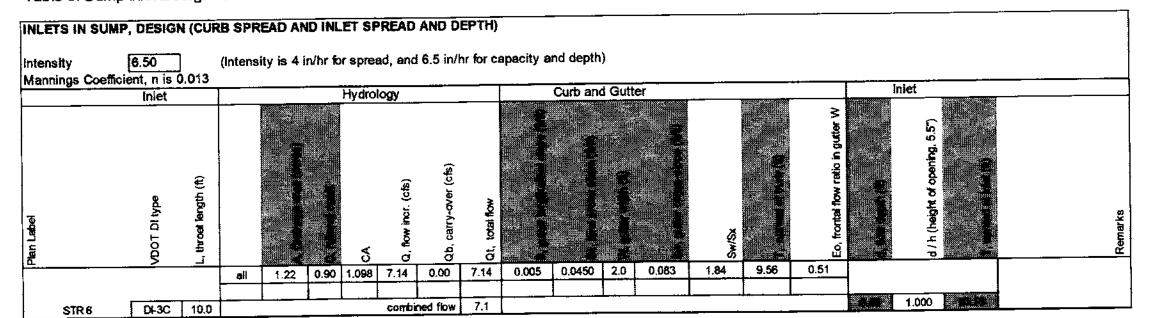
	•				E	PRAINAGE	DESC	RIPTIC)NS			
OTD	T		PIPE II	NFORMAT	NOF			INL	ET INFORM	MOITAN		
STR. NO.	DIA.	LENGTH*	SLOPE (%)	INVERT	INVERT OUT	MATERIAL	INLET TYPE	Curb Type	INLET STATION	SLOT LENGTH	RIM* ELEVATION	COMMENTS
6	1111.7	 	 \``/_		1		DI-3C	CG-6	93.34	10	434.71	VDOT STD. IS-1 REQ'D
5	15	33.81	5.74%	431.25	429.31	RCP3						
4	1		<u> </u>	1			DI-3B	CG-6	125.83	4	432.86	VDOT STD. IS-1 REQ'D
3	15	32.71	1.40%	429.21	428.75	RCP3						
2	1	<u> </u>		1	<u> </u>		DI-3B	CG-6	160.00	6	432.86	VDOT STD. IS-1 REQ'D
1	15	83.77	1.40%	428.65	427.48	RCP3						

Table 6: Sump Inlet Design Table

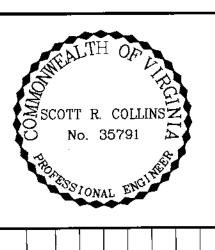
			•																<u></u>	
INLE	TS IN SUM	P, DESIG	N (CUR	B SPR	EAD AN	D INL	ET SP	READ	AND D	EPTH)										
												4 4								
Inten		4.00		(intens	ity is 4 i	n/hr fo	r sprea	id, and	6.5 in/l	hr tor c	apacity a	ind depth)							
Manr	nings Coeffic	zient, n is t	0.013		····						······		10.4		· · · · · · · · · · · · · · · · · ·			T 1	nlet	
		Inlet					Hydrol	ogy				Curb an	a Guii	er				1	iller .	<u> </u>
Plan Label		VDOT DI type	L, throat length (ft)				<u></u> 5	Q, flow incr. (cfs)	Qb, carry-over (cfs)	Qt, total flow					Sw/Sx	Contract Con	Eo, frontal flow ratio in gutter W	***	d / h (height of opening, 5.5")	
				all	1.22	0.90	1.098	4.39	0.00	4.39	0.005	0.045	2.0	0.083	1.84	7.97	0.57	4]
					<u> </u>			i			<u> </u>					L	<u> </u>	Sele or husbon, (196)	0.724	1
	STR6	Di-3C	10.0			<u></u> .		combir	ed flow	4.4	<u> </u>					 			U.124	

- grate inlets (Di-7) in open pavement areas will not have a curb spread, but will have inlet spread and depth
- for inlets draining to stormwater management facilities, the 6.5in/hr check storm will suffice for the 10yr conveyance to the facilities
NOTE: Inlet size for structures determined by overland flow.

Table 6: Sump Inlet Design Table



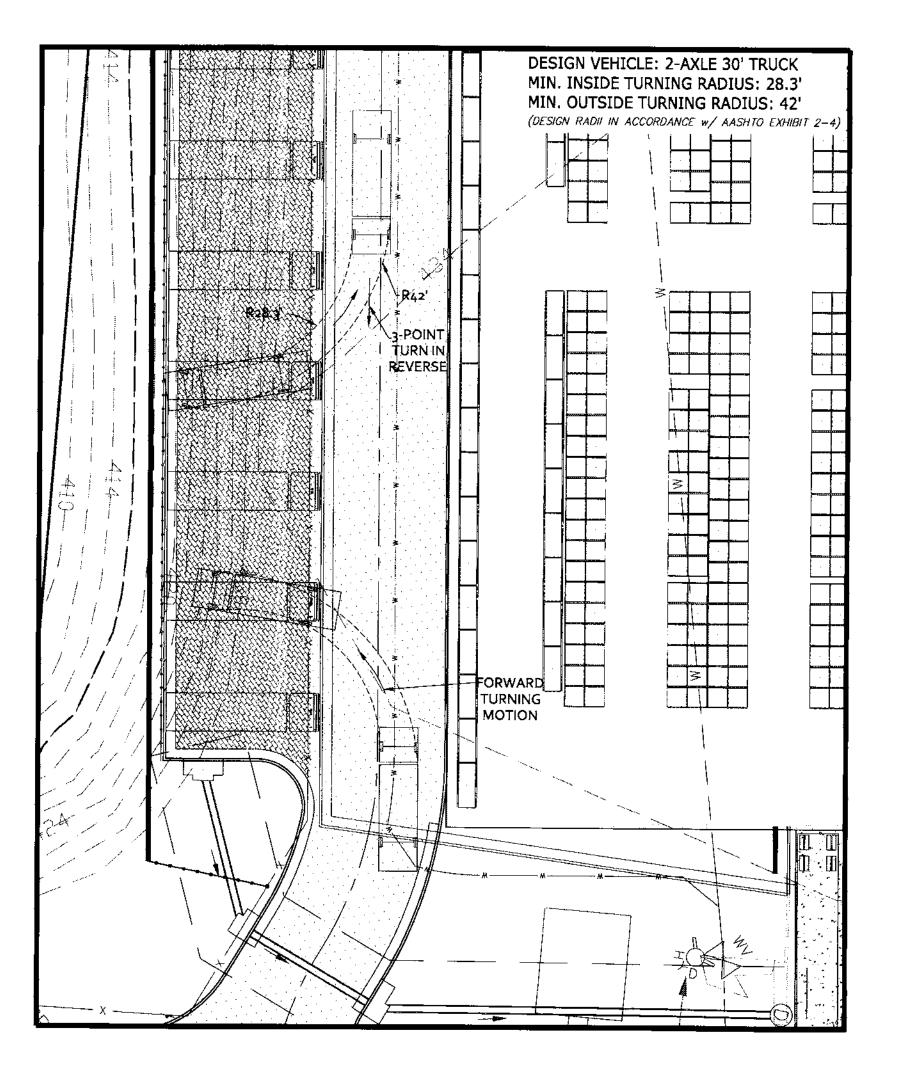
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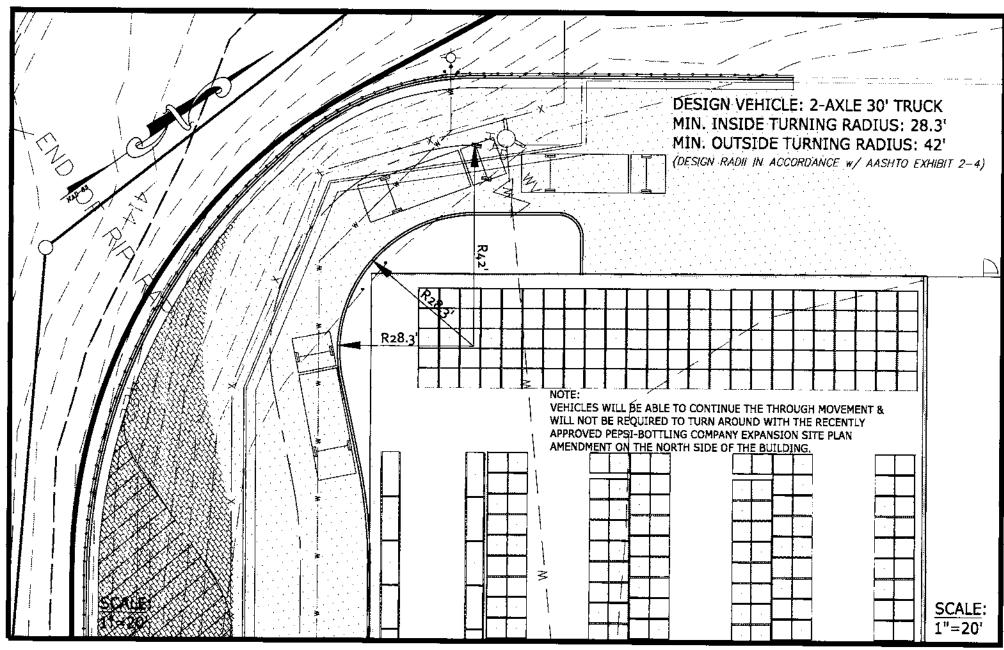


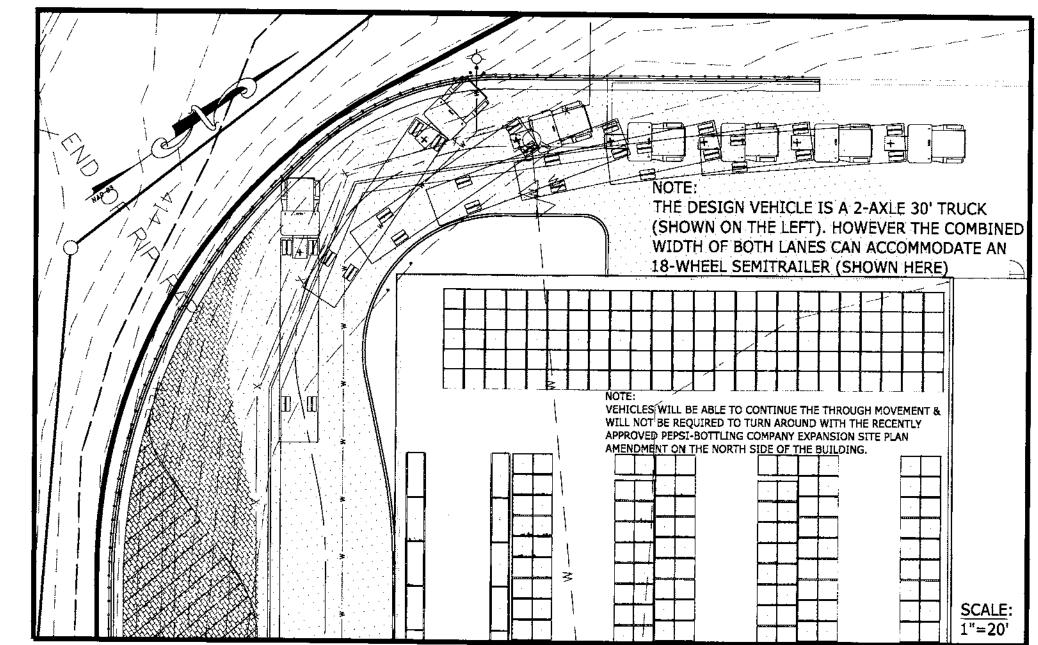
DALAMMALDAM STALL		
	1/3/12	
ARRETT STRFFT SUITE K. CHARLOTTESVILLE, VA 22902 - 434.293.3719	11/02/12	RESU
	1/04/13	RESUBMITTA
AN IC DITO INCTOINAGY	4/1/13	RESUBMITT/
PEFUL EXPANUION ULLE PLAN AVIENDIVINI	5/9/13	REVIS

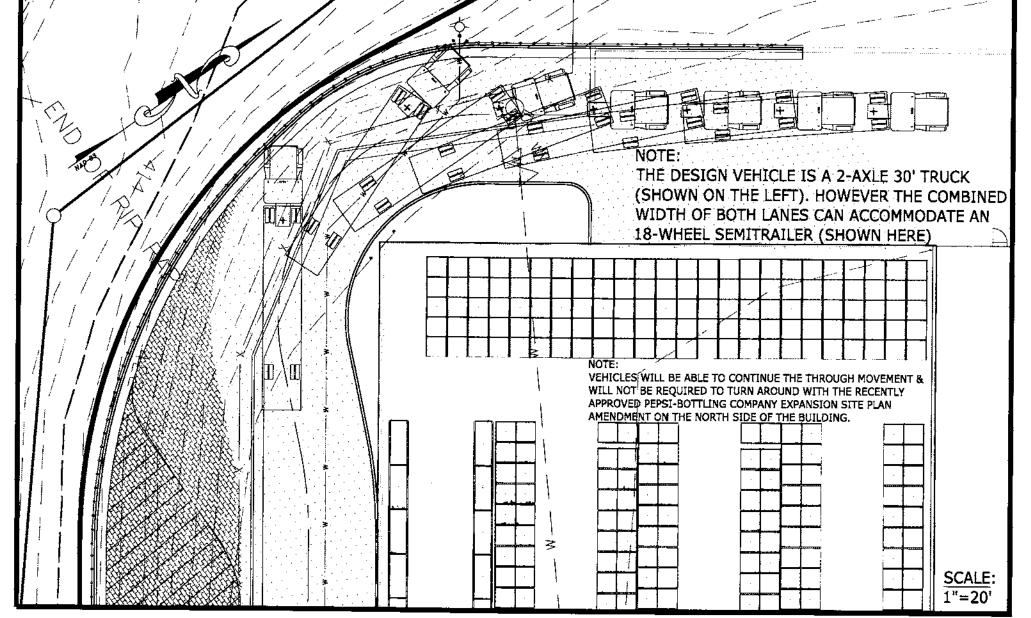
112069

1"=40'







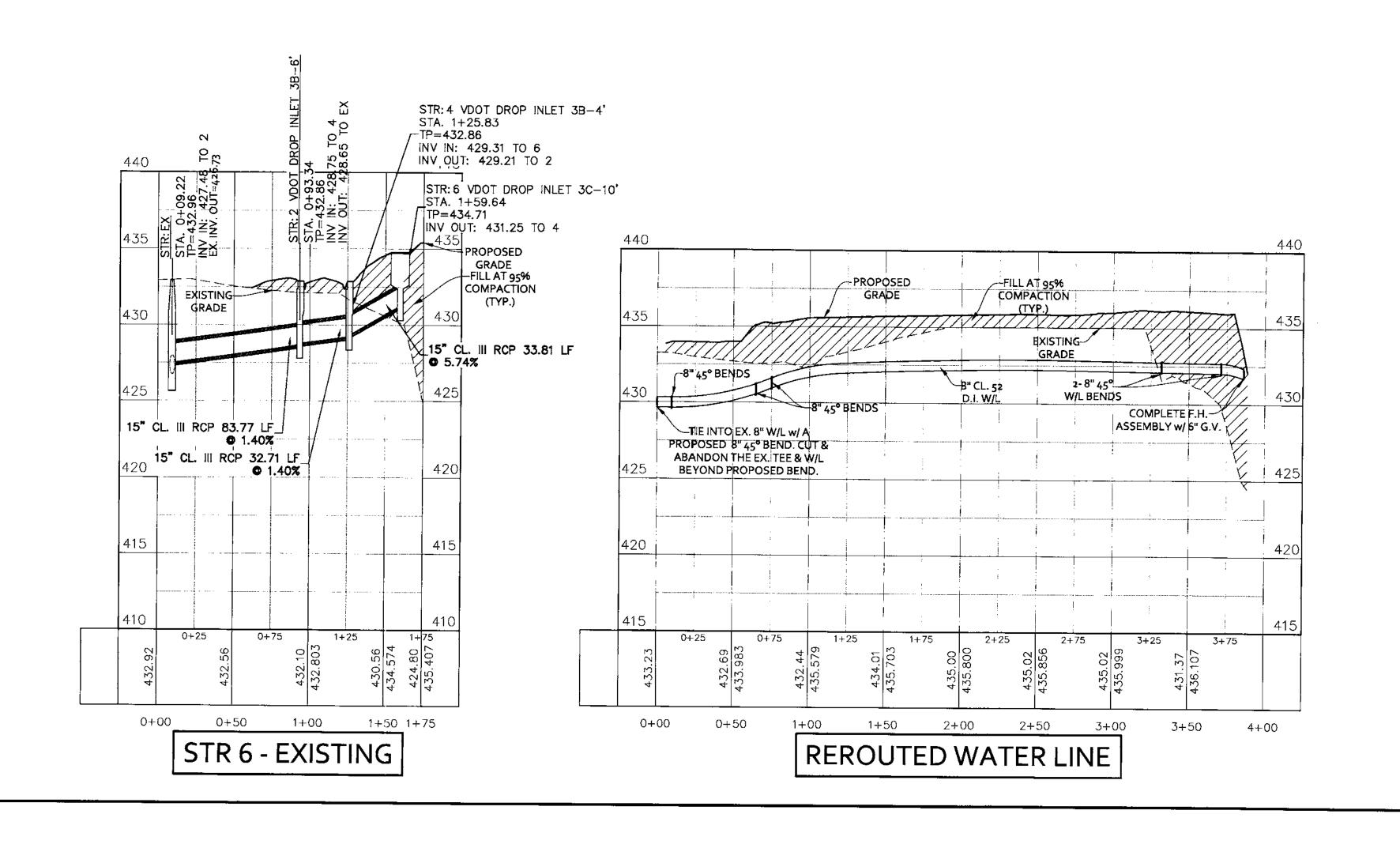


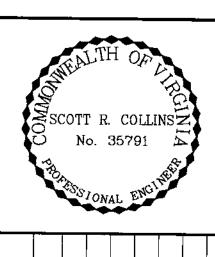
NOTE: ALL ROADWAY EMBANKMENT MATERIAL SHALL CONSIST PREDOMINANTLY OF SOIL AND BE PLACED IN SUCCESSIVE UNIFORM LAYERS NOT MORE THAN 8 INCHES IN THICKNESS BEFORE COMPACTION OVER THE ENTIRE ROADBED AREA IN ACCORDANCE WITH VDOT 2007 ROAD AND BRIDGE SPECIFICATION 303.04.

NOTE: MINIMUM 3' OF COVER MUST BE MAINTAINED OVER W/L NOTE: MINIMUM 1' OF VERTICAL SEPARATION FROM STORM SEWER & W/L

NOTE: VDOT STD. IS-1 REQUIRED ON ALL STRUCTURES NOTE: ALL PIPE IS CLASS III RCP, UNLESS NOTED OTHERWISE.

NOTE: ALL FILL SHALL BE PLACED 95% COMPACTION AND TESTED BY A GEOTECHNICAL ENGINEER TO ENSURE COMPACTION IS REACHED AND MAINTAINED.





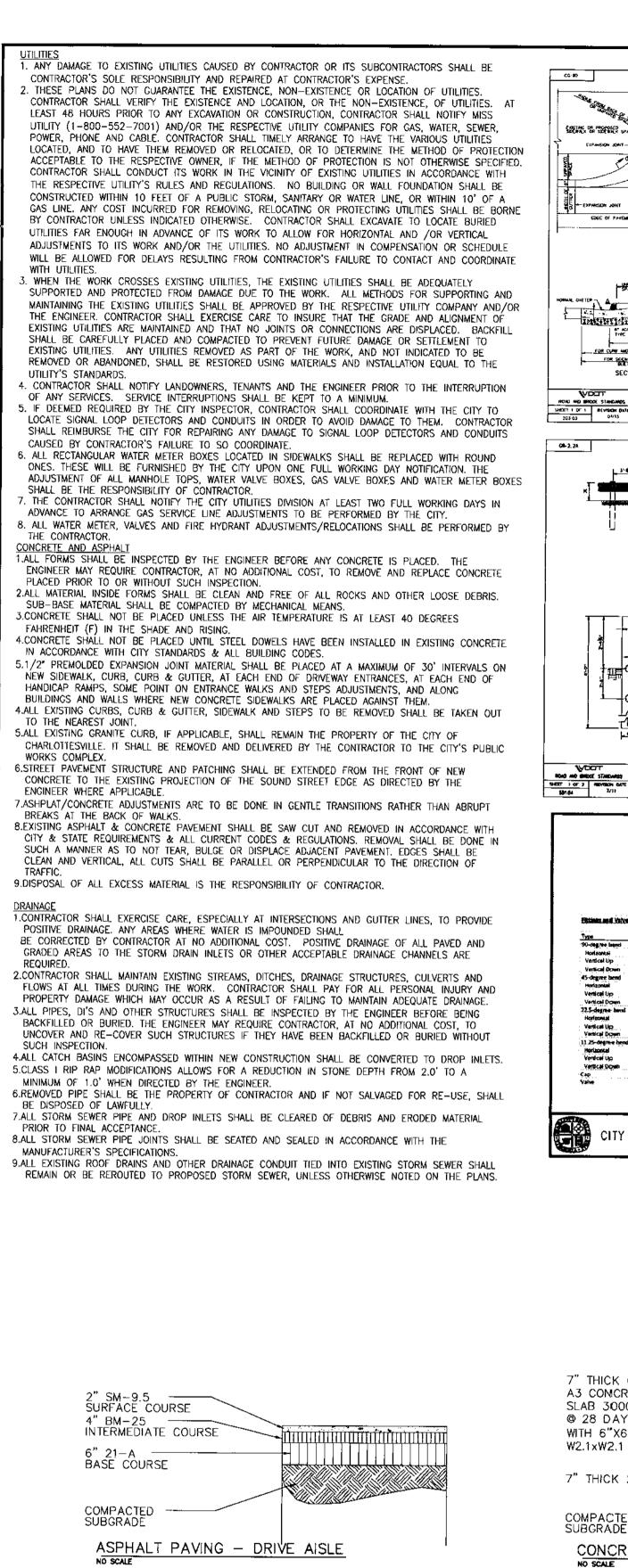
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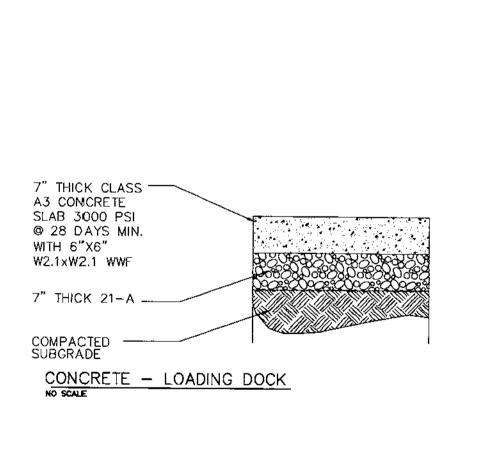
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4

PANSION

112069 SCALE AS SHOWN





1/2 WIDTH OF ENTRANCE

EXPANSION JOINT ---

EDGE OF PAYEMENT

TYPE ISSE 28

FOR SOCIAL CURB AND CUITER
BUT CONSTRUCTOR

SECTION A-A

43'-75' FORT SPACENCE MAX DYNAMIC DEFLECTION - :

CRT POST

Vertical Lips Vertical Down 22.5-degree band

Valve 14 19 25 32 87 32 Valve 14 19 25 32 37

CITY OF CHARLOTTESVILLE

FOR CURR AND OUT TER OMLY

CUMB MICLUDED IN E

LIMITS OF PROSESTIFIANT MICESS POUTE LIMITS OF PROSESTIFIANT ACCESS POUTE LIMITANCE SPACE

ADDITIONAL PICKY-OF-WAY IS REQUIRED & THE LIMITS OF PROPERTY MICKESS ROUTE IN EXTEND BEYOND ENSUING OF PROPERTY MICKESS FOUND TO WAY

SECTION B-E

SECTION C-

SECTION D-D

B PEDESTRIAN ACCESS ROUTES PROVIDE A CONTRINCES IMMOSTRICETED, STARLE, FIRM, AND SEP RESISTANT PATH COMMECTING ALL ACCESSIBLE ELIZAMYSE OF A FACULTY THAT CAM SE APPROACHED, ENTERED AND USED BY PEDESTRIAN.

WHEN USED IN COMMINICATION WITH STANDARD RG-3 OR CG-7, THE CURB FACE DW THIS STANDARD IS TO BE ADAPTED TO MATCH THE MOUNTABLE CURB COMPOURATION.

GAMBRIE LICENTINE SHOWN ON PLANS SEE APPROPRIATE BUY AND CAN BE ADMITTED PERMIT CONSTRUCTION IF AND ASSESSED FOR THE CONSTRUCTION IF AND

TOR GETALS OF RAL ELEMENT, MAL SPLEE COLT ME

BALL DEDICATE AND POSITION OF CHANGE FOR MICH.

ALL COMMENTS FORTE CAN BE SET FLOM FORT CHILLY THE STATE OF THE A VANAGE OF THE STATE OF THE STA

ALL WHERE MALE PORT HE LANGED IN THE OMERSTON OF WESCHLAR TRAVEL FOR THE PARKED ROMORES.

RESTRAINED JOINT PIPE

FOR DETAILS OF POST AND RESPONDED THE SHEET NO. BOLDS.

____ A POINT OF GRADE CHANGE

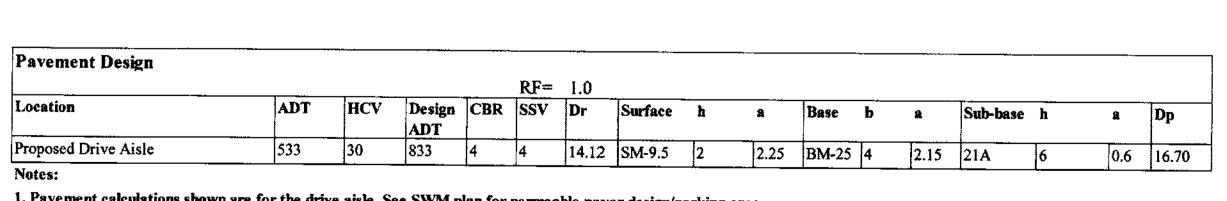
STANDARD ENTRANCE GUTTER

VIRGINIA DEPARTMENT OF TRANSPORTATION

STANDARD BLOCKED-OUT W-BEAM GUARDRAIL

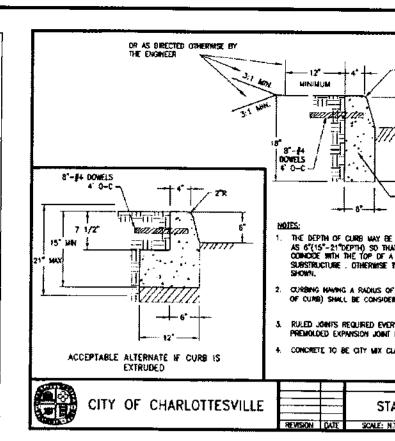
Type 4 Clay 2 3 Feet 150 PSt

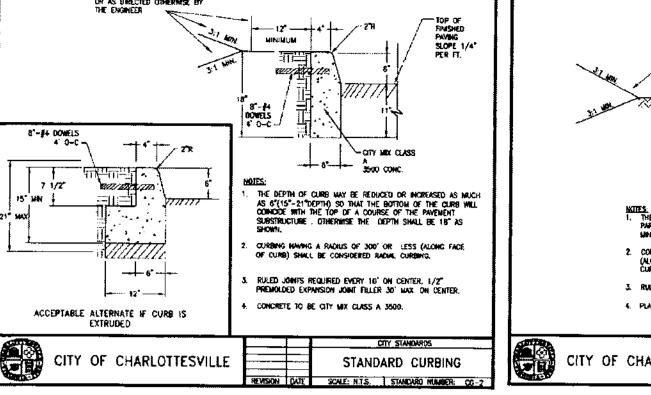
Laying Conditions Soil Conditions Depths of Pipes Design Pressures Safety Factors



1. Pavement calculations shown are for the drive aisle. See SWM plan for permeable paver design/parking area. 2. Contractor to bore any existing pavement being utilized and coordinate with City Inspector on upgrades to ensure the above specifications are met and are in accordance with their standards.

3. Traffic impact numbers are based on the ite trip generation manual, 8th edition. Code 140 was used for the industrial space with 250 expected employees. The adt is 533, the am hour peak trips are 100, and the pm hour peak trips are 90.





MINIMUM PAVEMENT PATCH

1. GUARDRAILS ARE REQUIRED FOR DECKS, PORCHES &

WALLS ELEVATED MORE THAN 30" IN HEIGHT. GUARDRAILS

MUST BE A MINIMUM OF 42" TALL, UNLESS SURROUNDING

A POOL, AT WHICH POINT THE MINIMUM HEIGHT SHALL BE

2. FASTENERS SHALL BE POWDER COATED #10 STAINLESS

. ALL WORK SHALL COMPLY WITH CURRENT VIRGINIA

4. PLANS & RETAINING WALLS APPROVED FOR PERMIT

6. ALUMINUM ALLOY SHALL WITHSTAND A MINIMUM

THE MANUFACTURER'S LICENSED PROFESSIONAL STRUCTURAL

PRODUCT. SHOULD ANY CONCERNS BE DISCOVERED THE

INSTALLATION OF THE RETAINING WALL INFRASTRUCTURE.

5. RAIL NG SHALL WITHSTAND A CONCENTRATED LOAD OF

8.THE FINAL DESIGN OF THE RETAINING WALLS PROPOSED & SEALED WITH THESE PLAN SHALL BE CONFIRMED BY THE CONTRACTOR WITH

ENGINEER, AND CERTIFIED, TO ENSURE COMPLIANCE WITH PROPOSED

CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PURCHASING &

RAIL POSTS SHALL BE 4' O.C. FENCE _

RAIL GAPS SHALL HAVE A MAX. GAP

SURFACE SHALL BE A MIN. OF 3'-6" IN

%" SQUARE ALUMINUM

PICKET (TYP.)

OF 4" & TOP OF RAIL AT WALKING

STEEL THROUGHOUT.

350+lbs AT A MINIMUM.

- 2" SQUARE GATE

4" MAX

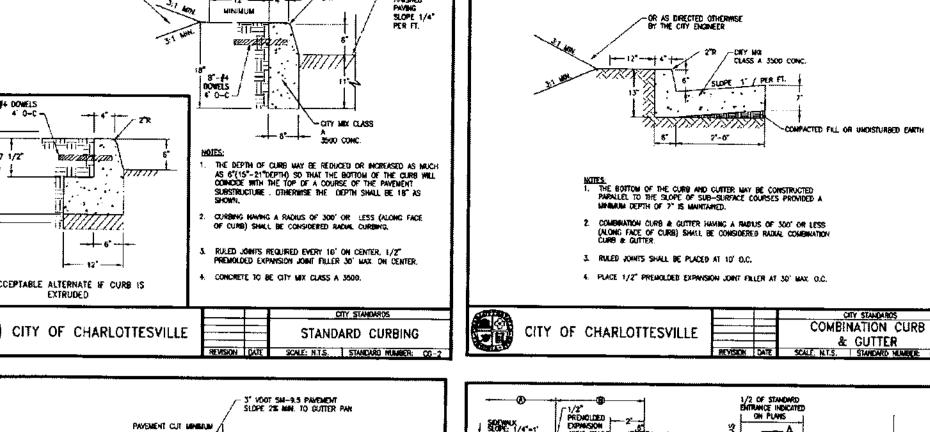
POST (TYP.)

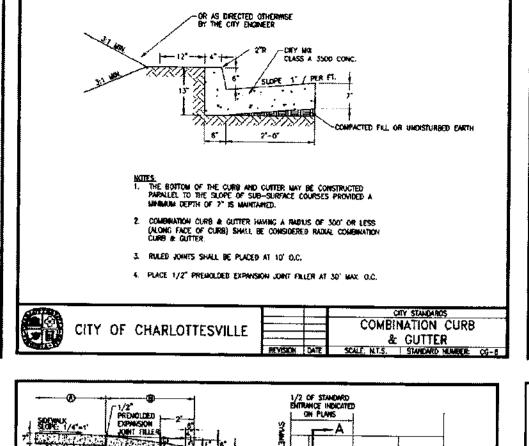
UNIFORM STATEWIDE BUILDING CODE.

PRESSURE OF 35,000psi THROUGHOUT

SUBJECT TO APPROVAL OF CONSTRUCTION.

7. PICKET SPACING SHALL BE 3 1/8" WIDE.





HALF PLAN

ELEVATION AT CURB LINE

* 3" MIN. TO ADJUCENT PROPERTY

42*

SITE

RAIL

WALL

SITE

GUTTER AT CUR

-1/2" PREMOLDED EXPANSION JOINT EXTER

SECTION A-A

SOMETRIC YEAR

DIES: STANDARD REBIDENTIAL ENTRANCES SHALL BE:

FOR INFINE CURB & OUTHER DINLY (SEE RE-2, SHEET 2 OF 2 DIFOR SIDEMALK CHLY- AFTER HIRM, CURB & GUTTER

12" WITH SHOULDER & DITCH

RAIL POSTS 4' O.C. INSTALLED BEHIND __

WHERE APPLICABLE.

GRADE

TOP OF RAILING POST

CONC. FOOTER

HANDRAILS SHALL COMPLY

WITH ALL CURRENT VIRGINIA BUILDING CODE REGULATIONS.

-1%" x 0.70" ALUMINUM TOP

1" SQUARE ALUMINUM SIDE

- TOP OF RETAINING WALL W/ GEO-TECH.

REINFORCEMENT, FENCE POSTS SHALL

TOP ADJACENT SURFACE.

SCHEMATIC OF RETAINING WALL RAIL DETAIL

PENETRATE 1ST LAYER OF GEO-GRID, OR

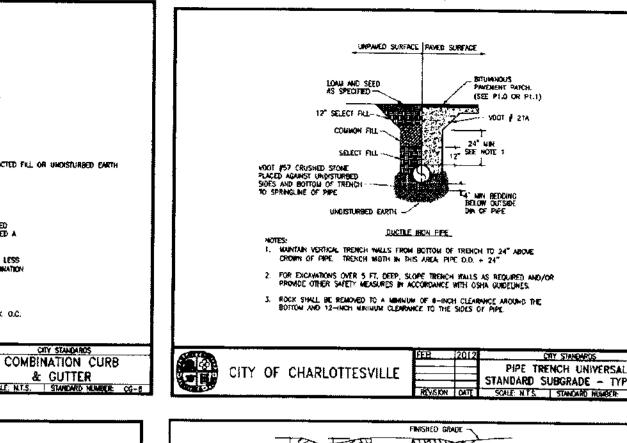
RETAINING WALL OR IN ACCRORDANCE W/

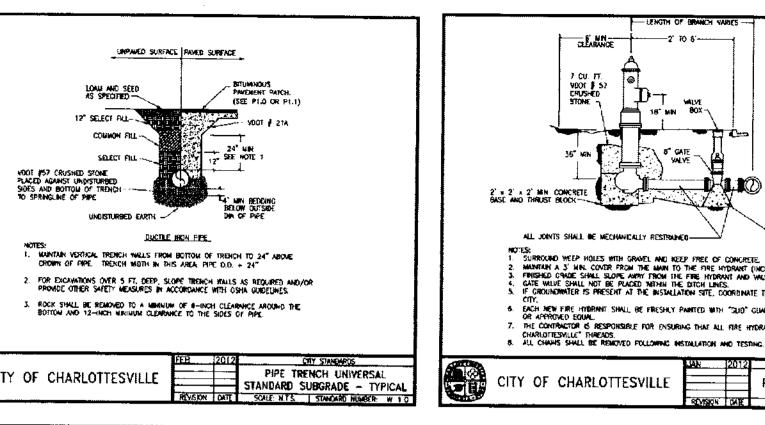
REDI-ROCK DETAIL ON TOP OF RETAINING WALL.

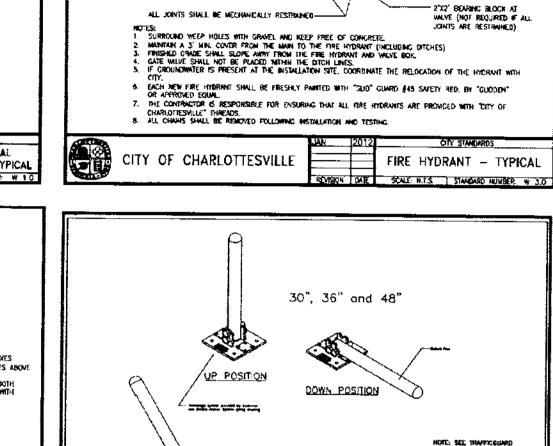
RAIL POSTS & FOOTERS SHALL-

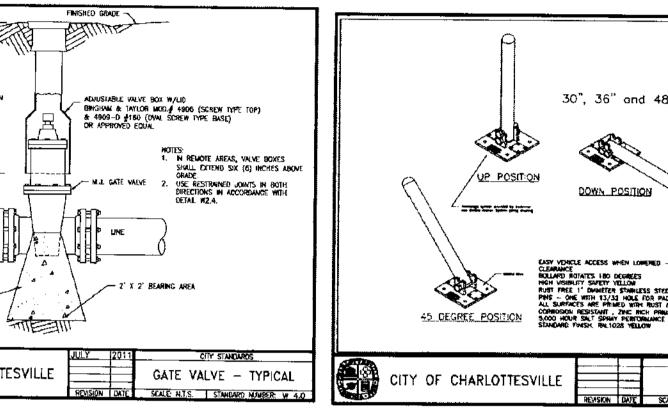
PARALLEL & AVOID GUARDRAIL

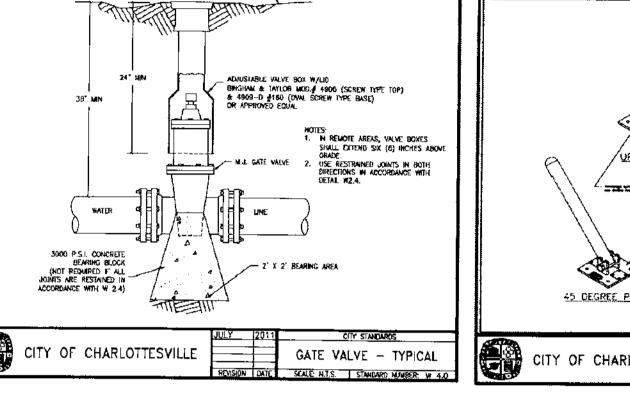
CITY OF CHARLOTTESVILLE

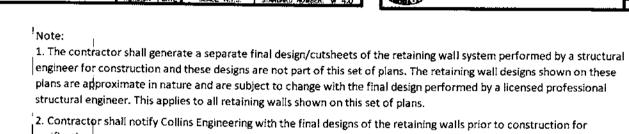








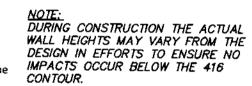




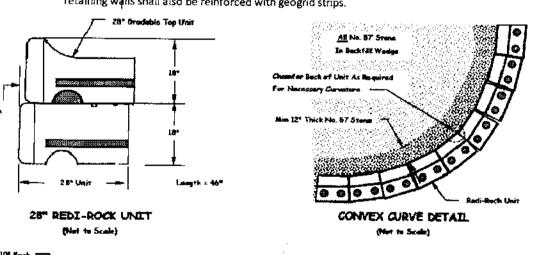
3. The following redi-rock block sizes with respect to the wall heights are an approximation. These values are subject to change with the structurally engineered walls, by others, and are provided for informational purposes only to assist with price and quantity estimations.

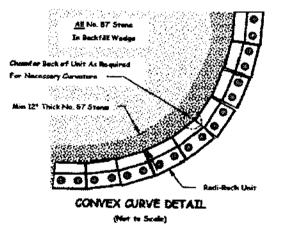
'all Heights Above Proposed Grade	Block Sizes Above Grade	Block Sizes Below Grade*
0-1.5'	28"	41"
0-4,5'	28" and 41"	41"
0-7'	28" and 41"	41"
o- ∮,	28" and 41"	41"
0-10.5'	28" and 41"	60"
0-12'	28", 41" and 60"	60"
0-13'	28", 41" and 60"	60"

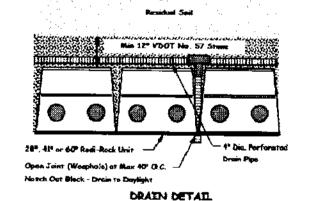
* Concrete extension footers for block retaining walls may be required. This is possible for the entire length of the wall, but is most likely only required for wall heights in excess of 15 feet. An appropriately compacted foundation with backfilled stone and drain pipes in accordance with current regulations are required for the entire length of the walls. The retaining walls shall also be reinforced with geogrid strips.



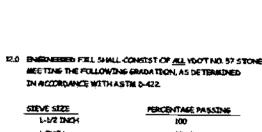
BOLLARD DETAIL











25 - 60

13.0 A VERNATORY PLATE TAMPER SHALL BE USED TO DENSERY YOU TING ST STONE. COMPACTION TESTS CAN ME WATVED

WHERE YOUT NO. 57 STONE IS USED AS RETRIFORCED FILL. HID MIL OTHER ENGINEERED FILL SHALL CONSIST OF ON STITE SCIL. CLASSIFIED AS ON, OF, CAL CC. SW. SF. SM., SC. CL CR. MI. WHILE HARE PRODUCT CINGALACCS OR OTHER DELETERIOUS, NION-SCIL MATERIALS. ENGINEERED FILL SHALL BE RACED IN BUNCHELFTS MAD COMPACTED TO A MENERALM OF 95% OF MANDAGE STANDARD PROCTOR DENSITY (ASTA D-698), COMPACTION TESTS SHALL BE PERFORMED AS THE WALL IS INSTALLED. COMPACTION

WITHIN 3 PEET OF THE WALL SHALL BE LIMITED TO HAND-OPERATED EQUIPMENT. 150 FOLTER FAMILIC (ATRAPT 140N OR BOUTVALENT) SHALL SE PROVIDED AS A GRADE SEPARATOR BETWEEN THE STOKE AND THE SORE FILL SLOPE ABOVE THE WALL WHERE APPLYCABLE NO FILL RACED WITHOUT IS INCHES FROM THE TOP OF THE WALL

AND TO RE-ESTABLISH GRADE ALONG THE SLOPE SHALL CONSIST OF INCORPANTE SOUL MEETOF DEBUTS OR OTHER DELETEREOUS BATERIALS, AND MEET THE MINISTERIAN SCILL SHEAR STRENGTH WILLIES AS OUTLINED IN THE DESTINA PARAMETERS FOR RETABLED BOSE - NOTE 4.

17:0 COMPACTION SHALL BE TO A RENEBRUE OF 95% OF MAXIMUM STANDA PROCTOR DENSITY (ASTALD-198), COMPACTION TESTS SHALL

REPERCRISED AS THE WALL IS DISTAILED. COMPACTION WITHOUT PRET OF THE WALL SHALL ME LIMITED TO HAND. CPERATED EQUIPMENT ISO CONTRACTOR SHALL SLOPE STTE GRADES TO DIRECT SLAFACE

RUNOFF AWAY FROM WALL AT END OF EACH DAY TO AVOID WATER DAMAGENG THE WALL WHILE LANDER CONSTRUCTION. 19.0 ANY SLRFACE DRAINAGE PEATURES, FINESH GRADING, PAYERBIT, OR TURF SHALL SE INSTALLED IMMEDIATELY AFTER WALL IS COMPLETE 200 IF STITE AND SOTIL CONDITIONS, WALL SECRETRY, OR WALL LOADDNEARE DEPRENENT THAN THE DRAWINGS AND THE DESIGN PARAMETERS, THE CONTRACTOR MAST CONTACT THE WALL DESIGN

ENGINEER PRICE TO PROCEEDING WETH THE CONSTRUCTION OF 210 DETAIL FOR SUMBORASE POSTS AT THE TOP OF THE WALL



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MENERAL NOTES - REST-MOCK 1.0 STRIP VEGETATIVE AND CREANIC SCILL PROBETHE WALL

WIDTH OF LEVELING AND SHALL SE 40 DADGES FOR 28" UNITS.

WIDTH OF LEVELING MAD SHALL BE 33 INCHES FOR 41' LINETS.

WITOTTH OF LEVELENIE AND SHALL HE 72 INICHES FOR 60° LINETS.

7.0 A 4-DVDH-DEAMETER SLOTTED HOPE DRAINAGE FIRE SHALL BE DISTALLED

AD COMO THE WALL AND CONNECT TO WEEP CLES DISTALLED AT

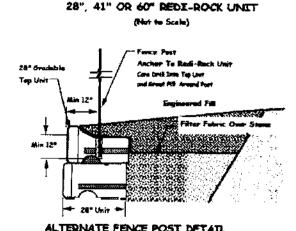
10 DRAINNEE AGENEGATE SHALL CONSIST OF CLEAN ANGLIAR GRAVE.

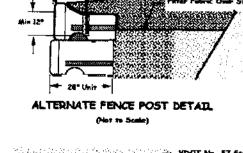
POOT NO. 37 STONE) WITH A MINERAL IZ THEODESS, MEETING THE

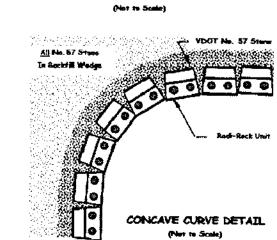
CLLOWING GRADATION AS DETERMINED IN ACCORDANCE WITH ASTA D-422

THE FIRML GRADE TO DAYLIGHT (SEE DRAIN SETAIL).

(2 Per Unit) ZO MENCH OUT ALL EXCAVATED SECURES. 3.0 DO NOT EXCAVATE MEYOND EXCAVATION LINES SHOWN ON RANIUMLESS DERECTED BY THE SECTEO MECAL NEINEER TO REMOVE UNSUITABLE SOIL 4.0 CONTRACTOR SHALL ENSURE TEMPORARY EXCAYATIONS ARE STAILE AND PROVIDE EXCAVATION SUPPORT IF NEEDED. SECTECHNICAL BASIDEEN SHALL VERITY FOUNDATION SCIES AS NEEDE CONFETENT PER THE DESTRINARAMETER 6.0 LEVELING PAD SHALL CONSIST OF COMPACTED SAND, GRAVEL CR CONSTRUCTION AND SHALL BY A MONTHUM 12-DHOH THOOK LAYER SUPPORTED BY UNDESTURBED SCIEL ON ENGINEERED FO







IO MESE ACOCK UNITE MOLDED STARSUSTONES SHALL BE 18 THOUSE HEAR!

46 DICHES WIDE ALONG THE PACE AND 28 DICHES FROM FACE TO REAR (28" UNITS), 41 DNOHES PROB PAGE TO BEAR (41" UNITS) AND 60 INCHES PROB PACE TO BEAR (60" UNITS) AND SHALL NOT DEFFER MORE THAN \$2 % DEVIATION IN THE PAGE ADMINISTRACE, BROWN HIS & EDUCATION PROPERTY OF MACE. WEIGHT OF REDI-ROCK 28" GRADABLE TOP UNETS < 1,223 LES WEIGHT OF REDI-MOCK 28" MIDDLE UNITS + 1,630 L65± WEXER(T OF REDI-ROCK 41" NUMBER UNKTS = 2,381 LBS + WEIGHT OF REDI-ROCK 41" BOTTOM UNITS = 2,486 LBS ±

I TAUCH

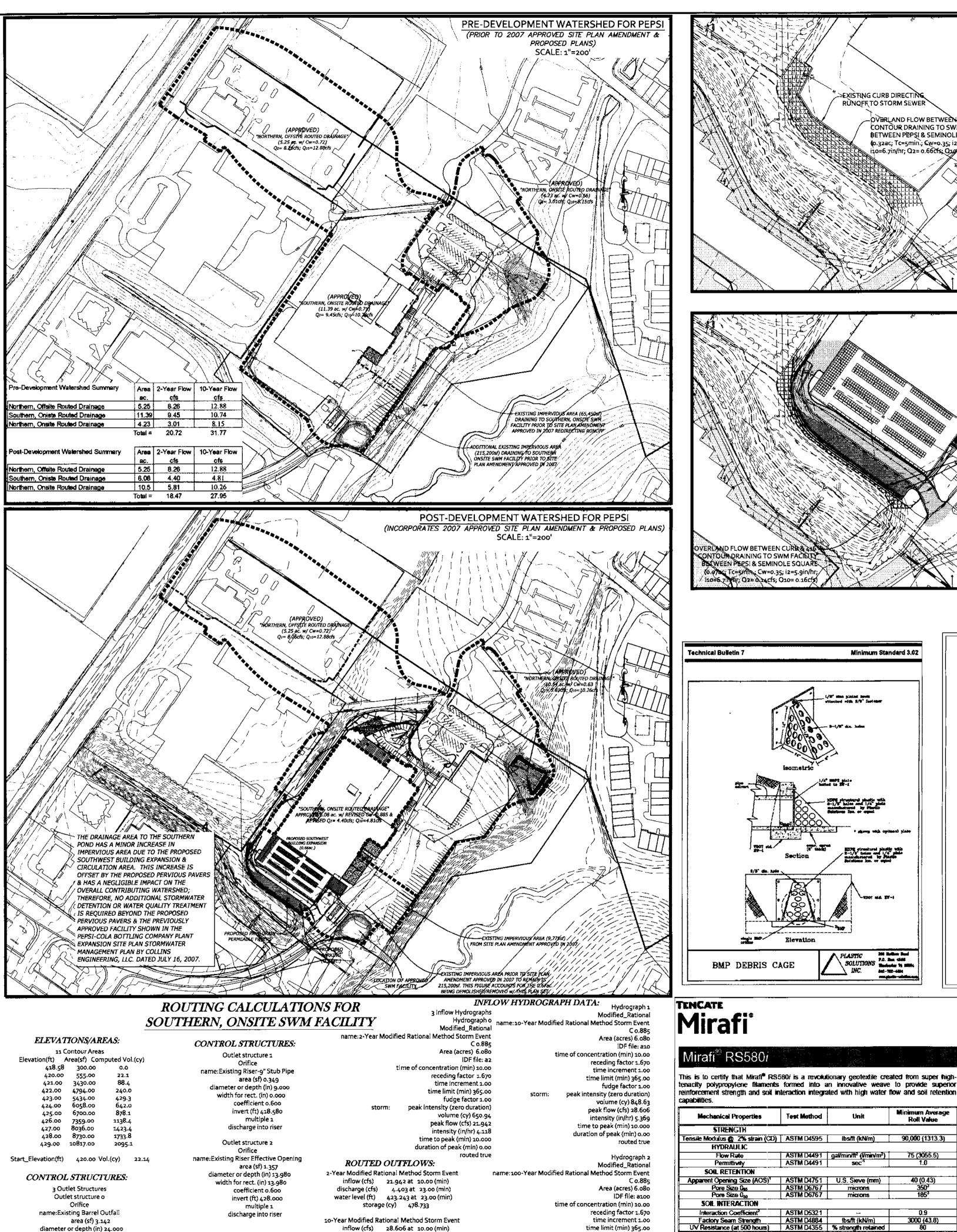
NO. 4

1/2 INCH

PROFER BATTER (LE. 4 DEGREE CANT PROME VERTICALL). WITH THE USE OF SHORE OR ASHIRLT SHORES TO RATSE ONE COURSE OF BLOCK BY A MAXIMUM OF 1/4 INCH VERTICAL HEIGHT.

WEIGHT OF REDI-MOCK 60" BOTTOM UNITS # 3,420 ILBS . 1.0 FIED ADJUSTMENTS OF ELOCK ALTERNENT MAY BE MADE

WEIGHT OF MEDI-ROCK OF MEDILE UNITS = 1,2901.85 100 A 1-1/2 DNOW SETBACK PER UNET SHALL BE MAINTAINED FOR



discharge (cfs) 4.809 at 24.00 (min)

water level (ft) 424.070 at 24.00 (min)

100-Year Modified Rational Method Storm Event

storage (cy) 657.763

inflow (cfs) 46.690 at 10.00 (min)

discharge (cfs) 5.668 at 25.00 (min)

water level (ft) 426.062 at 25.00 (min) storage (cy) 1155.210

width for rect. (in) 0.000

coefficient o.600

invert (ft) 416.800

discharge out of riser

multiple 1

ROUTING CALCULATIONS CONSERVATIVELY ASSUME

ZERO INFILTRATION & DETENTION WITHIN PERMEABLE

PAVERS & STILL MEET MINIMUM MS-19 REQUIREMENTS

THROUGH THE USE OF THE APPROVED SWM FACILITY.

fudge factor 1.25

volume (cy) 1385.13

peak flow (cfs) 46.690

intensity (in/hr) 7.011

time to peak (min) 10.000

duration of peak (min) 0.00

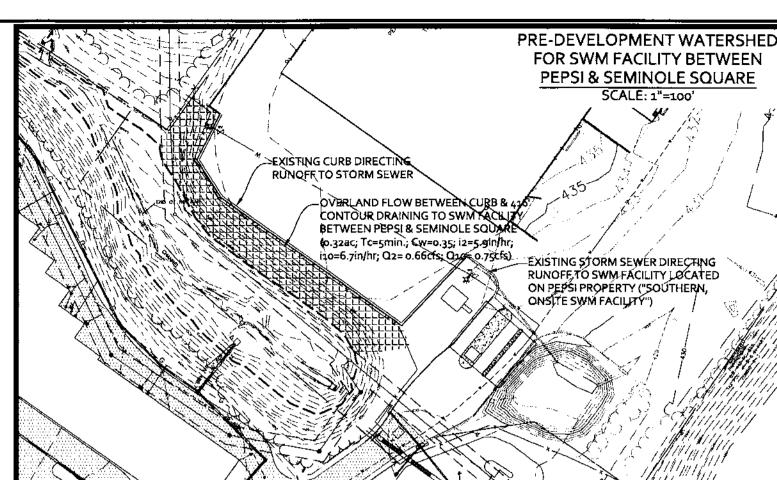
peak intensity (zero duration)

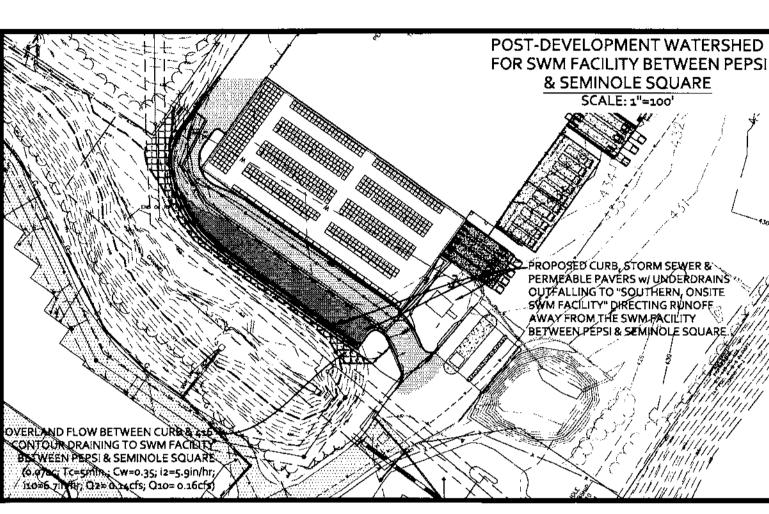
ASTM D 4751: AOS is a Maximum Opening Diameter Value

Physical Properties

Roll Dimensions (width x length)

Estimated Roll Weigh



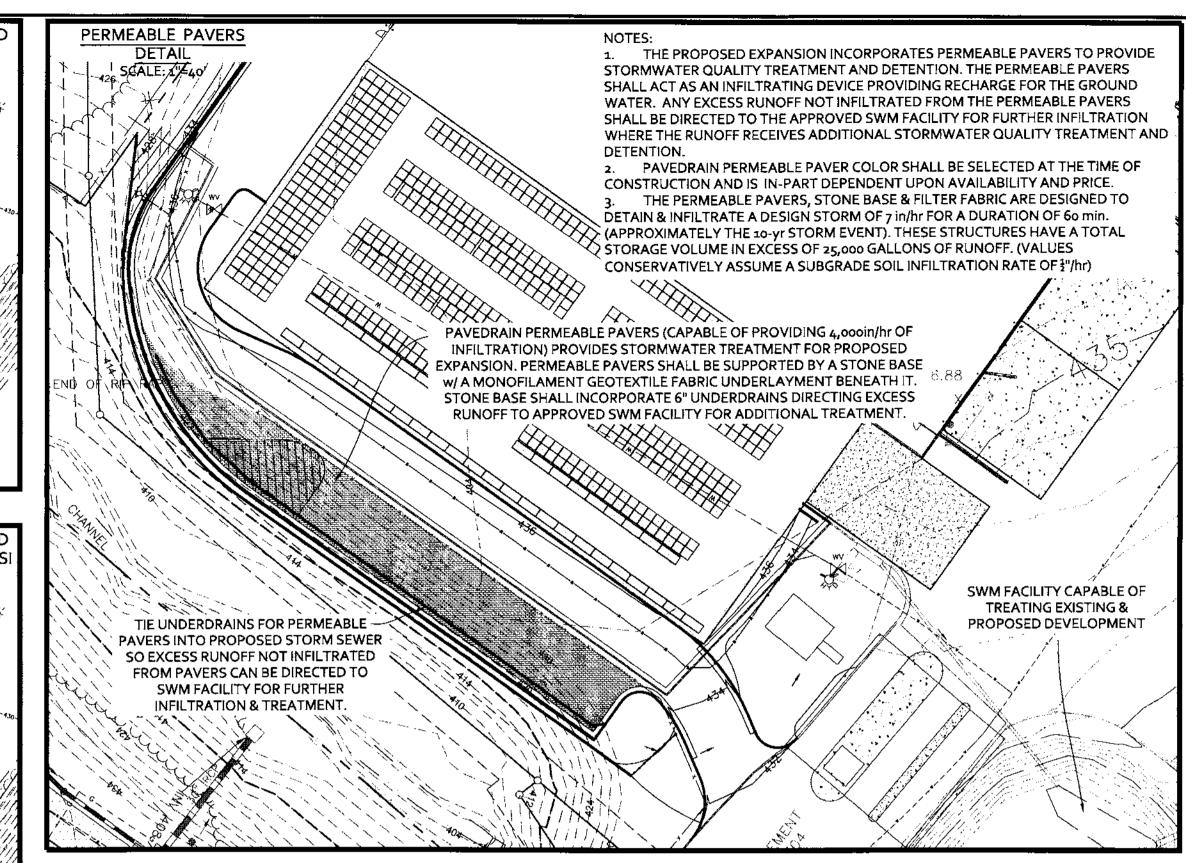


Minimum Average Roll Value

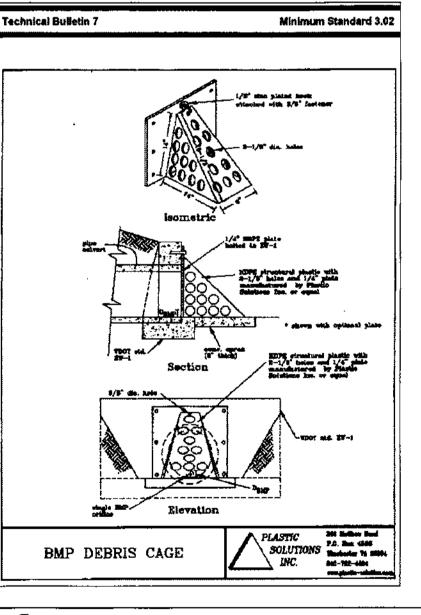
Typical Value

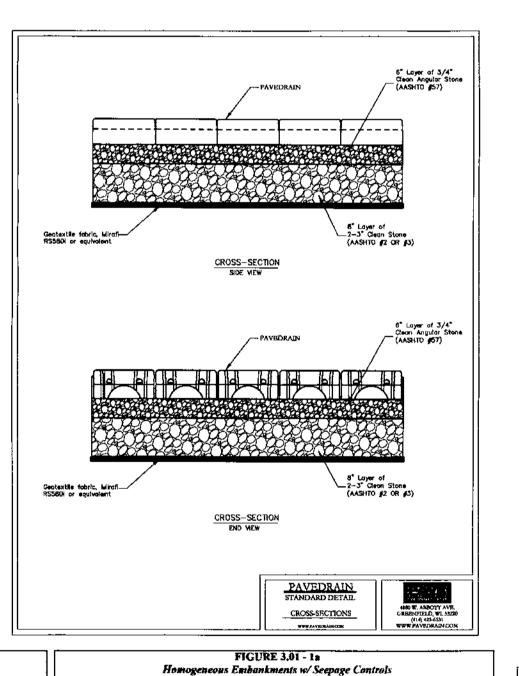
15 x300 (4.5 x 91) 500 (418) 415 (188)

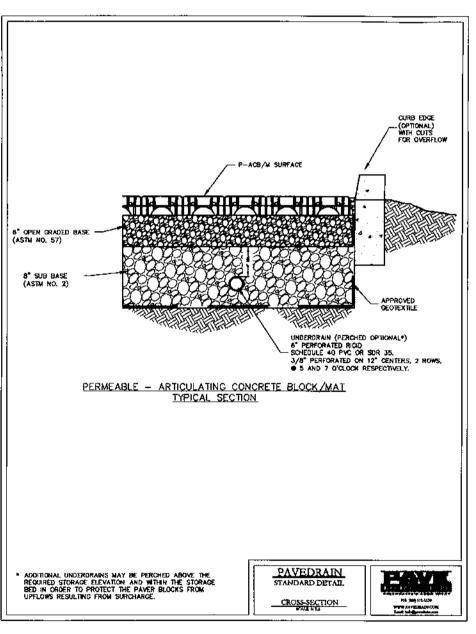
c:\3_01~{q

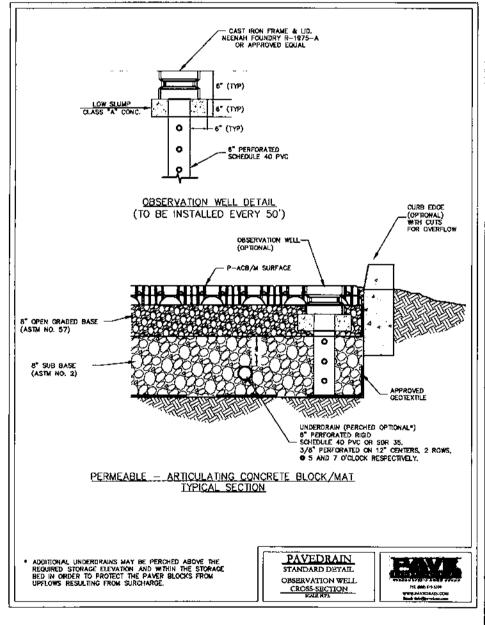


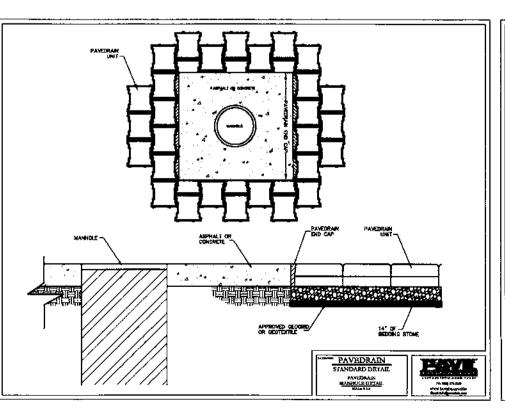
- 1. BECAUSE THE SOIL UNDERNEATH THE PROPOSED LOCATION OF THE PAVERS IS SUBJECT TO FILL AND CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL CONDUCT A GEOTECHNICAL INVESTIGATION OF THE SOIL UNDERNEATH THE PROPOSED PAVERS AFTER FINAL GRADE HAS BEEN ARCHIVED TO DETERMINE THE INFILTRATION AND CBR RATINGS. CONTRACTOR SHALL PROVIDE THE ENGINEER WITH THESE RESULTS PRIOR TO ORDERING AND INSTALLATION OF THE STONE BASE FOR THE PERMEABLE PAVERS TO ENSURE AN ADEQUATE DESIGN. FINAL DESIGN OF PERMEABLE PAVER SYSTEM IS SUBJECT TO CHANGE AND IS DEPENDENT UPON SITE OR APPROVED IMPORT SOIL DATA.
- STONE BASE FOR PERMEABLE PAVERS SHALL BE CLEAN & DOUBLE WASHED IN ACCORDANCE WITH DCR REGULATIONS. "CLEAN" STONE IS SCREENED TO SIZE AND THE BULK OF THE FINES/DUST IS REMOVED, BUT THERE IS STILL DUST ON THE STONE. "WASHED" STONE IS WASHED THROUGH THE SCREENING PROCESS AND/OR MANUALLY WASHED.
- WHERE UNDERDRAIN CLEANOUTS ARE PROPOSED WITHIN PAVED AREAS & ARE SUBJECT TO VEHICULAR TRAFFIC, CLEANOUTS SHALL BE ENCASED IN #18" CONCRETE FOR UPPER 24". THE CLEANOUT FRAME & LID SHALL BE CONSTRUCTED OF CAST IRON, OR A SIMILAR MATERIAL THAT IS STRUCTURALLY FORTIFIED.

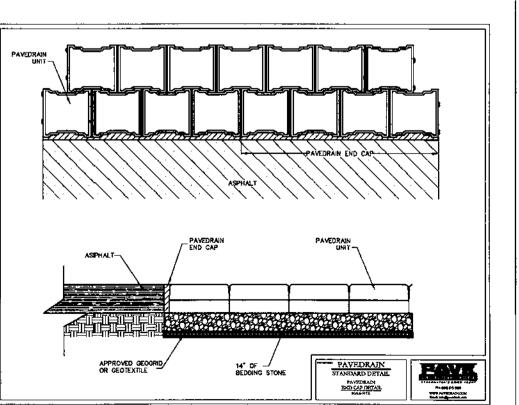




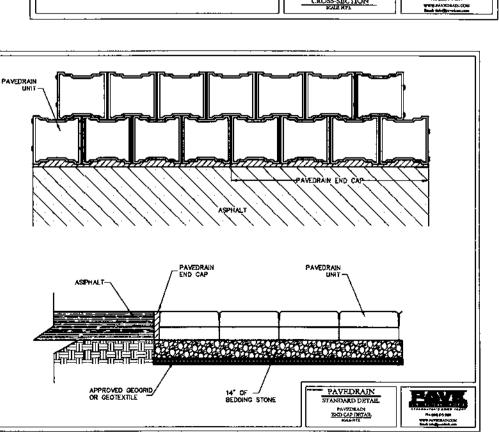








NOTE: CON	NTRACTOR SHALL ENSURE THE SWM FACILITY EMBAN	KMENT IS IN COMPLIANCE WITH THE DETAIL
PROVIDED (ON THIS PLAN AND SHALL MAKE ADJUSTMENTS AS N	ECESSARY, CONTRACTOR SHALL ALSO ENSURE
TRASHRACI	CKS ARE PROVIDED ON ALL OPENINGS IN ACCORDANC	E WITH THE VSMH, A SAMPLE DETAIL HAS BEEN
	ON THIS SHEET. THE ROUTING CALCULATIONS PROVI	
OPENING H	HAS A TRASHRACK & THE RESULTANT OPENING HAS A	N EFFECTIVE DIAMETER OF 9".





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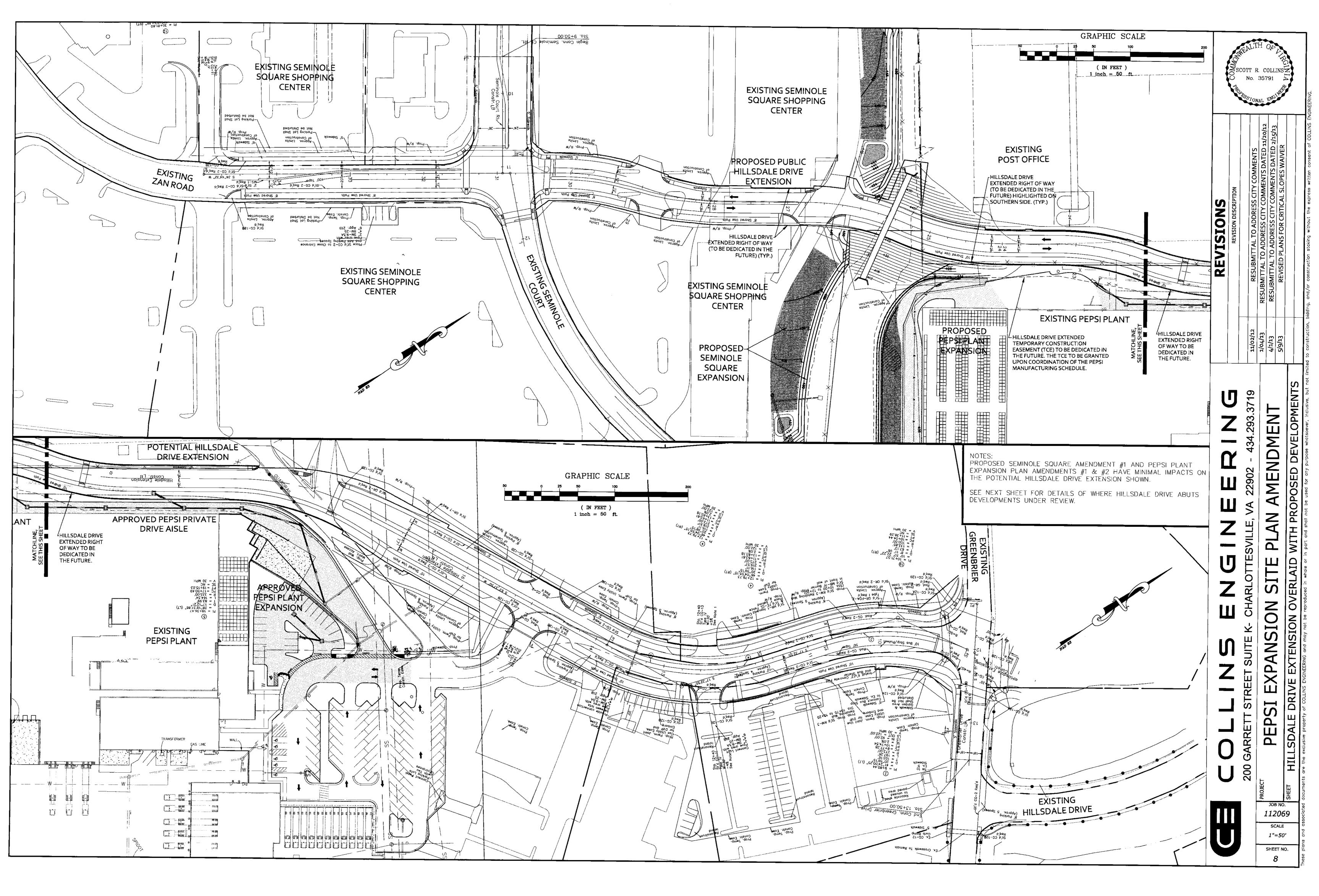
112069 SCALE **AS SHOWN** SHEET NO.

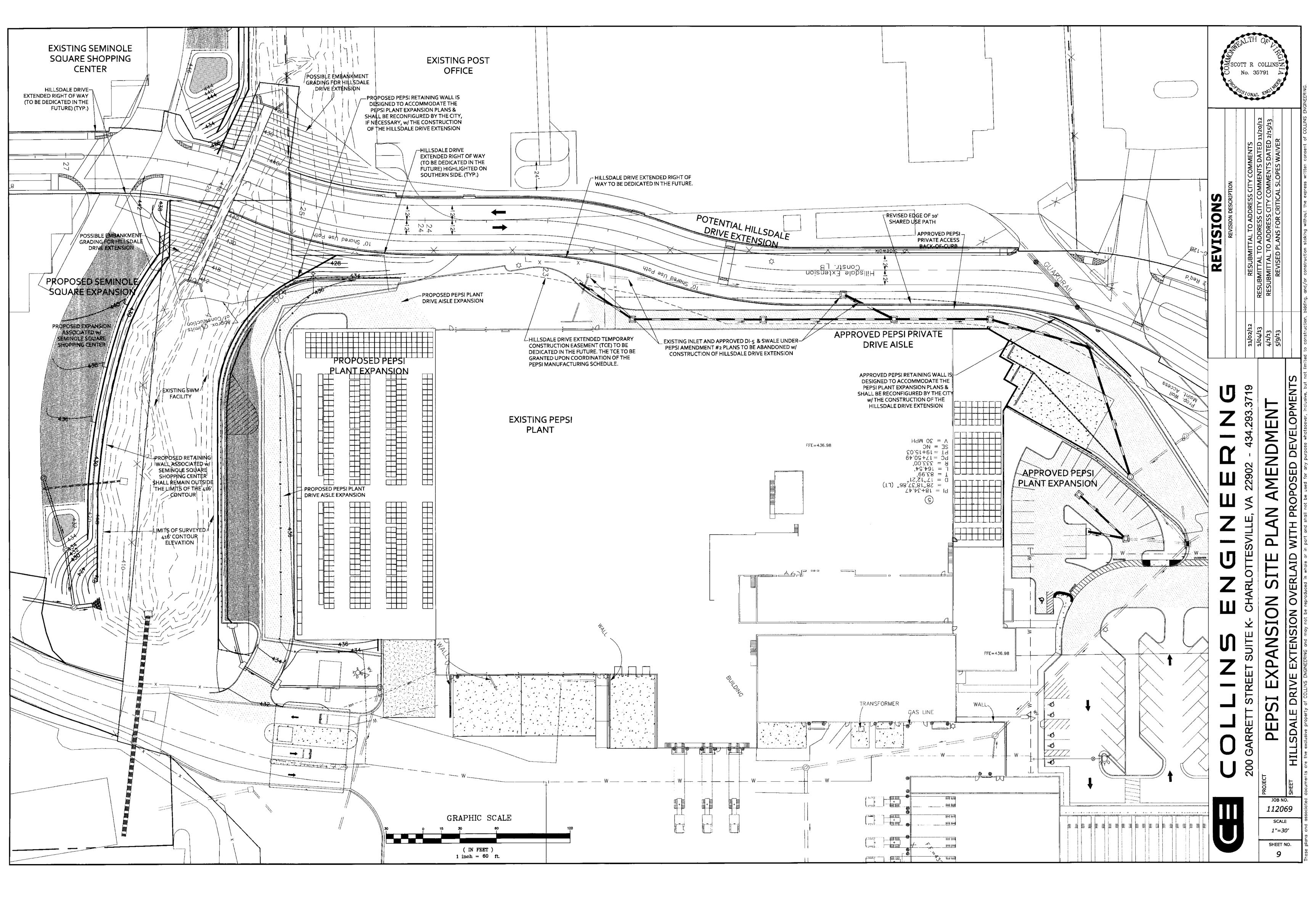
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HANDBOOK SPECIFICATION NUMBER

TEMPORARY SEEDING

MULCHING

TREE PROTECTION

DUST CONTROL

PERMANENT STABILIZATION

3.01

3.02

3.05

3.32

*3.3*5

GENERAL NOTES

THE OWNER/CLIENT OF THIS PROPERTY IS: PEPSI COLA BOTTLING COMPANY OF CENTRAL VIRGINIA 1150 PEPSI PLACE P.O. BOX 9035

CHARLOTTESVILLE, VA 22906 THESE PLANS HAVE BEEN PREPARED BY: COLLINS ENGINEERING, INC 200 GARRETT STREET SUITE K

CHARLOTTESVILLE. VA 22902 TELEPHONE: (434) 293-3719 FACSIMILE: (434) 293-2813 SOURCE OF INFORMATION: CITY OF CHARLOTTESVILLE GIS DATA & SURVEY PROVIDED BY

JENNINGS STEPHENSON, PC. SOURCE OF SURVEY: TOPOGRAPHY AND BOUNDARY INFORMATION BY JENNINGS STEPHENSON, P.C. IN JANUARY 2007. FIELD VERIFIED BY COLLINS ENGINEERING IN THE SUMMER OF 2012.

TMP 41C-3: HW- HIGHWAY CORRIDOR ZONING (NOT LOCATED IN THE ENTRANCE CORRIDOR) TMP 41B—6: R—3 RESIDENTIAL TAX MAP AND PARCEL NUMBER: TMP 41C-3 AND 41B-6

USGS DATUM: NAD 83 (1994) 10. LOCATION/ADDRESS OF PROJECT: PEPSI COLA BOTTLING COMPANY OF CENTRAL VIRGINIA, 1150 PEPSI PLACE. CHARLOTTESVILLE, VA 22906

11. TOTAL ACREAGE OF SITE: 15.3 ACRES 12. SITE PHASING: THE SITE CONSTRUCTION WILL OCCUR IN ONE PHASE. E&S SHALL OCCUR IN TWO PHASES. 13. PUBLIC UTILITIES: THE SITE WILL BE SERVED BY EXISTING PUBLIC WATER AND SEWER.

PROPOSED PUBLIC SANITARY SEWER WILL CONVEY SEWAGE THROUGH AND FROM THE

* COLLINS ENGINEERING SHALL NOT HAVE AUTHORITY OVER CONTRACTOR'S WORK, SAFETY PRECAUTIONS, SCHEDULES, OR COMPLIANCE WITH LAWS AND REGULATIONS. WE SHALL NOT ASSUME RESPONSIBILITY FOR ANY CONSTRUCTION STARTED PRIOR TO PLAN APPROVAL.

DEVELOPMENT. A MAINTENANCE AND ACCESS EASEMENT HAS BEEN PROVIDED FOR THE

EROSION & SEDIMENT CONTROL

STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. STRUCTURAL PRACTICES USED IN THIS SECTION CONSIST OF THE FOLLOWING:

3.02 CONSTRUCTION ENTRANCE: A STABILIZED PAVED CONSTRUCTION ENTRANCE WITH A WASH RACK LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS ON A CONSTRUCTION SITE. TO REDUCE THE AMOUNT OF MUD TRANSPORTED ONTO PAVED PUBLIC ROADS BY MOTOR VEHICLES OR RUNOFF. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS SHOWN ON THE PLANS TO REDUCE THE AMOUNT SEDIMENT TRANSPORTED ONTO PUBLIC ROADWAYS.

A TEMPORARY SEDIMENT BARRIER CONSISTING OF A SYNTHETIC FILTER FABRIC STRETCHED ACROSS AND ATTACHED TO SUPPORTING POSTS AND ENTRENCHED, TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT FROM DISTURBED AREAS DURING CONSTRUCTION OPERATIONS IN ORDER TO PREVENT SEDIMENT FROM LEAVING THE SITE, AND TO DECREASE THE VELOCITY OF SHEET FLOWS AND LOW-TO-MODERATE LEVEL CHANNEL FLOWS. THE SILT FENCE BARRIERS SHALL BE INSTALLED DOWN SLOPE OF AREAS WITH MINIMAL GRADES TO FILTER SEDIMENT LADEN RUNOFF FROM SHEET FLOW AS INDICATED. THEY SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND MAINTAINED IN ACCORDANCE WITH THE VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK (VESCH).

3.07 STORM DRAIN INLET PROTECTION: A SEDIMENT FILTER OR AN EXCAVATED IMPOUNDING AREA AROUND A STORM DRAIN DROP INLET OR CURB INLET. TO PREVENT SEDIMENT FROM ENTERING STORM DRAINAGE SYSTEMS PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA. INLET PROTECTION APPLIES WHERE STORM DRAIN INLETS ARE TO BE MADE OPERATIONAL BEFORE PERMANENT STABILIZATION OF THE CORRESPONDING DISTURBED DRAINAGE AREA.

3.11 TEMPORARY RIGHT-OF-WAY DIVERSION: A RIDGE OF COMPACTED SOIL OR LOOSE ROCK OR GRAVEL CONSTRUCTED ACROSS DISTURBED RIGHTS-OF-WAY AND SIMILAR SLOPING AREAS. TO SHORTEN THE FLOW LENGTH WITHIN A SLOPING RIGHT-OF-WAY, THEREBY REDUCING THE EROSION POTENTIAL BY DIVERTING STORM RUNOFF TO A STABILIZED OUTLET. GENERALLY, EARTHEN DIVERSIONS ARE APPLICABLE WHERE THERE WILL BE LITTLE OR NO CONSTRUCTION TRAFFIC WITHIN THE RIGHT-OF-WAY. GRAVEL STRUCTURES ARE MORE APPLICABLE TO ROADS AND OTHER RIGHTS-OF-WAY WHICH ACCOMMODATE VEHICULAR TRAFFIC.

THE ESTABLISHMENT OF A TEMPORARY VEGETATIVE COVER ON DISTURBED AREAS BY SEEDING WITH APPROPRIATE RAPIDLY GROWING ANNUAL PLANTS. TO REDUCE EROSION AND SEDIMENTATION BY STABILIZING DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 30 DAYS. TO REDUCE DAMAGE FROM SEDIMENT AND RUNOFF TO DOWNSTREAM OR OFF-SITE AREAS, AND TO PROVIDE PROTECTION TO BARE SOILS EXPOSED DURING CONSTRUCTION UNTIL DERMANENT VEGETATION OR OTHER EROSION CONTROL MEASURES CAN BE ESTABLISHED.

3.32 PERMANENT STABILIZATION: THE ESTABLISHMENT OF PERENNIAL VEGETATIVE COVER ON DISTURBED AREAS BY PLANTING SEED. TO REDUCE EROSION AND DECREASE SEDIMENT YIELD FROM DISTURBED AREAS. TO PERMANENTLY STABILIZE DISTURBED ARTAS IN A MANNER THAT IS ECONOMICAL, ADAPTABLE TO SITE CONDITIONS, AND ALLOWS SELECTIVE OF THE MOST APPROPRIATE PLANT MATERIALS. TO IMPROVE WILDLIFE HABITAT. TO ENHANCE NATURAL BEAUTY. UPON COMPLETION OF CONSTRUCTION ACTIVITIES, ALL AREAS WILL RECEIVE A PERMANENT VEGETATIVE COVER.

APPLICATION OF PLANT RESIDUES OR OTHER SUITABLE MATERIALS TO THE SOIL SURFACE. TO PREVENT EROSION BY PROTECTING THE SOIL SURFACE FROM RAINDROP IMPACT AND REDUCING THE VELOCITY OF OVERLAND FLOW. TO FOSTER THE GROWTH OF VEGETATION BY INCREASING AVAILABLE MOISTURE AND PROVIDING INSULATION AGAINST EXTREME HEAT AND COLD. AREAS WHICH HAVE BEEN PERMANENTLY SEEDED SHOULD BE MULCHED IMMEDIATELY FOLLOWING SEEDING. AREAS WHICH CANNOT BE SEEDED BECAUSE OF THE SEASON SHOULD BE MULCHED USING ORGANIC MULCH, MULCH MAY BE USED TOGETHER WITH PLANTINGS OF TREES, SHRUBS, OR CERTAIN GROUND COVERS WHICH DO NOT PROVIDE ADEQUATE SOIL STABILIZATION BY THEMSELVES. CAN BE USED IN CONJUNCTION WITH TEMPORARY SEEDING

3.38 TREE PRESERVATION AND PROTECTION: PROTECTION OF DESIRABLE TREES FROM MECHANICAL OR OTHER INJURY DURING LAND DISTURBING AND CONSTRUCTION ACTIVITY. TO ENSURE THE SURVIVAL OF DESIRABLE TREES WHERE THEY WILL BE EFFECTIVE FOR EROSION AND SEDIMENT CONTROL, WATERSHED PROTECTION, LANDSCAPE BEAUTIFICATION, DUST AND POLLUTION CONTROL, NOISE REDUCTION. SHADE AND OTHER ENVIRONMENTAL BENEFITS WHILE THE LAND IS BEING CONVERTED FROM FOREST TO URBAN-TYPE USES. APPLIES IN TREE-INHABITED AREAS SUBJECT TO LAND

REDUCING SURFACE AND AIR MOVEMENT OF DUST DURING LAND DISTURBING, DEMOLITION AND CONSTRUCTION ACTIVITIES. TO PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES AND REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES WHICH MAY PRESENT HEALTH HAZARDS, TRAFFIC SAFETY PROBLEMS OR HARM ANIMAL OR PLANT LIFE. DUST CONTROL MEASURES SHALL BE EMPLOYED TO PREVENT SURFACE AND AIR MOVEMENT OF DUST DURING CONSTRUCTION. MEASURES EMPLOYED SHALL BE IN ACCORDANCE WITH THE

EROSION 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

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 APPROVING 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 IS ACHIEVED. ES-8: DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED WATER FILTERING DEVICE. ES-9: THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES

OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

EROSION CONTROL NOTES

APPROVAL BY THE PLAN APPROVING AUTHORITY.

THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND

PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT.

ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS

DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION. 2. ALL EROSION AND SEDIMENT CONTROL MEASURES 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.

3. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING. 4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE

MAINTAINED ON THE SITE AT ALL TIMES. 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 APPROVING AUTHORITY. 6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS

DETERMINED BY THE PLAN APPROVING AUTHORITY. 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 IS ACHIEVED.

8. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE. 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 10. ALL FILL MATERIAL TO BE TAKEN FROM AN APPROVED, DESIGNATED BORROW AREA. ALL WASTE MATERIALS SHALL BE TAKEN TO AN APPROVED WASTE AREA. EARTH FILL SHALL BE INERT MATERIALS ONLY, FREE OF ROOTS, STUMPS, WOOD, RUBBISH, AND 12. BORROW OR WASTE AREAS ARE TO BE RECLAIMED WITHIN 7 DAYS OF COMPLETION PER

ZONING ORDINANCE SECTION 5.1,28. 13. ALL INERT MATERIALS SHALL BE TRANSPORTED IN COMPLIANCE WITH CURRENT CITY 14. BORROW, FILL OR WASTE ACTIVITY INVOLVING INDUSTRIAL-TYPE POWER EQUIPMENT

SHALL BE LIMITED TO THE HOURS OF 7:00 AM TO 9:00 PM. 15. BORROW, FILL OR WASTE ACTIVITY SHALL BE CONDUCTED IN A SAFE MANNER THAT MAINTAINS LATERAL SUPPORT, OR ORDER TO MINIMIZE ANY HAZARD TO PERSONS, PHYSICAL DAMAGE TO ADJACENT LAND AND IMPROVEMENTS, AND DAMAGE TO ANY

PUBLIC STREET BECAUSE OF SLIDES, SINKING, OR COLLAPSE. 16. THE DEVELOPER SHALL RESERVE THE RIGHT TO INSTALL, MAINTAIN, REMOVE OR CONVERT TO PERMANENT STORMWATER MANAGEMENT FACILITIES WHERE APPLICABLE AL EROSION CONTROL MEASURES REQUIRED BY THIS PLAN REGARDLESS OF THE SALE OF ANY LOT, UNIT, BUILDING OR OTHER PORTION OF THE PROPERTY.

17. TEMPORARY STABILIZATION SHALL BE TEMPORARY SEEDING AND MULCHING. SEEDING IS TO BE APPLIED AT 50-100 LBS/ACRE FROM SEPTEMBER 1 TO FEBRUARY 15 AND SHALL CONSIST OF A 50/50 MIX OF ANNUAL RYEGRASS AND CEREAL WINTER RYE. FROM FEBRUARY 16 TO APRIL 30 SEEDING SHALL BE APPLIED AT 60-100 LBS/ACRE AND CONSIST OF ANNUAL RYE GRASS. FROM MAY 1 TO AUGUST 31 SEEDING SHALL BE APPLIED AT 50 LBS/ACRE AND CONSIST OF GERMAN MILLET. STRAW MULCH IS TO BE APPLIED AT 70-90 LBS PER 1,000 SF. ALTERNATIVES ARE SUBJECT TO APPROVAL BY THE EROSION CONTROL INSPECTOR.

18. PERMANENT STABILIZATION SHALL BE LIME AND FERTILIZER, PERMANENT SEEDING, AND MULCH. AGRICULTURAL GRADE LIMESTONE SHALL BE APPLIED AT 90LBS/1000SF. INCORPORATED INTO THE TOP 4-6 INCHES OF SOIL. FERTILIZER SHALL BE APPLIED AT 1000LBS/ACRE AND CONSIST OF A 10-20-10 NUTRIENT MIX. PERMANENT SEEDING SHALL BE APPLIED AT 150LBS/ACRE AND CONSIST OF 128 LBS KENTUCKY 31 FESCUE AND 2 LBS RED TOP GRASS, AND 20 LBS SEASONAL NURSE CROP PER TABLE 3.32-D BELOW. STRAW MULCH IS TO BE APPLIED AT 70-90 LBS PER 1,000SF. ALTERNATIVES ARE SUBJECT TO APPROVAL BY THE EROSION CONTROL INSPECTOR.

19. MAINTENANCE: ALL MEASURES ARE TO BE INSPECTED WEEKLY AND AFTER EACH RAINFALL. ANY DAMAGE OR CLOGGING TO STRUCTURAL MEASURES IS TO BE REPAIRED IMMEDIATELY. SILT TRAPS ARE TO BE CLEANED WHEN 50% OF THE WET STORAGE VOLUME IS FILLED WITH SEDIMENT. ALL SEEDED AREAS ARE TO BE RESEEDED WHEN NECESSARY TO ACHIEVE A GOOD STAND OF GRASS. SILT FENCE AND DIVERSION DYKES WHICH ARE COLLECTING SEDIMENT TO HALF THEIR HEIGHT MUST BE CLEANED AND REPAIRED IMMEDIATELY.

20. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE REMOVED WITHIN 30 DAYS OF FINAL SITE STABILIZATION, WHEN MEASURES ARE NO LONGER NEEDED, SUBJECT TO APPROVAL BY THE EROSION CONTROL INSPECTOR. 21. THE E&S INSPECTOR HAS THE AUTHORITY TO ADD OR DELETE E&S CONTROLS AS NECESSARY IN THE FIELD AS SITE CONDITIONS CHANGE. IN ADDITION, NO SEDIMENT

BASIN OR TRAP CAN BE REMOVED WITHOUT WRITTEN AUTHORIZATION.

DESCRIPTION OF EROSION & SEDIMENT CONTROL MEASURES:

EROSION AND SEDIMENT CONTROL MEASURES:

IT IS ANTICIPATED TO USE A CONSTRUCTION ENTRANCE, SUPER SILT FENCE, INLET PROTECTION, A RIGHT-OF-WAY DIVERSION, TEMPORARY AND PERMANENT SEEDING, TREE PROTECTION FENCING, AND DUST CONTROL TO CONTROL SURFACE DRAINAGE AND EROSION. TEMPORARY SEEDING WILL BE USED IMMEDIATELY FOLLOWING ALL LAND DISTURBANCE ACTIVITIES. TEMPORARY STOCKPILE AREAS WILL BE MAINTAINED FROM TOPSOIL THAT WILL BE STRIPPED FROM AREAS TO BE GRADED AND STORED FOR LATER SPREADING. STOCKPILE LOCATIONS SHALL BE ON SITE AND SHALL BE STABILIZED WITH A TEMPORARY VEGETATIVE COVER. PERMANENT SEEDING WILL BE PERFORMED FOR ALL AREAS WHICH WILL NO LONGER BE EXCAVATED AND WHERE CONSTRUCTION ACTIVITIES HAVE CEASED. PERMANENT SEEDING SHALL ALSO BE PERFORMED FOR ALL DENUDED AREAS WHICH WILL BE LEFT DORMANT FOR A YEAR OR MORE. SELECTION OF SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR APPLIED. TEMPORARY SEEDING WILL BE PERFORMED FOR ALL DENUDED AREAS WHICH WILL BE LEFT DORMANT FOR MORE THAN SEVEN DAYS. THESE AREAS SHALL BE SEEDED WITH FAST GERMINATING VEGETATION IMMEDIATELY FOLLOWING GRADING OF THOSE AREAS. SELECTION OF SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR APPLIED. 3.02 CONSTRUCTION ENTRANCE - A CONSTRUCTION ENTRANCE WILL BE INSTALLED AT THE PROPOSED ENTRANCE ALONG SEMINOLE COURT TO PROTECT

3.05 SILT FENCE - SUPER SILT FENCE WILL BE INSTALLED ALONG THE DOWNSTREAM BOUNDARIES OF THE SITE WEST AND SOUTH OF THE PROJECT. 3.07 STORM DRAIN INLET PROTECTION - INLET PROTECTION TO BE INSTALLED AT EACH EXISTING STORM BOX IN THE VICINITY, AS WELL AS ON EACH PROPOSED STORM INLET AS SHOWN ON THE PLANS.

3.11 TEMPORARY RIGHT-OF-WAY DIVERSION - A RIGHT-OF-WAY DIVERSION SHALL BE INSTALLED AT THE PROPOSED ENTRANCE TO THE SITE. 3.31 TEMPORARY SEEDING - TEMPORARY SEEDING SHALL BE INSTALLED WHERE SHOWN ON THE PLANS.

3.32 PERMANENT SEEDING - PERMANENT SEEDING SHALL BE INSTALLED WHERE SHOWN ON THE PLANS. 3.35 MULCHING - APPLICATION OF PLAN RESIDUES OR OTHER SUITABLE

MATERIALS TO THE SOIL SURFACE. 3.38 TREE PRESERVATION AND PROTECTION - TREE PROTECTION FENCING SHALL BE INSTALLED AROUND THOSE TREES AND BUSHES MARKED TO BE PRESERVED WHERE SHOWN ON THE PLANS.

3.39 DUST CONTROL - DUST CONTROL SHALL BE INSTALLED WHERE SHOWN ON THE PLANS.

STORMWATER MANAGEMENT:

THE DRAINAGE AREA TO THE EXISTING STORMWATER MANAGEMENT FACILITY WAS ANALYZED FOR QUALITY AND QUALITY AND WAS FOUND TO BE IN COMPLIANCE WITH CITY AND STATE REGULATIONS. THEREFORE, NO ADDITIONAL STORMWATER DETENTION OR WATER QUALITY TREATMENT IS REQUIRED. VSMH WATER QUALITY CALCULATIONS HAVE BEEN PROVIDED WITH THE PLANS AND THE SWM SHEET INCLUDED WITH THIS SET PROVIDES QUANTITY ROUTING CALCULATIONS. NO CHANGES ARE REQUIRED TO BE MADE TO THE APPROVED PEPSI-COLA BOTTLING COMPANY PLANT EXPANSION SITE PLAN, STORMWATER MANAGEMENT PLAN BY COLLINS ENGINEERING, LLC, DATED JULY 16, 2007.

MAINTENANCE:

IN GENERAL, DURING CONSTRUCTION THE RLD OR CONTRACTOR ON-SITE WILL CHECK ALL EROSION AND SEDIMENT CONTROL MEASURES DAILY AND AFTER FACH SIGNIFICANT RAINFALL. MONITORING REPORTS WILL BE REQUIRED FROM THE RLD IF NEEDED. SPECIFIC ATTENTION WILL BE GIVEN TO THE FOLLOWING ITEMS: a. SEDIMENT BASINS AND/OR TRAPS WILL BE CLEANED AND MAINTAINED IN

ACCORDANCE WITH THE VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK. b.ALL GRAVEL OUTLETS WILL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP THAT WILL PREVENT PROPER DRAINAGE. IF THE GRAVEL IS CLOGGED BY SEDIMENT, THE GRAVEL WILL BE REMOVED AND CLEANED, OR IT WILL BE REPLACED. C. ALL SILT FENCE BARRIERS WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC AND REPAIRED AS REQUIRED. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHED HALF WAY TO

THE TOP OF THE BARRIER. d. ALL SEEDED AREAS WILL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED. IN CASE OF EMERGENCY, THE PRIMARY CONTACT FOR THE PROJECT WILL BE THE RLD OR CONTRACTOR ON-SITE. IN ADDITION, THE ENGINEER, MR. SCOTT COLLINS MAY BE CONTACTED AT 434-987-1631. UPON COMPLETION OF THE PROJECT, THE OWNER WILL BE RESPONSIBLE FOR SITE MAINTENANCE.

EROSION CONTROL NOTES & NARRATIVE

<u>PROJECT DESCRIPTION:</u>

THE PURPOSE OF THIS LAND DISTURBANCE ACTIVITY IS TO EXPAND THE EXISTING PEPSI-COLA BOTTLING PLANT, AND CREATE ADDITIONAL PARKING AND CIRCULATION AREA TO THE SOUTH-WEST OF THE SITE. THE PROJECT WILL BEGIN CONSTRUCTION APPROXIMATELY IN THE FALL OF 2013 AND CONCLUDE IN THE SPRING OF 2014. THE TIME FOR COMPLETION WILL BE APPROXIMATELY 8 MONTHS. EXISTING SITE CONDITIONS:

THE AREA OF THE PROPOSED BUILDING EXPANSION IS CURRENTLY PAVED. A SMALL PORTION OF THE CIRCULATION AREA DISTURBANCE OCCURS WITHIN AN EXISTING FORESTED AREA. THE SITE IS FLAT WHERE PAVED AND DRAINS TO EXISTING CURB AND STORM SEWER. THE FORESTED AREA WITH MAN-MADE SLOPES DRAIN SOUTH-WEST TO AN EXISTING DRAINAGE DITCH ADJACENT TO THE SITE.

THE PORTION OF THE SITE PROPOSED TO BE DISTURBED IS CURRENTLY TREATED BY AN EXISTING RETENTION STORMWATER MANAGEMENT FACILITY TO THE SOUTH EAST. THIS FACILITY HAS BEEN DESIGNED TO HANDLE THE PROPOSED DEVELOPMENT AREA. MEADOW CREEK STREAM IS DIRECTLY EAST OF THE SITE AND ACCEPTS THE EXISTING POND OUTFALL.

THE PROPOSED DEVELOPMENT RESULTS IN A NEGLIGIBLE INCREASE IN IMPERVIOUS AREA.

THE WESTERN PORTION OF THE SITE DISTURBANCE SHALL REMAIN ABOVE THE 416 CONTOUR. NO DISTURBANCE SHALL OCCUR AT OR BELOW THE 416 CONTOUR DUE TO AN EXISTING SWM EASEMENT.

THIS SITE IS BORDERED BY MEADOW CREEK TO THE EAST, A SHOPPING CENTER TO THE SOUTH, THE POST OFFICE TO THE WEST, AND OFFICES TO THE NORTH. MOST OF THE DRAINAGE FROM THE PROPOSED DEVELOPMENT DRAINS TO MEADOW CREEK, BUT IS INTERCEPTED BY CURB AND GUTTER, STORM SEWER, AND A STORMWATER MANAGEMENT FACILITY. THE CONTRACTOR SHALL ENSURE THAT NO RUNOFF ESCAPES THE SITE. SUPER SILT FENCE, DUST CONTROL, INLET CONTROL, AND A RIGHT-OF-WAY DIVERSION SHALL BE UTILIZED TO AVOID CONTAMINATION OF ADJACENT PROPERTIES OR WATERWAYS. OFFSITE LAND DISTURBANCE:

THE SANITARY SEWER CONNECTION SHALL OCCUR WITHIN AN EXISTING ACCESS EASEMENT. NO OTHER OFFSITE LAND DISTURBANCE IS PROPOSED.

THERE ARE NO SOIL BOUNDARIES WITHIN THE PROJECT LIMITS. SOILS ARE URBAN SOIL, SEE SOIL DESCRIPTION THIS PAGE. CRITICAL AREAS:

THE PROPOSED DEVELOPMENT SHALL PRESERVE AND PROTECT THE EXISTING DRAINAGE DITCH AND SWM EASEMENT TO THE SOUTH OF THE WORK, AS WELL AS THE EXISTING CRITICAL SLOPES TO REMAIN. APPROXIMATELY 1.76ac. OF THE SITE's 15.3ac (11.5%) HAS SLOPES GREATER THAN OR EQUAL TO 25%. TREE PROTECTION FENCING SHALL BE INSTALLED AS A FIRST STEP IN LAND DISTURBANCE. GRADING AND DIGGING OPERATIONS SHALL REMAIN WITHIN THE SUBJECT PARCEL OR EXISTING EASEMENTS.

SOIL DESCRIPTION

88 - UDEORTHENTS, LOAMY (URBAN SOIL/FILL)-2% TO 25% SLOPES. SOURCE MATERIAL RESIDUUM WEATHERED FROM GRANITE AND GNEISS. MORE THAN 80 INCHES TO RESTRICTIVE FEATURE AND WATER TABLE. CONVEX DOWN AND ACROSS-SLOPE SHAPE. NO FREQUENCY OF FLOODING OR PONDING. (SEE SHEET 3 FOR SOIL BOUNDARY & NAME)

REFERENCE: WEB SOIL SURVEY ONLINE DATABASE, FOUND AT http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

EROSION CONTROL NOTES & NARRATIVE

SEQUENCE OF CONSTRUCTION:

1. PHASE 1: NOTIFY THE CITY OF CHARLOTTESVILLE AND PUBLIC WORKS DEPARTMENT TO SCHEDULE A PRE-CONSTRUCTION MEETING AS REQUIRED.

PHASE 1: FLAG THE INITIAL LIMITS OF DISTURBANCE AND INSTALL TREE PROTECTION FENCING. PHASE 1: NO EROSION CONTROL MEASURES MAY BE REMOVED DURING THE CONSTRUCTION PROCESS WITHOUT THE APPROVAL FROM THE INSPECTOR ON THE PROJECT.

PHASE 1: INSTALL THE PAVED CONSTRUCTION ENTRANCE AND WASH RACK LOCATED AT THE PROPOSED TRUCK ENTRANCE AS SHOWN ON THE PLANS. CONTRACTOR SHALL ENSURE THE WASH RACK/CONSTRUCTION ENTRANCE DRAINS TO AN ADEQUATE E&S MEASURE. CONSTRUCTION ENTRANCE TO BE INSTALLED WHERE CONSTRUCTION VEHICLE ROUTES INTERSECT PAVED 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 PUBLIC ROAD SURFACE, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTING TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.

PHASE 1: INSTALL THE INITIAL E&S PHASE I CONSTRUCTION MEASURES AS SHOWN ON THE EROSION CONTRÒL SHEET. THIS INCLUDES TREE PROTECTION, A CONSTRUCTION ENTRANCE, INLET PROTECTION, A GRAVEL BERM RIGHT-OF-WAY DIVERSION, SILT FENCE FOR THE STOCKPILE LOCATION AND SUPER SILT FENCE AS SHOWN ON THE PLAN. PERIMETER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP WITH ANY LAND DISTURBANCE ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

PHASE 1: ONCE THE PERIMETER EROSION CONTROL PHASE 1 MEASURES HAVE BEEN INSTALLED AS SHOWN ON THE EROSION CONTROL PHASE 1 PLAN, AND THE CITY INSPECTOR HAS APPROVED THESE MEASURES, LAND DISTURBANCE MAY BEGIN.

PHASE 1A: ONCE ALL THE EROSION CONTROL PHASE 1 ITEMS HAVE BEEN INSTALLED AS SHOWN ON THE EROSION CONTROL PHASE 1 PLAN AND THE CITY INSPECTOR HAS APPROVED THE EROSION CONTROL MEASURES, THE CONTRACTOR SHALL BEGIN CLEARING AND GRADING. THE PARKING LOT EXPANSION AND WALL CONSTRUCTION SHALL OCCUR NEXT AND SHALL OCCUR PRIOR TO THE DEMOLITION OF THE EXISTING PARKING AREA. IN THE EVENT THE CONTRACTOR REQUIRES OFFSITE FILL MATERIAL, THE CONTRACTOR SHALL ENSURE THE BARROW SITE HAS A CURRENT APPROVED E&S PLAN, AS REQUIRED BY THE LOCALITY. WORK ASSOCIATED WITH THE CONSTRUCTION OF THE PARKING LOT EXPANSION AND AND RETAINING WALL SYSTEM SHALL OCCUR ON THE TOP SIDE AS INDICATED ON THE PLANS TO REDUCE POTENTIAL IMPACTS TO THE DOWNSTREAM CHANNEL. DURING THIS TIME THE EXISTING PARKING AREA SHALL BE USED AS A STAGING AREA FOR THE WALL MATERIALS AND CONSTRUCTION EQUIPMENT. UPON COMPLETION OF THE RETAINING WALL CONSTRUCTION AND ROUGH GRADING OF THE PARKING LOT EXPANSION, THE CONTRACTOR SHALL FINALIZE THE PARKING LOT SUBGRADE TO THE FULLEST EXTENT POSSIBLY AND INSTALL THE STONE BASE FOR THE ASPHALT & PERMEABLE PAVERS.

8. PHASE 2: ONCE PHASE IA OF THE EROSION & SEDIMENT CONTROL PLAN IS COMPLETE, THE CONTRACTOR SHALL INSTALL THE INITIAL E&S PHASE II CONSTRUCTION MEASURES AS SHOWN ON THE EROSION CONTROL PHASE II SHEET. MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP WITH ANY LAND DISTURBANCE ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE. DURING THIS TIME THE STABILIZED AREA FROM THE PARKING LOT'S STONE BASE CAN BE UTILIZED FOR STAGING AND CONSTRUCTION EQUIPMENT FOR PHASE II OF THE ESC PLAN. AT THIS TIME THE REMAINING DEMOLITION, CLEARING, AND GRADING OF THE SITE CAN OCCUR. CONTRACTOR SHALL ENSURE STONE BASE MEETS PAVEDRAIN STANDARDS & SHALL CLEAN & REPLACE THE STONE AS NEEDED PRIOR TO INSTALLATION OF THE PERMEABLE PAVERS. 9. PHASE 2: COMPLETE DEMOLITION AND ROUGH GRADE THE REMAINDER OF THE SITE.

10. PHASE 2: INSTALL THE PROPOSED WATERLINE REROUTING AND PROPOSED STORM STRUCTURES. INLET PROTECTION SHALL BE APPLIED TO NEW STORM STRUCTURES.

11. PHASE 2: STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

12. PHASE 2: INSTALL THE REMAINING PROPOSED UTILITIES, CURB AND GUTTER AND BEGIN BUILDING EXPANSION AND DOCK/LOADING AREA CONSTRUCTION. FINAL COAT OF ASPHALT AND PLACEMENT OF PERMEABLE PAVERS SHALL BE INSTALLED AFTER THE MAJORITY OF THE CONSTRUCTION HAS OCCURRED TO PREVENT DAMAGE TO THE PARKING LOT FROM HEAVY CONSTRUCTION EQUIPMENT.

13. PHASE 2: PERMANENT 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 (UNDISTURBED) FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.

14. PHASE 2: MAINTAIN ALL EROSION CONTROL MEASURES AS SPECIFIED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, REMOVING ONLY WHEN APPROVED BY THE LOCAL PROGRAM ADMINISTRATOR IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. 15. PHASE 2: 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 ADMINISTRATOR. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION. 16. PHASE 2: ONCE THE SITE IS STABILIZED AND THE INSPECTOR HAS GIVEN APPROVAL, THE CONTRACTOR

CAN REMOVE THE REMAINING PHASE 2 EROSION CONTROL MEASURES

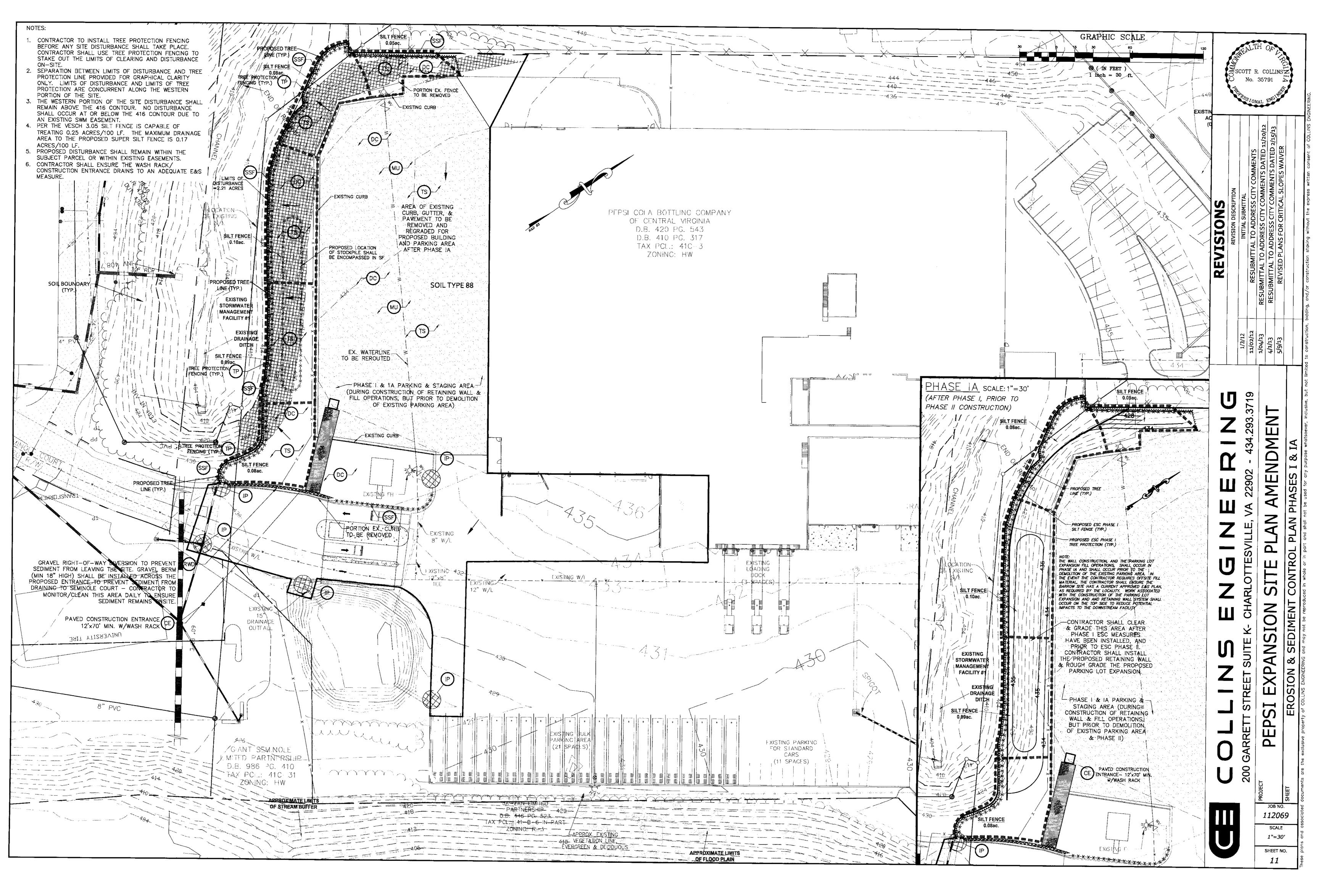
SCOTT R. COLLINS No. 35791

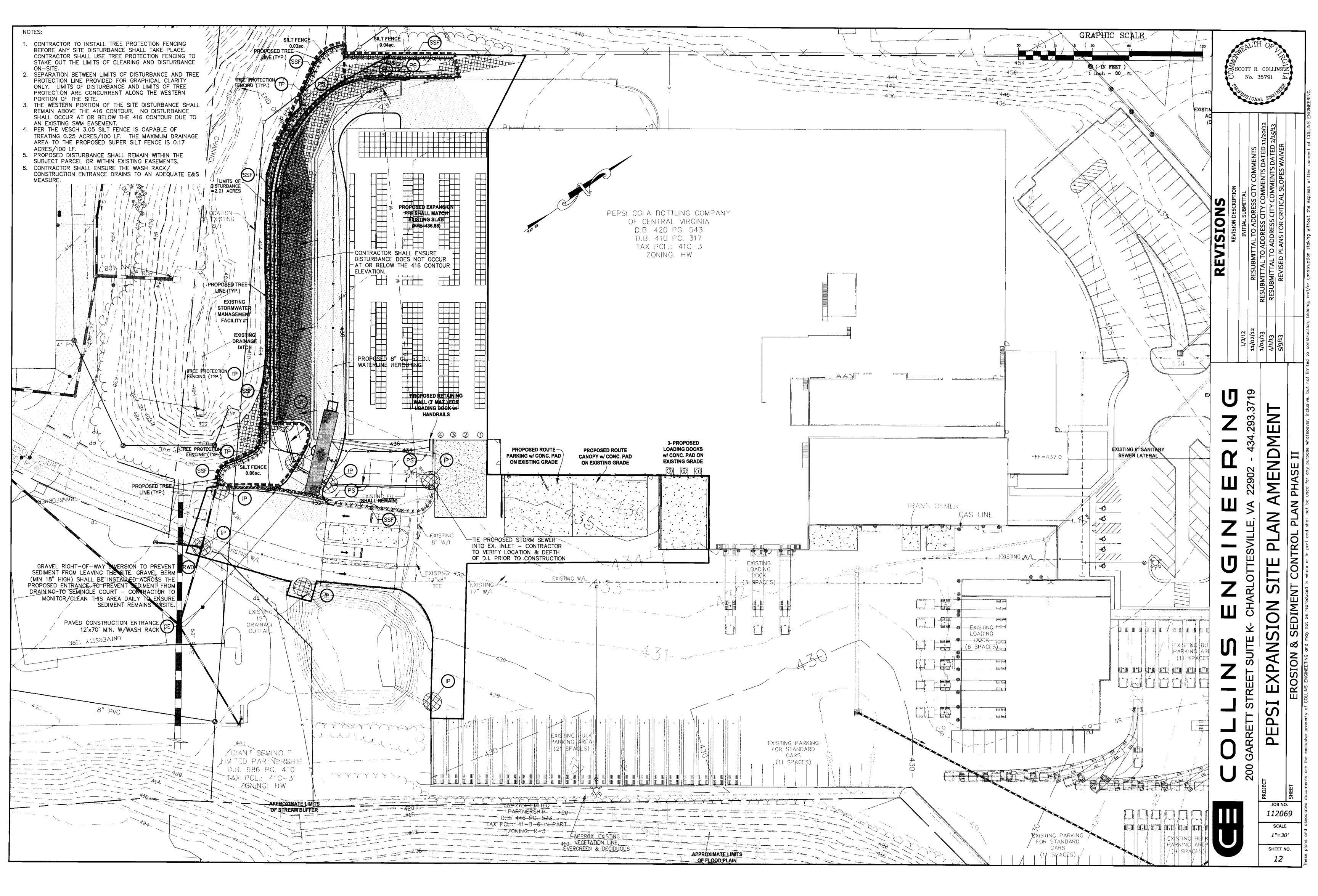
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112069 SCALE N/A

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* When fiber mulch is the only available mulch during periods when straw should be used, apply at a minimum rate of 2000 lbs./ac. or 45 lbs./1000 sq. ft.

Source: Va. DSWC

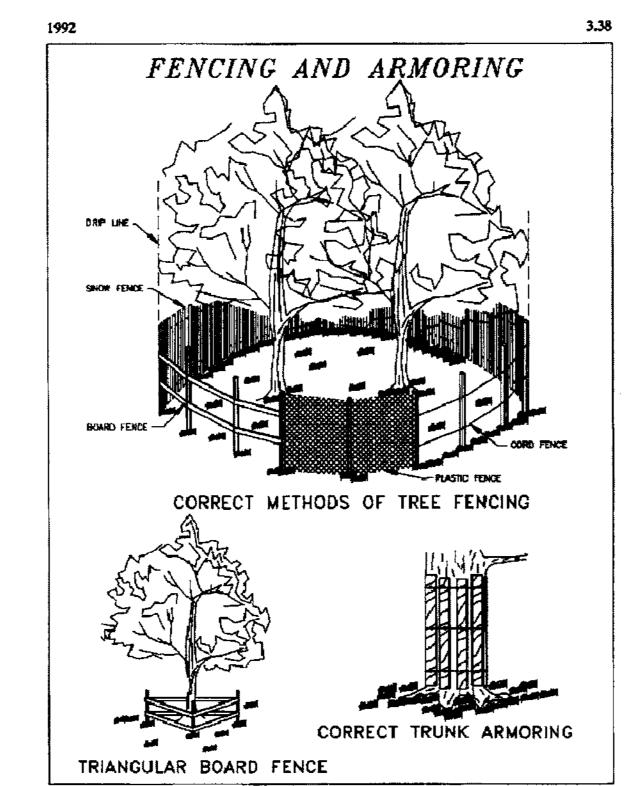


Plate 3.38-2 Source: Va. DSWC

STONE

ACCESS-

STONE

ACCESS-

OPERATION

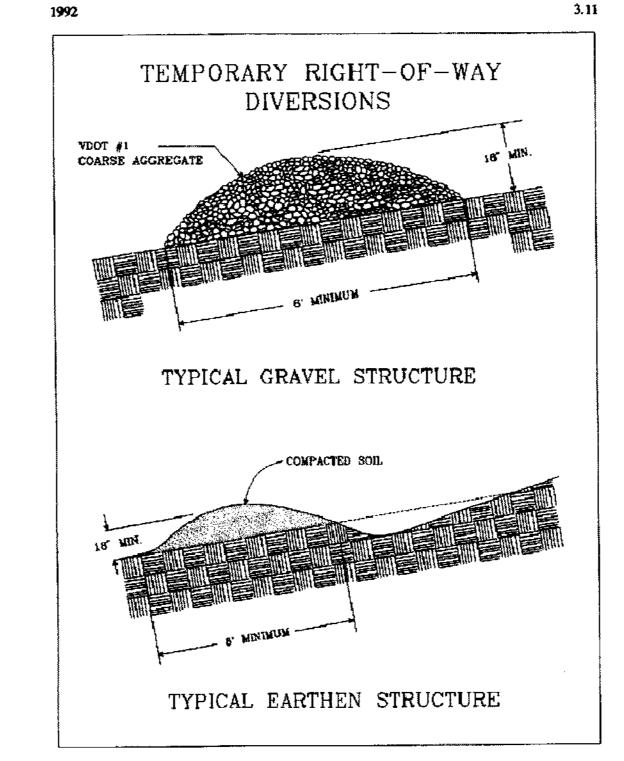
CONSTRUCTION

*MUST EXTEND FULL WIDTH

OF INGRESS AND EGRESS

FILTER CLOTH-

CONSTRUCTION



Source: Va. DSWC

EXISTING

PAVEMENT-

- POSITIVE DRAINAGE TO SEDIMENT TRAPPING DEVICE

PAVEMENT

Plate 3.11-1

TABLE 3.31-C

TEMPORARY SEEDING PLANT MATERIALS, SEEDING RATES, AND DATES

	SEEDING I	ATE	3	NORTH	E	S	OUTI	f ^b	757 A 3.577
SPECIES	Acre	1000 A ²	3/1 to 4/30	5/1 to 8/15	8/15 to 11/L	2/15 to 4/30	5/1 to 9/1	9/1 to 11/15	PLANT CHARACTERISTICS
OATS (Ayens satiya)	3 bu. (up to 100 fbs., not less than 50 lbs.)	2 lbs.	х	-	-	Х	-	•	Use spring varieties (e.g., Noble)
RYE ^d (<u>Secale cercule)</u>	2 bu. (up to 110 lbs., not less than 50 lbs.)	2.5 lbs.	х		х	x	-	X	Use for late fall seedings, winter cover. Telerates cold and low moisture.
GERMAN MILLET (Sotatis italica)	50 lbs.	врргох. 1 Љ.	-	x	-	-	х	-	Warm-season annual. Dies at fire front. May be added to summer mixes.
ANNUAL RYEGRASS ^C (Loium multi-florum)	60 lbs.	11/2 lbs.	х	-	x	х	·	х	May be added in mixes. Will mow out of most steads.
WEEPING LOVEGRASS (Enerostis curvula)	15 lbs.	51/2 OZS.	•	X	-	-	х	-	Warm-season perennial. May brach. Tolerates hot, dry slopes and acid, infertile soils. May be added to mixes.
KOREAN LESPEDEZA ^c (Lespedeza sticulaces)	25 lbs.	approx. 1½ fbe.	X	х	-	х	х	-	Warm season amual legume. Tolerates acid soits. May be added to mixes.

Northern Piedmont and Mountain region. See Plates 3.22-1 and 3.22-2.

Southern Piedmont and Coastal Plain. May be used as a cover crop with spring seeding.

May be used as a cover crop with fall seeding.

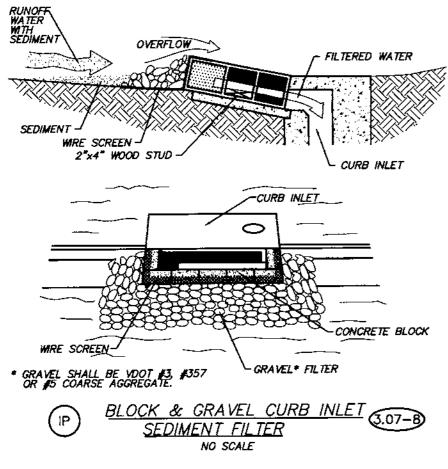
X May be planted between these dates. May not be planted between these dates.

TABLE 3.39-A

ADHESIVES USED FOR DUST CONTROL

<u>Adhesive</u>	Water Dilution (Adhesive: Water)	Type of Nozzle G	Application Rate allons/Acre
Anionic Asphalt Emulsion	7:1	Coarse Spray	1,200
Latex Emulsion	12.5: 1	Fine Spray	235
Resin in Water	4: 1	Fine Spray	300
Acrylic Emulsion (Non-Traffic)	7 :1	Coarse Spray	450
Acrylic Emulsion (Traffic)	3.5:1	Coarse Spray	350

Source: Va. DSWC



GENERAL SLOPE (3:1 OR LESS)	TOTAL LBS PER ACRE
KENTUCKY 31 FESCUE	128 LBS.
RED TOP GRASS	2 LBS.
SEASONAL NURSE CROP	20 LBS.
SEASONAL NURSE CROP	150 LBS
FEBRUARY 16 THROUGH APRIL	annual Rye
MAY 1 THROUGH AUGUST 15	FOXTAIL MILLET
AUGUST 16 THROUGH OCTOBER	annual Rye
NOVEMBER THROUGH FEBRUARY 15	WINTER RYE
NOTES:	

2. SEEDINGS TO BE MULCHED IMMEDIATELY UPON COMPLETION

PERMANENT SEEDING SCHEDULE NO SCALE

SECTION A-A A minimum water tap of 1 inch must be installed with a minimum 1 inch ballcock shutoff valve supplying a wash hose with diameter or 1.5 inches for adequate constant pressure. Wash water must be carried away from the entrance to an approved settling area to remove sediment. All sediment shall be prevented from entering storm drains, ditches or watercourses.

' SM-2A ASPHALT

-ASPHALT PAVED

POSITIVE DRAINAGE
TO SEDIMENT

TRAPPING DEVICE

WASHRACK

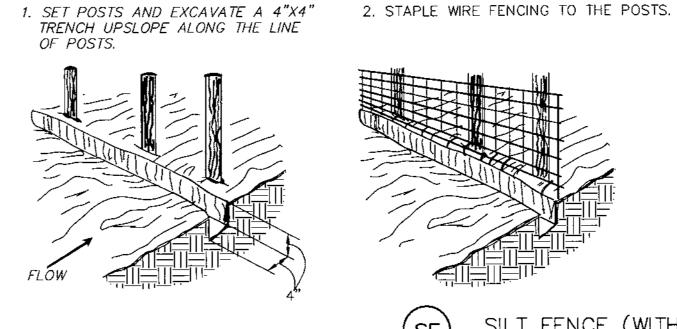
└─6" MIN. 21A AGGREGATE BASE

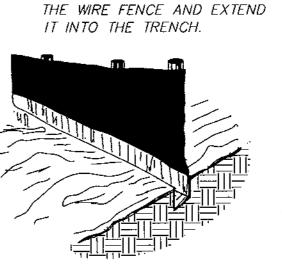
TOP COURSE

PAVED WASH RACK

BBBBBBBBBBB

NO SCALE





3. ATTACH THE FILTER FABRIC TO

4. BACKFILL AND COMPACT THE EXCAVATED SOIL.

EXTENSION OF FABRIC AND WIRE INTO THE TRENCH.

SILT FENCE (WITH WIRE SUPPORT) (STD. & SPEC. 3.05 OF VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK, 3RD ED.)

112069 SCALE N/A SHEET NO.

CH

DMEN

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CONTROL DETAILS

EROSION & SEDIMENT
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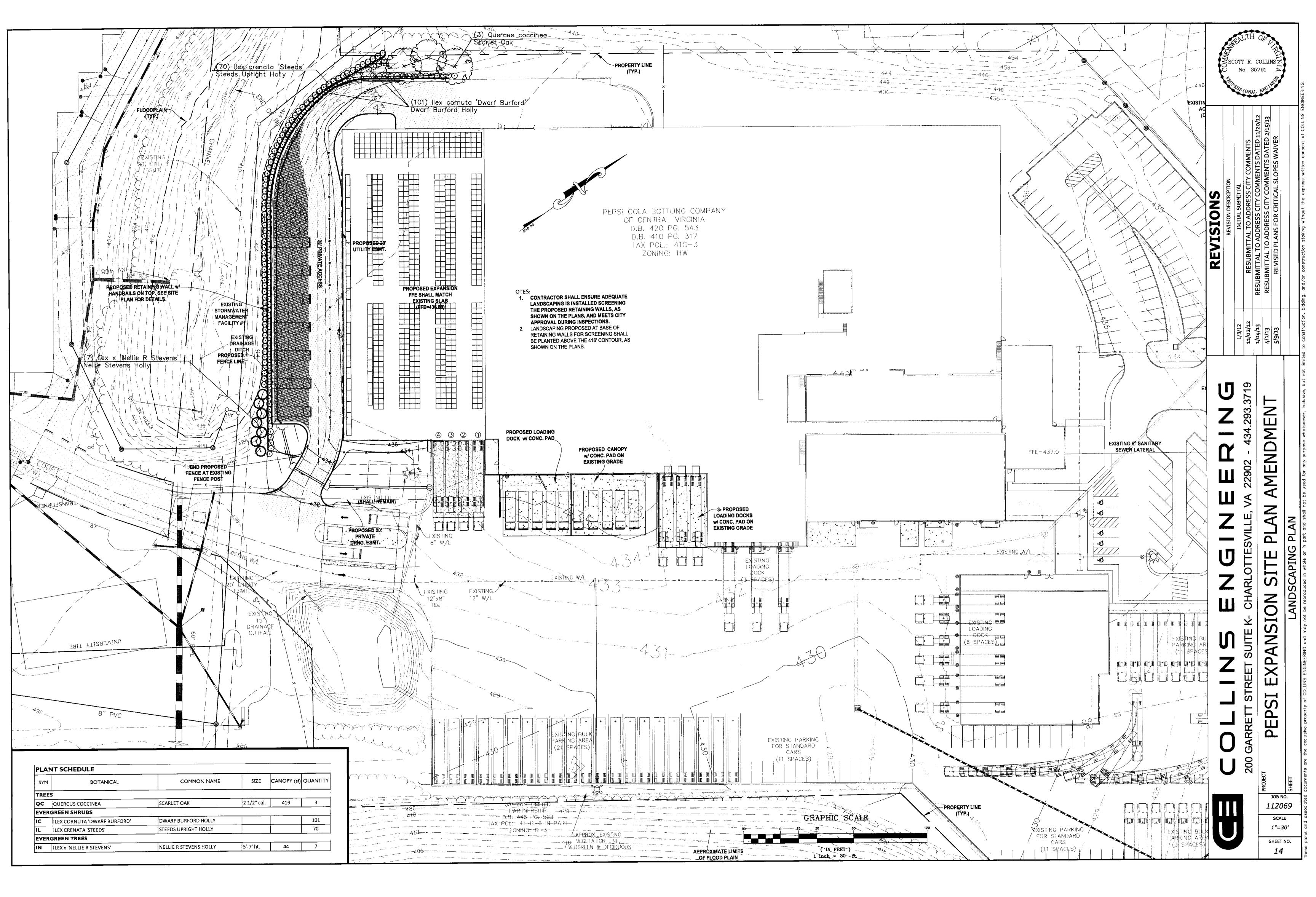
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XPANSION 200

GENERAL SLOPE (3:1 OR LESS)	TOTAL LBS PER ACRE
KENTUCKY 31 FESCUE	128 LBS.
RED TOP GRASS	2 LBS.
SEASONAL NURSE CROP	20 LBS.
SEASONAL NURSE CROP	150 LBS
FEBRUARY 16 THROUGH APRIL	annual Rye
MAY 1 THROUGH AUGUST 15	FOXTAIL MILLET
AUGUST 16 THROUGH OCTOBER	annual Rye
NOVEMBER THROUGH FEBRUARY 15	WINTER RYE
NOTES:	
 LIME AND FERTILIZER NEEDS SHALL BE TESTS AND APPLIED IN ACCORDANCE WIT 	

OF SEED APPLICATION, IN ACCORDANCE W/ VESCH STD 3.35.

(STD. & SPEC. 3.32 OF VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK, 3RD ED.)



PB-0011



WAIVER REQUEST FORM

Please Return To: City of Charlottesville

Department of Neighborhood Development Services

PO Box 911, City Hall

Charlottesville, Virginia 22902

Telephone (434) 970-3182

Fax (434) 970-3359

Edited on 10/31/2012

For a Critical Slopes Waiver Request, please include one of the following application fees: \$75 for single-family or twofamily projects; \$500 for all other project types. *additional application form required For all other Waiver Requests, please include one of the following application fees: \$50 for single-family or two-family projects; \$250 for all other project types.

Address/LocationIISO PENSI PLACE _CHAPLE _CHAPLE _CHAPLE _CA Owner Name PENSI BOTT LIVE LOCATED Applicant Name PENSI C/o Located Entire Edited Applicant Address: COO GARLETI STIMET, SUINE & CHAPLE _ CHAPLE _ CA Applicant Address: COO GARLETI STIMET, SUINE & CHAPLE _ CHAPLE _ CA CHAPLE _ CA Applicant Name PENSI C/o Located _ CA CA Applicant Name PENSI C/o Located _ CA CA Applicant Name PENSI C/o Located _ CA
Applicant Address: 200 6 And STARS, SUNE & CHANDESULUE, AD 22902 Phone (H) 434-243-3719 (W) 434-243-3719 (F) Email: SUNT C bollows - Robbinship Lon Waiver Requested (review Zoning Ordinance for items required with waiver submissions): Sidewalk Drainage/Storm Water Management *Contact Staff for Supplemental Requirements Off-street Parking Site Plan Review Lighting
Sidewalk
Landscape Signs Setbacks Critical Slopes *additional application form required
Communication FacilitiesOtherStream Buffer Mitigation Plan Description of Waiver Requested: IMPAUT TO IMPAUTABLE CUITICAL SUPES About THE SOUTHERN PONTION OF THE SING
Reason for Waiver Request: BYPANSION OF THE SEMINAL SQUARE NETTLE CENTRA TO CONPENSATE FOR THE HILLS DALE DUNE EXPENSION THROUGH THE PROPERTY Date 1-13-13 Date Property Owner Signature (if not applicant) Description of the Seminal Square of the Property Owner Signature (if not applicant) Description of the Seminal Square o
Review Required: Administrative Planning Commission City Council Director of NDS



434 293 3719 PH 434 293 3719 FX

www.collins-engineering.com

January 18, 2013 Updated 3/18/2013 Further Updated 5/10/2013

City of Charlottesville
Department of Neighborhood Development Services
P.O. Box 911
Charlottesville, VA 22902

RE: Pepsi Bottling Company Expansion - Critical Slopes Waiver Request Supplement

Please allow this letter to serve as our formal request for a critical slope waiver to allow an impact to the critical slopes along the southern portion of the Pepsi Bottling Company property. The current use of the property is a manufacturing, bottling, and warehouse facility for Pepsi products.

Applicant: Collins Engineering / Pepsi Bottling Company

Property Owner: Pepsi Bottling Company of Central Virginia

Existing Conditions:

This area to the south of the site with the existing, but mostly man made critical slopes is primarily wooded. This area was graded and these slopes were created almost 30 years ago when the property was first developed in the early 1980's. 2:1 and 3:1 slopes were used to establish the grades along the southern bank. Overall the existing bank is in fair condition, there are some areas that show signs of erosion while other portions of the bank are holding up better. There is a currently a creek and existing stormwater management facility along this area with the critical slopes. The city currently has a stormwater management easement in this area up to the 416 contour elevation, which easement was designed to accommodate a 100 year flood event. The proposed improvements and impacts to the critical slopes would not affect the existing stormwater management facility or stream along the southern property, as they would begin at the 418 contour elevation.

Project Description:

The reason for the critical slope waiver request for the project is to prepare the property for the future Pepsi plant expansion along with the pending improvements that were designed to help mitigate impacts to the Pepsi facility as a result of the extension of the Hillsdale Drive along the western and northern portions of the property. Currently, the city has designed the future Hillsdale Drive to extend along this western portion of the Pepsi property between the Pepsi plant and the U.S. Post Office building and tie-in along the northern property line to existing Pepsi Place. The extension will have a major effect on the existing facilities' overall ability to expand in the future. The roadway, once constructed, will prevent a future expansion of the facility to the west and to the north.

The only area left to develop for the building and parking lot expansion is to the south, which involves these impacts to the existing critical slopes. The proposed expansion will accommodate space for additional parking and building expansion necessary for Pepsi to meet their overall facility's needs for the future. The need for the expansion is based on a 30 year program forecast for the company and long range planning that was completed about five years ago. The ability to expand in any other direction is greatly limited with the construction of the Hillsdale Drive Extension project.

Total Site Area: 15.3 acres

Zoning: existing HW (Highway Corridor)

Percentage of Area greater than or equal to 25% slopes:

1.76 acres of the site's 15.3 acres, or 11.5% of the site area

Finding #1:

Hillsdale Drive extension is an integral part of the future Charlottesville transportation network. A good portion of right-of-way (approximately 1 acre) necessary for the Hillsdale Drive extension is located on the Pepsi Bottling Company property, taking up a large portion of the western property line and a portion of the northern property. This roadway extension will serve the public as a secondary (parallel) roadway system along Route 29, providing an alternate road option that will service the community and help alleviate the congestion on Route 29. This public benefit far outweighs the impact to the man-made critical slopes along the southern portion of the property that were created with the filling of the property back in 1980's to create the manufacturing facility. A retaining wall system will be installed along this portion of the site and the walls will lock in the fill material along this area, creating a stabilized bank. Below this area is an existing stormwater management facility for the Seminole Square Shopping Center and Pepsi Bottling company properties. This facility will remain as-is, with no impacts to the current capacity of the facility to handle stormwater from the respective properties. The future impervious area created with the impacts to the critical slopes will be treated with an existing stormwater management facility on the Pepsi property and the installation of pervious surfaces, in addition to draining to this stormwater management facility.

If there was an alternative layout or alignment of Hillsdale Drive that did not impact the Pepsi Bottling Company property, then it would be possible to expand the facility either further west or to the north. However, City Council has accepted the current alignment and agreed to start the negotiations on acquiring the necessary right of way along this alignment. With the roadway extension, the impact to the overall site prevents future expansion to the north or to the west of the property. In order for Pepsi to meet the current and future facility needs, it is looking to expand the facility to the south. Impacting these critical slopes along the southern property line and expanding the building and parking lot to the south allows for the Pepsi facility to meet the existing and future needs in order for the facility to operate effectively. If the facility could not expand any more, due to critical slopes and future roadway extensions across the property, then Pepsi would have to look at other sites for the facility.

Erosion affecting the structural integrity of those features:

Currently, this mostly man made critical slope (which was created in 1980's) is showing some signs of erosion on parts of the slope. The wooded vegetation, for the most part, is holding the slopes in place; however, there are many areas where erosion has occurred over the years. With the installation of the retaining wall system, this will prevent any additional erosion along this steep bank. The walls will lock in the fill material and prevent it from future erosion.

Stormwater and erosion-related impacts on adjacent properties:

The downstream area below this proposed critical slope impact is an existing stormwater management facility, which is owned/leased by Towers and Sequel and by Pepsi Cola Bottling Company, but is contractually (by deed) maintained by, and subject to an easement in favor of, the City. The Seminole Shopping Center is also proposing to impact the existing critical slopes on its property as well for the same reasons, to allow the Hillsdale Drive Extension to be constructed on the Seminole Square property for the overall benefit of the community. The functionality of the existing stormwater management facility owned/leased by Towers and Sequel and by Pepsi Cola will not be adversely impacted by impacts of these critical slopes. The retaining walls will be constructed prior to and in combination with the filling of this area to prevent erosion related issues. Most of the drainage area to this slope is captured with the existing curb and gutter system on the top of the slope, which prevents a lot of the run-off from sheet-flowing down the banks.

Stormwater and erosion-related impacts to environmentally sensitive areas such as streams and wetlands:

No streams or wetlands are proposed to be impacted with the filling and impacts of the critical slopes on this property. The existing stream below this area is part of the existing stormwater management facility, and no impacts are proposed. The local office of the USCOE has confirmed that since there will be no fill placed below the ordinary high watermark of the stream flowing within the existing stormwater management facility, no Corps permit is required.

Increased stormwater velocity due to loss of vegetation

The increase of stormwater velocity due to the loss of vegetation and future impervious area will be mitigated with the existing swm facility on the Pepsi property and by the installation of pervious surface material for the proposed parking lot expansion. The run-off from the additional parking area that does not absorb through the pervious parking lot material will be routed to the swm pond, which will provide water quality and detention, prior to releasing the flow into the existing stormwater management facility and outfall. These measures will compensate for the increase in velocity due to the loss of vegetation in this area.

Decreased groundwater recharge due to changes in the site hydrology

The impacts to these critical slopes do not have much effect or change on the groundwater or site hydrology. There is not a lot of drainage area to these critical slope areas and the slopes themselves limit the ability for run-off to be absorbed into the

ground before running down the slopes into the existing streams. However, the existing stormwater management pond on the Pepsi property will provide an additional opportunity for the run-off, that does not penetrate the pervious parking lot area, to drain into the ground before being discharged into the existing swm facility and outfall system.

Loss of natural or topographic features that contribute substantially to the natural beauty and visual quality of the community such as loss of tree canopy, forested areas and wildlife habitat.

The benefit of Hillsdale Drive outweighs the overall impacts to this area, including the loss of mostly scrub) tree canopy. Trees and the wildlife habitat within the existing limits of the stormwater management facility will still remain and will be preserved. Newly installed landscaping at the base and top of the retaining walls will only improve the visual quality of the slopes and help compensate for the loss of the existing scrub tree canopy.

Additional attachments:

Please see the Site plan amendment for additional information and exhibits for this request.

Please let me know if you have any questions or need any additional information to review this critical slope analysis.

Sincerely, Scott Collins, PE