

AA 383-07 Johnson, Lance
VAR 0131

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comment
7/9/07

S1829-6286

Martin O'Malley
Governor



Anthony G. Brown
Lt. Governor

Margaret G. McHale
Chair

Ren Serey
Executive Director

STATE OF MARYLAND
CRITICAL AREA COMMISSION
CHESAPEAKE AND ATLANTIC COASTAL BAYS

1804 West Street, Suite 100, Annapolis, Maryland 21401
(410) 260-3460 Fax: (410) 974-5338
www.dnr.state.md.us/criticalarea/

July 9, 2007

Ms. Pam Cotter
Anne Arundel County
Office of Planning and Zoning
2664 Riva Road, MS 6301
Annapolis, Maryland 21401

Re: Lance Johnson, Lot 1R, Mulberry Hill
2007-0131-V

Dear Ms. Cotter:

This office has received the above-referenced variance request for review and comment. The site is located in a Limited Development Area (LDA). The applicant proposes to construct a single-family dwelling that will impact steep slopes. Provided this lot is properly grandfathered, this office does not oppose the placement of a reasonably-sized single family dwelling on this lot; however, based on the site plan submitted, I have the following concerns.

- The size of the proposed dwelling does not appear to be the minimum disturbance necessary to develop this lot. While it is our understanding these are man-made slopes, neither the County Ordinance language nor the Critical Area regulations differentiate between natural versus man-made slopes, and any impacts to slopes can create negative environmental impacts.
- The applicant has the burden to demonstrate unwarranted hardship. The lot already enjoys a single family dwelling. While we do not oppose expansions of dwellings, those expansions must show minimization. It does not appear the current plan demonstrates minimization to the steep slopes on this lot.
- We recommend the applicant find alternative and creative ways to redevelop the site with less impacts to the steep slopes. We understand the slopes bisect the lot, however, it does not appear an effort was made to minimize disturbance. For example, if the existing dwelling will remain and there needs to be a connection to it, perhaps a narrower connection could be made. Alternatively, a new dwelling could be located on the northern side of the lot to avoid the slopes.

Ms. Cotter
July 9, 2007
Page Two

- If a variance is granted, mitigation at a 3:1 ratio shall be provided for all new disturbance to the steep slope area. Disturbance includes grading, footprint and clearing.
- Since the site is in the LDA, and there is currently not 15% forest cover, afforestation is required. The planting plan provided shows the appropriate amount of afforestation, however, it appears the planting proposed will address both the afforestation requirement and the stormwater management planting. These two plantings cannot be combined. Therefore, the planting plan must be amended to show plantings that address the afforestation requirement and the stormwater plantings requirement. Any required mitigation plantings for impacts to steep slopes may be combined with the afforestation plantings.

In summary, this office cannot support the proposed dwelling as currently shown on the site plan; however, an alternative that shows less impacts to the slopes might be acceptable.

Thank you and the Office of Administrative Hearings for keeping the record open to allow this office the opportunity to comment on this request. Please include this letter as part of the record for variance. Please notify this office of the decision made in this case.

Sincerely,



Lisa A. Hoerger, Chief
Project Evaluation Division

cc: Mr. Stephen LeGendre, Esquire – Administrative Hearing Officer
AA 383-07

383-07
EH

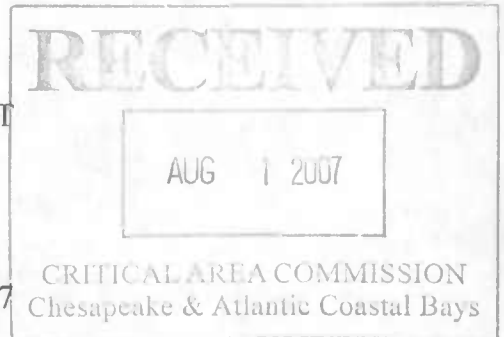
IN THE OFFICE OF ADMINISTRATIVE HEARINGS

CASE NUMBER 2007-0131-V

IN RE: LANCE JOHNSON

THIRD ASSESSMENT DISTRICT

DATE HEARD: JUNE 19, 2007
LAST EVIDENCE: JULY 19, 2007



ORDERED BY: **STEPHEN M. LeGENDRE**, ADMINISTRATIVE HEARING OFFICER

PLANNER: **PATRICIA A. COTTER**

DATE FILED JULY 30, 2007

PLEADINGS

Lance Johnson, the applicant, seeks a variance (2007-0131-V) to allow a dwelling addition with disturbance to steep slopes on property located along the east side of Mulberry Hill Road, east of Providence Road, Annapolis.

PUBLIC NOTIFICATION

The hearing notice was posted on the County's web site in accordance with the County Code. The file contains the certification of mailing to community associations and interested persons. Each person designated in the application as owning land that is located within 175 feet of the property was notified by mail, sent to the address furnished with the application. Mr. Johnson testified that the property was posted for more than 14 days prior to the hearing. However, protestants Wanda Stansbury and Marilyn Harris Davis disputed the effectiveness of the posting because the property is accessed across a graveled easement approximately 200 feet in length and the sign was placed approximately 50 feet inside the western boundary. Anne Arundel County Code, Article 18, Section 18-16-203(d)(2) provides in pertinent part: "(i)f the property does not abut a public road, one or more signs shall be posted in locations that can be readily seen by the public." It would have been preferable for the applicant to post an additional sign in the access easement near Mulberry Hill Road. Nevertheless, the hearing was well attended. In the circumstances, I find and conclude that there has been substantial compliance with the notice requirements.

FINDINGS AND CONCLUSIONS

The applicant owns a single-family residence with a street address of 2213 Mulberry Hill Road, also identified on Tax Map 46, Block 16, Parcel 298. The property comprises 27,878 square feet and is zoned R2 residential with a Chesapeake Bay Critical Area designation as Limited Development Area (LDA). This is a waterfront lot on Mill Creek. The request is to construct an irregularly configured (16 to 48 by 63 feet) north side addition with disturbance to steep slopes.

Anne Arundel County Code, Article 17, Section 17-8-201 proscribes the disturbance of steep slopes in the LDA. Accordingly, the proposal requires a variance to disturb steep slopes.

Patricia A. Cotter, a planner with the Office of Planning and Zoning, testified that steep slopes characterize the center portion of the property. The septic system in the rear yard (street side) is a further constraint on development. The applicant is proposing a large addition. On the other hand, the dwelling cannot be expanded absent impact to the slopes and the request is consistent with other development in the neighborhood. The witness summarized the agency comments. The Department of Health requested plan approval. The County's Development Division indicated that the impervious coverage limitation is 15 percent. The record was left open for the submission of the written comments of

the Chesapeake Bay Critical Area Commission (Attachment A)¹. By way of ultimate conclusion, Ms. Cotter supported the request.

Ed Brown, a land surveyor employed by the applicant, testified that the project disturbs 850 square feet of manmade slopes. The existing two-story dwelling has a footprint of 470 square feet. The addition has a footprint of 2,280 square feet, inclusive of garage. The approved septic design allows up to 3,500 square feet of finished living space. The applicant is proposing 3,400 square feet of living space, with the new construction partially one story, partially one and one-half stories and partially two stories. Mr. Brown indicated that the project includes stormwater management in the form of roof disconnects and plantings. He opined that the variance standards are satisfied.

Eric See, an environmental consultant to the applicant, submitted a Critical Area Report. The property is predominately a mowed lawn. A portion of the driveway would be removed to conform to the 15 percent impervious coverage limitation. The buffer and stormwater plantings included as part of the grading plan represent an improvement to habitat and water quality. The witness also opined that the variance standards are satisfied.

Mr. Johnson testified that he purchased the property in April 2000. He submitted several site and neighborhood photographs, including photographs of recently constructed and reconstructed two and three story dwellings in the

¹ This office provided a copy of the Commission's letter dated July 9, 2007 to the applicant's counsel and to Ms. Stansbury for review and comment by July 20, 2007. Counsel to the applicant's response dated July 18, 2007 is appended as Attachment B. Ms. Stansbury did not respond.

neighborhood.² The witness believes that the denial of the application is a denial of reasonable use because there is no other opportunity to expand the dwelling.

Ms. Stansbury summarized her written statement in opposition to the application. In brief, the project will have an adverse impact to water quality and fish and wildlife habitat; the site plan does not accurately depict the proximity to tidal wetlands; the proposal for stormwater management may be ineffective; the project represents a special privilege; the applicant's right of access to the driveway serving the Stansbury dwelling is disputed; and the proposal will block her view to water.

On questioning by counsel to the applicant, Ms. Stansbury acknowledged that her home has a partially finished walkout basement with two-car garage, a main living level and a partial attic (plumbed). The estimated living space is 4,000 square feet.

Ms. Davis, who resides three properties to the north, questioned the accuracy of the applicant's plan with respect to the location of floodplains and tidal wetlands.

I visited the site and the neighborhood. The property is assessed across a long driveway that slopes downhill from Murray Hill Road. The driveway terminates in an expansive parking area. A steep bank ascends from the south side

² Mr. Johnson also supplied decisions by this office in Case No. 2003-0068-V, In Re: Albert Johnson (May 16, 2003); and Case No. 2002-0170-V, In Re: Edwin Darwin (July 25, 2002). Case No. 2003-0068-V concerns Ms. Stansbury property to the rear (2211 Mulberry Hill Road). The Order conditionally approved a single-family dwelling with disturbance to steep slopes. Case No. 2002-0170-V concerns property with a street address of 2215 Mulberry Hill Road. The Order approved a variance to disturb steep slopes to allow a dwelling.

of the parking area to a small plateau. The dwelling is perched near the northern edge of the plateau and near the front edge of the plateau. The rear yard is a fairly level lawn. A level lawn also extends down to the water. Older cottages and some newer, larger homes characterize the neighborhood. The two-story dwelling to the north is slightly forward of the applicant's dwelling. Ms. Stansbury's dwelling is at a higher elevation and distant from the applicant's dwelling.

The standards for granting variances are contained in Section 18-16-305. Under subsection (b), for a property in the Critical Area, a variance to the Critical Area program requirements may be granted only after determining that (1) due to unique physical conditions, peculiar to the lot, a strict implementation of the program would result in an unwarranted hardship to the applicant; (2) a literal interpretation of the program will deprive the applicant of rights commonly enjoyed by other properties in similar areas within the Critical Area; (3) the granting of the variance will not confer on the applicant any special privilege that would be denied by the program to other lands within the Critical Area; (4) the variance request is not based on circumstances resultant of actions by the applicant and does not arise from conditions relating to land use on neighboring property; and (5) the granting of the variance will not adversely affect water quality or adversely impact fish, wildlife or plant habitat within the Critical Area and will be in harmony with the general spirit and intent of the program. Under subsection (c), any variance must be the minimum necessary to afford relief; and its grant may not alter the essential character of the neighborhood, substantially impair the

appropriate use or development of adjacent property, or be detrimental to the public welfare. The law is settled that the applicant's burden of proof is to satisfy all of the criteria.

Upon review of the facts and circumstances, I find and conclude that the applicant is entitled to modified, conditional relief from the code. Considering first the subsection (b) criteria, for this Critical Area property, due to the location of a comparatively compact band of steep slopes proximate to the dwelling near the center of the lot, a strict application of the program would result in an unwarranted hardship. Under a literal application of the program, the applicant would be denied the right to expand the dwelling, a right commonly enjoyed by other properties in similar areas of the Critical Area. Conversely, the granting of some relief is not a special privilege that the program typically denies to other Critical Area lands. I further find that the variance is not the result of the actions of the applicant or land use on neighboring property. Finally, with mitigation and other conditions, the grant of a modified variance will not adversely impact Critical Area assets and harmonizes with the general spirit and intent of the program.

The more difficult aspect of the application is to ascertain the minimum relief under subsection (c). On the one hand, the dwelling cannot be expanded without disturbing the slopes. On the other hand, the applicant is proposing a substantial expansion that extends beyond the slopes on the north side of the existing dwelling and also encompasses the majority of the slopes in front of the

existing dwelling. There is no way to expand the existing dwelling while still preserving any of the slopes on the north side. But pulling back the front façade of the addition to the leading edge of the stairs projecting from the porch addition to the existing dwelling will reduce the disturbance to the slopes in the front yard. So modified, the granting of conditional relief will not alter the essential character of the residential neighborhood, substantially impair the use or development of adjacent property, or constitute a detriment to the public welfare. These findings consider the development in the surrounding neighborhood, including development under approved variances. The modified variance is subject to the conditions in the Order.³

ORDER

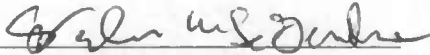
PURSUANT to the application of Lance Johnson, petitioning for a variance to allow a dwelling addition with disturbance to steep slopes; and

PURSUANT to the notice, posting of the property, and public hearing and in accordance with the provisions of law, it is this 30th day of July, 2007,

ORDERED, by the Administrative Hearing Officer of Anne Arundel County, that the applicant is **granted a modified** variance to disturb steep slopes. The approval is subject to the following conditions:

³ I have included additional conditions restricting any other new development and requiring a reduction in the limits of disturbance to five feet in the front yard.

1. The site plan is revised to pull back the front façade of the addition to the leading edge of the stairs projecting from the porch addition to the existing dwelling.
2. The site plan is revised to reduce the limits of disturbance to 5 feet in the front yard.
3. No further expansion of the dwelling is allowed and no new accessory structures are allowed.
4. The applicant shall provide mitigation, afforestation and stormwater management as determined by the Permit Application Center.


Stephen M. LeGendre
Administrative Hearing Officer

NOTICE TO APPLICANT

Within thirty days from the date of this Decision, any person, firm, corporation, or governmental agency having an interest therein and aggrieved thereby may file a Notice of Appeal with the County Board of Appeals.

Further Section 18-16-405(a) provides that a variance expires by operation of law unless the applicant obtains a building permit within eighteen months. Thereafter, the variance shall not expire so long as construction proceeds in accordance with the permit.

If this case is not appealed, exhibits must be claimed within 60 days of the date of this Order, otherwise that will be discarded.

Martin O'Malley
Governor

Anthony G. Brown
Lt. Governor



Margaret G. McHale
Chair

Ren Serey
Executive Director

STATE OF MARYLAND
CRITICAL AREA COMMISSION
CHESAPEAKE AND ATLANTIC COASTAL BAYS

1804 West Street, Suite 100, Annapolis, Maryland 21401
(410) 260-3460 Fax: (410) 974-5338
www.dnr.state.md.us/criticalarea/

attachment A

July 9, 2007

Ms. Pam Cotter
Anne Arundel County
Office of Planning and Zoning
2664 Riva Road, MS 6301
Annapolis, Maryland 21401

Re: Lance Johnson, Lot 1R, Mulberry Hill
2007-0131-V

Dear Ms. Cotter:

This office has received the above-referenced variance request for review and comment. The site is located in a Limited Development Area (LDA). The applicant proposes to construct a single-family dwelling that will impact steep slopes. Provided this lot is properly grandfathered, this office does not oppose the placement of a reasonably-sized single family dwelling on this lot; however, based on the site plan submitted, I have the following concerns.

- The size of the proposed dwelling does not appear to be the minimum disturbance necessary to develop this lot. While it is our understanding these are man-made slopes, neither the County Ordinance language nor the Critical Area regulations differentiate between natural versus man-made slopes, and any impacts to slopes can create negative environmental impacts.
- The applicant has the burden to demonstrate unwarranted hardship. The lot already enjoys a single family dwelling. While we do not oppose expansions of dwellings, those expansions must show minimization. It does not appear the current plan demonstrates minimization to the steep slopes on this lot.
- We recommend the applicant find alternative and creative ways to redevelop the site with less impacts to the steep slopes. We understand the slopes bisect the lot, however, it does not appear an effort was made to minimize disturbance. For example, if the existing dwelling will remain and there needs to be a connection to it, perhaps a narrower connection could be made. Alternatively, a new dwelling could be located on the northern side of the lot to avoid the slopes.

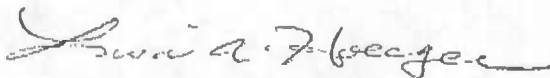
Ms. Cotter
July 9, 2007
Page Two

- If a variance is granted, mitigation at a 3:1 ratio shall be provided for all new disturbance to the steep slope area. Disturbance includes grading, footprint and clearing.
- Since the site is in the LDA, and there is currently not 15% forest cover, afforestation is required. The planting plan provided shows the appropriate amount of afforestation, however, it appears the planting proposed will address both the afforestation requirement and the stormwater management planting. These two plantings cannot be combined. Therefore, the planting plan must be amended to show plantings that address the afforestation requirement and the stormwater plantings requirement. Any required mitigation plantings for impacts to steep slopes may be combined with the afforestation plantings.

In summary, this office cannot support the proposed dwelling as currently shown on the site plan; however, an alternative that shows less impacts to the slopes might be acceptable.

Thank you and the Office of Administrative Hearings for keeping the record open to allow this office the opportunity to comment on this request. Please include this letter as part of the record for variance. Please notify this office of the decision made in this case.

Sincerely,



Lisa A. Hoerger, Chief
Project Evaluation Division

cc: Mr. Stephen LeGendre, Esquire – Administrative Hearing Officer
AA 383-07

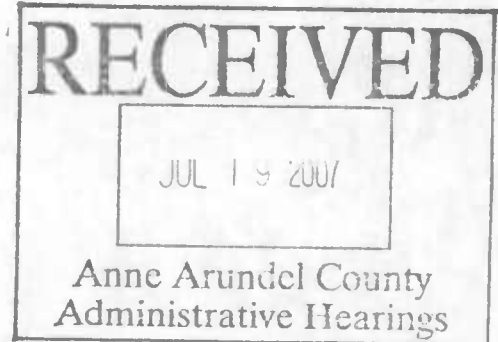
attachment B

SUSAN T. FORD
E-Mail: Ford@cbknlaw.com
Telephone Extension: 3410

July 18, 2007

Stephen M. LeGendre, Esq.
Office of Administrative Hearings
Arundel Center
P.O. Box 2700
Annapolis, Maryland 21404-2700

RE: Lance Johnson; Case NO. 2007-0131-V



Dear Mr. LeGendre:

Thank you for forwarding the Chesapeake Bay Critical Area Commission comments regarding the above-referenced matter. I have attached hereto written comments from See Environmental Services, Inc. and Ed Brown & Associates, Inc. addressing the issues raised by the Commission.

I note that the Chesapeake Bay Critical Area Commission did not oppose the requested variance in case No. 2003-0068-V (a copy of the Opinion was submitted into the record) for a variance to steep slopes on the adjacent property currently owned by Protestant Wanda Stansbury to build a 3-4 story house with a house foot print of 1972 square feet (leaving a potential for 7888 square feet of living space) plus a 816 square foot garage (2788 square feet total footprint). As with the case at hand, the only requested variance was only for steep slope impact. The proposed house in the case at hand has a lesser size footprint of 2705 square feet (and less proposed living space) than Ms. Stansbury's house, even taking into account the square footage of the existing cottage structure.

In the case at hand, the testimony was clear that due to the buffer and required location for the septic system on site, there was no other place available on site to expand the existing cottage. The lot is long and narrow and the proposed addition is set back as far from the water as is possible given the need for driveway and septic system. As discussed by Mr. See, the intent of the Critical Area law in protecting steep slopes is to manage potential erosion of the slopes which could lead to siltation of the Bay. The house is set back 145 feet from the water with significant additional plantings between the proposed addition and the Bay thereby making it clear there will be no adverse impacts to water quality and fish and wildlife habitat.

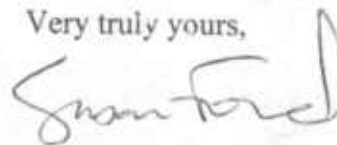
The property owner is entitled to a "reasonable and significant" use of his property. Substantial un rebutted evidence including photographs of other houses was introduced at the hearing regarding many other houses of the same size and character located in the vicinity, many much closer to the water and on steep slopes than the addition proposed in the case at hand, to show what constitutes a "reasonable and significant" use of property in this vicinity. The existing cottage structure clearly does not constitute a "reasonable and significant" use of

the property given the development permitted in the immediately surrounding area and indeed the Commission recognized that it does not oppose house expansions per se.

The Commission in its July 9, 2007 comments suggests that minimization could involve avoiding the steep slopes even though they bisect the lot, or that a narrower connection between the existing cottage and any addition should be considered. (It does not appear that the Commission is arguing that the existing dwelling can not be expanded.) The Commission suggests the house be located on the North side of the property to avoid the slopes. It would not be possible to do this (and impliedly leave in place the cottage and existing slopes) as the County Zoning Code would not allow two principal structures on one lot. If only one structure was built, it would have to be closer to the water and buffer outside of the steep slopes. The applicant attempted to avoid moving any closer to the water. Any addition to the existing cottage necessitates disturbing the slopes on site, a narrower addition could not produce any environmental gain because the only potential environmental issue, erosion and runoff, is already being managed through maintaining the maximum distance to the shoreline and installing significant additional plantings between the proposed addition and the shoreline. Given the realities of construction, the L.O.D. remains the same no matter how wide or narrow the connector between the addition area and the existing cottage. The site plan colored by Ed Brown & Associates, Inc. indicates the areas of steep slope in yellow with the only area of permanent impact to the steep slopes hatched. As you can see, all steep slope impact is well outside of the buffer and as far away from the water as possible. Thus the applicant has demonstrated minimization.

Accordingly, the applicant respectfully requests that the variance requested be granted.

Very truly yours,



Susan T. Ford

cc: Clients



SEE ENVIRONMENTAL
SERVICES, INC.

Ms. Susan T. Ford, Esq.
Council, Baradel
125 West Street
Annapolis, MD 21401

July 18, 2006

RE: **Variance Case 2007-0131-V; Lance Johnson**

Dear Ms. Ford:

At your request, I have reviewed the comments received from the State Critical Area Commission, dated July 9, 2007, in light of the current site plan and my familiarity with existing site conditions and Mr. Johnson's plans for the property.

Comments #1: Ms. Hoerger is correct that the Critical Area regulations do not specifically distinguish between natural and manmade slopes, and her concluding sentence says negative impacts "...can." occur, but we feel that they will not necessarily occur.

The extent to which impacts to an isolated section of steep slope (of either origin) may occur can be assessed to several criteria: Distance of the slope from the waterway or shoreline; the steepness slope and type of vegetation between the section of steep slope and the waterway, and the condition of the steep slope itself.

In this case, the isolated section of steep slope is well removed from the shoreline, the intervening ground has a very gentle slope and is well vegetated with grass. I would conclude that even if there were *no* sediment controls, it is unlikely that any sediment could wash across the intervening ground to reach tidal waters, but with the required super silt fence, we can conclude that there would be *no* runoff from the house construction. Moreover, the existing isolated section of steep slope -- as created by the former property owner -- is by itself not completely stable, showing areas of existing erosion and incomplete grass cover. Therefore, the house helps stabilize this slope.

Comments #2 and #3: There was careful testimony at the hearing on the reasons why the location of the house addition cannot be moved on the lot -- save for completely demolishing the existing house and building a larger house extending closer to the water. This option would not require a variance, but would not be environmental preferable, and would sacrifice an interesting older home. Considering the current tendency of waterfront reconstructions to wipe out older homes with character, the variance better keeps the overall home in better character with the neighborhood.

The Woodbridge Center
2444 Solomons Island Road, Suite 217
Annapolis, Maryland 21401
Tel: (410) 266-3828 Fax: (410) 266-3866

Response to CAC Comments
Ms. Susan T. Ford
July 18, 2007

Comment #5: We do not disagree with this comment, and the planting requirements will be reviewed by County staff during the Grading Permit process, based on the requested variance conditions for replanting and the County Code for stormwater plantings and afforestation..

If you have any questions on this report, please feel free to call this office at any time.

Sincerely,

Eric E. See, President
See Environmental Services, Inc.

SEE ENVIRONMENTAL SERVICES, INC.

The Woodbridge Center • 2444 Solomons Island Road, Suite 217 • Annapolis, Maryland 21401 • Tel: (410) 266-3828 • Fax: (410) 266-3866

ED BROWN & ASSOCIATES, INC.

EDWARD A. BROWN L.S.
President

Land Surveyors - Planners

Phone 410-757-2002

DOUGLAS D. BOURQUIN
Vice President

PLAZA ONE BUILDING
1511 Ritchie Hwy
Suite 301
Arnold, MD 21012

Fax 410-757-2011

July 17, 2007

Susan Ford, Esquire
Council, Baradel, Kosmerl and Nolan, P.A.
P.O. Box 2289
Annapolis, Maryland 21404-2289

RE: Lance Johnson
2213 Mulberry Hill
CASE #: 2007-0131-V

Dear Ms. Ford:

Regarding the above-referenced case and in accordance with the attached high-lighted plan we offer the following information to respond to the July 9, 2007, Critical Area Commission Comments.

1. The site Area is 27, 878 square feet.
2. The area of the site that lies within the 100' buffer is 12,600 square feet or 45% of the Lot.
3. The area of steep slopes on site is 5,648 square feet with only 1,004 square feet or 18% of that area being located within the 100' buffer.
4. The area of permanent structural steep slope disturbance is 680 square feet or 2.4% of the lot.
5. The total ultimate footprint for the Lance Johnson house as proposed will be 2,705 square feet. (This compares well with the 2,788 square feet Stansbury footprint – Case 2003-0068-V behind the subject property.)
6. A “narrowing” of the connection between the existing structure and the proposed structure would only eliminate around 56 square feet of permanent structural disturbance of the steep slopes and would not eliminate any “overall” slope disturbance since the disturbance required to construct the main house footprint would still “overlap” the area of structural disturbance.

In general, since 45% of the lot lies in the 100' buffer and since 82% of the steep slopes lie landward of the 100' buffer line, this lot demonstrates its unique characteristics since the opposite of this is generally the rule. Normally, the steeper portions of a waterfront lot lie closer to the water rather than further away.

Also, the fact that permanent, structural disturbance to steep slopes (non-forested slopes, I may add) has been limited to just 680 square feet of slope area, or 2.4% of the lot area, all of which is located well beyond the 100' buffer line, demonstrates that the applicant has sought to minimize impacts to the environmentally sensitive features on-site.

I hope you will find this analysis helpful in formulating your response to Lisa Hoerger. Feel free to attach this letter/plan in with your response package. Please call me if you have any further questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Douglas D. Bourquin', with a long horizontal flourish extending to the right.

Douglas D. Bourquin

DETAILS AND SPECIFICATIONS FOR VEGETATIVE ESTABLISHMENT

Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within seven calendar days of the surface of all perimeter control, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1) and fourteen days for all other disturbed or graded areas on the project site.

1. Permanent Seeding:

- Soil tests: Lime and fertilizer will be applied per soil test results for pH greater than 5.0. Soil tests will be done at a minimum of 10' x 10' grid spacing. Results will be provided to the grading inspector as well as the contractor.
- Occurrence: Topsoil shall be applied to the surface with a minimum of 12 inches of clean soil with 6 inches minimum depth of topsoil to topsoiling of material. If needed, soil tests shall be done before and after a 6-week incubation period to allow aeration of soil.
- The minimum conditions required for permanent establishment are:
 - Soil pH shall be between 6.0 and 7.0.
 - Soil shall contain less than 500 parts per million (ppm) of lead.
 - The soil shall contain less than 40% clay but enough fine grained material (30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if leucopods or serolis leucopods is to be applied, then a sandy soil (less than 10% clay) would be acceptable.
 - Soil shall contain 1.5% minimum organic matter by weight.
 - Soil must contain sufficient pore space to permit adequate root penetration.
 - If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specifications for Topsoil or amendments made as recommended by a qualified agronomist.

B. Seedbed Preparation: Area to be seeded shall be loose and friable to a depth of at least 3 inches. The top layer shall be loosened by raking, disking or other suitable means before seeding occurs. For sites less than 5 acres, apply 100 pounds of dolomitic limestone per 1,000 square feet of topsoil. For sites greater than 5 acres, apply 50 pounds of dolomitic limestone per 1,000 square feet of topsoil. For sites greater than 10 acres, apply 25 pounds of dolomitic limestone per 1,000 square feet of topsoil. Apply 200 pounds of fertilizer per 1,000 square feet of topsoil between February 1 and April 30 and between August 15 and October 31. Apply seed uniformly on a moist firm seedbed with a cyclone seeder, cultipacker seeder or hydroseeder (early grades seeders and fertilizers recommended on steep slopes only). Maximum seed depth shall be 1/4 inch in clayey soils and 1/2 inch in sandy soils when using either the hydroseeder method. Irrigate if soil moisture is deficient to support adequate growth until vegetation is firmly established. If other seed mixes are to be used, select from Table 25, entitled "Permanent Seeding for Low Maintenance Areas" from the current Maryland Standards and Specifications for Soil Erosion and Sediment Control. Mixes suitable for this are 1, 3, and 5-7. Mixes 5-7 are suitable in non-mowable situations.

D. Mulching: Mulch shall be applied to all seeded areas immediately after seeding. During the time periods when seeding is not permitted, mulch shall be applied immediately after grading.

Mulch shall be untreated, unchopped, small grain straw applied at a rate of 2 tons per acre or 30 pounds per 1,000 square feet (2 inches). If a mulch anchoring tool is used, apply 0.5 tons per acre. Mulch materials shall be relatively free of all kinds of weeds and shall be completely free of prohibited noxious weeds. Spread mulch uniformly, mechanically by hand or water. The following methods are permitted:

- Use a mulch anchoring tool which is designed to punch and anchor mulch into the soil surface to a maximum depth of 2 inches. This is the most effective method for securing mulch, however, it is limited to relatively flat areas where equipment can operate safely.
- Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. If mixed with water, use 500 pounds of wood cellulose fiber per 100 gallons of water.
- Liquid binders may be used and applied heavier at the edges where wind catches mulch, such as in valleys and on crests of slopes. The remainder of the area should appear uniform after binder application. Binders listed in the 1994 Standards and Specifications for Soil Erosion and Sediment Control or approved water based binders may be used at rates recommended by the manufacturers.
- Lightweight plastic netting may be used. The netting will be stapled to the ground according to manufacturer's recommendations.

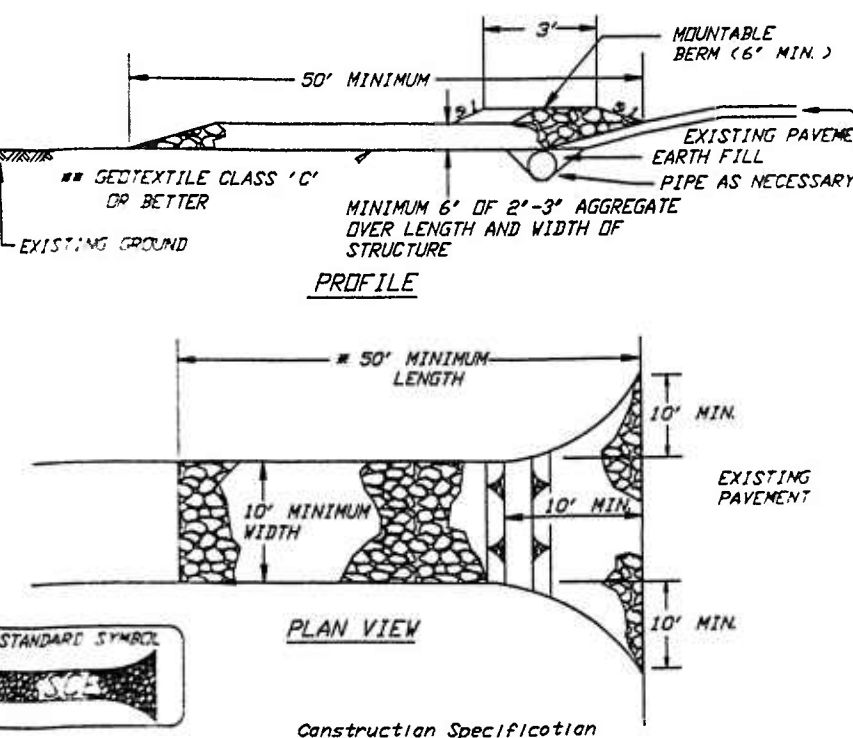
2. Temporary Seeding:

Line: 100 pounds of dolomitic limestone per 1,000 square feet.
Fertilizer: 15 pounds of 10-10-10 per 1,000 square feet.
Seed: 100 lbs per 1,000 square feet (February through April 30 or August 15 through November 1).
Mulch: 0.52 pounds per 1,000 square feet (May 1 through August 15).
Mix: Same as 1 D and above.

3. No Fill: No fill will be placed in approximately horizontal layers, each layer having a loose thickness of not more than 8 inches. All fill in roadways and parking areas is to be classified Type 2 per Anne Arundel County Code. All fill in unpaved areas is to be compacted to a minimum of 95% density as determined by ASTM-D1557-86T (Modified Proctor). Any fill within the building area is to be compacted to a minimum of 98% density as determined by methods previously mentioned. Fill for sand embankments shall be compacted as per MD-378 Construction Specifications. All other fill shall be compacted sufficiently so as to be stable and prevent erosion and slippage.

4. Permanent Sod: Sod shall be placed in approximately horizontal layers, each layer having a loose thickness of not more than 8 inches. Sod shall be placed in approximately horizontal layers, each layer having a loose thickness of not more than 8 inches. Sod shall be placed in approximately horizontal layers, each layer having a loose thickness of not more than 8 inches. Sod shall be placed in approximately horizontal layers, each layer having a loose thickness of not more than 8 inches.

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specifications

- Length - minimum of 50' (40' for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (Fiber cloth) shall be placed over the existing ground prior to placing stone. The 50' approval authority may not require single rowly, residential use geotextile.
- Stone - crushed aggregate (2" to 3") or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface water - all surface water flowing to or diverted toward construction entrance shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a number 8 wire mesh with 5/16" openings and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SEE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe shall be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

STORMWATER MANAGEMENT STATEMENT:

SINCE THE SOIL BORING INDICATES A WATER TABLE OF 4' DEEP, NATIVE SPECIES VEGETATION, 1-1/2" CAL TREES AND 3-4 GALLON SHRUBS, WILL BE INSTALLED TO OFFSET THE ON-SITE IMPERVIOUS AREA THAT CAN'T BE DISCONNECTED THEREFORE, THE TOTAL REFORESTATION REQUIRED EQUALS 3,400 SQ.F.T. = THIRTY FOUR TREES OR ONE HUNDRED TWO SHRUBS (3,400 SQ.F.T. @ \$4,000/SQ.F.T. = \$4,000.00 TREES AND SHRUBS SHALL BE PLANTED IN THE 100' CRITICAL AREA BUFFER.

WITH REGARD TO ARTICLE 16, SECTION 3 OF THE COUNTY CODE THE FOLLOWING APPLIES TO THIS SITE:

- THE DISTURBED AREA IS 9,500 SQ.F.T.
- THEREFORE, ARTICLE 16, SECTION 3-204(B) STATES: (B) FOR ALL FULL DEVELOPMENT THAT DISTURBS LESS THAN 15,000 SQUARE FEET THE MINIMUM CONTROL REQUIREMENTS ARE:
 - RECHARGE VOLUME (RE V);
 - WATER QUALITY VOLUME (WQ V);
 - CHANNEL PROTECTION VOLUME (CP V), UNLESS:
 - THE DEVELOPMENT HAS A DIRECT DISCHARGE;
- THE RE V AND WQ V ARE ADDRESSED IN THIS CASE, BY DISCONNECTS AND BY PROVIDING NATURAL MATERIALS (TREES AND SHRUBS) IN A QUANTITY SUFFICIENT (3,400 SQ.F.T.) TO OFF-SET THE ON-SITE IMPERVIOUS AREAS.
- THE CP V IS ADDRESSED BY THE FACT THAT THE SITE ENJOYS A DIRECT DISCHARGE TO THE TIDAL WATERS OF MARTINS COVE.

MINIMUM SIZING CRITERIA	SYMBOL	VOLUME DRAINAGE AREA	VOLUME REQUIRED (CUBIC-Feet)	VOLUME PROVIDED (CUBIC-Feet)	SWM PRACTICE	NOTES
WATER QUALITY VOLUME	(WQ V)	0.64 ACRES	N/A	N/A	NATIVE PLANTS (TREES, SHRUBS) & DISCONNECTS	
RECHARGE VOLUME	(RE V)	0.64 ACRES	N/A	N/A	NATIVE PLANTS (TREES, SHRUBS) & DISCONNECTS	
CHANNEL PROTECTION STORAGE VOLUME	(CP V)	0.64 ACRES	N/A	N/A	N/A	NOT REQUIRED DUE TO DIRECT DISCHARGE TO TIDAL WATER

SEQUENCE OF CONSTRUCTION

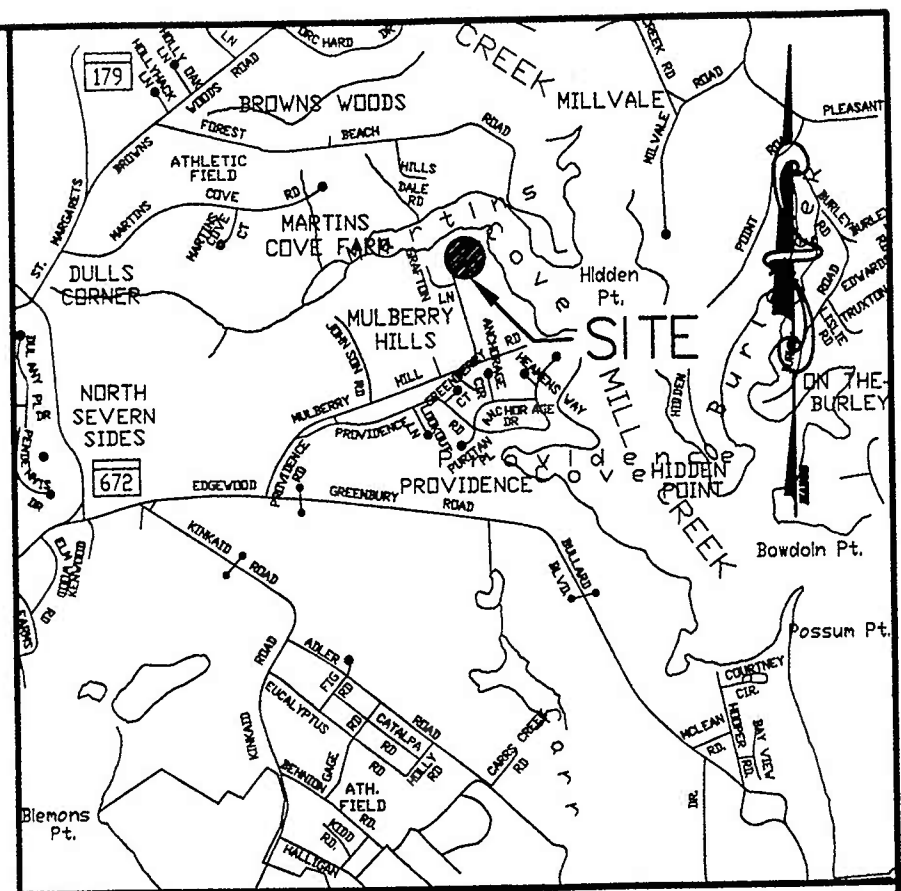
- PRE-CONSTRUCTION MEETING: NOTIFY THE DEPARTMENT OF INSPECTIONS AND PERMITS AT LEAST 48 HOURS BEFORE COMMENCING WORK. WORK MAY NOT COMMENCE UNTIL THE PERMITTEE OR THE RESPONSIBLE PERSONNEL HAVE MET ON SITE WITH THE SEDIMENT AND EROSION CONTROL INSPECTOR TO REVIEW THE APPLIED PLANS. 48 HOURS
- INSTALL ALL TEMPORARY EROSION CONTROL MEASURES SUCH AS REINFORCED SILT FENCE, STABILIZED CONSTRUCTION ENTRANCE, CONTACT INSPECTIONS AND PERMITS FOR "PHASE ONE" INSPECTION. 2 DAYS
- ROUGH GRADE LIMIT OF DISTURBANCE. 2 WEEKS
- EXCAVATE FOR AND CONSTRUCT FOUNDATION (AT HOUSE BACKFILL, STABILIZE ALL AFFECTED AREAS AS PER THE STABILIZATION SPECIFICATIONS) GRADE AND STABILIZE REMAINDER OF SITE. MAINTAIN SEDIMENT CONTROL MEASURES. 20 DAYS
- CONSTRUCT HOUSE AND DRIVEWAY AND MAINTAIN SEDIMENT CONTROL MEASURES. 5 MONTHS
- INSTALL THE REQUIRED STORMWATER MANAGEMENT DISCONNECTS & PLANTINGS INSPECT BY COUNTY AND ENGINEER OF RECORD 5 DAYS
- FINAL CLEANUP, STABILIZATION AND REMOVAL OF REMAINING SEDIMENT CONTROL MEASURES WITH INSPECTOR'S APPROVAL. 5 DAYS

CRITICAL AREA TABULATION

TOTAL SITE AREA 27,878 SQ. FT.
 EXISTING WOODLAND AREA -0- SQ. FT.
 WOODLAND REMOVED -0- SQ. FT.
 ULTIMATE IMPERVIOUS 4,340 SQ. FT. (16%)
 ALLOWABLE IMPERVIOUS 5,445 SQ. FT.
 AFFORESTATION NOTES: FOREST REQUIRED = 15% OR 4,182 SQ.F.T.
 SWM PLANTINGS = 3,400 SQ.F.T., THEREFORE, C.A. PLANTINGS = 4,182 - 3,400 = 782 SQ.F.T. (2 TREES, 6 SHRUBS)

SITE ANALYSIS

Drainage Area: 0.64 ACRES
 "C" 0.34
 Tc: 15 MINUTES
 I 10 5.35
 Q 10: 0.34 x 5.35 x 0.64 + 1.2 C.F.S.



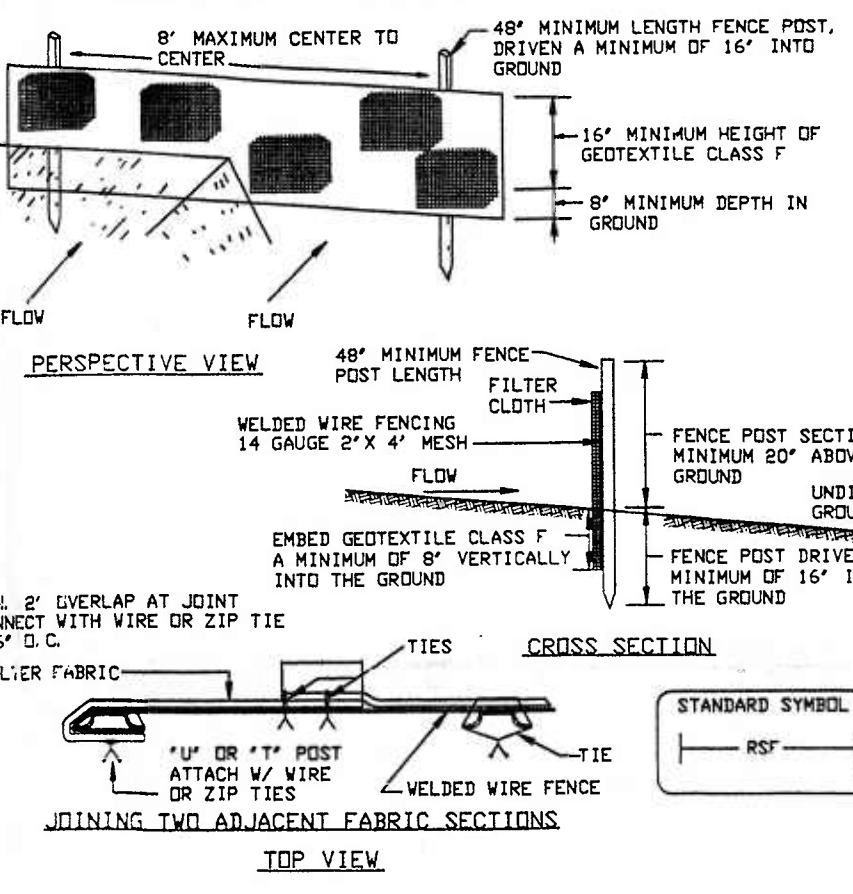
GENERAL NOTES

- ZONING: R-2
- SETBACKS: FRONT: 30', REAR: 25', SIDE: 7'
- PREDOMINANT SOIL TYPE: Cpd COLLINGTON "B" SOILS
- TOTAL AREA OF SITE: 27,878 S.F. 0.64 ACRES.
- PROPOSED DISTURBED AREA: 9,500 S.F. 0.22 ACRES.
- A. A. COUNTY TOP SHEET: Y & Z 22
- F.E.M.A. RATE MAP: 240080034 C ZONE: A-8 (ELEV 7.0)
- THIS LOT IS IN THE 100 YEAR FLOOD AREA.
- FIELD RUM TOPOGRAPHY BY ED BROWN & ASSOCIATES, INC. 9/04 USING REFERENCE MARK A. A. COUNTY RM "MEAN-HIGH-WATER"
- PUBLIC WATER.
- PRIVATE SEWER.
- EARTH MOVING: ANY STOCKPILE NECESSARY SHALL REMAIN WITHIN THE LIMITS PROTECTED BY SEDIMENT CONTROL MEASURES. ANY EXCESS SPOIL OR BORROW MATERIAL SHALL BE TAKEN TO OR OBTAINED FROM A. A. CO. APPROVED SITE.
- DOWNSPOUT PROTECTION: ALL DOWNSPOUTS ARE TO BE CARRIED TO THE TOE OF THE FILL SLOPES, SPLASH BLOCKS ARE TO BE PROVIDED AT ALL DOWNSPOUTS NOT DISCHARGING ONTO A PAVED SURFACE.
- DISTURBANCE WITHIN MULBERRY HILL ROAD (NONE EXPECTED) MUST BE STABILIZED IMMEDIATELY USING COLD PATCH BITUMINOUS MATERIAL. PERMANENT PAVE PATCHING IN THESE AREAS WITH HOT MIX BITUMINOUS MATERIAL MUST BE COMPLETED WITHIN 14-30 DAYS TO MATCH THE EXISTING PAVEMENT SECTION OF ROAD.
- THE EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ARE FROM THE BEST AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR TO HIS SATISFACTION PRIOR TO CONSTRUCTION. NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING SERVICES AND MAINS AND ANY DAMAGE TO THEM SHALL BE REPAIRED AT HIS OWN EXPENSE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OBSERVANCE OF ALL APPLICABLE OSHA REGULATIONS CONCERNING EXCAVATION AND BACKFILL.

STANDARD RESPONSIBILITY NOTES

- (We) certify that:
 - All development and construction will be done in accordance with this sediment and erosion control plan, and further, authorize the right of entry for periodic on-site evaluation by the Anne Arundel Soil Conservation District Board of Supervisors or their authorized agents.
 - Any responsible personnel involved in the construction project will have a certificate of attendance from the Maryland Department of the Environment's approved training program for the control of sediment and erosion before beginning the project.
 - Responsible personnel on site.
 - If applicable, the appropriate enclosure will be constructed and maintained on sediment basin(s) included in this plan. Such structures will be in compliance with the Anne Arundel County Code.
 - The developer is responsible for the acquisition of all easements, rights, and/or rights-of-way that may be required for the sediment and erosion control practices, stormwater management practices and the discharge of stormwater onto or across adjacent or downstream properties included in this plan. The developer is also responsible for the acquisition of all easements, rights, and/or rights-of-way that may be required for grading and/or work on adjacent properties included in this plan.
- Initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within seven calendar days for the surface of all perimeter control, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1) and fourteen days for all other disturbed or graded areas on the project site. Temporary stabilization of the surface of perimeter control, dikes, swales, ditches, and perimeter slopes may be allowed at the discretion of the sediment control inspector.
- The sediment control approvals on this plan extend only to areas and practices identified as proposed work.
- The approval of this plan for sediment and erosion control does not relieve the developer/contractor from complying with Federal, State or County requirements pertaining to environmental issues.
- The developer must request that the Sediment Control Inspector approve work completed in accordance with the approved erosion control plan, the grading or building permit, and the grading and building permit. On all sites with disturbed areas in excess of 2 acres, approval of the Department of Inspections and Permits All materials shall be taken to a site with an approved sediment and erosion control plan.
- On all sites with disturbed areas in excess of two acres, approval of the sediment and erosion control inspector shall be required on completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. This will require that phase inspections. Other building or grading inspection approvals may not be authorized until the initial approval by the sediment and erosion control inspector is given.
- Approval shall be requested on final stabilization of all sites with disturbed areas in excess of two acres before removal of controls.
- Existing topography must be field verified by responsible personnel to satisfaction of the sediment control inspector prior to commencing work.

DETAIL 22A - REINFORCED SILT FENCE APPROVED BY MDE 2-7-05



Construction Specifications

- Metal fence post shall be a minimum of 48" long driven 15" minimum into the ground. Posts shall be standard T or U section weighting not less than 1.00 pound per linear foot.
- Geotextile shall be fastened securely to each fence post with wire ties or zip ties. The geotextile shall meet the following requirements for geotextile class F:

Tensile Strength	50 lbs/in (min)	Test: NSHT 509
Tensile Modulus	20 lbs/in (min)	Test: NSHT 509
Flow Rate	0.2 gal per minute (max.)	Test: NSHT 382
Filtering Efficiency	75% (min)	Test: NSHT 382
- Where ends of geotextile fabric come together, they shall be overlapped, folded and wired tied or zip tied to prevent sediment bypass.
- Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reaches 50% of the fabric height.

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL (CONTINUED)

V. Topsoil Application

- When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
- Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.
- Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
- Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.
- Alternative to Permanent Sodding: In lieu of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below.
 - Composted Sludge (material for use as a soil conditioner for site having disturbed areas under 5 acres shall conform to the following requirements:
 - Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
 - Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a Ph of 7.0 - 8.0. If compost does not meet these requirements, the appropriate constituents must be added.
 - Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
 - Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lbs./1,000 square feet and 1/3 the normal lime application rate.
- References: Guideline Specifications, Soil Preparation and Sodding, MD-VA, Pub.#1, Cooperative Extension Service, University of Maryland Polytechnic Institute. Revised 1973.

STANDARD RESPONSIBILITY NOTES

- (We) certify that:
 - All development and construction will be done in accordance with this sediment and erosion control plan, and further, authorize the right of entry for periodic on-site evaluation by the Anne Arundel Soil Conservation District Board of Supervisors or their authorized agents.
 - Any responsible personnel involved in the construction project will have a certificate of attendance from the Maryland Department of the Environment's approved training program for the control of sediment and erosion before beginning the project.
 - Responsible personnel on site.
 - If applicable, the appropriate enclosure will be constructed and maintained on sediment basin(s) included in this plan. Such structures will be in compliance with the Anne Arundel County Code.
 - The developer is responsible for the acquisition of all easements, rights, and/or rights-of-way that may be required for the sediment and erosion control practices, stormwater management practices and the discharge of stormwater onto or across adjacent or downstream properties included in this plan. The developer is also responsible for the acquisition of all easements, rights, and/or rights-of-way that may be required for grading and/or work on adjacent properties included in this plan.
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- The sediment control approvals on this plan extend only to areas and practices identified as proposed work.
- The approval of this plan for sediment and erosion control does not relieve the developer/contractor from complying with Federal, State or County requirements pertaining to environmental issues.
- The developer must request that the Sediment Control Inspector approve work completed in accordance with the approved erosion control plan, the grading or building permit, and the grading and building permit. On all sites with disturbed areas in excess of 2 acres, approval of the Department of Inspections and Permits All materials shall be taken to a site with an approved sediment and erosion control plan.
- On all sites with disturbed areas in excess of two acres, approval of the sediment and erosion control inspector shall be required on completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. This will require that phase inspections. Other building or grading inspection approvals may not be authorized until the initial approval by the sediment and erosion control inspector is given.
- Approval shall be requested on final stabilization of all sites with disturbed areas in excess of two acres before removal of controls.
- Existing topography must be field verified by responsible personnel to satisfaction of the sediment control inspector prior to commencing work.

Signature(s) of Developer/Owner: Lance Johnson Date: 4/12/07
 Print Name: LANCE JOHNSON
 Title: OWNER
 Affiliation: OWNER
 Address: 2213 MULBERRY HILL ROAD
 ANNAPOLIS, MARYLAND 21409
 Telephone Number: 443-223-3104

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

Definition
 Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.
Purpose
 To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptably soil gradation.
Conditions Where Practice Applies

- This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil parent material is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - The original soil to be vegetated contains materials toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.
- For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on these plans.

Construction and Material Specifications

- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be placed for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS in cooperation with Maryland Agricultural Experiment Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - Topsoil shall be a loam, sandy loam, clay loam, silty loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of containing textured subsoils and shall contain less than 5% by volume of clods, stones, log-coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1-1/2" in diameter.
 - Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, johnnagrass, nutcase, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clay, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- For sites having disturbed areas under 5 acres:
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.
- For sites having disturbed areas over 5 acres:
 - On soil testing, Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
 - Organic content of topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - No soil or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.
 - Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

QUANTITIES

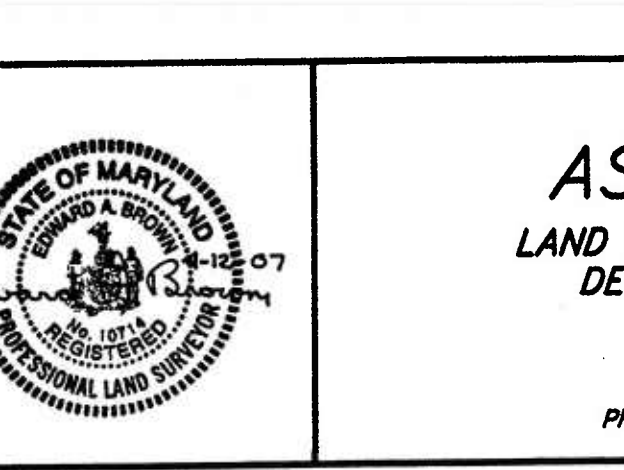
- CUT 400 C.Y.
 - FILL 400 C.Y.
 - AREA TO BE VEGETATIVELY STABILIZED: 5,160 S.F. 0.12 ACRES.
 - AREA TO BE MECHANICALLY STABILIZED: 4,340 S.F. 0.10 ACRES.
- NOTE: THE EARTHWORK QUANTITIES SHOWN ARE FOR THE PURPOSE OF PERMIT FEE CALCULATION. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES AND SOIL TYPES TO HIS OWN SATISFACTION.

CONSULTANT'S CERTIFICATION

The Developer's plan to control silt and erosion is adequate to contain the silt and erosion on the property covered by the plan. I certify that this plan of erosion and sediment control represents a practical and workable plan based on my personal knowledge of this site, and was prepared in accordance with the requirements of the Anne Arundel Soil Conservation District Plan Submitted Guidelines and the current Maryland Standards and Specifications for Sediment and Erosion Control. I have reviewed this erosion and sediment control plan with the owner/developer.

MD. P.E. License # _____
 Md. Land Surveyor License # 10714
 Md. Landscape Architect # _____
 Name (Print): EDWARD A. BROWN Firm Name: ED BROWN & ASSOCIATES, INC.
 Street Address: 19 LORETTA AVENUE ANNAPOLIS, MARYLAND 21401

DRAINAGE AREA MAP

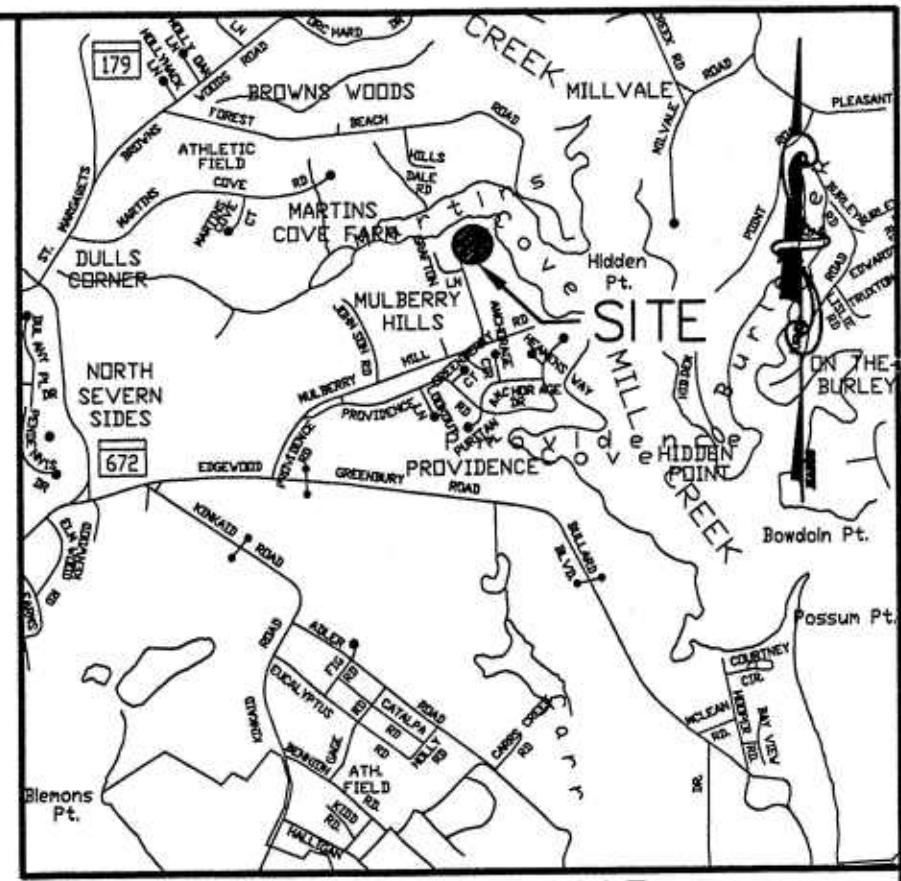


ED BROWN & ASSOCIATES, INC.
 LAND SURVEYORS - LAND PLANNERS
 DEVELOPMENT CONSULTANTS
 PLAZA ONE BUILDING
 1511 RITCHIE HWY, SUITE 301
 ARNOLD, MARYLAND 21012
 PHONE 410-757-2002, FAX 410-757-2011
 Email: edbrown@comcast.net

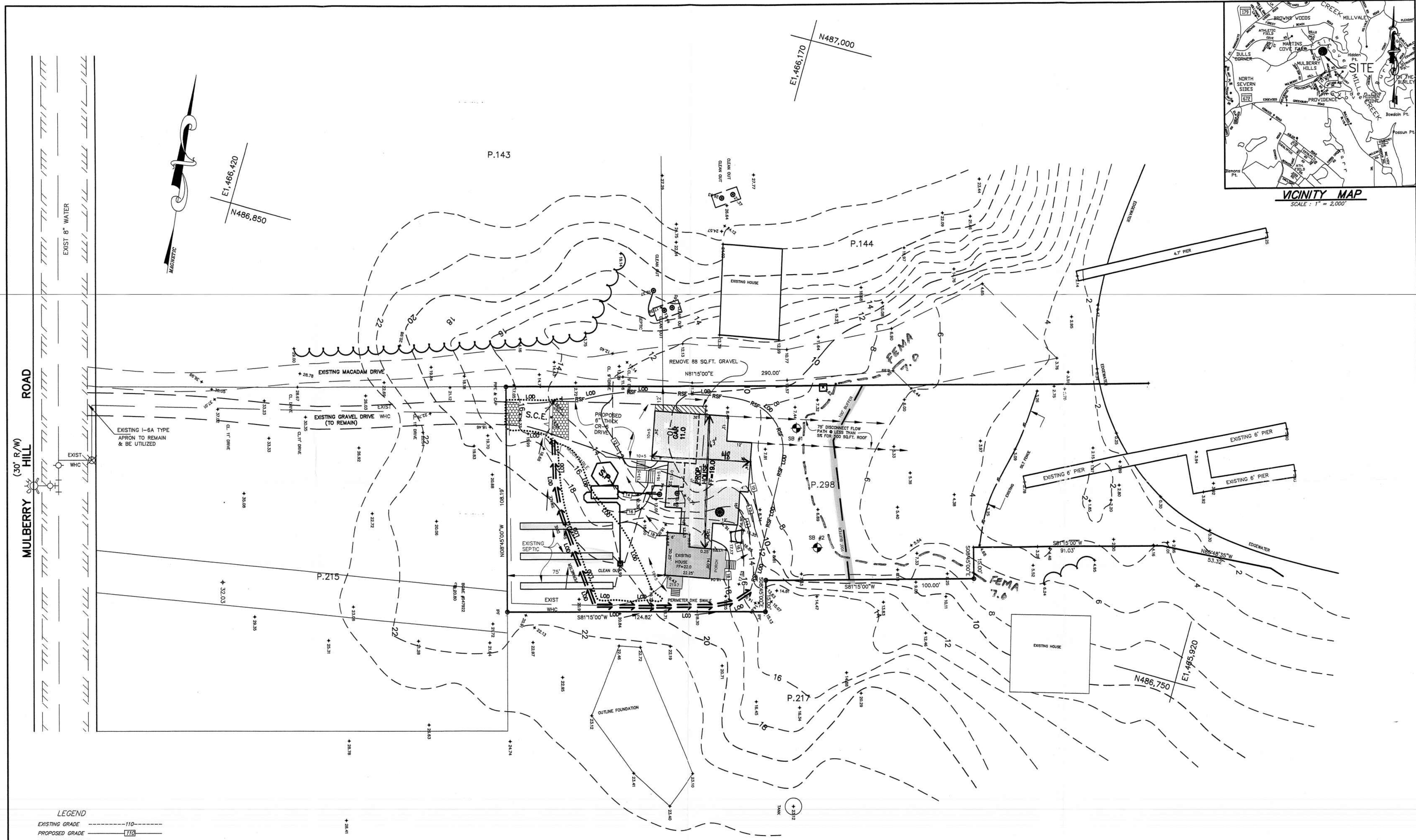
SCALE: AS NOTED
 DATE: APRIL 2007
 DRAWN BY: CRH
 CHECKED BY: EAB
 JOB NO: 04-215
 SHEET NO: 1 OF 3

GO20 GRADING & SEDIMENT CONTROL PLAN

LOT 1R MULBERRY HILL
 2213 MULBERRY HILL ROAD
 TAX MAP 46, BLOCK 16, PARCEL 298, R2 ZONING, ZIP CODE 21409
 THIRD DISTRICT, ANNE ARUNDEL COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 2,000'

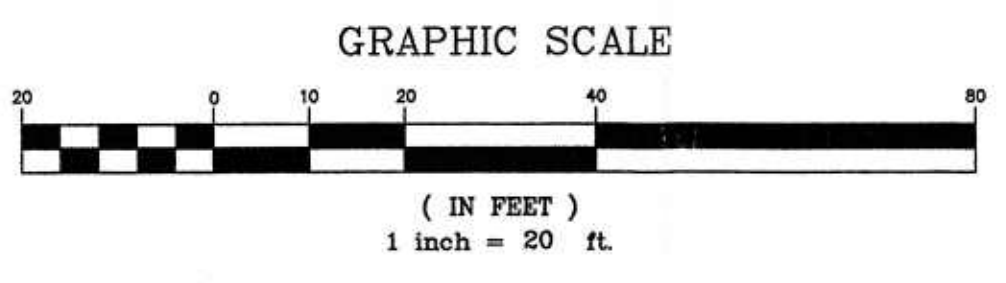


E1,466,420
N486,850

N487,000
E1,466,170

MULBERRY HILL ROAD
(30' R/W)

- LEGEND**
- EXISTING GRADE 110
 - PROPOSED GRADE 117
 - EXISTING ELEVATION 110.8
 - PROPOSED ELEVATION 110x8
 - REINFORCED SILT FENCE RSF
 - LIMIT OF DISTURBANCE LOD
 - STABILIZED CONSTRUCTION ENTRANCE S.C.E.
 - STOCK PILE SP
 - PERIMETER DIKE SWALE PD-S



17-8-201

G020

	ED BROWN & ASSOCIATES, INC. LAND SURVEYORS - LAND PLANNERS DEVELOPMENT CONSULTANTS PLAZA ONE BUILDING 1511 RITCHIE HWY, SUITE 301 ARNOLD, MARYLAND 21012 PHONE 410-757-2002, FAX 410-757-2011 Email: edbrown@edbrownassoc.com	SCALE: AS NOTED DATE: APRIL, 2007 DRAWN BY: CRH CHECKED BY: EAB JOB NO: 04-215 SHEET NO: 2 OF 3	GRADING & SEDIMENT CONTROL PLAN LOT 1R MULBERRY HILL 2213 MULBERRY HILL ROAD TAX MAP 46, BLOCK 16, PARCEL 298, R2 ZONING, ZIP CODE 21409 THIRD DISTRICT, ANNE ARUNDEL COUNTY, MARYLAND
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