

QC 240-07

Brown, Henrietta

SUB 04-07-04-0012c

51829-6713

5/7/07 - MJ

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/](http://www.dnr.state.md.us/criticalarea/)

July 23, 2007

Ms. Jennifer Rhodes  
Queen Anne's County  
Department of Planning and Zoning  
160 Coursevall Drive  
Centerville, MD 21617

**Re: 04-07-04-0012-C, 208 Barren Ridge Rd, Chester  
Henrietta Brown**

Dear Ms. Rhodes:

Thank you for providing resubmitted information on the above referenced project. The applicant proposes to subdivide an existing lot located in the Limited Developed Area (LDA) into two lots. In response to my previous comments, the applicant has shown the 100-foot Buffer on the plat plan, included the appropriate comments from DNR Wildlife and Heritage and shown that the afforestation will be provided as required. This office has no further comments on the proposal. Please contact me if you have any questions at (410) 260-3479.

Sincerely,

A handwritten signature in black ink, appearing to read "Marshall Johnson".

Marshall Johnson  
Natural Resources Planner

cc: QC 240-07



**STATE OF MARYLAND  
CRITICAL AREA COMMISSION  
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May 7, 2007

Ms. Jennifer Rhodes  
Queen Anne's County  
Department of Planning and Zoning  
160 Coursevall Drive  
Centerville, MD 21617

**Re: 04-07-04-0012-C, 208 Barren Ridge Rd, Chester  
Henrietta Brown**

Dear Ms. Rhodes:

Thank you for providing information on the above referenced project. The applicant proposes to subdivide an existing lot located in the Limited Developed Area (LDA) into two lots. Please see my comments below.

1. Queen Anne's County Title 14:53.C (Specific Provisions for Buffer Exempted Areas. Applicability) states: "This section applies only to new development or redevelopment within 100 feet of tidal waters, tidal wetlands and tributary streams on lots of record as of December 1, 1985, and located in mapped Buffer Exemption Areas as shown on the critical area maps." The proposed subdivision will create new lots of record as of the date the plat is recorded and will no longer comply with the date for grandfathered lots of record. Under the current County Critical Area Program, the Buffer Exemption section will no longer apply to these lots. As a result, any proposed development on the lots will be required to meet all applicable requirements of the Critical Area LDA, including the 100' Buffer.
2. Queen Anne's County Code §14:1-38.D(2) (Site Development Standards) states that site development shall be designed to assure that Habitat Protection Areas are not adversely affected. The site is within the Protection Zone of a Great Blue Heron waterbird colony. The area surrounding this protected colony is a Habitat Protection Area, as designated on State maps. The applicant should meet the requirements of the DNR Wildlife and Heritage Service concerning any development activity on the subject site. In addition, the permanent disturbance of extending another pier from this site, and the associated ongoing human activity out into the creek would likely adversely affect this Habitat

Jennifer Rhodes  
May 7, 2007  
Page 2 of 2

Protection Area. To meet §14:1-38.D(2), the plat could include an access easement and statement on the plat allowing joint use of the existing pier by both lots, and restricting this subdivision to a single shared pier.

3. Queen Anne's County Code § 14:1-38.D (6)(a) states that the location of the afforested area shall be designed to protect habitats or to provide continuity with forested areas on adjacent sites. The plantings shown on the landscaping plan should be relocated to provide continuity between planted areas on the two new lots. In this case the habitats to be protected are located in the creek and wetland. In order to comply with this regulation, the afforestation plantings must be located across the width of the lots to promote a vegetated buffer between the development envelopes and the wetland. It is acceptable to locate the new trees near the outer property lines, and the other plantings across the center of the lots, as long as the plantings meet in the center to provide continuity.

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

Sincerely,



Marshall Johnson  
Natural Resources Planner

cc: QC 240-07



ENVIRONMENTAL REGULATIONS CONSULTANT, INC.

Jan Reese, P.O. Box 298  
St. Michaels, Maryland 21663  
410-745-2875

17 April 2007

**CHESAPEAKE BAY CRITICAL AREA ENVIRONMENTAL ASSESSMENT  
PROPERTY OF HENRIETTA BROWN**

0.86 ACRE ± ON BARREN RIDGE ROAD NEAR CHESTER, KENT ISLAND  
QUEEN ANNE'S COUNTY, FOURTH ELECTION DISTRICT  
TAX MAP 57, BLOCK 13, PARCEL 28

**INTRODUCTION**

The property is located on the west side of Barren Ridge Road about 500 feet north of its intersection with Brown Road just off Cox Neck Road near Chester, Kent Island, Queen Anne's County. The property location and configuration are depicted in Figure 1, while its location can be found on Queen Anne's County ADC Map 23, B5.

Narrow ends of the rectangle-shaped property bound the west side of Barren Ridge Road and east side of Cox Creek with an existing one-story wooden house and concrete pad for parking vehicles adjacent to Barren Ridge Road, and a 100-foot long pier jutting into Cox Creek from the southwest corner of the property. Remainder of the property is mowed lawn interspersed with about seven trees and shrubs. Developed residential properties bound the parcel on the north and south.

The property is entirely within the Chesapeake Bay Critical Area, designated Limited Development Area (LDA), and is a mapped Buffer Exemption area. The property is zoned Neighborhood Conservation (NC-8) by the Queen Anne's County, Department of Planning and Zoning. I visited the property at 0945-1045 with overcast sky on 14 April 2007 to collect information for this Chesapeake Bay Critical Area Environmental Assessment.

**PROPOSED DEVELOPMENT**

The property is proposed for removal of all existing impervious surfaces including the existing house and concrete vehicle parking area with subsequent subdivision into two approximately 0.4 acre building lots. Construction on newly created lots cannot exceed 15 percent of the individual lot area (about 2,812 sq. ft. per lot) as required within the Critical Area designated Limited Development Area (LDA). The new lots will be accessed directly from Barren Ridge Road, and provided sewage effluent disposal into an existing public system. Potable water will be provided by individual on-site wells.

## EXISTING NATURAL FEATURES

### AQUATIC RESOURCES

#### Shoreline Erosion Rate

The west side of the property has about 130 feet of unprotected shoreline with tidewater of Cox Creek, although gravel plus remnant riprap of concrete, brick and stone are scattered on mud along the north portion. Clod fragments of herbaceous rhizomes from a historic tidal marsh substrate characterized the waters edge while landward there is a narrow contiguous margin of herbaceous and woody shrub marsh plants adjoining lawn. Cox Creek is about 500 feet wide at the property. The narrow tributary of shallow water with a short fetch appears to minimize any turbidity erosion from flooding, wind and tides, however waves from boat traffic in the narrow waterway may be at least partially responsible for existing marsh erosion. The Queen Anne's County, Department of Planning and Zoning modified U.S. Department of the Interior, FWS, 1982 National Wetland Inventory, Kent Island, MD Map suggests shoreline erosion is not appreciable in this narrow, protected portion of Cox Creek.

#### Submerged Aquatic Vegetation

The U.S. Environmental Protection Agency (EPA), Chesapeake Bay Program (<http://www.vims.edu/bio/sav/sav01/quads/qe032.ht>), 2001 Distribution of Submerged Aquatic Vegetation in the Chesapeake Bay and Tributaries and the Coastal Bays SAV aerial and ground census plots no SAVs in this upper portion of Cox Creek, however reports previously conducted by EPA in various years during the 1980s and 1990s, and the Chesapeake Bay Program, Living Resources Subcommittee, 1991 Habitat Requirements of Chesapeake Bay Living Resources plot Widgeon Grass, Sago Pondweed, and Redhead Grass (*Ruppia maritima*, *Potamogeton pectinatus*, and *Potamogeton perfoliatus*) growing in portions of upper Cox Creek. It should be noted these censuses sometimes do not include the upper reaches of tributaries. Sprouting SAV species observed on exposed mud along the shoreline the day of the site visit suggest a good stand may exist offshore from the property. The growing plants appear to be Widgeon Grass or Horned Pondweed (*Zannichellia palustris*). Additionally, Blue-green Algae (*Cladophora spp.*) are frequent in tidewater along the property shoreline.

#### Fish Spawning

The Queen Anne's County, Department of Planning & Zoning, 1995 Queen Anne's County, Natural Resources Map, the Chesapeake Bay Living Resources Subcommittee, 1991 Habitat Requirements for Chesapeake Bay Living Resources, and the University of Maryland, Natural Resources Institute, 1973 The Chesapeake Bay in Maryland: An Atlas of Natural Resources all indicate most anadromous species of fish do not spawn in upper Cox Creek, but the latter two sources suggest the possibility of Bay Anchovy (*Anchoa mitchilli*) spawning in Cox Creek.

#### Shellfish

The Queen Anne's County, Department of Planning & Zoning, 1995 Queen Anne's County, Natural Resources Map, the Chesapeake Bay Living Resources Subcommittee, 1991 Habitat Requirements for Chesapeake Bay Living Resources, and the University of Maryland, Natural Resources Institute, 1973 The Chesapeake Bay in Maryland: An Atlas of Natural Resources all depict beds of the American Oyster (*Crassostrea virginica*) in upper Cox Creek, while the Living Resources study plots high-density of Soft-shelled Clam (*Mya arenaria*) may occur in tidewater offshore from the property. A few shells of American Oyster were noted on exposed

mud along the property shoreline, while an excellent community of live Atlantic Ribbed Mussel (*Geukensia demissa*) grows in the fragmented portion of the property marsh. Additionally, noted on pilings and rocks along the shoreline are good populations of Bay Barnacle (*Balanus improvisus*), while a Blue Crab (*Callinectes sapidus*) clung to a pier piling.

### Fin Fish

The University of Maryland, Natural Resources Institute, 1973 The Chesapeake Bay in Maryland: An Atlas of Natural Resources, and the Chesapeake Bay Program, Living Resources Subcommittee, 1991 Habitat Requirements for Chesapeake Bay Living Resources show American Shad, Menhaden, Alewife, Blue-backed Herring, American Eel, White Perch, Atlantic Silverside, and Bay Anchovy (*Alosa sapidissima*, *Brevoortia*, *Alosa pseudoharengus*, *Alosa aestivalis*, *Anguilla rostrata*, *Morone americana*, *Menidia menidia*, *Anchoa mitchilli*) may occur in open water of Cox Creek offshore from the property.

### Waterfowl Concentration Areas

The Queen Anne's County, Department of Planning & Zoning, 1995 Queen Anne's County, Natural Resources Map, and the University of Maryland, Natural Resources Institute, 1973 The Chesapeake Bay in Maryland: An Atlas of Natural Resources indicate historically hundreds of geese and/or surface-feeding ducks wintered in upper portion of Cox Creek south of the property. A pair of Mallard (*Anas platyrhynchos*) flushed along the property shoreline, while a flock of over 30 Ruddy Duck (*Oxyura jamaicensis*) gathered offshore during the site visit.

## TERRESTRIAL RESOURCES

### Topography

The U.S. Geological Survey, 1973 (Photo-revised) Kent Island, MD Topographic Quadrangle Map (Figure 1) plots no topographic contours anywhere on the Cox Neck peninsula suggesting the entire area is level. The map does give a spot elevation of 13 feet above sea level along Cox Neck Road, about 1,500 feet north of its intersection with Barren Ridge Road. The site visit found the property subtly decreases in elevation from Barren Ridge Road west to Cox Creek, but is void of defined slopes.

Property topography and elevations are best realized by the elevation survey plotted on the McCrone, Inc., 2007 Minor Subdivision on the lands of Henrietta Brown that shows property elevations range 3–9 feet above sea level with the lowest elevation at tidewater along the west property boundary.

### Soils

Figure 2A is taken from the U.S. Department of Agriculture, SCS/NRCS, 2002 Soil Survey of Queen Anne's County, MD, Sheet 31 and maps the entire property as non-hydric Mattapex-Butlertown silt loam soil (MtB). Seasonally near-surface groundwater, slow permeability, and poor structural strength in Mattapex-Butlertown soils may create severe limitations for disposal of sewage effluent and vehicle roadways, but limitations are only modest for home sites. Soil configurations from the Soil Survey are plotted on the McCrone, Inc., 2007 Minor Subdivision on the lands of Henrietta Brown.

## 100-Year Flood Plain

The Federal Emergency Management Agency, 1984 Queen Anne's County, MD, Unincorporated Areas, Flood Insurance Rate Map 240054, Panel 0046C indicates nearly the entire property is in Flood Hazard Zone "A", within limits of the 100-year tidal flood. An exception occurs in a linear 30-40-foot wide area adjoining Barren Ridge Road that is in Flood Hazard Zone "B," between limits of the 100-year and 500-year floods. Flood Zones from the FEMA Map are plotted on the McCrone, Inc., 2007 Minor Subdivision on the lands of Henrietta Brown.

## Wetlands

Figure 2B is taken from the U.S. Department of the Interior, FWS 1982 National Wetland Inventory, Kent Island, MD Map and plots Estuarine, sub-tidal, open water wetlands (E1OWL) of tidewater Cox Creek adjoining the west side of the property. The tidal wetland margin and landward non-tidal wetland margin are field delineated on the property by Environmental Concern, Inc. in January 2007, and subsequently field survey located and plotted on the McCrone, Inc., 2007 Minor Subdivision on the lands of Henrietta Brown.

## Hydrology and Streams

The U.S. Geological Survey, 1973 (Photo-revised) Kent Island, MD Topographic Quadrangle Map (Figure 1) plots no bodies of surface hydrology (pond, impoundment) or streams on the property landward of Cox Creek, and this is confirmed by the site visit and noted on the McCrone, Inc., 2007 Minor Subdivision on the lands of Henrietta Brown.

## Vegetative Cover

Mowed lawn covers all the property outside impervious surfaces, while five small cultivars of holly and rose-mallow grow on lawn adjacent to Barren Ridge Road and two large, multiple-trunk, Silver Maple (*Acer saccharinum*) shade trees are located on the lawn midway of the property. A narrow, linear area dominated by Saltmarsh Cordgrass, Salt Grass, and High Tide Bush (*Spartina alternifolia*, *Distichlis spicata*, *Iva frutescens*) grows on the property adjoining tidewater.

## Wildlife

Open tidewater, shoreline, two trees, and extensive lawn area in a highly developed area provides no water, and little cover, small prey, seeds, berries, insects, and other invertebrate foods for any kind of wildlife. Mallard, Ring-billed Gull, and Muskrat (*Anas platyrhynchos*, *Larus atricilla*, *Ondatra zibethicus*) flushed along the property shoreline are the only wildlife found on the property during the site visit, however the following species are identified on or over nearby tidewater of Cox Creek or adjoining properties: Great Blue Heron, Turkey Vulture, Ruddy Duck, Osprey, Fish Crow, Northern Mockingbird, American Robin, European Starling, Northern Cardinal, Song Sparrow, White-throated Sparrow, American Goldfinch, Common Grackle, European House Sparrow.

## Rare and Endangered Species or Habitats

No federal or state protected species of plant, animal, or habitat was found during the site visit. An Environmental Review for rare, threatened, and endangered species and/or habitats was requested from the Maryland Department of Natural Resources, Wildlife and Heritage Service on 16 April 2007. A copy of the



request is included herein, and a copy of the MD DNR response will be made a part of this assessment when received.

A protected waterbird colony of Great Blue Heron is located on the opposite side of Cox Creek from the property only about 500 feet away. Timber harvesting, clearing, grading, and/or construction are prohibited annually from 15 February through 31 July on properties within 1,320 feet of the protected colony.

The Queen Anne's County, Department of Planning and Zoning 1995 Queen Anne's County, Natural Resources Map plots the nearest occurrence of the protected Delmarva Fox Squirrel over five miles east of the property, and nearest nest site of the protected Bald Eagle over one mile east of the property. The map plots several Colonial Nesting Water Bird sites within one mile northwest, west, and southwest of the property, with the nearest being the nesting Great Blue Heron Colony referenced above. The U.S. Department of the Interior FWS, Chesapeake Bay Field Office, 2004 Delmarva Fox Squirrel Occurrence in Queen Anne's County, MD plots the nearest squirrel occurrence over four miles east of the property.

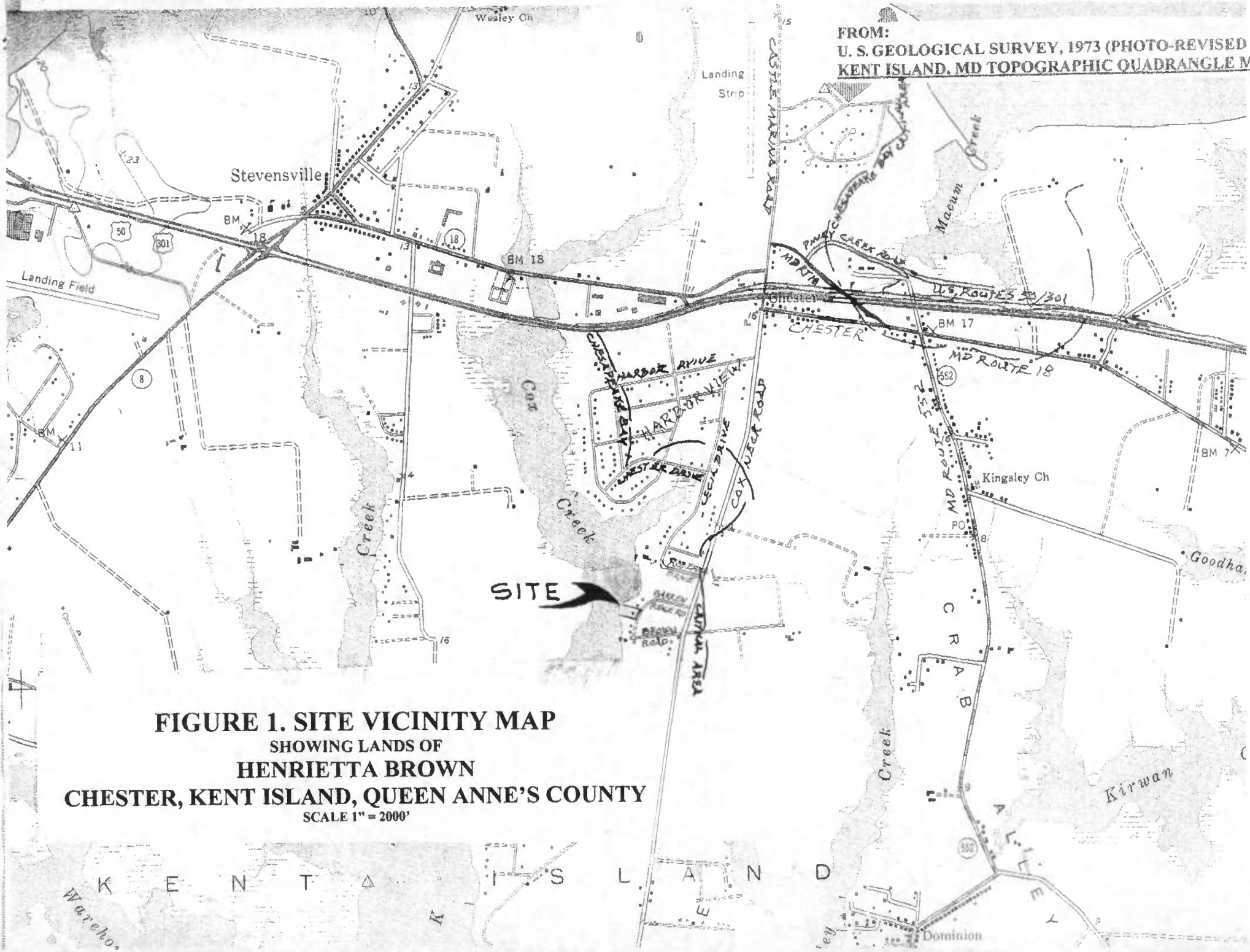
### **PRECAUTIONS FOR POTENTIAL ENVIRONMENTAL IMPACTS**

The McCrone, Inc., 2007 Minor Subdivision on the lands of Henrietta Brown and/or this assessment note the absence of hydric soils, steep slopes, surface hydrology, streams, natural plant communities, wildlife, rare or endangered species, and sewage effluent disposal on the property and fish spawning offshore. Conversely, denoted are property wetlands with the unprotected shoreline exhibiting marsh erosion and abundant live Ribbed Mussel, while offshore there is a protected nesting colony of waterbirds, submerged aquatic vegetation, shells of American Oyster, various species of finfish, and concentrations of wintering waterfowl that may require protective measures within the Critical Area Regulations. Indeed, construction is prohibited on the property during the 15 February-31 July nesting season of a nearby colony of Colonial Waterbirds. Plotted or noted on the subdivision map are landward limits of the Critical Area, colonial waterbird nest colony buffer, tidal and non-tidal wetlands, 100-foot shoreline buffer, and 100-year and 500-year tidal floods. An approved Sediment and Erosion Control Plan will be developed in accordance with the Queen Anne's County Soil Conservation Service standards prior to any clearing, well-drilling, excavation, grading, filling, or construction exceeding 5,000 sq. ft. on the property to decrease the quantity and improve the quality of stormwater runoff to Cox Creek. Disposal of sewage effluent will be provided by an existing public system.

### **SUMMARY**

The entire property is within the Chesapeake Bay Critical Area designated Limited Development Area (LDA) proposed for clearing the existing house and other impervious surfaces, and subdivision into two building lots to be accessed from Barren Ridge Road and provided sewage effluent disposal by an existing system. Potable water will be obtained from on-site wells. Nearly the entire property is within limits of the 100-year tidal flood. The level property is void of hydric soil, slopes, surface hydrology, streams, natural plant communities, wildlife, rare or endangered species, and fish spawning, but does contain wetlands, shoreline erosion, shellfish, and offshore-submerged aquatic vegetation, various finfish, wintering waterfowl, and a protected colony of nesting waterbirds. All of these factors are noted in this assessment and/or plotted on the McCrone, Inc., 2007 Minor Subdivision on the lands of Henrietta Brown.

FROM:  
U. S. GEOLOGICAL SURVEY, 1973 (PHOTO-REVISED  
KENT ISLAND, MD TOPOGRAPHIC QUADRANGLE MAP

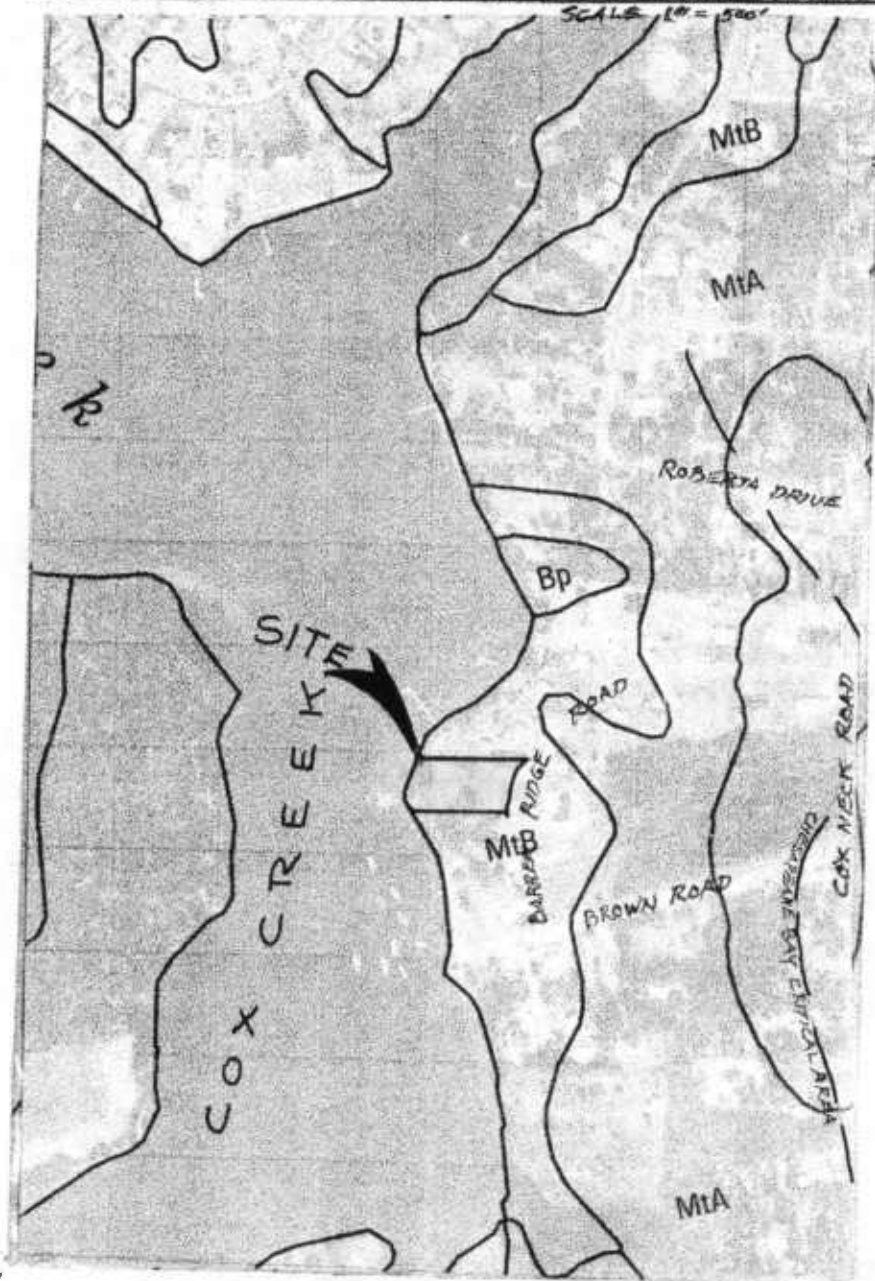


**FIGURE 1. SITE VICINITY MAP**  
SHOWING LANDS OF  
**HENRIETTA BROWN**  
**CHESTER, KENT ISLAND, QUEEN ANNE'S COUNTY**  
SCALE 1" = 2000'

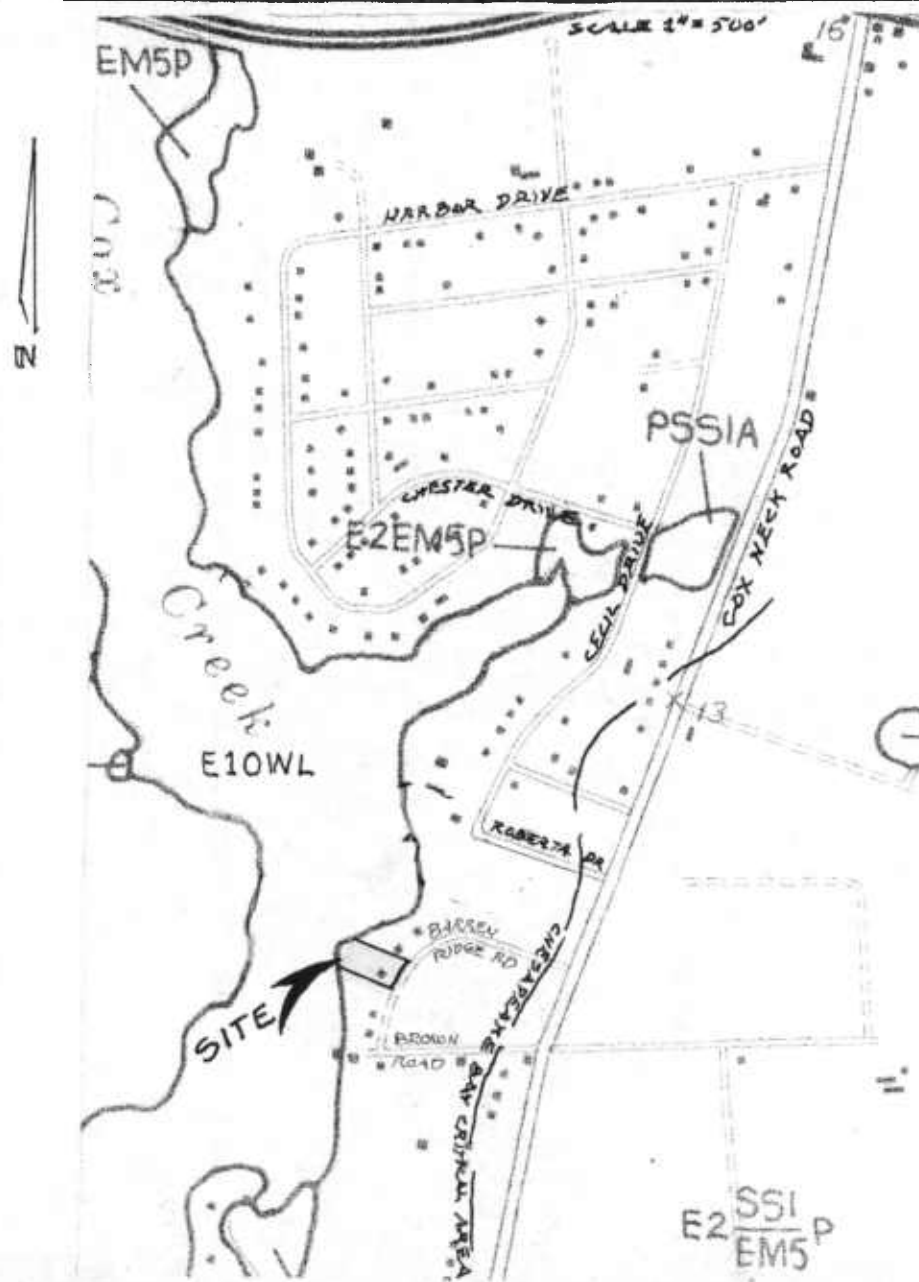
KENT ISLAND

**FIGURE 2. SOILS AND WETLANDS ON PROPERTY OF HENRIETTA BROWN  
NEAR CHESTER, KENT ISLAND, QUEEN ANNE'S COUNTY, MD**

**A) U.S. DEPARTMENT OF AGRICULTURE, SCS/NRCS, 2002  
SOIL SURVEY OF QUEEN ANNE'S COUNTY, MD, SHEET 31**



**B) U.S. DEPARTMENT OF THE INTERIOR, FWS, 1982  
NATIONAL WETLAND INVENTORY, KENT ISLAND, MD MAI**



ENVIRONMENTAL REGULATIONS CONSULTANT, INC.

Jan Reese, P.O. Box 298  
St. Michaels, Maryland 21663  
410-745-2875

16 April 2007

TO: Lori Byrne, Review Specialist  
MD Dept. of Natural Resources  
Wildlife & Heritage Service  
Tawes State Office Building E-1  
580 Taylor Avenue  
Annapolis, Maryland 21401

**SUBJECT: ENVIRONMENTAL REVIEW REQUEST FOR PROPERTY WITHIN THE  
CHESAPEAKE BAY CRITICAL AREA**

PROPERTY OF HENRIETTA BROWN NEAR CHESTER, QUEEN ANNE'S COUNTY,  
FOURTH ELECTION DISTRICT, TAX MAP 57, BLOCK 13, PARCEL 28

The property is located on the west side of Barren Ridge Road about 500 feet north of its intersection with Brown Road just off Cox Neck Road near Chester, Kent Island, Queen Anne's County. The property location and configuration are shown in Figure 1, while its location can be found on Queen Anne's County ADC Map B5.

Narrow ends of the rectangle-shaped property bound the west side of Barren Ridge Road and the east side of Cox Creek with an existing one-story wooden house and concrete pad for parking vehicles adjacent to Barren Ridge Road, and a 100-foot long pier jutting into Cox Creek from the southwest corner of the property. Remainder of the property is mowed lawn interspersed with about seven trees and shrubs. Developed residential properties bound the parcel on the north and south.

The entire property is zoned Neighborhood Conservation (NC-8) by the Queen Anne's County, Department of Planning & Zoning, within the Chesapeake Bay Critical Area designated Limited Development Area (LDA), and proposed for clearing and subdivision into two building lots. Additionally, the property is directly across Cox Creek about 500 feet from a protected waterbird nesting colony of Great Blue Heron.

I would appreciate a review of the MD Department of Natural Resources and MD Historical Trust databases for the presence/absence of state or federally listed, threatened or endangered species of plants and animals, historic sites, or cultural features requiring preservation as defined in the Chesapeake Bay Critical Area Law and Regulations. The information provided is to be submitted as part of the property's Critical Area Environmental Assessment required by the county where the subdivision or construction is proposed.

Enclosure: Site Vicinity Map



Martin O'Malley, Governor  
Anthony G. Brown, Lt. Governor  
John R. Griffin, Secretary  
Eric Schwaab, Deputy Secretary

June 8, 2007

Mr. Jan Reese  
Environmental Regulations Consultant, Inc.  
P.O. Box 298  
St. Michaels, MD 21663

RECEIVED  
JUN 22 2007  
and scanned  
BY: [Signature]

**RE: Environmental Review for Property of Henrietta Brown near Chester, Tax Map 57, Parcel 28, Barren Ridge Road and Cox Creek, Queen Anne's County, Maryland.**

Dear Mr. Reese:

The Wildlife and Heritage Service's database indicates that there is an active Great Blue Heron colony just across the creek from this project site. A recent site visit to the colony has determined that the colony is currently active, however, it was also determined that this colony would not likely be disturbed by most normal construction activities on this property across the creek, including pier construction.

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at (410) 260-8573.

Sincerely,

[Signature: Lori A. Byrne]

Lori A. Byrne,  
Environmental Review Coordinator  
Wildlife and Heritage Service  
MD Dept. of Natural Resources

ER #2007.0968.qa  
cc: G. Therres, DNR  
L. Hoerger, CAC  
S.A. Smith, DNR

RECEIVED  
JUL 11 2007  
[Faint text below stamp]



# MINOR SUBDIVISION OF THE LANDS OF HENRIETTA BROWN

## OWNER'S CERTIFICATE

THIS IS TO CERTIFY THAT THE UNDERSIGNED IS THE OWNER OF THE LAND DESCRIBED IN THE ANNEXED PLAT AND THAT I HAVE CAUSED THE LAND TO BE SURVEYED AND SUBDIVIDED AS INDICATED THEREON FOR THE USES AND PURPOSES SET FORTH HEREIN. I ALSO CERTIFY TO THE BEST OF MY KNOWLEDGE THAT ALL RECORDED AND UNRECORDED EASEMENTS, RESTRICTIONS, RESERVATIONS OR COVENANTS HAVE BEEN INDICATED ON THE ANNEXED PLAT. I HEREBY ACKNOWLEDGE AND ADOPT THE SAME AS MY ACT THE DAY OF \_\_\_\_\_, 20\_\_.

HENRIETTA BROWN

## UNIFORM ACKNOWLEDGMENT ACT

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_, BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED KNOWN TO ME (OR SATISFACTORILY PROVEN) TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED THAT HE EXECUTED THE SAME FOR THE PURPOSES THEREIN CONTAINED. IN WITNESS WHEREOF I HEREUNTO SET MY HAND AND OFFICIAL SEAL.

NOTARY PUBLIC

## SURVEYOR'S CERTIFICATE

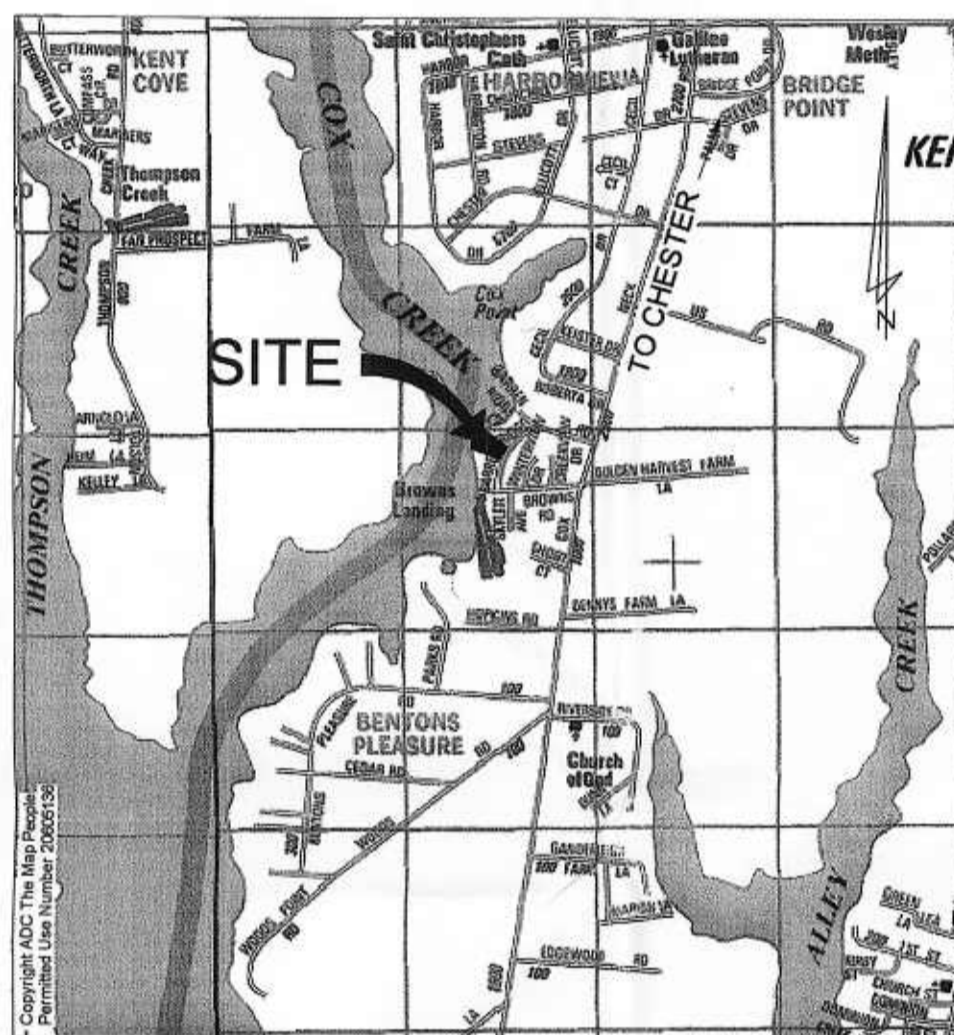
THIS IS TO CERTIFY THAT THE UNDERSIGNED, REGISTERED MARYLAND SURVEYOR NO. 414, HAS SURVEYED AND SUBDIVIDED THE PROPERTY AS DESCRIBED AND SHOWN ON THE ANNEXED PLAT AND THAT SUCH PLAT IS A CORRECT REPRESENTATION OF THAT SURVEY AND SUBDIVISION. ALL DISTANCES ARE SHOWN IN FEET AND DECIMALS THEREOF. ALL LOTS MEET THE REQUIREMENTS OF THE QUEEN ANNE'S COUNTY ZONING ORDINANCE IN REGARD TO LOT AREA, WIDTH, AND BUILDABLE AREA.

I FURTHER CERTIFY THAT THIS SUBDIVISION IS SITUATED WITHIN FIVE HUNDRED (500) FEET OF A SURFACE DRAIN OR WATER COURSE SERVING AS A TRIBUTARY AREA OF 640 ACRES OR MORE.

I FURTHER CERTIFY THAT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION AND BELIEF, THE MAJOR SUBDIVISION SHOWN HEREON WAS PREPARED BY McCRONE, INC. AT WHICH TIME THE UNDERSIGNED REGISTERED SURVEYOR WAS IN RESPONSIBLE CHARGE OF ITS PREPARATION AND THE SURVEYING WORK REFLECTED IN IT IS IN COMPLIANCE WITH THE REQUIREMENTS STATED IN COMAR 09.13.06.12 OF THE MINIMUM STANDARDS FOR SURVEYORS.

AS WITNESS MY HAND AND SEAL THIS \_\_\_\_\_, 20\_\_

PROPERTY LINE SURVEYOR  
DAVID R. JOINER  
McCRONE INC.  
207 N. LIBERTY STREET  
CENTREVILLE, MD 21617



## VICINITY MAP

SCALE: 1" = 2000'

## PURPOSE AND INTENT:

THE PURPOSE OF THIS PLAT IS TO RECEIVE MINOR SUBDIVISION APPROVAL FROM THE QUEEN ANNE'S COUNTY PLANNING DEPARTMENT FOR ONE ADDITIONAL RESIDENTIAL LOT HAVING ACCESS TO BARREN RIDGE ROAD, A PUBLIC RIGHT OF WAY.

**OWNER**  
HENRIETTA BROWN  
208 BARREN RIDGE ROAD  
CHESTER, MD. 21619

**SURVEYOR/ENGINEER**  
McCRONE, INC.  
207 N. LIBERTY STREET  
CENTREVILLE, MD 21617

| INDEX OF DRAWINGS |                                       |
|-------------------|---------------------------------------|
| SHEET 1           | COVER SHEET                           |
| SHEET 2           | EXISTING CONDITIONS / BOUNDARY SURVEY |
| SHEET 3           | MINOR SUBDIVISION PLAT                |
| SHEET 4           | CRITICAL AREA PLANTING PLAN           |

## DEPARTMENT OF ENVIRONMENTAL HEALTH CERTIFICATE

THIS IS TO VERIFY THAT THE ANNEXED PLAT OF SUBDIVISION WAS APPROVED BY THE DEPARTMENT OF ENVIRONMENTAL HEALTH OF QUEEN ANNE'S COUNTY ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_.

JOHN E. NICKERSON  
DIRECTOR

## COUNTY FINANCE OFFICER'S CERTIFICATE

THE FINANCE OFFICER OF QUEEN ANNE'S COUNTY HEREBY CERTIFIES THAT THERE ARE NO DELINQUENT GENERAL TAXES AND NO REDEEMABLE TAX SALES AGAINST ANY OF THE LAND SHOWN ON THE ANNEXED PLAT AND THAT I HAVE RECEIVED ALL FEES AND TAXES ASSESSED AGAINST SUCH LAND. AS WITNESSED BY MY SIGNATURE THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_.

JUDY SOLVERSEN  
QUEEN ANNE'S COUNTY FINANCE OFFICER

## PLANNING DEPARTMENT CERTIFICATE

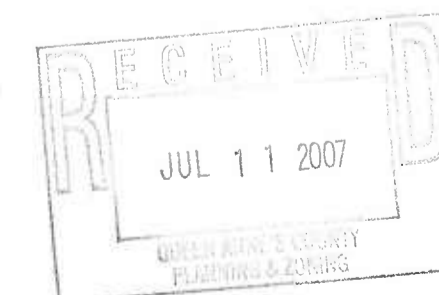
THIS IS TO CERTIFY THAT THE ANNEXED PLAT OF SUBDIVISION WAS APPROVED BY THE DEPARTMENT OF PLANNING OF QUEEN ANNE'S COUNTY ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_.

J. STEVEN COHOON  
ACTING DIRECTOR, PLANNING AND ZONING

## PUBLIC WORKS CERTIFICATE

THIS IS TO VERIFY THAT THE ANNEXED PLAT OF SUBDIVISION WAS APPROVED BY THE DEPARTMENT OF PUBLIC WORKS OF QUEEN ANNE'S COUNTY ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_.

JOHN J. SCARBOROUGH



SEAL  
DATE

**McCRONE**  
 • Engineering  
 • Environmental Sciences  
 • Construction Services  
 • Land Planning & Surveying  
 ANNAPOLIS • CENTREVILLE • DOVER • ELKTON • SALISBURY  
 207 NORTH LIBERTY STREET  
 CENTREVILLE, MARYLAND 21617  
 (410) 756-2237 • FAX (410) 756-2464  
 www.mccrone-inc.com  
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| DATE       | SCALE | AS SHOWN | DRAWN BY            | D.A.D. | DESIGNED BY | APPROVED BY | D.R.J. |
|------------|-------|----------|---------------------|--------|-------------|-------------|--------|
| JUNE, 2007 |       |          | D1060393            |        |             |             |        |
|            |       |          | FOLDER REF          | 148    |             |             |        |
|            |       |          | DATE                | 6-6-07 |             |             |        |
|            |       |          | PER AGENCY COMMENTS |        |             |             |        |

COVER SHEET  
 MINOR SUBDIVISION  
 ON THE LANDS OF  
**HENRIETTA BROWN**  
 TAX MAP 57, GRID 13, PARCEL 28  
 FOURTH ELECTION DISTRICT, QUEEN ANNE'S COUNTY, MARYLAND  
 PREPARED FOR: HENRIETTA BROWN

SHEET NO. 1 OF 4

FILE NO  
60393-SU-01.dwg

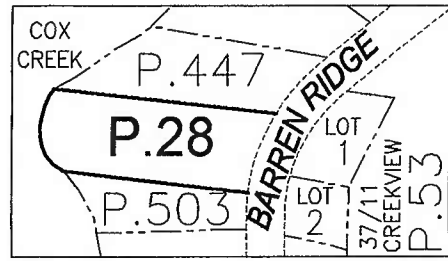
SUBDIVISION # 04-07-04-0012-C



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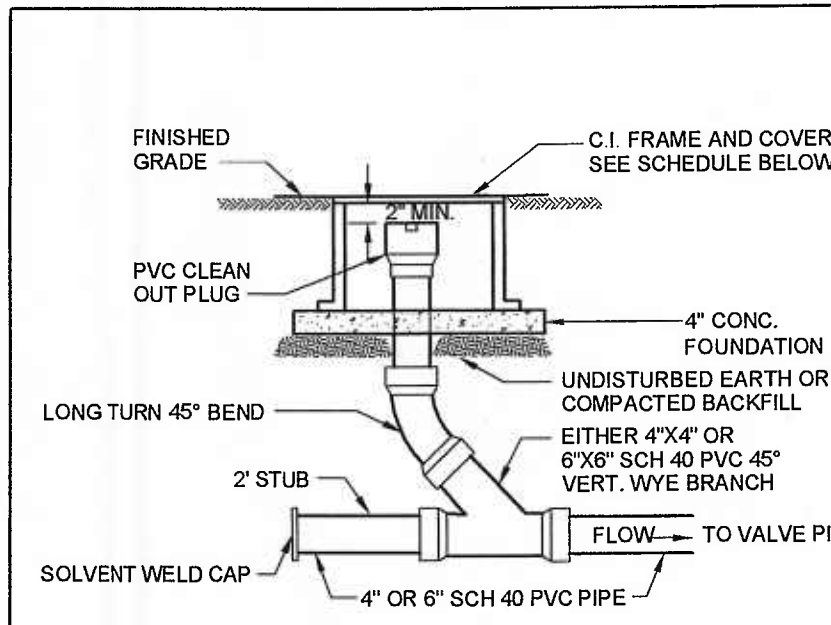
**LOT OWNERSHIP TABLE**

|     |   |          |                  |             |
|-----|---|----------|------------------|-------------|
| 503 | JAMES C. ROBINSON<br>MARY L. ROBINSON   | 869/163  | NC-8 RESIDENTIAL | RESIDENTIAL |
| 447 | RAY L. RAFTER<br>CHRISTA H. RAFTER      | 1108/301 | NC-8 RESIDENTIAL | RESIDENTIAL |
| 53  | 1 JULIUS A. BENNETT<br>JAYNE H. BENNETT | 334/3    | NC-8 RESIDENTIAL | RESIDENTIAL |
| 53  | 2 GLORIA A. FLOYD                       | 430/510  | NC-8 RESIDENTIAL | RESIDENTIAL |



**LEGEND:**

- DEEDED POINT
- - - EXISTING MAJOR CONTOUR
- - - EXISTING MINOR CONTOUR
- - - BUILDING RESTRICTION LINE
- - - MEAN HIGH WATER LINE
- - - NONTIDAL WETLAND LINE
- - - DENOTES EDGE OF PAVEMENT
- - - SOIL BOUNDARY
- - - FEMA FLOOD ZONE LINE
- - - 100' SHORE BUFFER
- - - GREAT BLUE HERON PROTECTION ZONE 3 (660)
- ⊕ POWER POLE
- ⊕ TELEPHONE PEDESTAL
- ⊕ EXISTING WELL (TO REMAIN)
- ⊕ SEWER CLEAN-OUT
- ⊕ VALVE PIT
- \* IRF IRON ROD FOUND
- \* IPF IRON PIPE FOUND
- NF DENOTES "NOW OR FORMERLY"



**Right of Way and Traffic Bearing Areas**

| PIPE SIZE | CASTING #             |
|-----------|-----------------------|
| 4"        | BC UTILITIES A-1100-N |
| 6"        | BC UTILITIES B-1160   |
| 8"        | BC UTILITIES B-1181   |

- Notes:**
- Right of Way clean outs are also necessary at the edge of any easements.
  - Traffic Bearing Areas are defined as being in, or within 3 feet of, any paving, driveways, or any other area where vehicular traffic is likely.

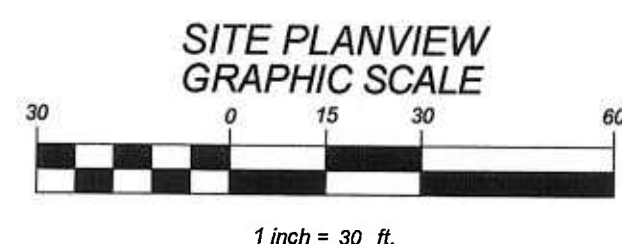
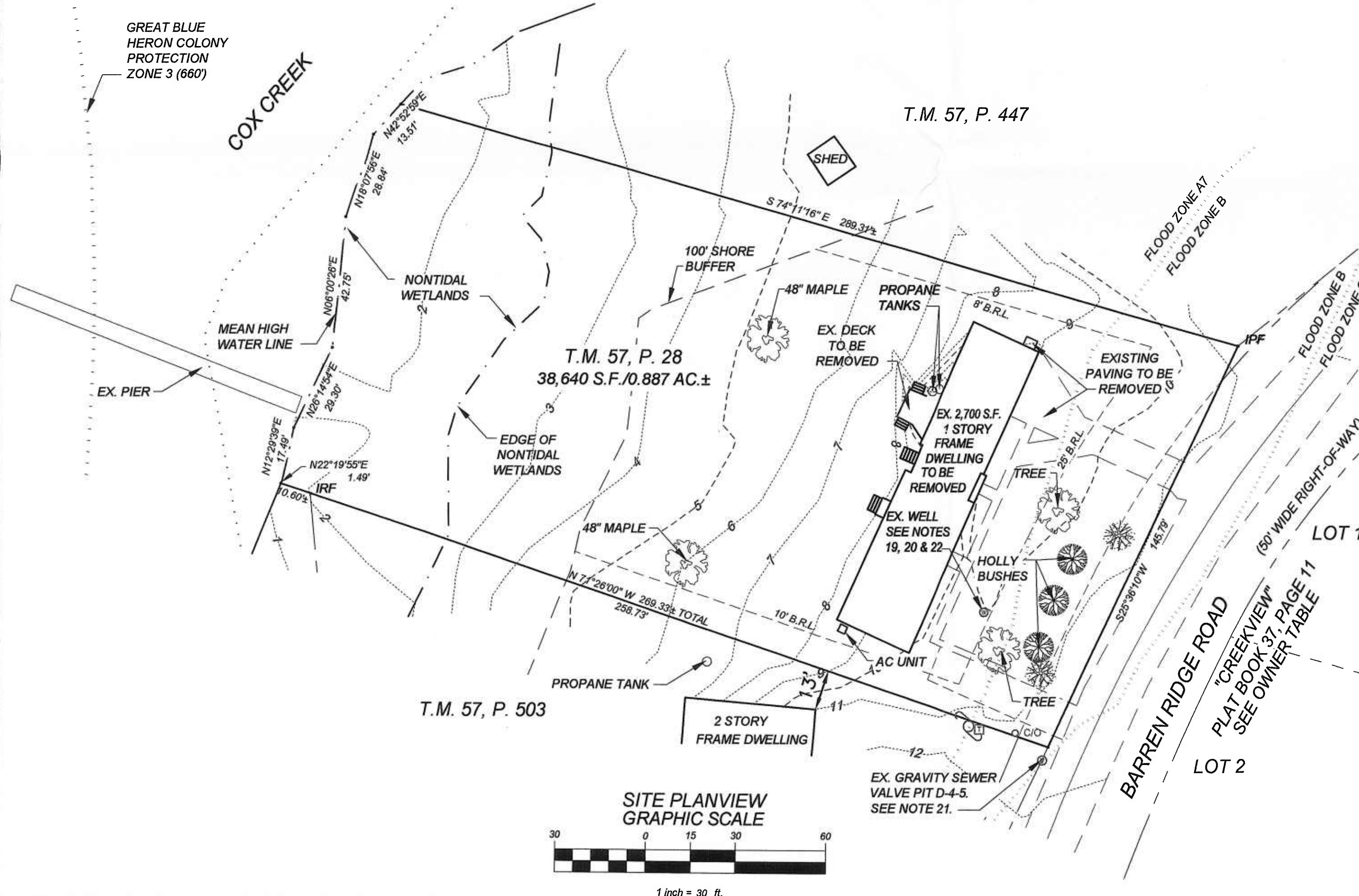


|             |          |          |  |
|-------------|----------|----------|--|
| DATE        | 1-98     | REVISION |  |
| SCALE       | NTS      | 1-11-02  |  |
| DRAWN BY    | AQ       |          |  |
| APPROVED BY | CADD     |          |  |
| FILE        | dt-gs-co |          |  |

**Sanitary District Detail**  
**Gravity Sewer Cleanouts**

**NOTES:**

- PROPERTY SHOWN HEREON IS DESIGNATED TAX MAP 57, GRID 13, P. 28
- FOR CURRENT DEED REFERENCE SEE LIBER T.S.P. 61/32
- THIS PLAT WAS PREPARED WITHOUT THE BENEFIT OF REVIEW OF AN ABSTRACT OF TITLE.
- CURRENT ZONING - NC-8.
- THIS SITE IS LOCATED WITHIN THE CHESAPEAKE BAY CRITICAL AREA DESIGNATION LDA.
- CURRENT USE - RESIDENTIAL
- MINIMUM LOT SIZE IS 8,000 S.F.
- MINIMUM SETBACKS:  
FRONT = 25 FEET  
SIDE = 8 FEET/18 FEET AGGREGATE  
REAR = 35 FEET
- OUTLINE COURSES, DISTANCES AND AREA TAKEN FROM A FIELD-RUN SURVEY CONDUCTED BY McCRONE, INC., COMPLETED IN FEBRUARY, 2007.
- TOPOGRAPHIC CONTOURS AND ELEVATIONS SHOWN HEREON ARE BASED ON FIELD-RUN TOPOGRAPHY BY McCRONE, INC. CONDUCTED ON JUNE 26, 2007. VERTICAL DATUM CONFORMS TO NGVD-1929 STANDARD.
- SOIL TYPE AND CONFIGURATION SHOWN HEREON TAKEN FROM THE U.S. DEPARTMENT OF AGRICULTURE, SCS, 2002 SOIL SURVEY OF QUEEN ANNE'S COUNTY MARYLAND FOR KENT ISLAND, MAP 36.
- THE MEAN HIGH WATER LINE SHOWN HEREON WAS FIELD DELINEATED BY ENVIRONMENTAL CONCERN IN JANUARY, 2007.
- NONTIDAL WETLANDS SHOWN HEREON WERE FIELD-DELINEATED BY ENVIRONMENTAL REGULATIONS CONSULTANT, INC. IN APRIL, 2007.
- NO FOREST EXISTS ONSITE.
- ACCORDING TO THE USGS QUADRANGLE MAP FOR KENT ISLAND, MARYLAND, PHOTO REVISED 1973, NO STREAM RESOURCES EXIST ON THE SUBJECT SITE.
- THE PROPERTY SHOWN HEREON IS LOCATED IN FLOOD ZONES A7 & B, AS SCALED FROM FEMA FLOOD INSURANCE RATE MAP 240540046C, DATED JULY 3, 1986, WHICH ARE THEREFORE APPROXIMATE.
- NO HISTORIC SITES ARE KNOWN TO EXIST ON PARCEL 28.
- THE PROPERTY IS SITUATED ENTIRELY WITHIN GREAT BLUE HERON COLONY PROTECTION ZONE 3 WHICH LIES BETWEEN 660 FEET AND 1,320 FEET (1/4 MILE) OF THE COLONY.
- THE EXISTING WELL WAS LOCATED IN THE FIELD BY McCRONE, INC. ON JUNE 26, 2007.
- THE PROPOSED LOTS ARE TO BE SERVED BY PRIVATE WELLS AND PUBLIC SEWER.
- THE EXISTING GRAVITY SERVICE IS TO BE REMOVED AND 20 L.F. 4" PVC (SDR-35) GRAVITY SERVICE TO BE PROVIDED AT 2.0% CLEANOUT TO BE PLACED AT R.O.W. LINE PER QUEEN ANNE'S COUNTY "GRAVITY SEWER CLEANOUTS" DETAIL, FOUND ON THIS SHEET.
- IF THE EXISTING WELL IS TO BE ABANDONED, IT MUST BE ABANDONED AND SEALED IN ACCORDANCE WITH STATE OF MARYLAND REGULATIONS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION ACTIVITIES.
- THE EXISTING BUILDING AND ASSOCIATED IMPROVEMENTS SHOWN HEREON ARE PROPOSED TO BE REMOVED.
- SUBJECT SITE IS A MAPPED BUFFER EXEMPTION AREA. THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, OR DISTURBANCE OF VEGETATION WITHIN THE SHORE BUFFER, EXCEPT AS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING. NEW DEVELOPMENT OR REDEVELOPMENT IN THE BUFFER EXEMPTION AREA (BETWEEN 0 AND 100 FEET) IS NOT PERMITTED UNLESS THE APPLICANT CAN DEMONSTRATE AND THE PLANNING DIRECTOR FINDS THAT NO FEASIBLE ALTERNATIVE EXISTS. THE INTRUSION MUST BE THE LEAST NECESSARY, PER 14-1-53D.(1) OF THE QUEEN ANNE'S COUNTY CODE
- DEVELOPMENT MUST COMPLY WITH THE QUEEN ANNE'S COUNTY FLOODPLAIN ORDINANCE. THESE REQUIREMENTS MUST BE MET AT TIME OF ISSUANCE OF BUILDING PERMIT. SHOULD FILL BE USED TO ELEVATE THE STRUCTURES:  
A. ANY FILL IN EXCESS OF 600 CUBIC YARDS WILL REQUIRE A VARIANCE BE GRANTED BY THE QUEEN ANNE'S COUNTY BOARD OF APPEALS, AND  
B. THE USE OF FILL WILL REQUIRE A LETTER OF MAP AMENDMENT BE PROCESSED THROUGH THE FEDERAL EMERGENCY MANAGEMENT AGENCY PRIOR TO ISSUANCE OF FINAL CERTIFICATE OF OCCUPANCY.
- PROPOSED DRIVEWAYS SHOULD BE CONSTRUCTED IN ACCORDANCE WITH COUNTY STANDARD DETAIL NO. 105.02. ENTRANCE PERMITS SHOULD BE OBTAINED FROM THE COUNTY ROADS DIVISION PRIOR TO CONSTRUCTION OF ANY TEMPORARY OR PERMANENT ENTRANCES WITHIN THE COUNTY RIGHT-OF-WAY. SEE DETAIL ON SHEET 3 OF 4.
- STORMWATER MANAGEMENT WILL BE ADDRESSED AT THE TIME OF BUILDING PERMIT APPLICATION.



**McCRONE**  
 • Environmental Sciences  
 • Land Planning & Surveying  
 • Engineering  
 • Construction Services  
 ANNAPOLIS • CENTREVILLE • DOVER • ELKTON • SALISBURY  
 207 NORTH LIBERTY STREET  
 CENTREVILLE, MARYLAND 21617  
 (410) 756-2237 • FAX (410) 756-2464  
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|                     |            |             |          |
|---------------------|------------|-------------|----------|
| DATE                | JUNE, 2007 | SCALE       | 1" = 30' |
| JOB NUMBER          | D1060393   | DRAWN BY    | D.A.D.   |
| FOLDER REF          | 1-48       | DESIGNED BY |          |
| DATE                | 6-6-07     | APPROVED BY | D.R.J.   |
| PER AGENCY COMMENTS |            | REVISION    |          |

**EXISTING CONDITIONS / BOUNDARY SURVEY**  
 MINOR SUBDIVISION  
 ON THE LANDS OF  
**HENRIETTA BROWN**  
 TAX MAP 57, GRID 13, PARCEL 28  
 FOURTH ELECTION DISTRICT, QUEEN ANNE'S COUNTY, MARYLAND  
 PREPARED FOR: HENRIETTA BROWN

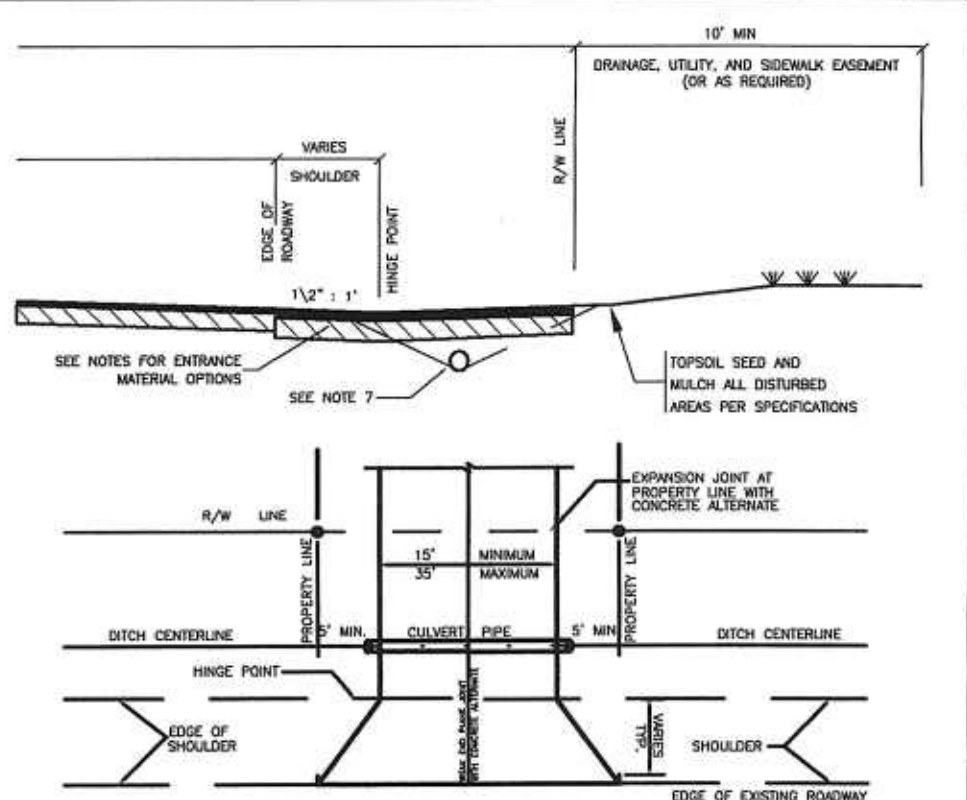
SHEET NO 2 OF 4  
 FILE NO 06393-SU-02.dwg

**OWNER, P.28**  
 HENRIETTA BROWN  
 208 BARREN RIDGE ROAD  
 CHESTER, MD. 21619

**SURVEYOR/ENGINEER**  
 McCRONE, INC.  
 207 N. LIBERTY STREET  
 CENTREVILLE, MD 21617



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- NOTES:
- UNPAVED ENTRANCE - SHALL BE 12" MINIMUM COMPACTED BANK RUN GRAVEL LAID AND THOROUGHLY COMPACTED IN TWO 6" LIFTS OR 8" OF CR-6 AGGREGATE LAID AND COMPACTED IN ONE 8" LIFT. COMPACTION SHALL MEET OR EXCEED 95% OF THE MOOIFIED PROCTOR DENSITY FOR THE MATERIAL.
  - PAVED ENTRANCE - SHALL BE 8" MINIMUM COMPACTED BANK RUN GRAVEL LAID AND THOROUGHLY COMPACTED IN TWO 4" LIFTS OR 6" OF CR-6 AGGREGATE LAID AND COMPACTED IN ONE LIFT. COMPACTION SHALL MEET OR EXCEED 95% OF THE MOOIFIED PROCTOR DENSITY FOR THE MATERIAL. OTHER ALTERNATIVES TO PAVED ENTRANCE MUST BE APPROVED BY THE CHIEF ROADS ENGINEER PRIOR TO INITIATION OF CONSTRUCTION.
  - BITUMINOUS CONCRETE - SHALL BE A MINIMUM OF 2" COMPACTED BITUMINOUS CONCRETE SURFACE COURSE (SMA MIX DESIGN 9.5mm)
  - PORTLAND CEMENT CONCRETE - SHALL BE 6" THICK (SMA MIX NO. 2, 3,000 PSI - 28 DAY COMPRESSIVE STRENGTH).
  - EXPANSION JOINT MATERIAL FOR CONCRETE ENTRANCE SHALL BE 1/2" PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT.
  - DRIVEWAY AND DRIVEWAY APRON SHALL BE MAINTAINED BY PROPERTY OWNER.
  - CULVERT PIPE SHALL BE 12" MINIMUM DIAMETER OR THE OVAL EQUIVALENT.
  - ALL METHODS OF CONSTRUCTION SHALL BE IN COMPLIANCE WITH QUEEN ANNE'S COUNTY STANDARDS. ALL MATERIAL SPECIFICATIONS SHALL COMPLY WITH THE 2001 EDITION OF THE MARYLAND STATE HIGHWAY ADMINISTRATION'S "STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS" MANUAL, AND ANY ADDENDUM THERETO.

|                                 |              |   |
|---------------------------------|--------------|---|
| APPROVED                        | SCALE:       | QUEEN ANNE'S COUNTY<br>DEPARTMENT OF PUBLIC WORKS |
| DATE                            | 1:4          | <b>RESIDENTIAL ENTRANCE</b>                       |
| DIRECTOR, DEPT. OF PUBLIC WORKS | REVISIONS:   | <b>OPEN SECTION ROAD</b>                          |
| CHIEF ROADS ENGINEER            | ▲ OCTOBER 04 | STANDARD NO. RD-105.02                            |

**LEGEND:**

- DEEDED POINT
- EXISTING ROAD R.O.W.
- - - PROPERTY LINE TO BE REMOVED
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- BUILDING RESTRICTION LINE
- MEAN HIGH WATER LINE
- NONTIDAL WETLAND LINE
- DENOTES EDGE OF PAVEMENT
- SOIL BOUNDARY
- FEMA FLOOD ZONE LINE
- 100' SHORE BUFFER
- GREAT BLUE HERON PROTECTION ZONE 3 (660')
- POWER POLE
- TELEPHONE PEDESDTAL
- ⊙ EX. WELL
- ⊙ PROP. WELL
- ⊙ C/O
- ⊙ VALVE PIT
- IRF
- N/F

**IMPERVIOUS SURFACE CALCULATIONS**

| EXISTING PARCEL 28                            |                  |
|---|------------------|
| TOTAL LOT AREA (CHESAPEAKE BAY CRITICAL AREA) | = 37,504 SQ.FT.± |
| IMPERVIOUS AREA ALLOWED (15%)                 | = 5,626 SQ.FT.±  |
| EXISTING IMPERVIOUS AREA (TO BE REMOVED)      | = 4,027 SQ.FT.±  |
| PROPOSED LOT 1                                |                  |
| TOTAL LOT AREA (CHESAPEAKE BAY CRITICAL AREA) | = 19,475 SQ.FT.± |
| IMPERVIOUS AREA ALLOWED (15%)                 | = 2,921 SQ.FT.±  |
| EXISTING IMPERVIOUS AREA (TO BE REMOVED)      | = 0,000 SQ.FT.±  |
| IMPERVIOUS AREA PROPOSED                      | = 0,000 SQ.FT.±  |
| PROPOSED LOT 2                                |                  |
| TOTAL LOT AREA (CHESAPEAKE BAY CRITICAL AREA) | = 18,029 SQ.FT.± |
| IMPERVIOUS AREA ALLOWED (15%)                 | = 2,704 SQ.FT.±  |
| EXISTING IMPERVIOUS AREA (TO BE REMOVED)      | = 0,000 SQ.FT.±  |
| IMPERVIOUS AREA PROPOSED                      | = 0,000 SQ.FT.±  |

**CRITICAL AREA FOREST REQUIREMENTS**

|   |                |
|---|----------------|
| TOTAL LAND WITHIN CRITICAL AREA (LDA)     | = 0.861 ACRES± |
| 15% CRITICAL AREA                         | = 0.129 ACRES± |
| EXISTING FOREST WITHIN CRITICAL AREA      | = 0.000 ACRES± |
| % OF EXISTING FOREST WITHIN CRITICAL AREA | = 0%           |
| DEFICIT OF FOREST IN CRITICAL AREA        | = 0.129 ACRES± |
| AFFORESTATION REQUIREMENT                 | = 0.129 ACRES± |

**GREAT BLUE HERON COLONY PROTECTION ZONE NOTES:**

SITE IS ENTIRELY LOCATED IN A ZONE 3 PROTECTION AREA (660'-1320' ZONE) FOR A GREAT BLUE HERON COLONY LOCATED ACROSS COX CREEK. PROTECTION ZONES 1 AND 2 FALL WITHIN COX CREEK. PER THE DEPARTMENT OF NATURAL RESOURCES LETTER DATED JUNE 8, 2007, IT WAS DETERMINED THAT THE GREAT BLUE HERON COLONY WOULD NOT LIKELY BE DISTURBED BY MOST NORMAL CONSTRUCTION ACTIVITIES ON THE SUBJECT PROPERTY, INCLUDING PIER CONSTRUCTION.

**BASE SITE AREA**

|                               |               |              |
|-------------------------------|---------------|--------------|
| GROSS SITE AREA, (PER SURVEY) | = 38,656 S.F. | = 0.887 AC.± |
| LESS AREA IN 50' RW           | = 1,152 S.F.  | = 0.026 AC.± |
| EQUALS BASE SITE AREA         | = 37,504 S.F. | = 0.861 AC.± |

**RESOURCE PROTECTION AREA**

|                           |              |              |
|---------------------------|--------------|--------------|
| AREA OF NONTIDAL WETLANDS | = 7,505 S.F. | = 0.172 AC.± |
|---------------------------|--------------|--------------|

**FLOOD ZONE AREAS**

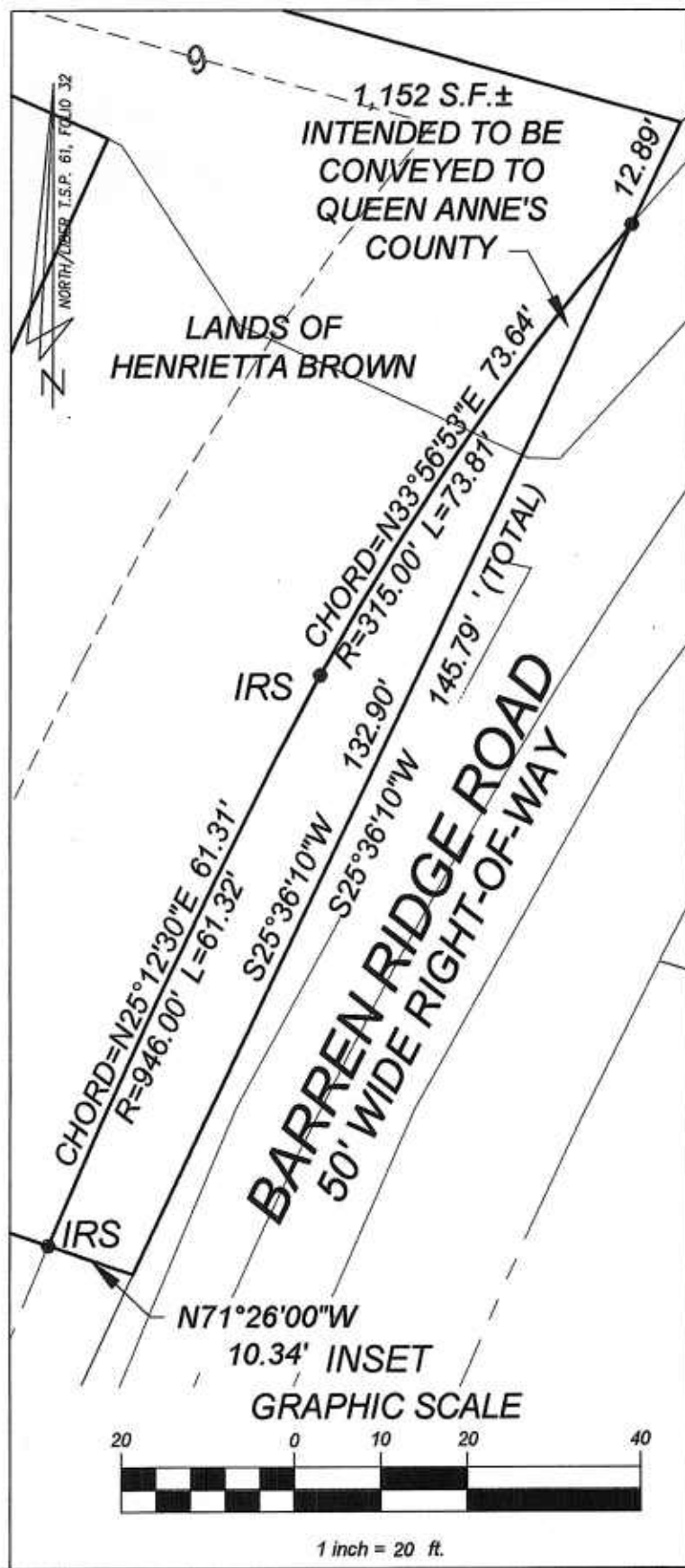
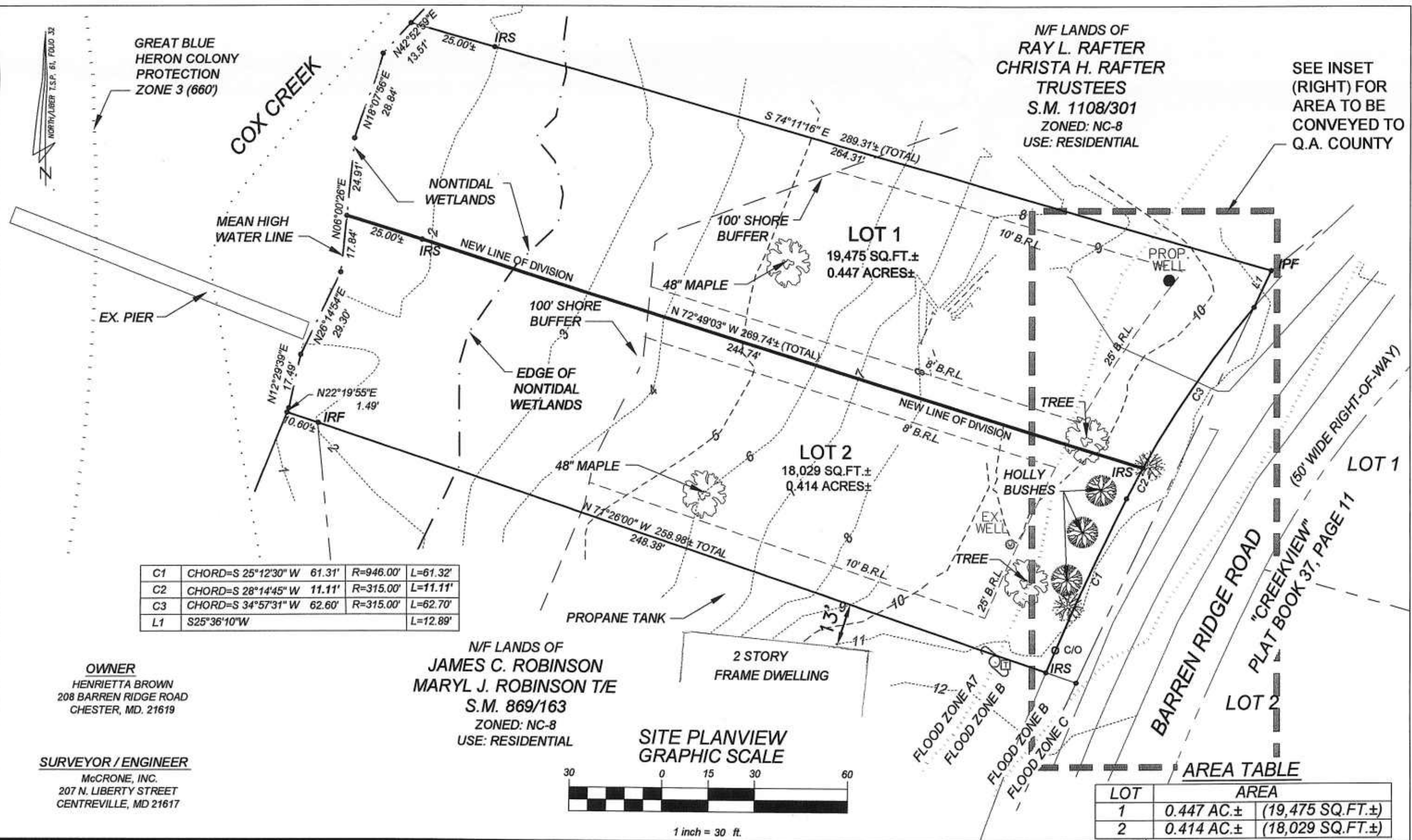
|               |               |              |
|---------------|---------------|--------------|
| FLOOD ZONE A7 | = 33,599 S.F. | = 0.771 AC.± |
| FLOOD ZONE B  | = 3,905 S.F.  | = 0.090 AC.± |

**SITE CAPACITY CALCULATIONS**

|                               |               |              |
|-------------------------------|---------------|--------------|
| BASE SITE AREA                | = 37,504 S.F. | = 0.861 AC.± |
| DIVIDED BY MINIMUM LOT SIZE   | = 8,000 S.F.  | = 0.184 AC.± |
| EQUALS MAXIMUM NUMBER OF LOTS |               | = 4          |

**SITE STATISTICS**

|                                    |               |              |
|------------------------------------|---------------|--------------|
| BASE SITE AREA                     | = 37,504 S.F. | = 0.861 AC.± |
| CHESAPEAKE BAY CRITICAL AREA - LDA | = 37,504 S.F. | = 0.861 AC.± |
| NUMBER OF EXISTING LOTS            |               | = 1          |
| NUMBER OF PROPOSED LOTS            |               | = 2          |
| NUMBER OF REMAINING LOTS           |               | = 2          |
| NET BUILDABLE AREA                 |               | = N/A        |
| TOTAL OPEN SPACE REQUIRED          | = 0 S.F.      | = 0 AC.±     |
| TOTAL OPEN SPACE PROVIDED          | = 0 S.F.      | = 0 AC.±     |



**McCRONE**

- Environmental Sciences
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207 NORTH LIBERTY STREET  
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|       |            |            |          |             |     |                     |        |
|-------|------------|------------|----------|-------------|-----|---------------------|--------|
| SCALE | AS SHOWN   | DRAWN BY   | D.A.D.   | DESIGNED BY | 148 | APPROVED BY         | D.R.J. |
| DATE  | JUNE, 2007 | JOB NUMBER | D1060393 | FOLDER REF  |     | REVISION            |        |
|       |            |            |          |             |     | DATE                | 9-6-07 |
|       |            |            |          |             |     | PER AGENCY COMMENTS |        |

MINOR SUBDIVISION PLAT

MINOR SUBDIVISION  
ON THE LANDS OF

**HENRIETTA BROWN**

TAX MAP 57, GRID 13, PARCEL 28  
FOURTH ELECTION DISTRICT, QUEEN ANNE'S COUNTY, MARYLAND

PREPARED FOR: HENRIETTA BROWN

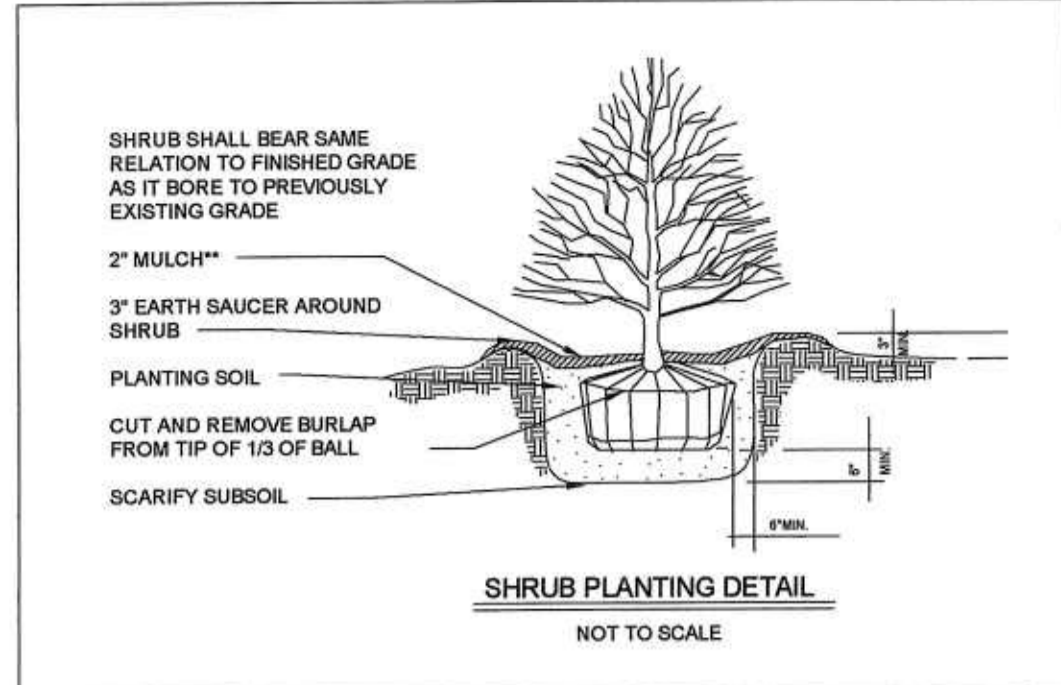
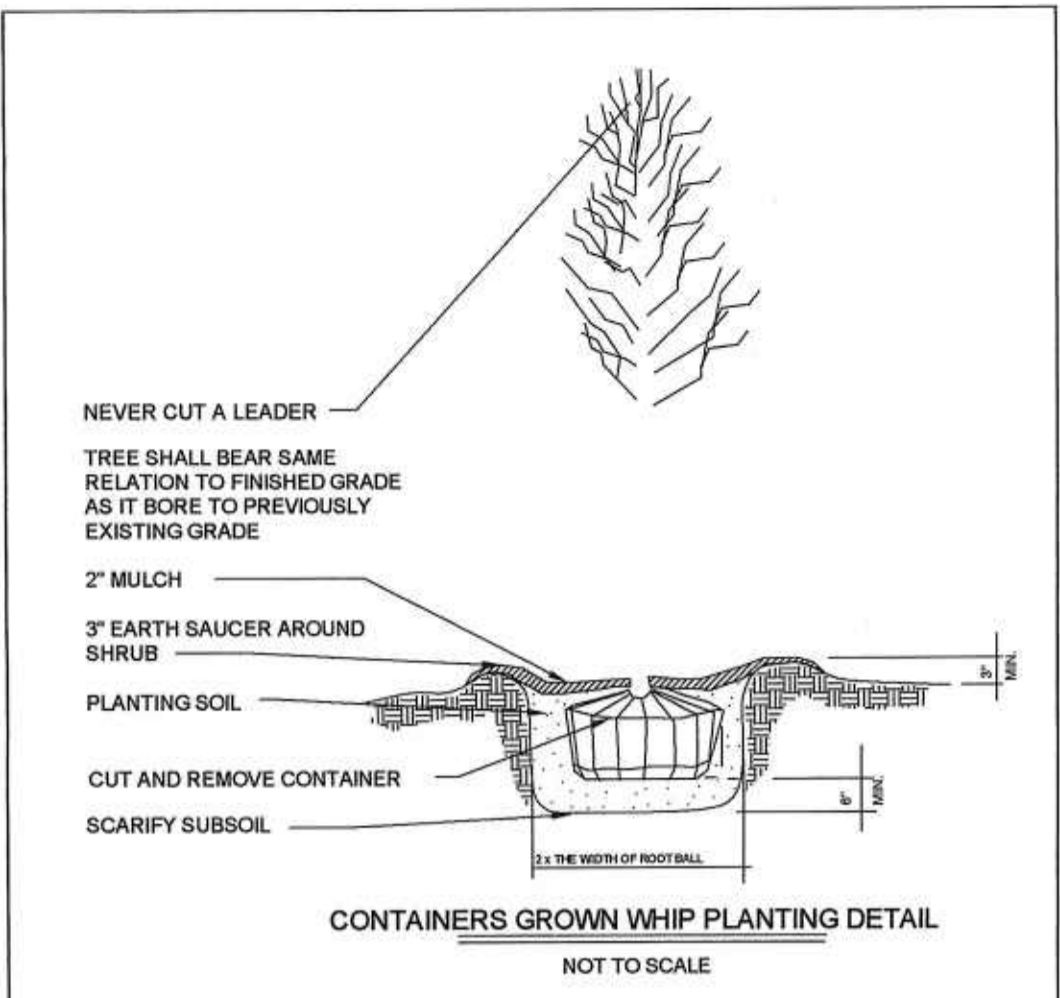
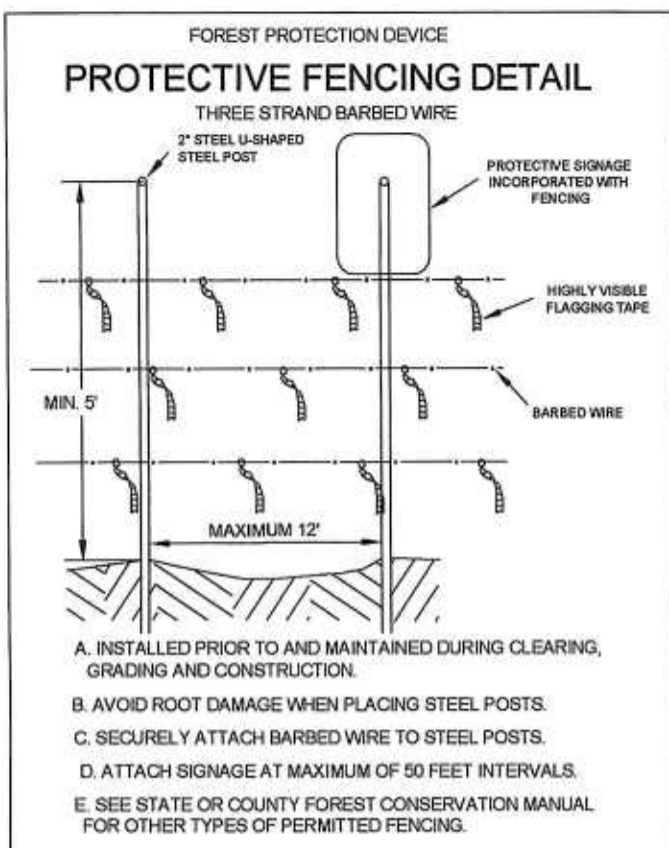
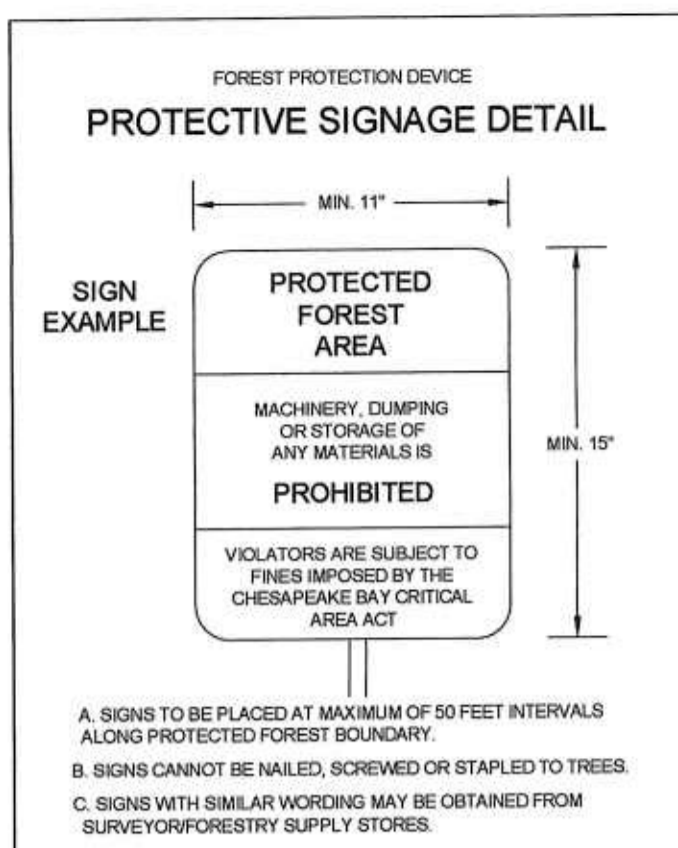
SHEET NO

3 OF 4

FILE NO  
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**OWNER/DEVELOPER**  
HENRIETTA BROWN  
208 BARREN RIDGE ROAD  
CHESTER, MD. 21619

**SURVEYOR**  
McCRONE, INC.  
207 N. LIBERTY STREET  
CENTREVILLE, MD 21617

**CRITICAL AREA AFFORESTATION PLANTING PLAN**

CHAPTER 18:1-66.A., CHAPTER 14:1-D(6)(B) AND CHAPTER 14:1-54

**PLANTING RESPONSIBILITY:** HENRIETTA BROWN  
208 BARREN RIDGE ROAD  
CHESTER, MD. 21619

**REFORESTATION SITE LOCATION:** 0.129 AC.± WEST SIDE OF COX CREEK.  
QUEEN ANNE'S COUNTY, FOURTH DISTRICT  
TAX MAP: 57  
GRID: 13  
PARCEL: 28  
ADC MAP: 23, BLOCK: 5B

**REFORESTATION AREA ASSESSMENT:** CONSISTING OF MATTAPEX SOILS (M18) IN THE ENTIRETY OF THE PROPERTY.

**PRE-PLANTING:** THE EXISTING YARD CAN BE PLANTED DIRECTLY WITHOUT ANY PREPARATION.

**SCHEDULE:** WITHIN ONE YEAR, OR TWO GROWING SEASONS AFTER COMPLETION OF DEVELOPMENT AND/OR APPROVAL OF THE SUBDIVISION.

**MATERIAL:** CONTAINER GROWN 4'-6" TALL WHIP TREES AND 18" HIGH SHRUBS.

**SOURCE:** ENVIRONMENTAL CONCERN, INC., ST. MICHAELS, MARYLAND

**STOCK:** 9 TREES: 20% SHADE TREES (2 TREES), 50% UNDERSTORY TREES (4 TREES), 30% SHRUBS (3 REMAINING TREES X 5 = 15 SHRUBS), MIX OF NATIVE SPECIES AS SHOWN. ANY RECOMMENDED SPECIES OR PORTION NOT AVAILABLE AT TIME OF NURSERY ORDER WILL BE REPLACED WITH AVAILABLE, SIMILAR, SPECIES FOUND GROWING IN THE WILD NEARBY.

**METHOD:** PLANTED AT THE SPACING SHOWN MANUALLY.

**POST-PLANTING:**

**POSTING:** "PROTECTED FOREST AREA" SIGNS BOLTED ON STEEL OR WOOD FENCE POSTS ERRECTED AT 40-50 FEET INTERVALS FACING OUTWARD ALONG THE REFORESTATION AREA BOUNDARIES TO REMAIN IN PERPETUITY.

**INSPECTIONS:** REFORESTATION MUST BE INSPECTED AT 12 AND 24 MONTH INTERVALS AFTER PLANTING, AND A WRITTEN REPORT ADDRESSING STATUS OF THE TREES AND RECOMMENDATIONS FOR CORRECTING ANY NOTABLE EXISTING MORTALITY (DAMAGE, DISEASE, DROUGHT, PESTS, ETC.) FILED WITH THE FOREST CONSERVATION COORDINATOR, QUEEN ANNE'S COUNTY, DEPARTMENT OF PLANNING & ZONING, 160 COURSEVALL DRIVE, CENTREVILLE, MD. 21617

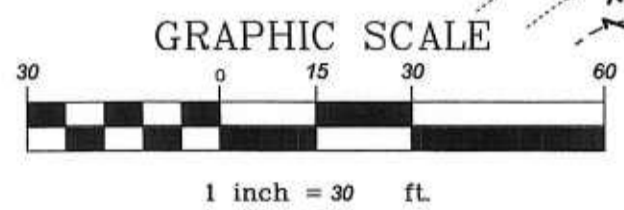
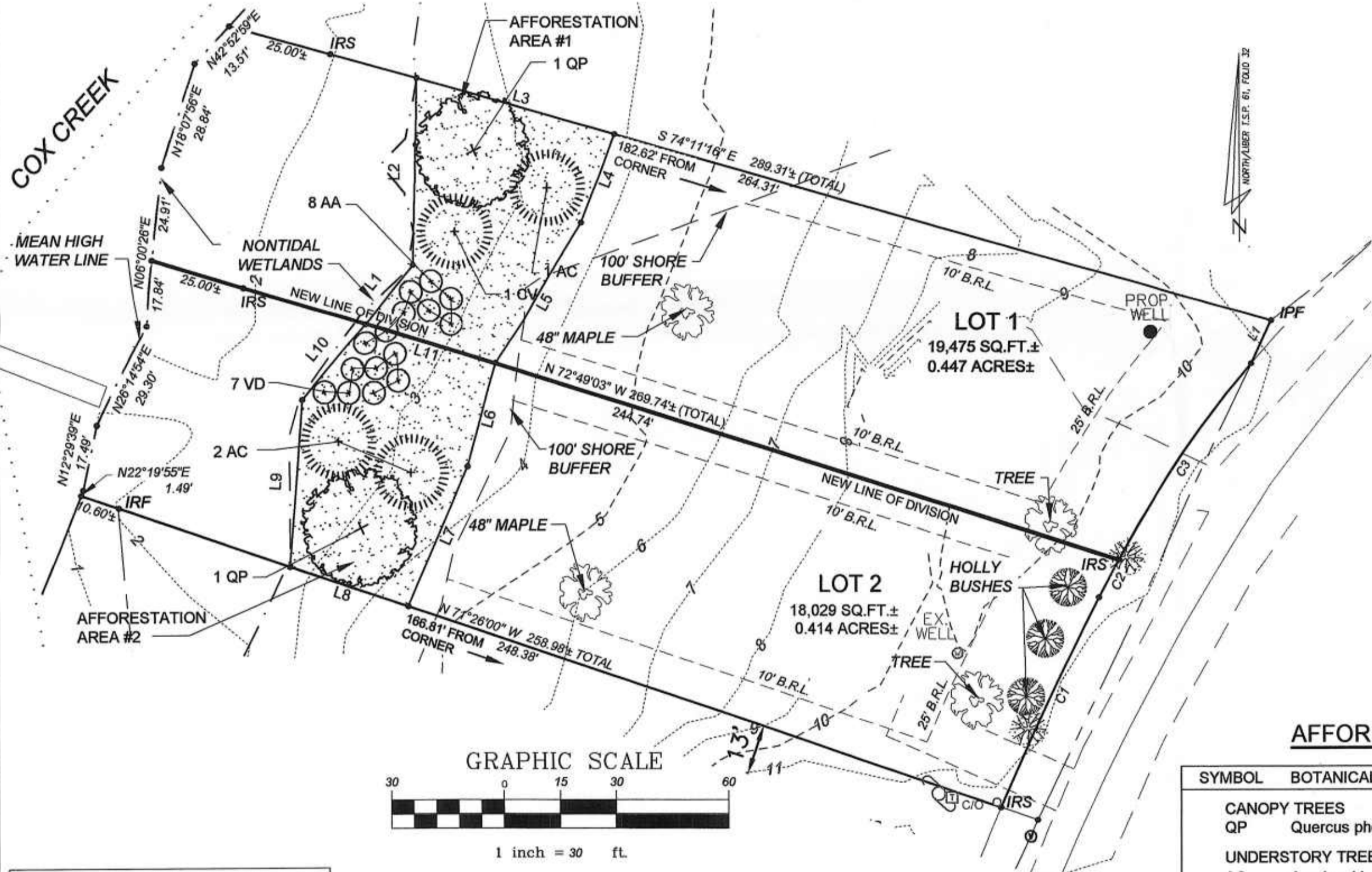
**AFFORESTATION PLANTING SCHEDULE AND COST ESTIMATE**

| SYMBOL                  | BOTANICAL NAME         | COMMON NAME    | QTY. | SIZE            | SPACING  | UNIT COST | EXT. COST |
|-------------------------|------------------------|----------------|------|-----------------|----------|-----------|-----------|
| <b>CANOPY TREES</b>     |                        |                |      |                 |          |           |           |
| QP                      | Quercus phellos        | Willow Oak     | 2    | 4-6', container | as shown | \$15.00   | \$30.00   |
| <b>UNDERSTORY TREES</b> |                        |                |      |                 |          |           |           |
| AC                      | Amelanchier canadensis | Shadbush       | 3    | 4-6', container | as shown | \$15.00   | \$45.00   |
| CV                      | Chionanthus virginicus | Fringe Tree    | 1    | 4-6', container | as shown | \$15.00   | \$15.00   |
| <b>SHRUBS</b>           |                        |                |      |                 |          |           |           |
| AA                      | Aronia arbutifolia     | Red Chokeberry | 8    | 18", container  | as shown | \$ 6.00   | \$30.00   |
| VD                      | Viburnum dentatum      | Arrowwood      | 7    | 18", container  | as shown | \$ 6.00   | \$30.00   |

APPROXIMATE WHOLESALE COST OF PLANTS \$150.00  
P&Z SELECTED MULTIPLIER 3  
APPROXIMATE IN-PLACE COST \$450.00  
LETTER OF CREDIT: \$495.00  
BOND: \$562.25

**CRITICAL AREA FOREST REQUIREMENTS**

TOTAL LAND WITHIN CRITICAL AREA (LDA) = 0.861 ACRES±  
15% CRITICAL AREA = 0.129 ACRES±  
EXISTING FOREST WITHIN CRITICAL AREA = 0.000 ACRES±  
% OF EXISTING FOREST WITHIN CRITICAL AREA = 0%  
DEFICIT OF FOREST IN CRITICAL AREA = 0.129 ACRES±  
AFFORESTATION REQUIREMENT = 0.129 ACRES±



**AFFORESTATION AREA #1**

| LINE | LENGTH | BEARING     |
|------|--------|-------------|
| L1   | 20.70  | S39°20'14"W |
| L2   | 49.56  | S01°08'45"W |
| L3   | 54.88  | N74°11'16"W |
| L4   | 25.01  | N20°38'47"E |
| L5   | 44.23  | N31°15'53"E |
| L11  | 36.71  | S73°12'41"E |

AFFORESTATION AREA #1 = 0.066 Ac.±

**AFFORESTATION AREA #2**

| LINE | LENGTH | BEARING     |
|------|--------|-------------|
| L6   | 28.27  | N15°31'21"E |
| L7   | 39.70  | N23°35'01"E |
| L8   | 33.29  | S71°28'00"E |
| L9   | 43.69  | S04°29'25"W |
| L10  | 25.95  | S39°20'14"W |
| L11  | 36.71  | S73°12'41"E |

AFFORESTATION AREA #2 = 0.063 Ac.±

**TWO YEAR PROTECTION AND MAINTENANCE**

THE PURPOSE OF THE TWO YEAR PROTECTION AND MAINTENANCE IS TO INCREASE THE SURVIVABILITY OF THE PLANT MATERIAL BY REDUCING COMPETING VEGETATION, DISEASE, AND MECHANICAL INJURY. ONCE ESTABLISHED, CLEARING OR CUTTING OF THE REFORESTATION AREAS IS NOT PERMITTED AS THE AREAS REMAIN IN LONG TERM PROTECTION. AFTER THE COMPLETION OF ALL REFORESTATION THE OWNERS OF LOTS 1 AND 2 SHALL PERFORM ALL TASKS NECESSARY TO MAINTAIN AND PROTECT THE REFORESTATION AREAS SHOWN HEREON FOR A PERIOD OF TWO (2) YEARS. THE PROTECTION AND MAINTENANCE HEREUNDER SHALL INCLUDE, BUT IS NOT LIMITED TO:

PLANTING SPECIES OR APPROVED CULTIVARS NATIVE TO THE PHYSIOGRAPHIC REGION OF THE COUNTY AND COMPATIBLE WITH THE EXISTING SITE; WATER, FERTILIZING, MULCHING, THINNING, REPLACEMENT OF DAMAGED OR DEAD PLANT MATERIALS, CONTROLLING COMPETING VEGETATION, AND PROTECTING PLANTS FROM DISEASE, PESTS AND MECHANICAL INJURY DURING THE INITIAL PLANTING AND THROUGHOUT THE TWO YEAR MAINTENANCE PERIOD AS NECESSARY; PROVIDING PROTECTIVE DEVICES SUCH AS FENCING, RETAINER WALLS AND INTERPRETIVE SIGNS AS NECESSARY TO PREVENT THE DESTRUCTION OR DEGRADATION OF THE PLANTING SITE.



**McCRONE**

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| DATE       | SCALE | 1" = 30' | DRAWN BY | L.A.S. | DESIGNED BY | L.A.S. | APPROVED BY | D.R.J. | REVISION | PER AGENCY COMMENTS |
|------------|-------|----------|----------|--------|-------------|--------|-------------|--------|----------|---------------------|
| JUNE, 2007 |       |          | D1060393 |        | 148         |        |             |        | 6-6-07   |                     |

**CRITICAL AREA PLANTING PLAN**  
MINOR SUBDIVISION  
ON THE LANDS OF  
**HENRIETTA BROWN**  
TAX MAP 57, GRID 13, PARCEL 28  
FOURTH ELECTION DISTRICT, QUEEN ANNE'S COUNTY, MARYLAND  
PREPARED FOR: HENRIETTA BROWN

SHEET NO 4 OF 4

FILE NO 60393-SU-04