- QC 461-07 Costlow, Lawrence Site Plan 04-07-11-0002 11

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Em - Loltala

51829-6727

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/

November 27, 2007

Holly Tompkins Queen Anne's County Department of Land Use, Growth Management and Environment 160 Coursevall Drive Centerville, MD 21617

Re: MSIP#04-07-11-0002-C; Costlow Site Plan

Dear Ms. Tompkins:

Thank you for providing the site plan and information on the above referenced project. The applicant proposes to develop a property located in the Intensely Developed Area (IDA) of the Chesapeake Bay Critical Area with a commercial building and parking lot. This office has the following comments.

- 1. The proposed use of grass channels for stormwater credit has met the Critical Area 10% pollution reduction requirement. Please note that the proposed stormwater management must also meet the criteria for Maryland Department of the Environment (MDE). Please ensure that the calculations are based on the correct for MDE designation of development versus redevelopment. If the applicant has based the calculations on the wrong designation, and the proposed stormwater management system is changed, the applicant must also confirm that the Critical Area 10% requirement is met by the revised plan.
- Our records indicate that this site is partially within a State Sensitive Species Project Review Area. Please contact the Wildlife and Heritage Service of DNR at (410)260-8573 to determine whether this site requires additional conservation measures. The State Sensitive Species Project Review Areas are Habitat Protection Areas and must meet additional requirements under the County Critical Area Program. Please submit a copy

Holly Tompkins November 27, 2007 Page 2 of 2

of a letter from Wildlife and Heritage Service of DNR regarding the status of this site as a State sensitive species Project Review Area.

Thank you for the opportunity to comment. Please contact me at (410) 260-3479 if you have any questions.

Sincerely,

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Marshall Johnson Natural Resources Planner

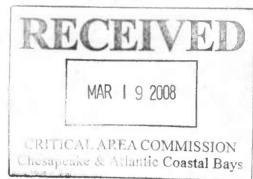
cc: QC 461-07

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March 17, 2008

Ms. LeeAnne Chandler, Science Adviser Critical Area Commission for the Chesapeake& Atlantic Coastal Bays 1804 West Street Annapolis, MD 21401



RE: RESUBMITTAL OF SITE PLANS FOR PROPOSED OFFICE BUILDING FOR LUNDBERG BUILDERS LANDS OF COSTLOW MAIN STREET STEVENSVILLE, MISP #04-07-11-0002C, DMS & ASSOCIATES JOB #2007048

Dear LeeAnne:

I would like to take the opportunity to explain the stormwater management design as it relates to the above referenced project and give our interpretation of the Maryland Department of the Environment Stormwater Management Design Manual as it relates to the use of stormwater management grassed channel credits.

The site as you are aware has been designed utilizing two grass channels and one drywell to meet the water quality needs for the site. The proposed parking lot has been designed with a crown in the travelway of the parking lot in order direct the runoff to the grassed channels located on either side of the parking lot to provide more water quality treatment than if we drained the site to a single grassed channel located on one side of the parking lot. It is our opinion that the MDE design standards do not restrict the use of grass channels solely for residential development projects. The only statement made in the design manual is "Grass Channel Credit (in lieu of curb and Gutter)". It is our opinion that there are no specific restrictions for the use grass channels in a commercial development for the purpose of water quality provided that all design criteria listed in chapter 5, page 5.14 of the MDE stormwater design manual are met. The calculations provided in the stormwater management report verify that all requirements for the grass channel have been met for all impervious areas which drain to the proposed grass channels. As outlined in the MDE design manual one of the key calculations is that the velocity in the proposed channel for the 1-inch rainfall event shall not exceed 1.0cfs. The purpose for this velocity requirement is to provide a channel that will allow for runoff to be channeled to a discharge point and allow for infiltration due to the low velocities, in essence reducing the volume of runoff for the 1-inch design storm. It is our opinion that the current design is in compliance with the MDE design manual and is also supported by the Queen Anne's County Department of Public Works staff.

Ms. LeeAnne Chandler March 17, 2008 2007048 Page 2 of 2

To address your comment related to conversion of the proposed grass channels to dry swales we offer the following. According to figure 3.18 on page 3.43 of the design manual dry swales require at minimum 36-inches of extra depth below the channel invert to outfall the required under drains. Currently our design provides for 1-foot of available depth from the design grade of the edge of pave to the channel invert which would not allow for the redesign of the grassed channels to dry swales. The topographical features of the site and drainage swales/ditches to the rear of the site prohibit construction of the dry swales with under drains. The water quality calculations for this site have been completed to provide for 100 percent of the water quality volume required; therefore the issue of whether the site is classified as "New Development" or "Re-development" is negated by the fact that full water quality is met for the site. If in fact the site is deemed to be "Re-development" Queen Anne's County Stormwater Management Ordinance requires only 20 percent of the existing impervious cover be treated for water quality and 100 percent of any new impervious cover be treated therefore the site would be providing more water quality then required. Due to the small rate of runoff (1.15 cfs) for the site associated with the 2-year 24-hour storm event there are no practical ways to manage this runoff because MDE design criteria mandates that a minimum of a 3-inch lowflow orifice be used when providing quantitative control.

We have calculated the 2 yr storm runoff rate for each of the grassed channels and the 2 yr storm flow rates are 0.34 cfs for the eastern channel and 0.66 cfs for the western channel. With this in mind the release rates for a 3" low flow orifice are typically greater than the approximate 1.0 cfs proposed runoff rate. Historically Queen Anne's County has not required "New development" sites to provide quantitative control measures for runoff rates below 1 cfs due to the inability to practically implement a functional control device.

As previously mentioned it is our opinion that the developed site meets the intent of the Maryland Department of the Environment Stormwater Management Design Manual and we ask that you please consider this explanation and confirm that our current design is adequate to address Critical Areas pollutant removal requirements.

If you should have any questions or would like to discuss this matter further please do not hesitate to call me at (443) 262-9130.

Sincerely,

DMS & Associates, LLC Wm Thomas Davis, Jr., PE

pc: Brad Lundberg, Lundberg Builders



February 26, 2008

Ms. Holly Tompkins, Senior Land Use Planner Queen Anne's County Department of Land Use, Growth Management and Environment 160 Coursevall Drive Centreville, MD 21617



RE: RESUBMITTAL OF SITE PLANS FOR PROPOSED OFFICE BUILDING FOR LUNDBERG BUILDERS LANDS OF COSTLOW MAIN STREET STEVENSVILLE, MISP #04-07-11-0002C, DMS & ASSOCIATES 2007048

Dear Holly:

The attached plans have been revised and supplemental information is submitted herewith to address comments contained in your letter dated February 2, 2008. We offer the following with respect to the various agency comments.

DEPARTMENT OF ENVIRONMENTAL HEALTH

- 1. The project is to be served with public sewer.
- 2. A ground water appropriation permit application has been submitted to the MDE.
- 3. The existing well will be sealed prior to demolition of the existing building.
- 4. Based on our discussions with the Department of Environmental Health the well location is acceptable due to the fact the existing well is located beneath a structure and the proposed well location is better suited to a connection to public water if public water is extended in front of the property.

DEPARTMENT OF PUBLIC WORKS

- 1. The gravity sewer lateral to the Martin property is shown with a clean out proposed on the property line.
- 2. The gravity sewer cleanout detail has been added to Sheet C-4.

GENERAL COMMENTS

- 1. So Noted.
- 2. Our client is in possession of the PWA related to future public water connection.
- 3. Our client is in possession of the PWA related to sewer allocation.
- 4. The estimate was previously submitted to the Sanitary District and approved. The surety and fee will be submitted prior to our request for DPW to sign the plans.

Ms. Holly Tompkins February 26, 2008 2007048 Page 2 of 4

STORMWATER REPORT AND PLAN REVIEW COMMENTS

1. A soil profile is shown on Sheet 2.

GENERAL COMMENTS

- 1. So Noted.
- 2. We will submit the surety and inspection fee prior to our request for DPW signatures.
- 3. The MIA & stormwater management completion report will be submitted prior to our request for DPW signatures.
- 4. We will provide information related to the Critical Area Commission approval prior to our request for DPW to sign the plan.
- 5. We will obtain SCS approval prior to our request for DPW signatures.
- 6. We will obtain approval from MSHA prior to our request for DPW approval.

<u>ROADS</u>

1. We have submitted a permit application to MSHA.

DEPUTY FIRE MARSHALL

- 1. A swamp analysis and fire flow report will be submitted with the building permit application.
- 2. The closest fire hydrant is located at the intersection of Main Street and Old Love Point Road.
- 3. Based on aerial photos we believe that the hydrant exists within 800' of this site.

HERITAGE COORDINATOR

1. Our client has met with the Heritage Coordinator and LUGM&E staff to review architectural issues. It is our understanding that all issues have been satisfactorily addressed. Specific issues are addressed below in response to LUGME comments.

RECREATION AND PARKS

1. To date we have not received comments.

SOIL CONSERVATION SERVICE

1. A formal application was submitted to SCS. We anticipate plans being signed this week.

CRITICAL AREAS COMMISSION

1. To date we have not received comments.

STATE HIGHWAY ADMINISTRATION

1. MSHA recommended minor site plan with a condition that a permit for the access be obtained from MSHA. A formal permit and hydraulic review request have been submitted. Ms. Holly Tompkins February 26, 2008 2007048 Page 3 of 4

DEPARTMENT OF LAND USE, GROWTH MANAGEMENT AND ENVIRONMENT

- 1. The purpose and intent statement has been maintained as proposed. We have labeled the information related to the Stevensville Historic Village Center Guidelines with a separate header.
- 2. The proposed floor area is 4,778sf. The site statistics and parking calculations have been revised to be consistent.
- 3. A Note #11 has been provided and addresses refuse area issues.
- 4. The building height is $2\frac{1}{2}$ stories. The partial third floor area is accounted for in the 4,788sf of office use.
- 5. The proposed building floor area is less than the 5,000sf of floor area approved for the APFO exemption.
- 6. Our interpretation of Section 18:1-83.C.(1)(a) is that if offices are included as part of a larger commercial use, then the office floor area is required to provide parking as if it is included in the larger commercial use. This building is solely an office use and we believe that Section 18:1-83.G.(1) applies. We also point out that our client believes that he will need these spaces at certain times for his business. We therefore have maintained the parking calculations and site layout as originally proposed.
- 7. The spaces proposed are 16.5' in length and the 1.5' of over hang is provided in the 9.2'± of landscape area located to the east side of the site, as indicated.
- 8. The parking lot landscaping calculations have been revised as directed.
- 9. The plantings proposed along the west side of the site are arborvitae.
- 10. The lighting on the building will be typical of a residential structure and we therefore believe that this lighting, that will include a spot light on the rear of the building, will sufficiently light the access points to the building provide a safe and secure site.
- 11. Note #7 has been revised as directed.
- 12. Note #16 has been revised as directed. (Formerly Note #15)
- 13. The easement document will be revised as necessary and recorded in the land records. We will provide your office with a copy of the recorded easement.
- 14. The spelling error in note #13 has been corrected.
- 15. The porches have been graphically depicted with a separate hatch pattern.
- 16. The impervious area calculations on the plan are related only to the Costlow property. We have added the square footage of impervious area affected on the Gibb property. Due to the small size in area of this increase in impervious we believe that this improvement on this property would not be subject to site plan approval.
- 17. The building has been moved back 5' so that the proposed porch aligns with the Gibb house.
- 18. The building has been moved to the west such that 5' is provided from the eastern property line. The driveway width has been narrowed accordingly.
- 19. See #18 above.
- 20. As per your direction to Mr. Lundberg a wooden split rail fence is proposed along the side property lines to screen the parking lot from the adjacent residential properties.

Ms. Holly Tompkins February 26, 2008 2007048 Page 4 of 4

- 21. This item was discussed at length with Mr. Lundberg at the recent meeting with staff and it is our understanding that the façade will stay virtually the same with the top window being changed to two windows and a vertical divider going up to the roof at the end of the porch.
- 22. Based on a recent meeting it is our understanding that the proposed gable is acceptable.
- 23. It is our understanding that supplemental architectural information was provided at the recent meeting with staff.
- 24. It is our understanding, that with the changes made to these plans as a result of reviews and discussions between LUGM&E staff and Mr. Lundberg, the issues related to the Chester/Stevensville Community Plan have been addressed.

We believe all issues have been addressed. We ask that you please review this information as soon as possible.

If you should have any questions or need additional information please do not hesitate to call me at (443) 262-9130.

Sincerely,

DMS & Associates, LLC

Wm Thomas Davis, Jr., PE

/ljd

Enclosures

pc: Brad Lundberg, Lundberg Builders



January 16, 2008



Ms. Holly A. Tompkins, Senior Land Use Planner Queen Anne's County Department of Land Use, Growth Management and Environment 160 Coursevall Drive Centreville, MD 21617

RE: MINOR SITE PLAN RESUBMITTAL PROPOSED COMMERCIAL OFFICE BUILDING, LANDS OF COSTLOW, MAIN STREET, STEVENSVILLE MISP #04-07-11-0002-C, DMS & ASSOCIATES JOB #2007048

Dear Holly:

The attached plans have been revised and supplemental information is submitted herewith to address comments contained in your letter dated December 3, 2007. We offer the following with respect to the various agency comments and to address changes requested by our client.

CLIENT REQUESTED CHANGES

Based on the initial meeting with Planning and Zoning staff our client was directed that the new building location could be placed such that the face of the new building matched the alignment of the existing porch. Our original plan proposed the new porch to align with the existing porch. The building has been moved forward such that the new building is proposed at the limits of the existing porch.

DEPARTMENT OF ENVIRONMENTAL HEALTH

- 1. The existing well is located beneath the existing deck and is now shown on the plan with a note that it is to be abandoned and sealed. We have shown the location of a proposed well.
- 2. A groundwater appropriation permit application has been submitted to the MDE.
- 3. The project is served by public sewer.

DEPARTMENT OF PUBLIC WORKS

SANITARY DISTRICT

PLAN REVIEW COMMENTS

1. The existing valve pit has been labeled as valve pit #A-1-16 and is noted to be replaced. A valve pit detail is now included on Sheet C-4.

GENERAL COMMENTS

- 1. We concur with the need for additional sewer allocation. We have submitted the sewer allocation application and have directed our client to contact the Sanitary District regarding the purchase of the allocation.
- 2. We have forwarded the e-mail that contained the PWA to our client as relates to the future water connection requirements.

Ms. Holly Tompkins January 16, 2008 2007048 Page 2 of 4

- 3. We have forwarded the e-mail that contained the PWA to our client as relates to the purchase of sewer allocation.
- 4. A construction cost estimate for the valve pit replacement and gravity sewer connection will be submitted directly to the Sanitary District.

STORMWATER MANAGEMENT REPORT AND PLAN REVIEW COMMENTS

- 1. The NRCS and one of the DPW signature blocks has been deleted.
- 2. A soil profile has been provided indicating the depth to groundwater.

GENERAL COMMENTS

- 1. A construction cost estimate will be submitted directly to the Department of Public Works. Please confirm the surety and inspection fee amounts.
- 2. We will submit the surety and inspection fee once our client supplies them to us.
- 3. The phone number of the landowner has been provided.
- 4. There are no wetlands on this site therefore no need for a wetland permit.
- 5. We have submitted the plans and stormwater report to the Critical Areas staff.
- 6. We will obtain SCD signatures prior to our request for DPW signatures.
- 7. We have submitted an access permit application to MSHA.
- 8. Based on the topographical survey information the site is not located within the 100 yr flood plan.
- 9. The plans will be sealed and signed by a PE prior to our request for DPW signatures.

<u>ROADS</u>

Offered no comment except as relates to MSHA access requirements. As indicated above we have filed the MSHA access permit application.

We believe all issues have been adequately addressed.

HERITAGE COORDINATOR

- 1. Note #9 has been provided indicating that the house is designated as a historic structure.
- 2. Our client will provide the necessary information required for the Phase II demolition permit prior to submittal of the demolition permit application. Attached is information submitted to the Maryland Historical Trust.
- 3. Due to the fact that the structure is in a very bad state of disrepair preservation of the building is not feasible.

RECREATION AND PARKS

1. As of this date we have not received any comments.

SOIL CONSERVATION SERVICE

- 1. A formal Sediment and Erosion Control Plan was submitted to SCS.
- 2. The name and address of the contractor is unknown at this time.
- 3. The phone number of the landowner is provided.
- 4. There are no sediment traps proposed.
- 5. Grassed swales and a dry well are proposed to address stormwater requirements.

Ms. Holly Tompkins January 16, 2008 2007048 Page 3 of 4

CRITICAL AREAS COMMISSION

- 1. Because the existing impervious surface is less than 15% of the site then this project is considered new development. Therefore the stormwater report and designs are correct as previously submitted.
- 2. Attached is a letter from DNR Heritage Division that indicates that there are no endangered species or habitats affecting this property.

STATE HIGHWAY ADMINISTRATION

1. An access permit application has been submitted to the MSHA.

DEPARTMENT OF LAND USE, GROWTH MANAGEMENT AND ENVIRONMENT

- 1. A purpose and intent statement has been provided.
- 2. The approximate location of the critical area line is shown on the vicinity map.
- 3. The use is permitted is Section 18:1-31 (C)(1)(h). This has been noted in the site statistics.
- 4. Adjacent property owners across the street have been shown.
- 5. The square footage of the structure is shown on each sheet.
- 6. No outdoor refuse storage will be provided as trash will be collected internally and will be disposed of by a cleaning company.
- 7. No exterior storage is proposed. A note has been provided.
- 8. A note #12 has been provided indicating the methods use to address stormwater management requirements.
- 9. The area of the critical areas is correct as provided in the site statistics.
- 10. The existing well shown is the well for the adjacent property. The well for the subject site is located beneath the existing deck. It has been shown and has been noted to be abandoned and sealed. The location of a new well has been shown.
- 11. The existing valve pit and gravity sewer lateral have been shown and labeled.
- 12. The sanitary sewer district has been provided in note #8.
- 13. The building height as taken from the architectural drawing is 30'. The note has been revised accordingly.
- 14. A statement has been provided in the parking calculations indicating that a loading zone is not required.
- 15. Minimum road frontage requirements are only relevant when a subdivision is proposed. Since this is a site plan application we question the need to supply frontage information.
- 16. The parking calculations have been revised as directed. The number of spaces has been maintained at 16. The areas of office and storage uses in the building have been adjusted.
- 17. The number of parking spaces has been provided.
- 18. The parking spaces have been dimensioned.
- 19. A stop sign is proposed and is now shown at the entrance to MD RT 18.
- 20. The parking lot landscaping has been recalculated using 2.5 plant units.
- 21. The planting proposed are proposed to address SHVC Design Guidelines. There are no forest planting requirements for an IDA site.
- 22. At this time no signage is proposed.
- 23. There are not any lights proposed.
- 24. Visitors to the facility will walk to the building using the paved travel way. A sidewalk is proposed along the front of the building with a connection to the building front.
- 25. A note #13 has been provided addressing site non conformities.
- 26. A signature block for the Department of Land Use, Growth Management and Environment has been provided.

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Ms. Holly Tompkins January 16, 2008 2007048 Page 4 of 4

- 27. The soil type is non hydric and note #7 has been expanded accordingly.
- 28. Attached is a letter from the DNR Heritage Division that indicated that this site is not impacted by endangered species or habitat.
- 29. There are no woodlands on the site and a note has been provided accordingly.
- 30. There are no woodlands on this site.
- 31. We have added a paragraph on sheet C-1 to address compliance with the SHVC Design Guidelines.
- 32. The duplicate on-site landscaping on Sheet C-3 has been deleted.
- 33. Attached is a photo of the existing building provided by our client. See comments noted above in response of comments from the Heritage Coordinator. We will submit a separate letter to the Chief of Zoning and Land Use that addresses SHVC Design Guidelines.
- 34. As a private agreement it is our opinion that Chris Drummond does not need to sign the shared access agreement.

CHESTER-STEVENSVILLE COMMUNITY PLAN

- a. The use of this property was previously a residence. Our client proposes a commercial office building.
- b. Our client is working with the MD Historical Trust to address Historic Structure issues.
- c. The site is totally within the Critical Area.
- d. Sidewalks have been added along the building front.
- 35. We have reviewed Appendix C of the Chester-Stevensville Community Plan and believe that the site plan and building comply with this plan as supported by the letter addressing the SHVC Design Guidelines.
- 36. Attached are letters from Delmarva Power and Verizon citing their intention of providing services to the site.

We ask that you please review these revised plans as soon as possible. Should you have any questions or need additional information please do not hesitate to call me at (443) 262-9130.

Sincerely,

DMS₄& Associates, LLC Wm Thomas Davis, Jr., PE

/ljd

Enclosures

pc: Brad Lundberg, Lundberg Builders



November 6, 2007

Steve Cohoon, Dev. Review Chief Dept of Land Use, Growth Mgnt, & Environment 160 Coursevall Drive Centreville, MD 21617

RE: SITE PLAN REVIEW SUBMITTAL FOR PROPOSED OFFICE BUILDING FOR LUNDBERG BUILDERS, LANDS OF COSTLOW, MAIN STREET, STEVENSVILLE, PARCEL 111, TAX MAP 56, DMS & ASSOCIATES JOB #2007048

Dear Steve:

Attached please find the following information:

- 11 Cover Letters
- 11 Site Plan Review Applications
- 11 Site & Landscape Plans
- 2 Deeds
- 1 Plan Review Fee
- 2 Critical Area Reports
- 2 Stormwater Management Reports
- Adjacent Property Owners Notification
- Utility Letters
- 1 Shared Access Easement

The purpose of this submittal is to initiate the site plan review process for the demolition of the existing residential structure and for a proposed commercial building for the offices of Lundberg Builders with associated access and parking lot.

The building proposed is to be located such that the front of the building is to be located 16.5' from the right of way of Main Street and 3.2' from the Eastern property line. In accord with Section 18:1-31-D-1-a. We request approval of these reduced building restriction lines.

We ask that you process this application as soon as possible. If you should have any questions or need additional information please do not hesitate to call me at (443) 262-9130.

Sincerely,

DMS/& Associates LLC Wm Thomas Davis, Jr., PE

/ljd

Enclosures

	culate Pollutant Removal Rence Costlow Property, Stevensville	Date: Apr-08
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Step1: Calculate	Existing and Proposed Site In	pervious
	late Percent Imperviousness rea within the Critical Area IDA A	= <u>0.314</u> acres
2) Site In	nperviousSurface Area, Existing a (See	and Proposed table 4.1 for details)
	(a) Existing (acres)	(b) Proposed (acres)
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riveways idewalks/paths ooftops ecks wimming pools/ponds ther	0.013	0.067
npervious Surface Area		0.226 nel Credit Area = 0.124 rop. Impervous= 0.102
3) Imperviousnes		
Existing Impervio	uness, I pre	= Impervious Surface area / Site Area = (Step 2a)/ (Step1) = <u>0.063</u> / <u>0.314</u> = <u>20.06</u> %
Proposed impervi	iouness, I post	= Impervious Surface area / Site Area = (Step 2a)/ (Step1) = <u>0.102</u> / <u>0.314</u> = <u>32.48</u> %
	pment Category (circle) evelopment:Existing impervio	us less then <u>15%</u> I (Go to step 2A)
2) <u>ReDev</u>	elopment: Existing impervio	us of <u>15%</u> I or more (Go to step 2B)
improv		gle lots being developed or lopment; and more than 250 sf of ance (Go to Section 5, Residential

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A :	New Development
L pre	= (0.5) (A)
	= (0.5) x <u>0</u> lbs/year of total phosphorus
Where:	
L pre	 Average annual load of total phosphorus exported from the site prior to development (lbs/year
0.5	= Annual total phosphorus load from undeveloped lands (lbs/acre/yr)
А	= Area of the site within the Critical Area IDA (acres)
в:	ReDevelopment:
L pre	= (Rv) (C.) (A) (8.16)
Rv	$= 0.05 + 0.009(\text{lpre}) \\ 0.05 + 0.009 \times 20.06 = 0.23$
L pre	 Average annual load of total phosphorus exported from the site prior to development (lbs/year
Rv	 Run off coefficient, which expresses the fraction of rainfall which is converted to runoff
l pre	 Pre-development (existing) site impervious (i.e., I=75 if the site is 75% impervious)
С	Flow-weighted mean concentration of the pollutant (total phosphorus) in urban runoff (mg/l) = 0.30 mg/l
А	 Area of the site within the Critical Area IDA (acres)

Maryland Chesapeake and Atlantic Coastal Bays Critical Area 10% rule Guidance Manual 4-12

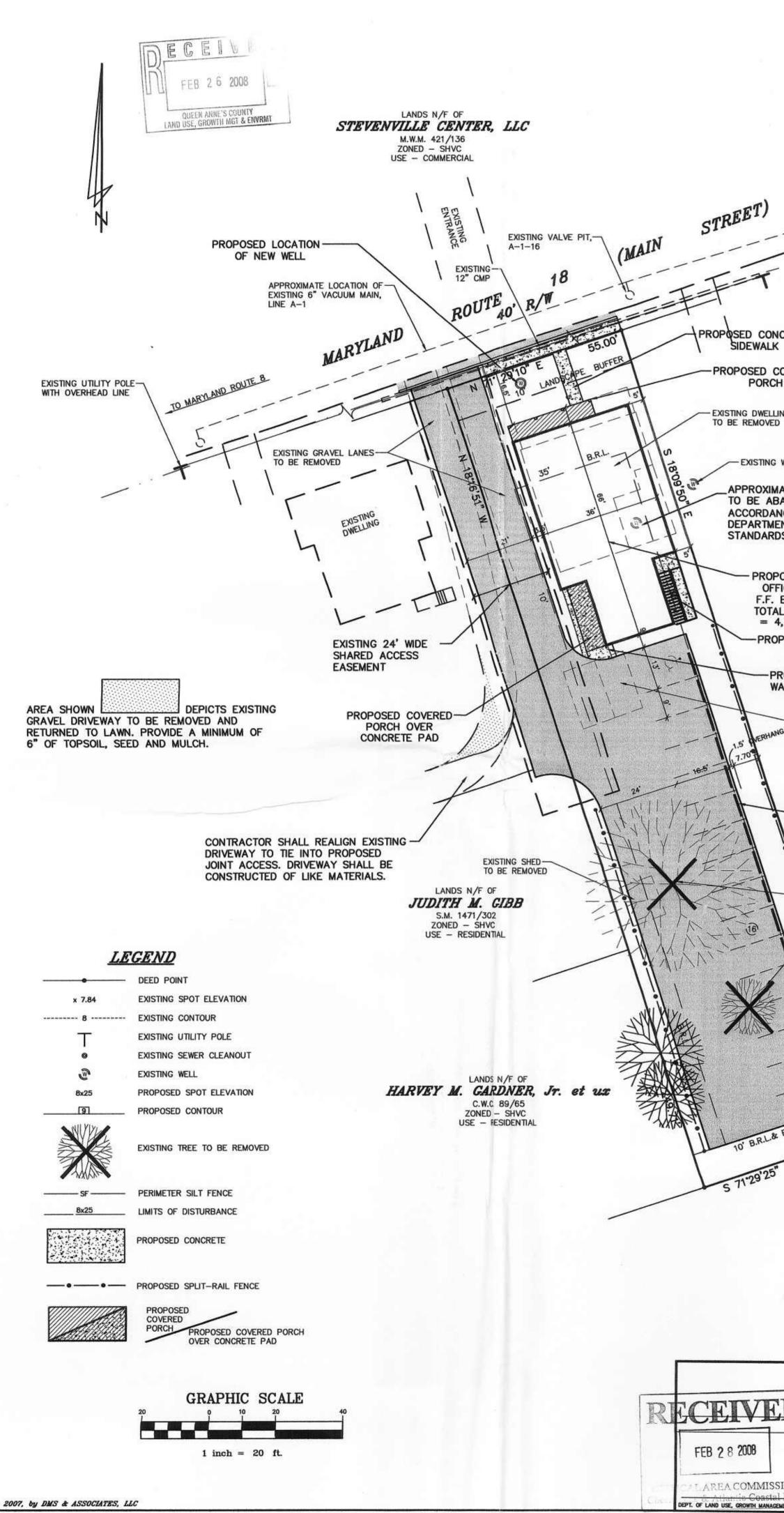
	A :	New Development and Redevelopment:
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	Rv	= 0.50 +0.009 (Ipost)
		= 0.05 +0.009 <u>32.48</u> = 0.34
	Lpost	$= 0.34 \times 0.30 \times 0.31 \times 8.16 =$
Nhere:		= <u>0.263</u> lbs/year of total phosphorus
	L post	 Average annual load of total phosphorus exported from the site post-development (lbs/year
	Rv	 Run off coefficient, which expresses the fraction of rainfall which is converted to runoff
	l post	 Post-development (proposed) site impervious (i.e., I=75 if the site is 75% impervious)
	С	 Flow-weighted mean concentration of the pollutant (total phosphorus) in urban runoff (mg/l) = 0.30 mg/l
	Α	 Area of the site within the Critical Area IDA (acres)
	8.16	 Includes regional constants and unit conversion factors
[Step4: Ca	culate the Pollutant Removal Requirment (RR)
	RR	= L post - (0.90) (Lpre)
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		= 0.056 lbs/year of total phosphorus
Vhere:		
	RR	 Pollutant removal requirement (lbs/year)
	L post	 Average annual load of total phosphorus exported from the site prior to development (lbs/year
	L pre	 Average annual load of total phosphorus exported from the site prior to development (lbs/year

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				- 10 Mg	=		0 (lbs/	
				/ed, LR (total)	=		20 (Ibs/	
i	Polluta	nt Removal Re	equired,RR (fi	rom step 4)	=	0.0	56 (Ibs/	year)
ere:								
ad removed, LR	=	Annual total p (lbs/year	hosphorus re	emoved By the	Propos	sed BN	IP's	
L post	=	Average annu prior to devel		al phosphorus ear	exporte	ed from	i the site	9
BMP re	=	BMP removal	3MP removal efficiency for total phophorus Table 4.8 (%)					
% DA Served	=	Fraction of the the BMP(%)	e site area wi	th in the critica	II area II	DA ser	ved by	
RR	=	Pollutant remo	oval requirem	ent (lbs/year)				
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Has the RR	(pollı	ıtant removal	requirment)	been met?	X	Yes		No
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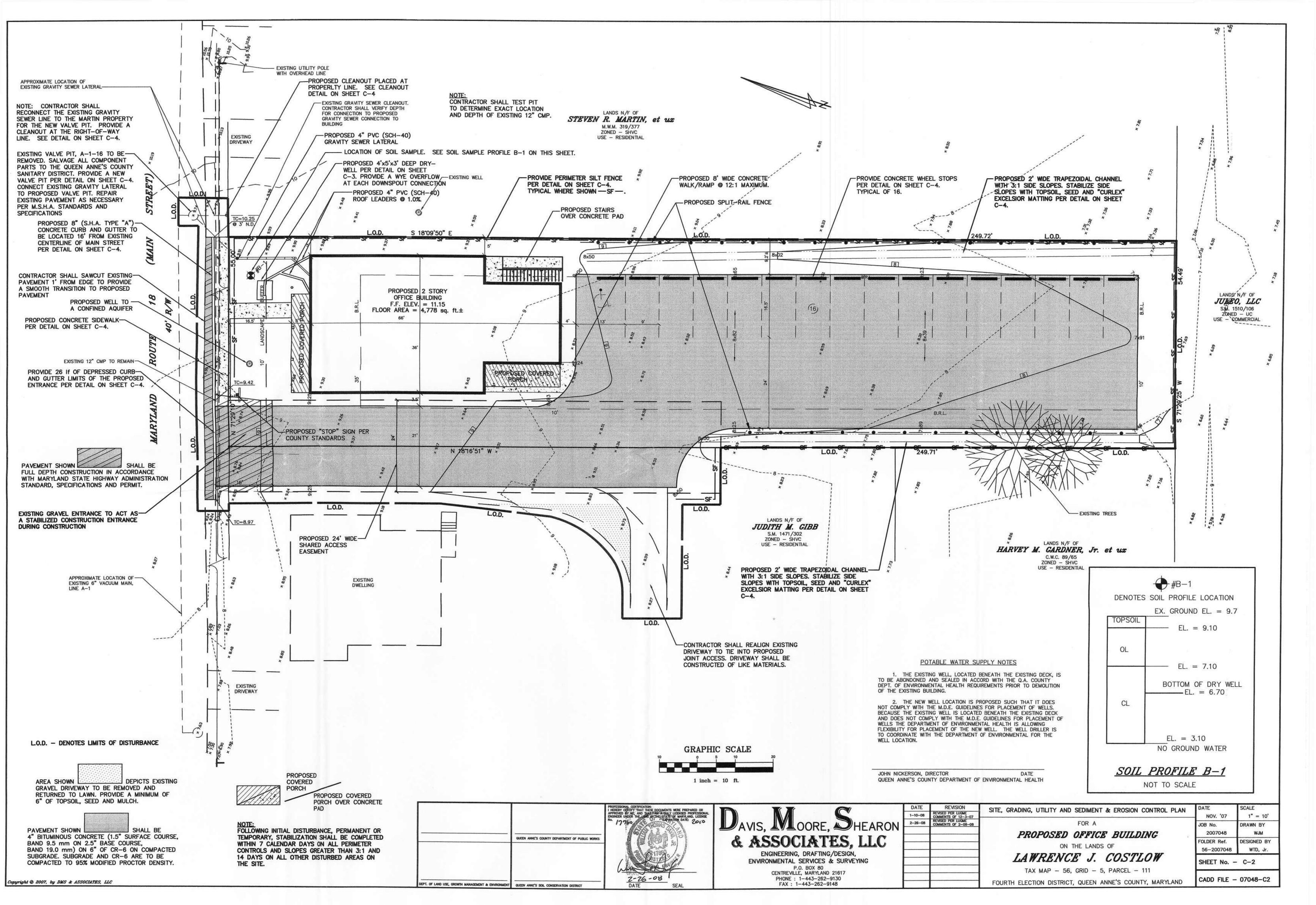


	BASE SITE					
	GROSS SITE AREA NON-CONTIGUOUS LAND LAND IN CHESAPEAKE	= 0.314 acres = 0.000 acres			CHESAPEAKE	CLOVERFIELDS
	BAY CRITICAL AREA BASE SITE AREA	= 0.314 acres = 0.314 acres	OWNED.	4 Y		and the
	OPEN SPACE RATIO RES		DWNER: LAWRENCE J.		((BUSINESS)) / 9	Start And
		OURCE LAND RESOURCE PROTECTION L .000 acres 0.000 acres	STEVENSVILLE,	, MARYLAND 21666		COVE POINT PARK
	MATURE HARDWOODS 0.80 0	.000 acres 0.000 acres	PHONE NO. 1-	-410-643-4382	Wanter	
	TOTAL LAND IN RESOURCE 0	.000 acres	DEVELOF LUNDBERG BU			SHET STAT OF MEN
TO CHESTER	TOTAL RESOURCE PROTECTION LAND	0.000 acres	P.O. BOX 669		BENTON'S BE STATE	STEVENSVILLE
5	DETERMINATION OF	(December)		-410-643-3334	CROSSING NO CHURCH	Lund 1
	BASE SITE AREA LANDSCAPE SURFACE RATIO (LSR)	0.314 acres X 0.20	ENGINEE	R.	KENT I	BLAND
	REQUIRED LANDSCAPE SURFACE	= 0.063 acres	DMS & ASSOC P.O. BOX 80		SITE AN SOM	(QACO.))
TI	TOTAL RESOURCE PROTECTION LAND or REQUIRED LANDSCAPE SURFACE AREA	0.000 acres	CENTREVILLE,	MARYLAND 21617	ROUTE STEVENSM	HOOL ODX OREEX
	whichever is greater		THOME NO. 1	SAPEAK	50	CHESAPEAKE BAY
$\lambda = \lambda$	MINIMUM LANDSCAPE SURFACE AREA BASE SITE AREA	= 0.063 acres 0.314 acres		3		
NCRETE	FLOOR AREA RATIO (FAR)	X 0.40		the second se	VICINITY	MAP
<	MAXIMUM FLOOR AREA ALLOWED	= 0.126 acres (5,468 sq.	ťt.)		SCALE 1" =	
COVERED PAVEMENT SHOWN SHALL BE 4" BITUMINOUS CONCRETE (1.5" SURFACE COURSE	BASE SITE AREA MINIMUM LANDSCAPE SURFACE AREA	0.314 acres		STTE ST	TATISTICS	
BAND 9.5 mm ON 2.5" BASE COURSE, BAND 19.0 mm) ON 6" OF CR-6 ON COMPACTED		 - 0.063 acres = 0.251 acres 		CURRENT USE - RESIDENTIAL		
SUBGRADE. SUBGRADE AND CR-6 ARE TO BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY.		VILLACE CENTER CO		PROPOSED USE - COMMERCIAL (C PER SECTION 18:1-31(c)(1)(h) GROSS AREA	10	+ (0.314 as +)
	TO ADDRESS THE STEVENSVILLE HISTOR	C VILLAGE CENTER DISTRICT (SHVC) DE	SIGN	CRITICAL AREA BASE SITE AREA	= 13,670 sq. ft. = 13,670 sq. ft. = 13,670 sq. ft.	\pm (0.314 ac. \pm)
; WELL	GUIDELINES, THE DEVELOPER REQUESTS CONSTRUCTED ON THE FOOTPRINT OF T	HE EXISTING BUILDING WHICH WILL PLAC	THE	AREA IN BUFFERYARDS AREA WITHIN 100 Yr. FLOODPLAIN	= 550 sq. ft.: = 0,000 sq. ft.	± (0.013 ac.±) ±
MATE LOCATION OF EXISTING WELL BANDONED AND SEALED IN	PROPOSED BUILDING PORCH 16.5 FEET CORNER WILL BE 5 FEET FROM THE SID BUILDING TO BE LOCATED AT THE SAME	E YARD PROPERTY LINE. THIS ALLOWS	THE	AREA WITHIN RESOURCE PROTECTI MAXIMUM FLOOR AREA ALLOWED (
INCE WITH QUEEN ANNE'S COUNTY ENT OF ENVIRONMENTAL HEALTH	THE EXISTING STREETSCAPE AND ENCOU SHARED DRIVEWAY ENTRANCE ON THE V	RAGING PEDESTRIAN ACCESS WHILE PRO		FLOOR AREA (EXISTING) FLOOR AREA TO BE REMOVED (EX	= 0 sq. ft.	± (0.126 ac.±) (40%) ± (0.0 ac.±) ± (0.0 ac.±)
DS	PURPOSE AND	INTENT STATEMENT		FLOOR AREA (PROPOSED) FLOOR AREA (TOTAL)	= 4,778 sq. ft.	\pm (0.110 ac. \pm) \pm (0.110 ac. \pm) (35.%)
	THE PURPOSE OF THIS SITE PLAN IS TO COUNTY DEPARTMENT OF LAND USE, G	O OBTAIN APPROVAL FROM QUEEN ANNI		MAXIMUM IMPERVIOUS AREA ALLOW	MED (80%) = 10,936 sq. ft.:	± (0.251 ac.±) (80%)
POSED 2 STORY FICE BUILDING	THE PROPOSED 2-1/2 STORY OFFICE E CONSTRUCTED OVER THE EXISTING FOU	UILDING. THE PROPOSED BUILDING IS TO	BE	IMPERVIOUS AREA WITHIN BUFFERY IMPERVIOUS AREA (EXISTING) IMPERVIOUS AREA TO BE REMOVED	= 2,744 sq. ft.:	± (0.004 ac.±) ± (0.063 ac.±) ± (0.063 ac.±)
ELEV. = 11.15 AL_FLOOR AREA	THE PROPOSED BUILDING AND IS A PER 18:1-31.C.(1)(h) OF THE COUNTY CODE	RMITTED USE UNDER TO SECTION		IMPERVIOUS AREA (PROPOSED ON IMPERVIOUS AREA (TOTAL ON SITE	SITE) = 9.836 so, ft.:	
4,778 sq. ft.± DPOSED STAIRS BUILT OVER CONCRETE PAD	NOTE	<u>75</u>		IMPERVIOUS AREA AFFECTED OFFSI	a costructor contractor	
	1. PROPERTY LINE INFORMATION SHOWN HEREON ASSOCIATES, INC., REGISTERED SURVEYOR, DATED		BY KIRBY &	ON GIBB PROPERTY LANDSCAPE AREA (REQUIRED) (20)	%) = 2,734 sq. ft.:	t (0.063 ac.±) (20%)
PROPOSED 8' WIDE CONCRETE WALK/RAMP @ 12:1.	2. FOR DEED REFERENCE, SEE LIBER S.M. 564,	FOLIO 127.		LANDSCAPE AREA (EXISTING) LANDSCAPE AREA (PROPOSED)	= 10,926 sq. ft.d	= (0.251 ac.±) ± (0.088 ac.±) (28.1%)
	3. CURRENT ZONING CLASSIFICATION IS "SHVC"	- (STEVENSVILLE HISTORIC VILLAGE CEI	TER).			
EXISTING SHED NG TO BE REMOVED	4. THE PROPERTY IS ENTIRELY LOCATED WITHIN IDA.	THE CHESAPEAKE BAY CRITICAL AREA	DESIGNATION -			
LANDS N/F OF	5. SITE IS NOT LOCATED WITHIN 100 YEAR FLOO COMMUNITY PANEL No. 240054 0038 B. (ZONE "C		ANCE RATE MAP	PARKING REQUI	PFMFNTS	
M.W.M. 319/377	6. TOPOGRAPHICAL CONTOURS AND EXISTING IM	PROVEMENTS SHOWN HEREON ARE THE	RESULT OF	COMMERCIAL OFFICE USE: (SECTION	18:1-83.G.(1))	
ZONED – SHVC USE – RESIDENTIAL	FIELD RUN TOPOGRAPHY BY KIRBY & ASSOCIATES,			GROSS FLOOR AREA OF OFFICE US COMMERCIAL STORAGE USE AREA: ($1000 = 3.29 \times 4 =$	13.16 SPACES
I HONDE CONCILIE MILLE STOPS	7. ON ENTIRE SITE SOIL TYPE PIB (PINEYNECK S 36 OF QUEEN ANNE'S COUNTY. PINEY NECK SILT			GROSS FLOOR AREA OF STORAGE,	/WAREHOUSE: <u>1500 sq.ft</u> . 500 =	3 SPACES
PER DETAIL ON SHEET C-4. TYPICAL OF 16.	8. PUBLIC SEWER WILL BE UTILIZED FOR SEWAGE WILL BE UTILIZED FOR POTABLE WATER SUPPLY. T			TOTAL NUMBER OF PARKING SPACES TOTAL NUMBER OF PARKING SPACES NOTE: NO LOADING ZONES ARE REQ	PROPOSED: = 1	6 SPACES
	SUBDISTRICT "A".		FD IN 1907	NOTE. NO LOADING ZONES ARE REQ	URED FOR THE PROPOSED BUILT	JING.
	9. THE EXISTING BUILDING IS IDENTIFIED AS A H THE BUILDING HAS DETERIORATED TO A POINT THAT DEMOLITION. THE DEVELOPER IS TO PROVIDE A PH	T IT IS PROPOSED TO BE DEMOLISHED.	PRIOR TO THE	CEA	IERAL NOTES	3
TO BE REMOVED	INFORMATION MUST BE SUBMITTED WITH THE DEMO			. THE EXISTING UTILITIES SHOWN WERE TAKE		ORDS THE CONTRACTOR
	 THERE IS NO OUTDOOR STORAGE PROPOSED. NO OUTSIDE TRASH COLLECTION AREA IS PRO 	POSED NOR WILL IT BE BLACED OUTSID		SHALL VERIFY THEIR EXACT LOCATION PRIC TO SUCH UTILITIES SHALL BE REPAIRED IM	OR TO THE START OF CONSTRUCTION	N. ANY DAMAGE INCURRED
	TRASH WILL BE COLLECTED INSIDE THE BUILDING A OFFSITE TRASH COLLECTION FACILITY.			2. THE CONTRACTOR SHALL NOTIFY THE FOLI AND SHALL COORDINATE CONSTRUCTION W	LOWING TWO (2) WEEKS PRIOR TO	THE START OF CONSTRUCTION
	12. THE EXISTING WELL THAT PROVIDES WATER TO			DELMARVA POWER & LIGHT COMP		00-375-7117
	EXISTING DECK. THE EXISTING WELL IS TO BE ABAI ANNE'S COUNTY DEPARTMENT OF ENVIRONMENT HE PROVIDE POTABLE WATER SUPPLY TO THE PROPOS	ALTH STANDARDS. A NEW WELL IS PRO		MISS UTILITY DMS & ASSOCIATES, LLC DEPARTMENT OF ENVIRONMENT	1-4-	00-441-8355 43-262-9130 0-901-4020
-PROPOSED SPLIT-RAIL FENCE	13. STORMWATER MANAGEMENT IS ADDRESSED BY		THE EAST 3	Q.A. CO., DEPT. OF PUBLIC WORK THE CONTRACTOR SHALL PROVIDE ALL EQ	is 1–41	0-758-0925
	BOUNDARY LINE AND THE DRY WELL LOCATED IN F		342	OR TEST PIT EXCAVATIONS REQUIRED BY T	THE ENGINEER.	
	14. THE EXISTING HOUSE AND SHED DO NOT MEE THEREFORE ARE CONSIDERED LEGAL NONCONFORMI ADOPTION OF THE CURRENT CODE.			ALL CONSTRUCTION SHALL BE MARKED FO PLACED IN ACCORDANCE WITH SECTION VI	OF THE MANUAL ON UNIFORM TRA	Y. ALL SIGNS SHALL BE FFIC CONTROL DEVICES.
	15. THERE ARE NO ENDANGERED SPECIES OR HAR		INDICATED IN	 ALL MATERIALS AND METHODS OF CONSTR COUNTY STANDARDS AND SPECIFICATIONS. 		E WITH QUEEN ANNE'S
	THE LETTER FROM THE DEPARTMENT OF NATURAL 2007.	RESOURCES HERITAGE DIVISION, DATED	IOVEMBER 15, 6.	. THE CONTRACTOR ASSUMES ALL RESPONS DEVIATION IS APPROVED BY THE ENGINEER.		
EA 49	16. BASED ON A FIELD VISIT AND SURVEY OF THE THAT QUALIFY AS WOODLANDS LOCATED ON THE S	SITE, THERE DOES NOT APPEAR TO B		THE ENGINEER IF A DEVIATION OF THE PLA	IN IS NECESSARY.	
	17. THIS SITE IS EXEMPT FROM THE FOREST CONS		E FOREST	 ALL DISTURBED AREAS SHALL BE SMOOTH OF FLOW ARROWS HEREIN AND STABILIZED TOPSOIL, SEEDING AND MULCHING SHALL B 	WITH TOPSOIL, SEED, AND MULCH.	IF SETTLEMENT OCCURS,
	CONSERVATION ORDINANCE, SECTION 18:2-4(B)(2) PROPOSED DEVELOPMENT OCCURS ENTIRELY WITHIN CRITICAL AREA PROTECTION LAWS.	OF THE QUEEN ANNE'S COUNTY CODE, THE AREA GOVERNED BY THE CHESAPI	AKE BAY	SEDIMENT CONTROL SPECIFICATIONS).		
	18. SITE REQUIREMENTS:		о.	. ALL TRASH, TREES, AND UNDERBRUSH ARI DUMP SITE BY THE CONTRACTOR.	E TO BE CLEARED AND REMOVED C	FF SHE TO AN APPROVED
LANDS N/F OF JULEO, LLC	<u>BUILDING SETBACKS</u> (REQUIRED): FRONT = $35'$ (PROPOSED = $16.5'$)			ANY EXCESS EXCAVATED MATERIAL SHALL SHALL BE PLACED ON SITE AS DIRECTED BY		TRACTOR OR MATERIAL
S.M. 1510/106 ZONED - UC	$\begin{array}{l} \text{REAR} &= 10'\\ \text{SIDE} &= 10' \text{ (PROPOSED} &= 5') \end{array}$		10.	ANY EXISTING SURVEY MONUMENTATION TH	IAT IS DISTURBED DURING CONSTRU	CTION SHALL BE REPLACED
USE - COMMERCIAL	MAXIMUM BUILDING HEIGHT; PRINCIPAL = 45° (ALLOWED)			BY A REGISTERED SURVEYOR AT THE CONT		S AS DESIGNATED ON THESE
	PRINCIPAL = 45 (ALLOWED) $PRINCIPAL = 30' (2-1/2 STORIES) (PROPO$	SED)		ALL FILL AREAS WITHIN LIMITS OF ROADWA' PLANS SHALL BE COMPACTED TO 95% MOD MAXIMUM.		
PROFESSIONAL CERTIFICATION		DAT	REVISION			DATE COULT
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE P APPROVED BY ME, AND THAT I AM A DULY LICENSE ENGINEER UNDER THE LAWS OF THE STATE OF MAR No. 17660	REPARED OR ED PROFESSIONAL WILAND, LICENSE		8 REVISED PER LUGME COMMENTS OF 12-3-07	SITE PLAN		DATE SCALE NOV. '07 1" = 20'
TD OF MARIE	AVIS, AVAUUF		COMMENTS OF 2-8-08	FOR A		JOB No. DRAWN BY 2007048 WJM
QUEEN ANNE'S COUNTY DEPARTMENT OF PUBLIC WORKS	& ASSOCIA	TES, LLC		ON THE LANDS OF		FOLDER Ref. DESIGNED BY
12 000	ENGINEERING, DRAM ENVIRONMENTAL SERVIC	TING/DESIGN,		LAWRENCE J. C.	OSTLOW	56-2007048 WTD, Jr.
SION	P.O. BOX CENTREVILLE, MAR	80		TAX MAP - 56, GRID - 5, PA	0.0478.04 25.571	SHEET No C-1
Basse Z-26-09 V SEMENT & ENVIRONMENT QUEEN ANNE'S SOIL CONSERVATION DISTRICT DATE SEAL	PHONE : 1-443- FAX : 1-443-2	-262-9130	FOUR	TH ELECTION DISTRICT, QUEEN ANNE	S COUNTY, MARYLAND	CADD FILE - 07048-C1

GHESAPEAKE	
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	a suitant the state of a warman
CROSSING	STEVENSVILLE 20, 20
Barren Harrison	State In the second sec
	CITY AND ELEMENTARY
AND S	S I I BRARY
	COX CREEK
	CRITICAL AREA
	VICINITY MAP
BUSINESS PARK PARK BENTON'S BE	NUMBER OF SCHOOL

CURRENT USE - RESIDENTIAL		
CORRENT OSE - RESIDENTIAL		
PROPOSED USE - COMMERCIAL (OFFICE BUILDI	NG)	
PER SECTION 18:1-31(c)(1)(h)		
GROSS AREA	-	13,670 sq. ft.± (0.314 ac.±)
CRITICAL AREA	-	13,670 sq. ft.± (0.314 gc.±)
BASE SITE AREA	=	13,670 sq. ft.± (0.314 ac.±) 13,670 sq. ft.± (0.314 ac.±)
AREA IN BUFFERYARDS	-	550 sq. ft.± (0.013 ac.±) 0,000 sq. ft.±
AREA WITHIN 100 Yr. FLOODPLAIN	-	0,000 sq. ft.±
AREA WITHIN RESOURCE PROTECTION	=	0,000 sq. ft.±
MAXIMUM FLOOR AREA ALLOWED (40%)	-	5,468 sq. ft.± (0.126 ac.±) (40%)
		$0 \text{ sq. ft.} \pm (0.0 \text{ qc.} \pm)$
	-	
FLOOR AREA (PROPOSED)		4,778 sq. ft.± (0.110 qc.±)
FLOOR AREA (TOTAL)	=	4,778 sq. ft.± (0.110 ac.±) (35.%)
MAXIMUM IMPERVIOUS AREA ALLOWED (80%)	=	10,936 sq. ft.± (0.251 ac.±) (80%)
IMPERVIOUS AREA WITHIN BUFFERYARD	-	160 sq. ft.± (0.004 ac.±)
	=	
		2,744 sq. ft.± (0.063 ac.±)
	-	
IMPERVIOUS AREA (TOTAL ON SITE)	=	
IMPERVIOUS AREA AFFECTED OFFSITE ON GIBB PROPERTY	=	1,256 sq. ft.± (0.029 ac.±)
LANDSCAPE AREA (REQUIRED) (20%)	=	2,734 sq. ft.± (0.063 ac.±) (20%)
LANDSCAPE AREA (EXISTING)	=	2,734 sq. ft.± (0.063 ac.±) (20%) 10,926 sq. ft.± (0.251 ac.±)
LANDSCAPE AREA (PROPOSÉD)	=	
	PER SECTION 18:1-31(c)(1)(h) GROSS AREA CRITICAL AREA BASE SITE AREA AREA IN BUFFERYARDS AREA WITHIN 100 Yr. FLOODPLAIN AREA WITHIN RESOURCE PROTECTION MAXIMUM FLOOR AREA ALLOWED (40%) FLOOR AREA (EXISTING) FLOOR AREA (EXISTING) FLOOR AREA (PROPOSED) FLOOR AREA (TOTAL) MAXIMUM IMPERVIOUS AREA ALLOWED (80%) IMPERVIOUS AREA WITHIN BUFFERYARD IMPERVIOUS AREA (EXISTING) IMPERVIOUS AREA TO BE REMOVED (EXISTING) IMPERVIOUS AREA TO BE REMOVED (EXISTING) IMPERVIOUS AREA TO BE REMOVED (EXISTING) IMPERVIOUS AREA (TOTAL ON SITE) IMPERVIOUS AREA AFFECTED OFFSITE ON GIBB PROPERTY LANDSCAPE AREA (REQUIRED) (20%) LANDSCAPE AREA (EXISTING)	PER SECTION 18:1-31(c)(1)(h)GROSS AREAGROSS AREACRITICAL AREABASE SITE AREAAREA IN BUFFERYARDSAREA WITHIN 100 Yr. FLOODPLAINAREA WITHIN RESOURCE PROTECTIONMAXIMUM FLOOR AREA ALLOWED (40%)FLOOR AREA (EXISTING)FLOOR AREA (EXISTING)FLOOR AREA (EXISTING)FLOOR AREA (TO BE REMOVED (EXISTING)FLOOR AREA (PROPOSED)FLOOR AREA (TOTAL)MAXIMUM IMPERVIOUS AREA ALLOWED (80%)IMPERVIOUS AREA (EXISTING)IMPERVIOUS AREA (EXISTING)IMPERVIOUS AREA (TOTAL)IMPERVIOUS AREA (TOTAL ON SITE)IMPERVIOUS AREA (TOTAL ON SITE)IMPERVIOUS AREA AFFECTED OFFSITEON GIBB PROPERTYLANDSCAPE AREA (REQUIRED) (20%)IANDSCAPE AREA (EXISTING)

PARKING REQUIREMENTS		
COMMERCIAL OFFICE USE: (SECTION 18:1-83.G.(1))		
GROSS FLOOR AREA OF OFFICE USE: 3.288 sg.ft.	4 =	13.16 SPACE
COMMERCIAL STORAGE USE AREA: (SECTION 18:1-83.C.(1)(b)): GROSS FLOOR AREA OF STORAGE/WAREHOUSE: 1500 sq.ft.		
500	-	3 SPACES

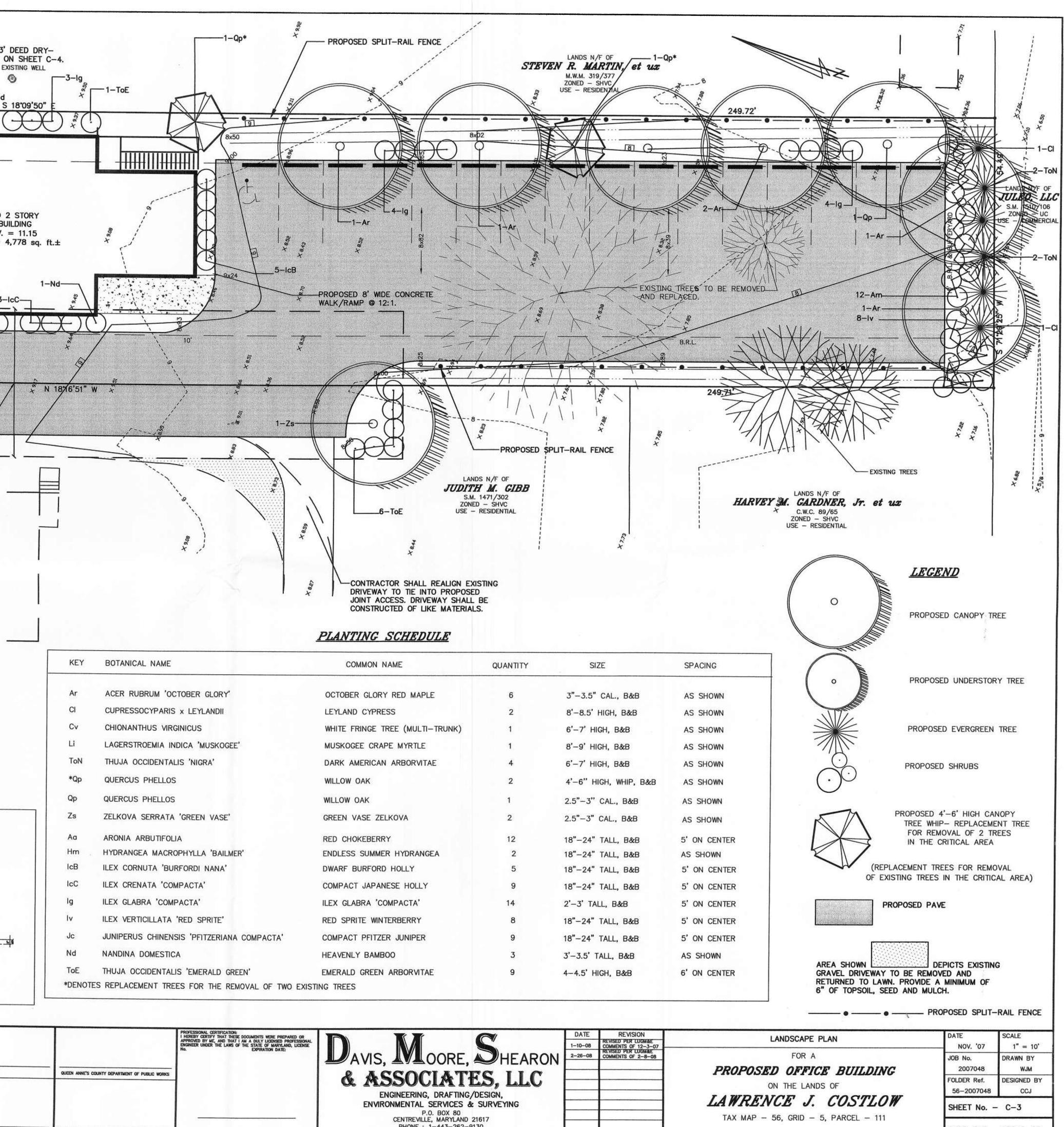


LANDSCAPING CALCULATIONS		10	Π		GRAVITY SEWER C		
REQUIRED PARKING LOT LANDSCAPING (SECTION 18-1-72) SHVC ZONE REQUIRES 2.5 PLANT UNITS PER 24 PARKING SPACES 16 PARKING SPACES 24 0.667 X 2.5 = 1.67 ALTERNATIVE #5 PLANT UNITS						PROP	OSED 4'x5'x3' PER DETAIL (
5.04 OR 5 3" CAL. CANOPY TREES 3.34 OR 3 2.5" CAL. CANOPY TREES EXISTING VALVE 8.35 OR 8 18" HIGH SHRUBS REQUIRED STREET BUFFER LANDSCAPING (SECTION 18-1-76):		TX ax			\mathbf{X}	° * * * *	El —lg
MD. ROUTE 18 STREET BUFFER: SHVC ZONE ADJACENT TO MD. RT. 18-MAIN STREET (OTHER STREET) = 'S' BUFFERYARD REQUIRES 2 PLANT UNITS PER 150 LINEAR FEET OF 10' WIDE STREET BUFFER. 55.00 L.F. OF LOT FRONTAGE	REET		A			700	J ^{1-Nd} s
-15 WIDE ENTRANCE DRIVE 40 L.F. OF LOT FRONTAGE AVAILABLE FOR LANDSCAPING NOTE: PER SECTION 18:1-76(B), PROPERTY LINES REQUIRING A BUFFER LESS THAN 150' REQUIRE A MINIMUM OF ONE PLANT UNIT.	STR			22200			10
THE LOCATION OF THE REQUIRED TREES AND SHRUBS HAS BEEN ADJUSTED TO ACCOMMODATE THE WIDTH OF THE PAVED ENTRANCE. <u>1 ALTERNATIVE #1 PLANT UNITS</u> 1 2.5" CAL. CANOPY TREE		$\overline{}$				-2-lcC	
2 1.5" CAL. UNDERSTORY TREES 10 18" HIGH SHRUBS REQUIRED DISTRICT BOUNDARY BUFFER LANDSCAPING (SECTION 18-1-76): SHVC ZONE ADJACENT TO SHVC ZONES REQUIRE NO DISTRICT BOUNDARY BUFFER.	(MAIN	1	Ŋ			– 2–Hm ₂₂	PROPOSED
SHVC/UC DISTRICT BOUNDARY BUFFER = 'D' BUFFER REQUIRING 4 PLANT UNITS PER 150 LINEAR FEET OF 20' WIDE DISTRICT BOUNDARY BUFFER. PER SECTION 18:1-75, ONE-HALF OF THE BUFFERYARD REQUIREMENTS ARE PROPOSED TO BE PROVIDED DUE TO THE FACT THAT THE ADJACENT UC ZONED PROPERTY OWNED BY JULEO, LLC IS VACANT. IN ADDITION, PER SECTION 18:1-76(B), PROPERTY LINES LESS THAT 150 FEET IN LENGTH REQUIRE A MINIMUM OF ONE PLANT UNIT. THE PROPOSED 10' WIDE SHVC/UC DISTRICT BOUNDARY BUFFER OF 54.49' IS PROPOSED TO BE LANDSCAPED WITH TWO ALTERNATIVE #4 PLANT UNITS.	18	6 40' R	× ••••••	LANDSCAPE	PROPOSED COVERED	FLO	OFFICE BU F.F. ELEV. OOR AREA =
2 ALTERNATIVE #4 PLANT UNITS: 2 8' HIGH EVERGREEN TREES 4 6' HIGH EVERGREEN TREES 20 18" HIGH SHRUBS	ROUTE		57 4 A		PROP		
REQUIRED ON-SITE LANDSCAPING (SECTION 18-1-71): MINIMUM REQUIRED LANDSCAPED AREA: 0.063 Ac. (2,734 sq. ft.) LESS STREET BUFFER LANDSCAPE AREA: 0.009 Ac. (400 sq. ft.) LESS DISTRICT BUFFER LANDSCAPE AREA: 0.013 Ac. (545 sq. ft.) AREA ON SITE TO BE LANDSCAPED: 0.041 Ac. (1,789 sq. ft.) NUMBER OF PLANT UNITS REQUIRED PER *NONE	.			N 71'29'10"		44-lcC	
*SECTION 18:1-71. LANDSCAPING STANDARDS ON SITE INDICATE THAT THE LANDSCAPING MAY BE CONDITIONED TO MEET THE UNIQUE NEEDS OF THE IMMEDIATE AREA AS PART OF THE APPROVAL PROCESS. SEE ALSO SECTION 18:1-31.D.(4)(h)(k) FOR LANDSCAPING DESIGN GUIDE- LINES IN THE SHVC DISTRICT.	MARYLAND			88%	1	£8	
A. <u>MATERIALS</u> (1) PLANTS SHALL BE NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES, AND GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT. THEY SHALL HAVE BEEN ROOT PRUNED WITHIN THE LAST TWO YEARS.				268 268 268 268	^{ر عور} 9x2e		216 X
THEY SHALL BE SOUND, HEALTHY AND VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF DISEASE, PEST, EGGS OR LARVAE, AND SHALL HAVE A HEALTHY, DEVELOPED ROOT SYSTEM.	VACUUM MAIN		824 824		 		_/
PLANTS SHALL NOT BE PRUNED BEFORE DELIVERY. TREES WITH A DAMAGED OR CROOKED LEADER OR MULTIPLE LEADERS, ABRASIONS ON THE BARK, SUNSCALD, DISFIGURING KNOTS OR FRESH CUTS OVER 1 1/2" WILL BE REJECTED.	0F 6"				PROPOSED	the state of the s	L
NO CHANGE IN QUANTITY, SIZE, KIND OR QUALITY OF PLANT SPECIFIED WILL BE PERMITTED WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT/DESIGNER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE PLANT COUNT AND IN ANY INSTANCE WHERE THERE IS A DISCREPANCY BETWEEN THE PLAN VIEW AND THE LANDSCAPE SCHEDULE, THE PLAN VIEW SHALL PRESIDE.	TE LOCATION		K				2
(2) TOPSOIL SHALL BE FERTILE, FRIABLE AND TYPICAL OF THE LOCALITY; IT SHALL BE FREE OF STONES, LUMPS, PLANTS, ROOTS, STICKS AND SHALL NOT BE DELIVERED IN A FROZEN OR MUDDY CONDITION.	APPROXIMATE			× 863	X 8.95	EXISTING DWELLING	
(3) PLANTING SOIL (BACKFILL MIX) SHALL BE FIVE PARTS TOPSOIL AND ONE PART WET LOOSE PEATMOSS.				CO	1		
(4) STAKING MATERIALS: GUY WIRE SHALL BE PLIABLE 12 GAUGE GALVANIZED TWISTED TWO STRAND WIRE. HOSE SHALL BE A SUITABLE LENGTH OF TWO-PLY, REINFORCED BLACK RUBBER HOSE 3/4" INCH IN DIAMETER; STAKES SHALL CONFORM TO THE DETAIL ON THIS SHEET. B. <u>APPLICABLE SPECIFICATIONS AND STANDARDS</u> :	ا ر ا	1	665 +	8			
 (1) "STANDARDIZED PLANT NAMES," LATEST EDITION AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE. (2) "AMERICAN STANDARD FOR NURSERY STOCK," LATEST EDITION, AMERICAN ASSOCIATION OF NURSERYMEN. 	1			×	× 4882		
C. <u>DIGGING AND HANDLING OF PLANT MATERIALS</u> : (1) IMMEDIATELY BEFORE DIGGING, SPRAY ALL EVERGREEN OR DECIDUOUS PLANT MATERIAL IN FULL LEAF WITH ANTI-DESICCANT, APPLYING AN ADEQUATE FILM OVER TRUNKS, BRANCHES, TWIGS, AND/ OR FOLIAGE.			1 X Xen	EXISTING DRIVEWAY			
 (2) DIG BALL AND BURLAP (B&B) PLANTS WITH FIRM NATURAL BALLS OF EARTH, OF DIAMETER NOT LESS THAN THAT RECOMMENDED BY AMERICAN STANDARD FOR NURSERY STOCK, AND IF SUFFICIENT DEPTH TO INCLUDE THE FIBROUS AND FEEDING ROOTS. PLANTS MOVED WITH A BALL WILL NOT BE ACCEPTED IF THE BALL IS CRACKED OR BROKEN BEFORE OR DURING PLANTING OPERATIONS. D. EXCAVATION OF PLANTING AREAS: 	 	 (X)			1777 8		
STAKE OUT ON THE GROUND LOCATIONS FOR PLANTS AND OUTLINES OF AREA TO BE PLANTED AND OBTAIN APPROVAL OF THE LANDSCAPE ARCHITECT/DESIGNER BEFORE EXCAVATION IS BEGUN. CONTRACTOR IS TO CAUTIOUSLY TEST PIT AREAS WHERE UNDERGROUND UTILITIES (ELECTRIC, GAS, CABLE/COMMUNICATIONS LINES, WATER LINES, SEWER LINES, ROOF LEADERS, ETC.) ARE SUSPECTED TO EXIST AND			い X M N X M N X M N X M N X M N N N N N N N N N N N N N	8 8 -			
WHERE PROPOSED TO BE PLACED ACCORDING TO PLAN TO AVOID ANY DAMAGE OR DISRUPTIONS TO SERVICES. DO NOT PLACE PLANTS OVER ANY EXISTING UNDERGROUND UTILITIES. OFFSET A REASONABLE AND PRACTICAL DISTANCE TO AVOID ANY IMMINENT OR FUTURE CONFLICT.	NEVER CUT A	Leader	FF 8	neller.		4	
SET PLANTS AT SAME RELATIONSHIP TO FINISHED GRADE AS THEY BORE TO THE GROUND FROM WHICH THEY WERE DUG. USE PLANTING SOIL TO BACKFILL APPROXIMATELY 2/3 FULL, WATER THOROUGHLY	or to first (Guy Wires — 3— 2"x 2" Ha	BRANCH	Jun 1				
ROOTS. CUT ROPES OR STRINGS FROM TOP OF BALL AFTER PLANT HAS BEEN SET. LEAVE BURLAP OR CLOTH WRAPPING INTACT AROUND BALLS. TURN UNDER AND BURY PORTIONS OF BURLAP AT TOP OF BALL.	TRUNK WRAPP (DECIDUOUS T TREE SHALL E RELATION TO AS IT BORE T EXISTING GRAD 3" MULCH —	BEAR SAME FINISHED GRAD	HAR H		SHRUB SHALL BEAR RELATION TO FINISHI AS IT BORE TO PRET EXISTING GRADE	NOT TO SC	
PROTECT PLANTS AT ALL TIMES FROM SUN OR DRYING WINDS. PLANTS THAT CANNOT BE PLANTED IMMEDIATELY ON DELIVERY SHALL BE KEPT IN THE SHADE, WELL PROTECTED WITH SOIL, WET MOSS OR OTHER ACCEPTABLE MATERIAL AND SHALL BE KEPT WELL WATERED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN THREE DAYS AFTER DELIVERY.					2" MULCH	ROUND	
PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES. PLANTS SHALL BE LIFTED AND HANDLED FROM THE BOTTOM OF THE BALL ONLY. MULCH ALL PITS AND BEDS WITH A TWO INCH LAYER OF BARKMULCH IMMEDIATELY AFTER PLANTING AND WORK INTO THE TOP THREE INCHES OF THE PLANTING SOIL. FORM A 3" EARTH SAUCER AROUND EACH PLANT.	SCARIFY SUBS	-	I	REE PLANTING DETAIL NOT TO SCALE	SCARIFY SUBSOIL	SHRUB PLANTIN NOT TO SC	A DECEMBER OF THE OWNER
WATER ALL PLANTS IMMEDIATELY AFTER PLANTING. F. STAKING, WRAPPING AND PRUNING:							
STAKING SHALL BE COMPLETED IMMEDIATELY AFTER PLANTING. PLANTS SHALL STAND PLUMB AFTER STAKING. STAKES AND GUY WIRES SHALL BE REMOVED AT THE END OF THE GUARANTEE PERIOD AND DEPOSITED OF OFF SITE BY THE CONTRACTOR. PRUNE PLANTS AT THE TIME OF PLANTING AS DIRECTED BY THE LANDSCAPE							
ARCHITECT/DESIGNER TO REMOVE 1/5 TO 1/3 OF THE FOLIAGE. REMOVE ALL DEAD WOOD, SUCKERS, OR BROKEN BRANCHES AND PRESERVE THE NATURAL CHARACTER				GRAPHIC	C SCALE		

1 inch = 10 ft.

WOOD, SUCKERS, OR BROKEN BRANCHES AND PRESERVE THE NATURAL CHARACTER OF THE PLANT. G. GUARANTEE:

ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE (1) FULL YEAR FROM THE DATE THAT THE LANDSCAPE INSTALLATION IS ACCEPTED AS COMPLETE. PLANT MATERIAL NOT FOUND TO BE IN A HEALTHY, VIGOROUS CONDITION AT THE BEGINNING OF THE SECOND GROWING SEASON IS TO BE REPLACED.



KEY	BOTANICAL NAME	NAME COMMON NAME		SIZE
Ar	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	6	3"-3.5" CAL., B&d
CI	CUPRESSOCYPARIS x LEYLANDII	LEYLAND CYPRESS	2	8'-8.5' HIGH, B&B
Cv	CHIONANTHUS VIRGINICUS	WHITE FRINGE TREE (MULTI-TRUNK)	1	6'-7' HIGH, B&B
Li	LAGERSTROEMIA INDICA 'MUSKOGEE'	MUSKOGEE CRAPE MYRTLE	1	8'-9' HIGH, B&B
ToN	THUJA OCCIDENTALIS 'NIGRA'	DARK AMERICAN ARBORVITAE	4	6'-7' HIGH, B&B
*Qp	QUERCUS PHELLOS	WILLOW OAK	2	4'-6" HIGH, WHIP,
Qp	QUERCUS PHELLOS	WILLOW OAK	1	2.5"-3" CAL., B&E
Zs	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE ZELKOVA	2	2.5"-3" CAL., B&E
Aa	ARONIA ARBUTIFOLIA	RED CHOKEBERRY	12	18"–24" TALL, B&I
Hm .	HYDRANGEA MACROPHYLLA 'BAILMER'	ENDLESS SUMMER HYDRANGEA	2	18"-24" TALL, B&
lcB	ILEX CORNUTA 'BURFORDI NANA'	DWARF BURFORD HOLLY	5	18"-24" TALL, B&I
IcC	ILEX CRENATA 'COMPACTA'	COMPACT JAPANESE HOLLY	9	18"-24" TALL, B&
lg	ILEX GLABRA 'COMPACTA'	ILEX GLABRA 'COMPACTA'	14	2'-3' TALL, B&B
lv	ILEX VERTICILLATA 'RED SPRITE'	RED SPRITE WINTERBERRY	8	18"-24" TALL, B&
Jc	JUNIPERUS CHINENSIS 'PFITZERIANA COMPACTA'	COMPACT PFITZER JUNIPER	9	18"-24" TALL, B&
Nd	NANDINA DOMESTICA	HEAVENLY BAMBOO	3	3'-3.5' TALL, B&B
ToE	THUJA OCCIDENTALIS 'EMERALD GREEN'	EMERALD GREEN ARBORVITAE	9	4-4.5' HIGH, B&B

		PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR ADDROVED BY LEAD THAT I ALL A LANCE AND THAT ADDROVED PROFESSIONAL		DATE	REVISION REVISED PER LUGA
		APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE No. EDYNRATION DATE:		1-10-08	COMMENTS OF 12-
			LAVIS, MOORE, DHEARON	2-26-08	COMMENTS OF 2-8
	QUEEN ANNE'S COUNTY DEPARTMENT OF PUBLIC WORKS		& ASSOCIATES, LLC		
			ENGINEERING, DRAFTING/DESIGN,	-	
			ENVIRONMENTAL SERVICES & SURVEYING		
			P.O. BOX 80 CENTREVILLE, MARYLAND 21617		
ENT & ENVIRONMENT	QUEEN ANNE'S SOIL CONSERVATION DISTRICT	DATE SEAL	PHONE : 1-443-262-9130 FAX : 1-443-262-9148		

FOURTH ELECTION DISTRICT, QUEEN ANNE'S COUNTY, MARYLAND

CADD FILE - 07048-C3