

ADDRESS CHART	
LOT NO.	STREET ADDRESS
4	8107 CHESTNUT CREST DRIVE
5	8111 CHESTNUT CREST DRIVE
6	8115 CHESTNUT CREST DRIVE
7	8119 CHESTNUT CREST DRIVE
8	8123 CHESTNUT CREST DRIVE
9	8127 CHESTNUT CREST DRIVE
10	8131 CHESTNUT CREST DRIVE
11	8135 CHESTNUT CREST DRIVE
12	8139 CHESTNUT CREST DRIVE

SHEET INDEX	
SHEET	DESCRIPTION
1	COVER SHEET
2	HOUSE TEMPLATE PLANS AND ELEVATIONS
3	SITE PLAN
4	SITE PLAN
5	GRADING & RAIN GARDEN PLAN
6	GRADING & RAIN GARDEN PLAN
7	SEDIMENT & EROSION CONTROL PLAN
8	SEDIMENT & EROSION CONTROL PLAN
9	SEDIMENT & EROSION CONTROL DETAILS
10	SEDIMENT & EROSION CONTROL DETAILS
11	RAIN GARDEN LANDSCAPE PLAN

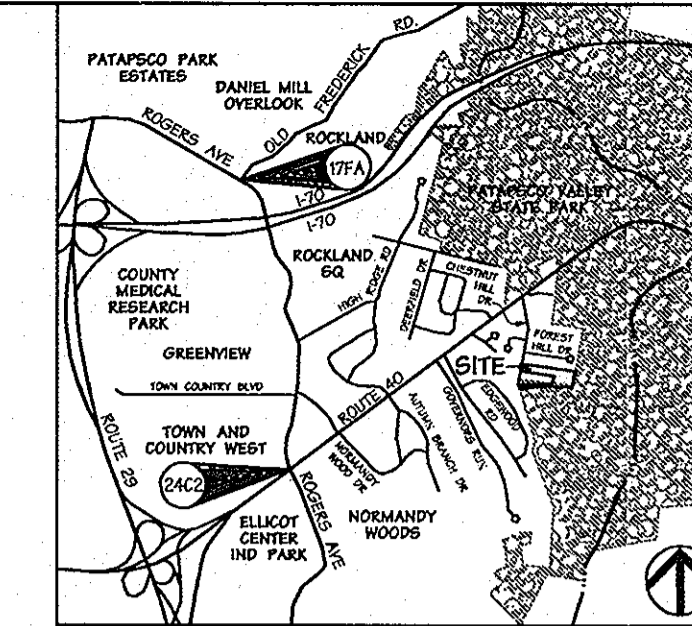
SITE DEVELOPMENT PLAN

CHESTNUT CREST

LOTS 4 THROUGH 12

AND OPEN SPACE LOT 15

HOWARD COUNTY, MARYLAND



VICINITY MAP

SCALE: 1"=2000'

BENCHMARK

DESCRIPTION

COORDINATES IN MARYLAND NAD83(9) (HORIZONTAL) AND NGVD29 (VERTICAL) DATUMS.

17FA: NORTHING: 594940.349 EASTING: 1364628.769 ELEVATION: 476.80'

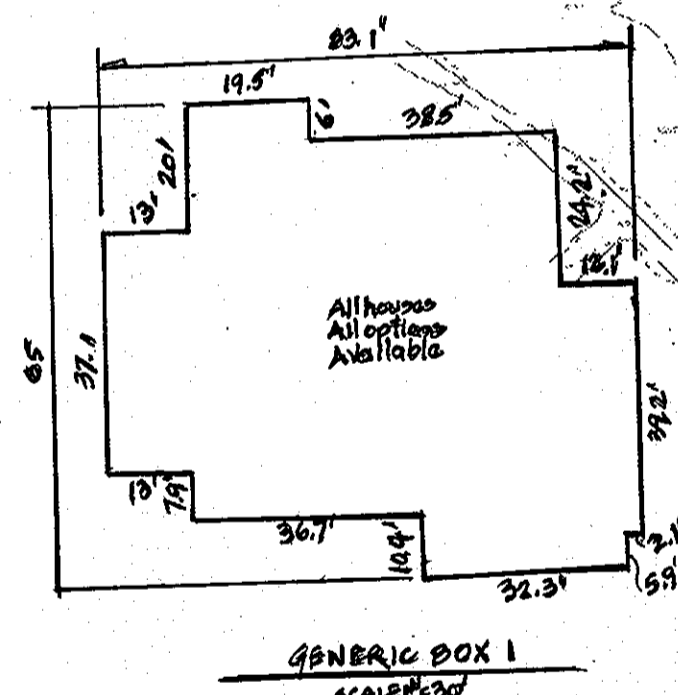
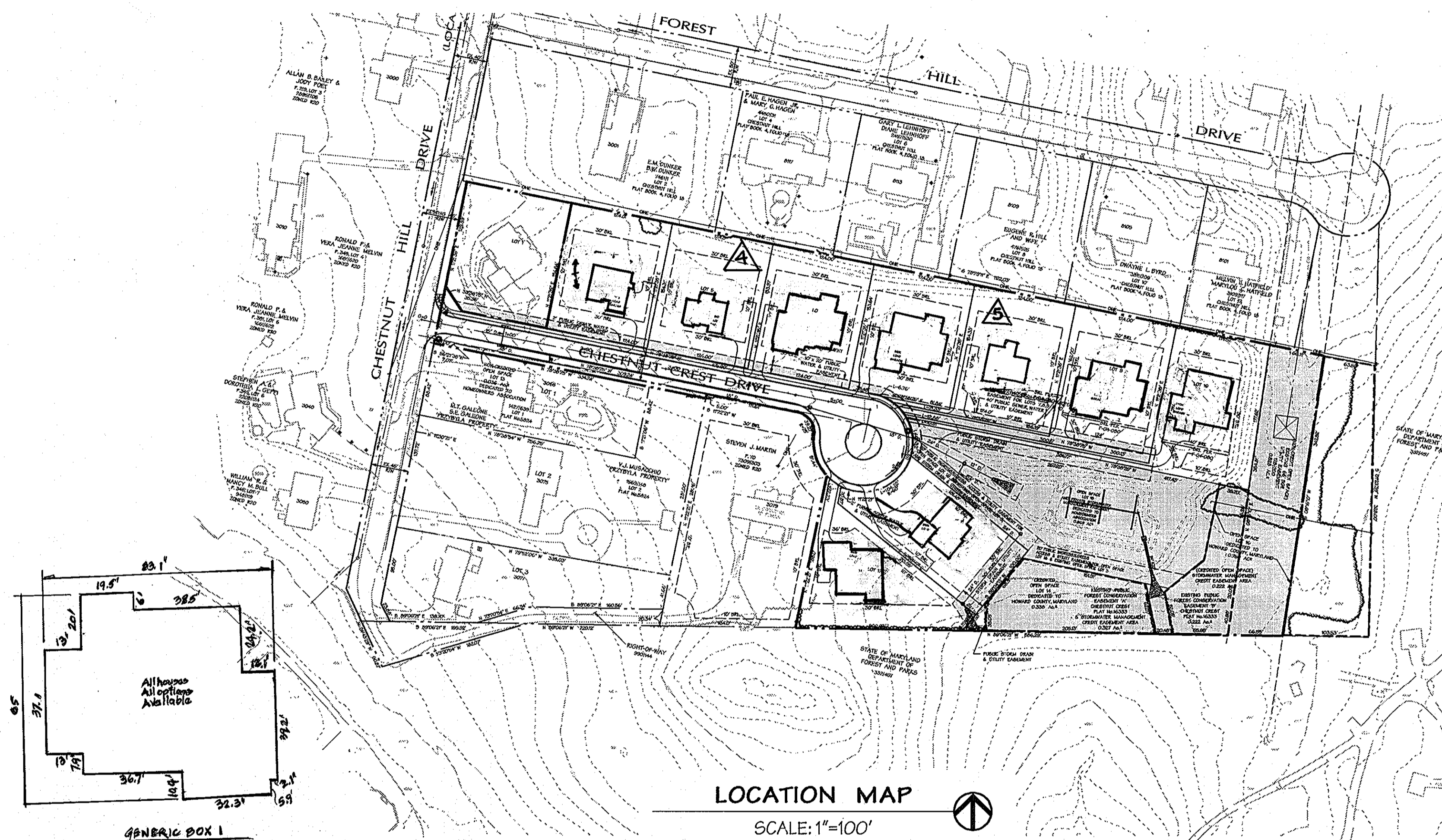
24C: NORTHING: 556648.312 EASTING: 1366038.185 ELEVATION: 394.00'

SITE ANALYSIS DATA CHART

- General Site Data
 - Present Zoning: R-20
 - Applicable DPZ File References: SP-01-10, SDP-03-09, WP-03-08, F-03-19, F-04-080, CONTRACT # 14-4003-D, PLAT # 17228-17230
 - Proposed Use of Site or Structure(s): 9 Single Family Detached Residences
 - Proposed Water and Sewer Systems are: Public
 - Any Other Information Which May be Relevant: 2 Open Space Lots
- Area Tabulation
 - Total Project Area: 18.1 Acres
 - Area of This Plan Submission: 15.15 Acres
 - Limit of Disturbed Area: 13.04 Acres
 - Building Coverage of Site: 15% Ac and 14% % of Gross Area

GENERAL NOTES

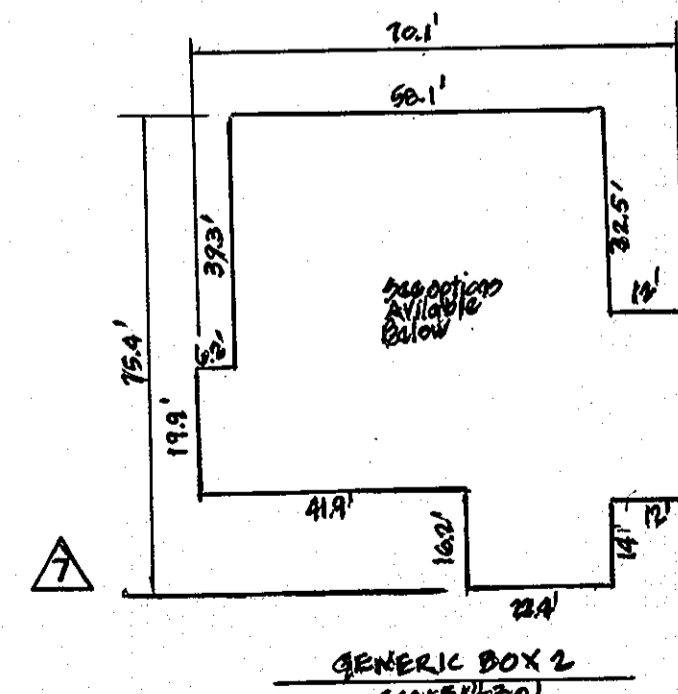
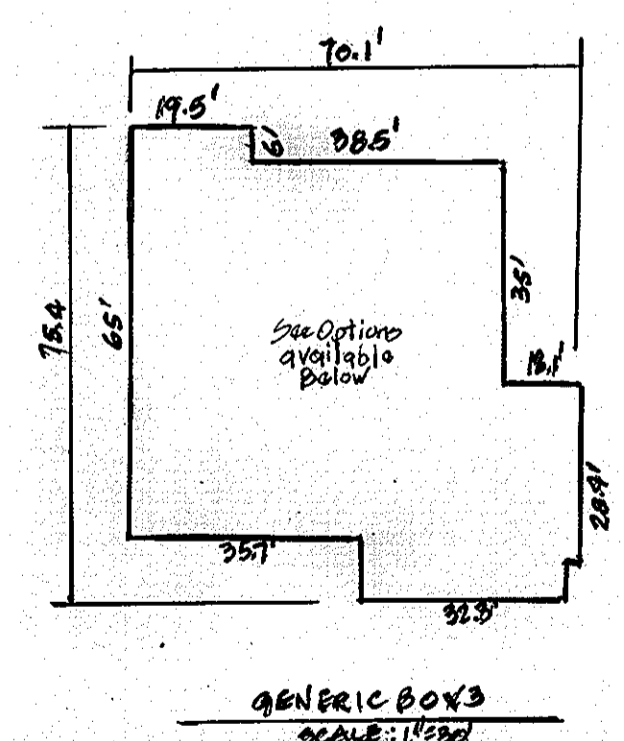
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1080 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM AERIAL SURVEY WITH 2 FOOT CONTOUR INTERVALS, PREPARED BY 3DI, INC. ON FEB. 3, 2001 AND SUPPLEMENTED WITH GRADING FROM FINAL PLAN, F-04-080.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT 17 FA AND 24C2 WERE USED FOR THIS PROJECT.
- STORMWATER MANAGEMENT FOR THIS PROJECT WAS ADDRESSED ON THE FINAL PLAN FOR THIS PROJECT WITH THE INSTALLATION OF ONE STORMWATER MANAGEMENT FACILITY (SURFACE SAND FILTER) WHICH WILL CONTROL THE RUNOFF PER THE LATEST APPROVED DESIGN STANDARDS. THE FOLLOWING CREDITS ARE BEING UTILIZED TO MEET THE STORMWATER MANAGEMENT REQUIREMENTS: NATURAL AREA CONSERVATION CREDIT, SHEET FLOW TO BUFFER CREDIT AND ROOFTOP AND NON-ROOFTOP DISCONNECTION CREDIT (WITH RAIN GARDENS). RAIN GARDENS ARE SHOWN ON THIS PLAN AND WILL BE BUILT BY THE BUILDER AND OWNED AND MAINTAINED BY THE PROPERTY OWNER.
- EXISTING UTILITIES ARE BASED ON CONTRACT NO. 14-4003-D.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE BUILDER'S EXPENSE.
- SHC ELEVATIONS ARE LOCATED AT THE PROPERTY LINE.
- FOR DRIVEWAY ENTRANCE DETAILS, REFER TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAIL R-6-06 (LOTS 8, 9, 10) & R-6-01 (LOTS 4-7, 11 & 12)
- THE PROPERTY IS ZONED R-20 PER THE 2/21/2004 COMPREHENSIVE ZONING PLAN.



SEWER HOUSE CONNECTION TABLE

LOT	INV. AT R	MIN. C*
4	424.00	428.70
5	425.50	431.20
6	425.50	431.20
7	422.50	428.70
8	423.12	428.16
9	421.11	427.40
10	420.68	425.50
11	419.52	424.20
12	419.50	423.80

* MIN C is minimum floor elevation of unit that can be served by proposed sanitary connection.



STEVENSON - ALL AVAILABLE OPTIONS

- Pickinson - No. 3 Car Front Entry If No Conservatory If 3 Car Front Entry Option Included
- Auburn - No. 3 Car Front Entry If Conservatory Option Included No Conservatory If 3 Car Front Entry Option Included
- CARYLE - No. 3 Car Front Entry If Conservatory Option Included No Conservatory If 3 Car Front Entry Option Included
- TENNISON - No. 3 Car Front Entry If Conservatory Option Included No Conservatory If 3 Car Front Entry Option Included

- Dickinson - No. 3 Car Front Entry If Conservatory Option Included No Conservatory If 3 Car Front Entry Option Included
- ADDMN - No. 3 Car Front Entry If Conservatory Option Included No Conservatory If 3 Car Front Entry Option Included
- CARYLE - No. 3 Car Front Entry If Conservatory Option Included No Conservatory If 3 Car Front Entry Option Included
- TENNISON - No. 3 Car Front Entry If Conservatory Option Included No Conservatory If 3 Car Front Entry Option Included

DATA SOURCES:

- EXISTING TOPO INFORMATION SHOWN IS FROM AERIAL TOPOGRAPHY, FLOWN BY SDI, LLC DATED JANUARY 13, 2001.
- BOUNDARY LIMITS SHOWN FROM DMW SURVEY DATED MARCH 2001.

Date	No.	Revision Description
5/13/10	7	ADD "STEVENSON" MODEL TO GENERIC BOX 2
5/26/09	5	ADD "STEVENSON" MODEL TO HOUSE TYPES
10/14/08	4	ADD "ZACHARY" MODEL TO HOUSE TYPES
7-17-07	3	Revised Generic Boxes

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION AS. 4/10/08 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT CEN 4/21/08 DATE

DIRECTOR 4/26/08 DATE

CHESTNUT CREST
LOTS 4 THRU 12 & O.S. LOT 15

OWNER/DEVELOPER: Grayson Homes, Inc. 4188 Chestnut Drive, Ellicott City, Md. 21046

DMW
A Team of Land Planners, Landscape Architects, Golf Course Architects, Engineers, Surveyors & Environmental Professionals

200 East Pennsylvania Avenue, Towson, Maryland 21286
(410) 296-5333
Fax 296-4706

PROJECT NAME: CHESTNUT CREST SECTION/JAREA: LOT/FACIL # 09

DATE OF PLAN: 3/8/06 SHEET # TOTAL: 18 2ND SHEET NUMBER: 17228-30

WATER CODE: F04 SEWER CODE: 1460000

TITLE: COVER SHEET
GENERIC SITE DEVELOPMENT PLAN

Des. By: CRH, CH Scale: 1"=100' Proj. No.: 00091F

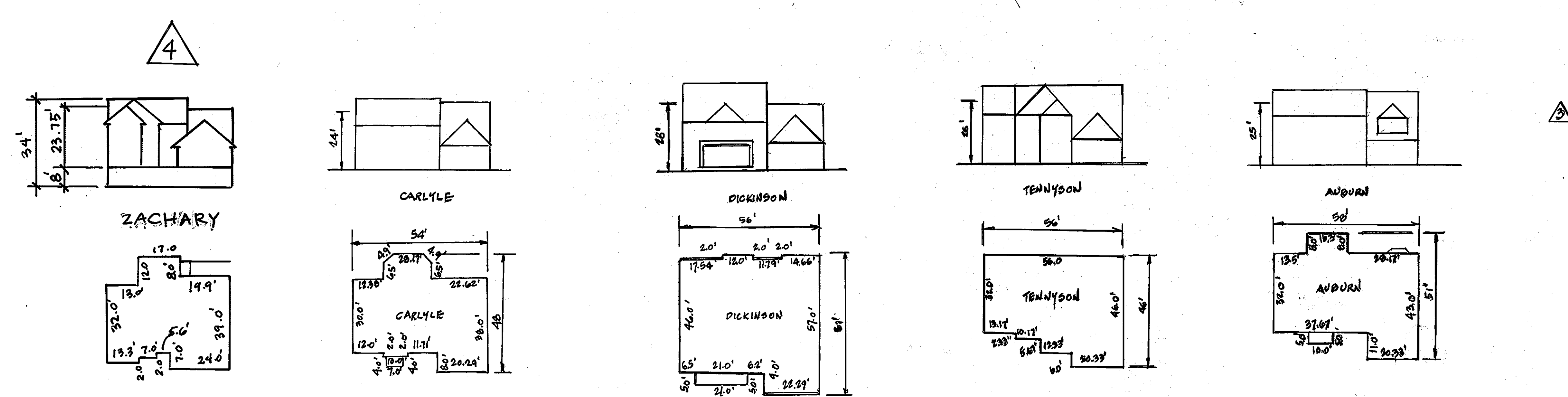
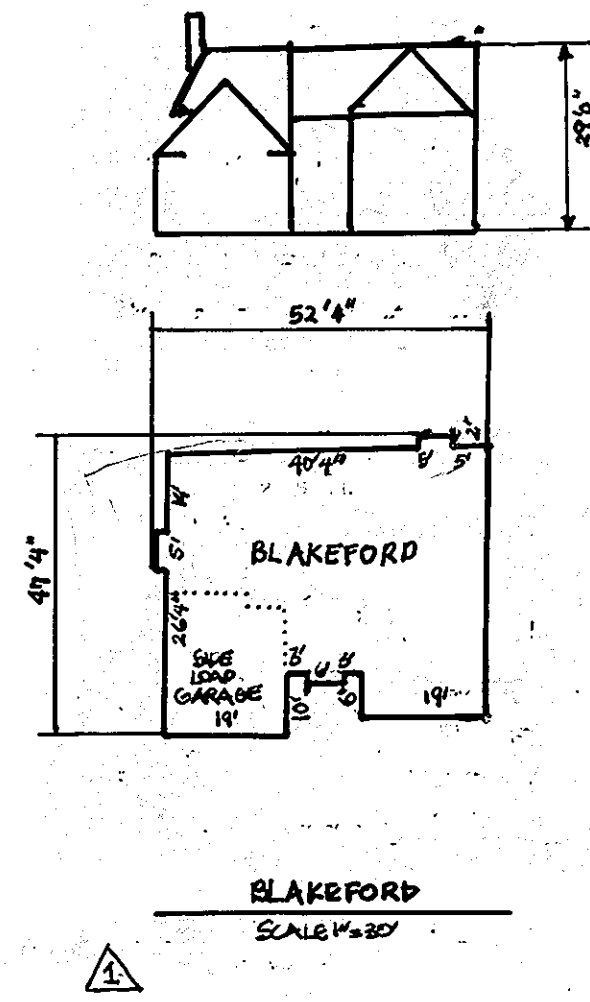
Dm. By: CRH, CH Date: 03-12-04

Chk. By: MAP Approved

1 of 11

3/8/06
Date

Professional Engr. No. 14230



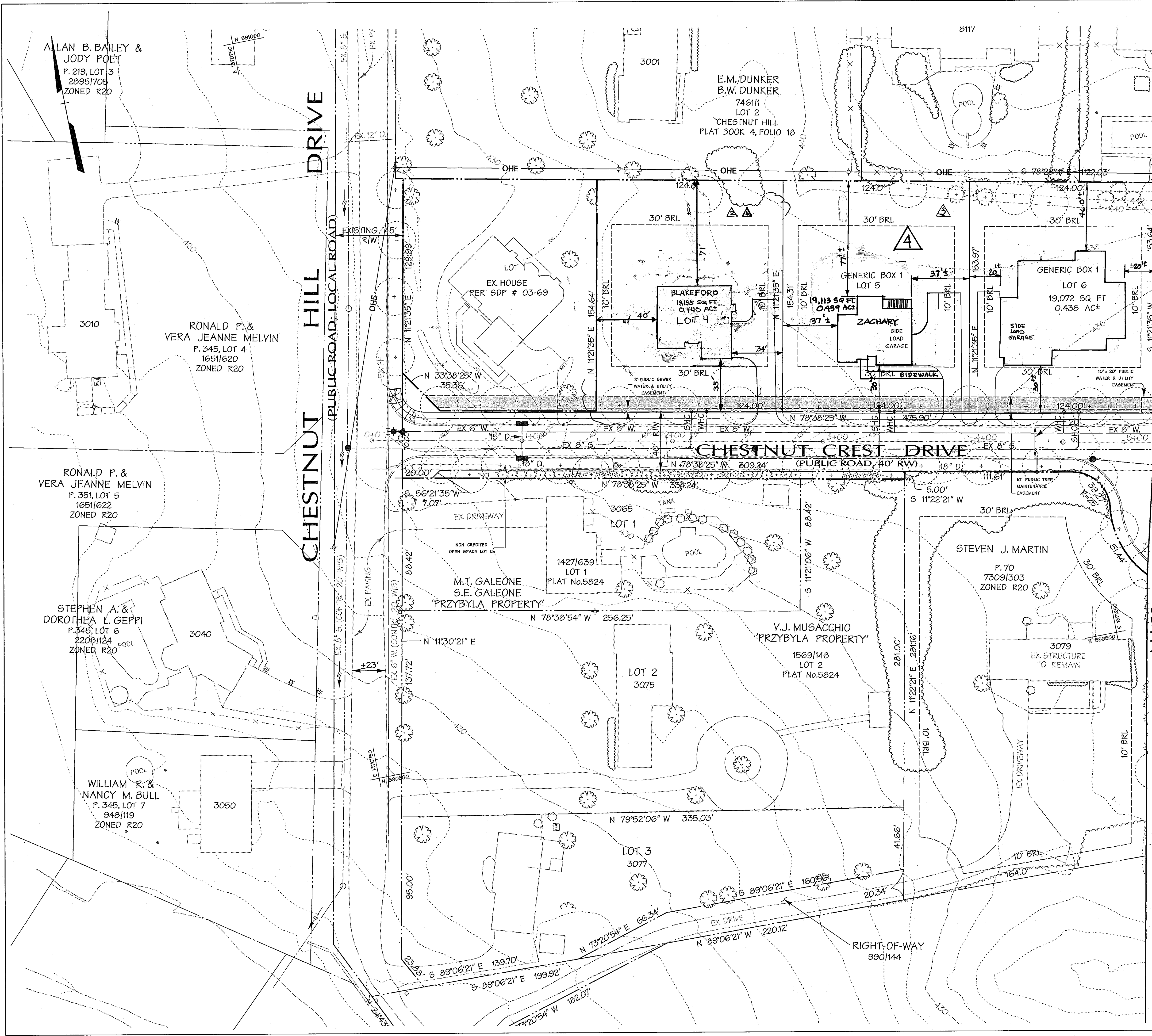
10/14/08	4	ADD ZACHARY MODEL TO HOUSE TYPES
7/17/07	3	Revise House Types, Owner
APPROVED:		
<i>[Signature]</i>		4/10/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION	AS.	DATE
<i>[Signature]</i>		4/14/06
CHIEF, DIVISION OF LAND DEVELOPMENT	CRH	DATE
<i>[Signature]</i>		4/26/06
DIRECTOR		DATE
6/19/06	2	ADD BLAKEFORD, KINGSTON, HAMMOND, BAKELAND
		SPACE BUFFER & RECONSTRUCT TO HOUSE TEMPLATE
Date	No.	Revision Description

CHESTNUT CREST
LOTS 4 THRU 12
AND OPEN SPACE LOT 15
OWNER/DEVELOPER: *Garrison Homes, Inc.*
908 Chestnut Drive
Ellicott City, MD 21038

DMW
Draff-McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4706
A Team of Land Planners,
Landscape Architects,
Golf Course Architects,
Engineers, Surveyors &
Environmental Professionals

3/8/06
Date
[Signature]
Professional Engr. No. 14230

TITLE HOUSE TEMPLATE PLANS AND ELEVATIONS		
Des. By	CRH, CH	Scale 1"=30'
Drn. By	CRH, CH	Date 03-12-04
Chk. By	Approved	Proj. No. 00091F



LEGEND

- 10' Existing Contours
- 10' Proposed Contours
- EX. 15" D. Existing Utilities
- 15" D. Proposed Utilities
- Existing Building
- Proposed Building
- Existing Curb
- Proposed Curb
- Existing Tree Line
- Existing Property Line
- L.O.D. Limit of Disturbance
- Proposed Tree Line
- Proposed Easements
- Existing Trees per F-04-080

DATA SOURCES:
 1. EXISTING TOPD INFORMATION SHOWN IS FROM AERIAL TOPOGRAPHY, PLANNED BY SOLIC DATED JANUARY 13, 2004.
 2. BOUNDARY LIMITS SHOWN FROM DMW SURVEY DATED MARCH 2004.
 3. BOUNDARY WEST OF CHESTNUT HILL DRIVE ARE PROVIDED BY HOWARD COUNTY GIS DATED 2000.

MATCH LINE SEE SHEET 4

10/14/08	4	ADD ZACHARY MODEL TO HOUSE TYPES
7/17/07	3	Revise Generic Boxes, Owner
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING		
CHIEF, DEVELOPMENT ENGINEERING DIVISION		4/10/06 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT		4/14/06 DATE
DIRECTOR		4/26/06 DATE

6.19.06	Change Lot 4 to Blakeford
10.19.06	Rev. Lot 4

CHESTNUT CREST
 LOTS 4 THRU 12
 AND OPEN SPACE LOT 15
 OWNER/DEVELOPER: *Greenwood Homes Inc.*
 4025 Chestnut Drive
 Elliott City, Md. 21024

DMW
 Dark McCaskey-Walken, Inc.
 300 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3339
 Fax 296-4705

A Team of Land Planners, Landscape Architects, Golf Course Architects, Engineers, Surveyors & Environmental Professionals

3/8/06
 Date

Professional Engr. No. 14230

TITLE: SITE PLAN			
Des. By	CRH, CH	Scale	1"=30'
Proj. No.	00091.F		
Drn. By	CRH, CH	Date	03-12-04
Chk. By		Approved	

MATCH LINE SEE SHEET 3



LEGEND

- Existing Contours
- Proposed Contours
- Existing Utilities
- Proposed Utilities
- Existing Building
- Proposed Building
- Existing Curb
- Proposed Curb
- Existing Tree Line
- Proposed Tree Line
- Existing Property Line
- Limit of Disturbance
- Proposed Tree Line
- Proposed Easements
- Existing Trees per F-04-080

DATA SOURCES:
 1. EXISTING TOPO INFORMATION SHOWN IS FROM AERIAL PHOTOGRAPHY, FLOWN BY 301, LLC DATED JANUARY 13, 2001.
 2. BOUNDARY LIMITS SHOWN FROM DAW SURVEY DATED MARCH 2001.
 3. BOUNDARY WEST OF CHESTNUT HILL DRIVE ARE PROVIDED BY HOWARD COUNTY GIS DATED 2000.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 [Signature] 4/18/06
 CHIEF, DEVELOPMENT ENGINEERING DIVISION AS. DATE
 [Signature] 4/18/06
 CHIEF, DIVISION OF LAND DEVELOPMENT CRH DATE
 [Signature] 4/18/06
 DIRECTOR DATE

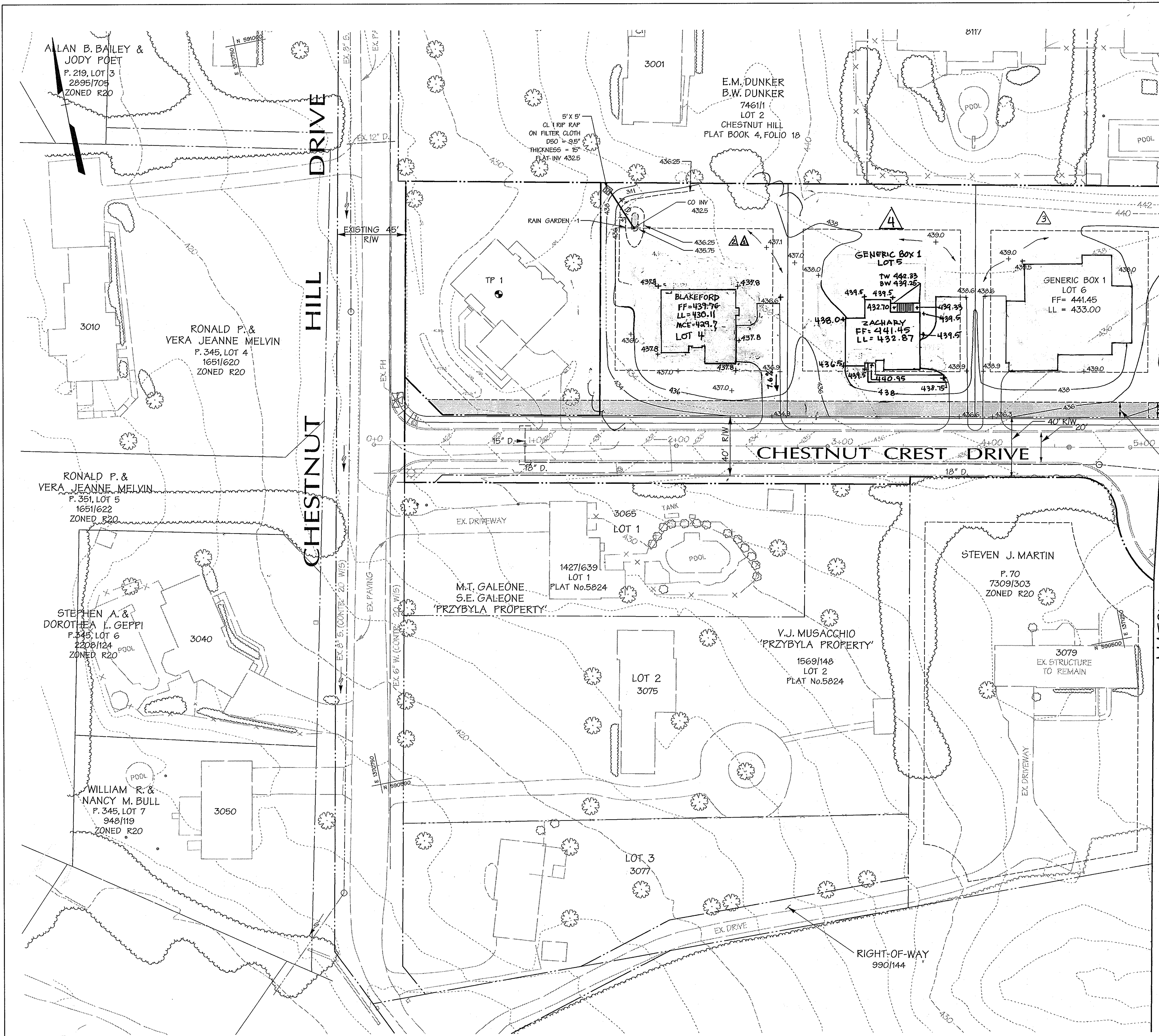
7-17-07	3	Revise Generic Boxes, Lot 11
Date	No.	Revision Description

CHESTNUT CREST
 LOTS 4 THRU 12
 AND OPEN SPACE LOT 15
 OWNER/DEVELOPER: Grayson Homes, Inc.
 9029 Chevrolet Drive
 Ellicott City, MD 21112

DMW
 Draft-McCune-Walker, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3333
 Fax 296-4705
 A Team of Land Planners,
 Landscape Architects,
 Golf Course Architects,
 Engineers, Surveyors &
 Environmental Professionals

3/8/06
 Date
 [Signature]
 Professional Engr. No. 14230

TITLE: **SITE PLAN**
 Des. By: Scale: 1"=30' Proj. No. C0091.F
 Dwn. By: CRH Date: 03-12-04
 Chk. By: Approved 4 of 11



LEGEND

- 110 --- Existing Contours
- 108 --- Proposed Contours
- EX. 15" D. --- Existing Utilities
- 15" D. --- Proposed Utilities
- [] Existing Building
- [] Proposed Building
- == Existing Curb
- == Proposed Curb
- Existing Tree Line
- Existing Property Line
- L.O.D. --- Limit of Disturbance
- Proposed Tree Line
- [] Proposed Easements
- TP 2 Soil Boring

10' X 20' PUBLIC UTILITY EASEMENT

10' LANDSCAPE EASEMENT

MATCH LINE SEE SHEET 6

DATA SOURCES:
 1. EXISTING TOPO INFORMATION SHOWN IS FROM AERIAL TOPOGRAPHY, PLANS BY SOLIC DATED JANUARY 13, 2001.
 2. BOUNDARY LIMITS SHOWN FROM OWN SURVEY DATED MARCH 2001.
 3. BOUNDARY WEST OF CHESTNUT HILL DRIVE ARE PROVIDED BY HOWARD COUNTY GIS DATED 2005.

10/14/06	4	ADD ZACHARY MODEL TO HOUSE TILES
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING		
[Signature]		4/10/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION	A.S.	DATE
[Signature]		9/18/06
CHIEF, DIVISION OF LAND DEVELOPMENT	CRH	DATE
[Signature]		11/26/06
DIRECTOR		DATE
6-19-06	2	Change lot 4 to Blakeford
10-19-06	1	Rev. Lot 4
7-17-06	3	Revise Generic Boxes, Owner
Date	No.	Revision Description

CHESTNUT CREST
 LOTS 4 THRU 12
 AND OPEN SPACE LOT 15

OWNER/DEVELOPER: Graydon Holmes Inc.
 2025 Chestnut Drive
 Ellicott City, MD 21042

DMW
 Draft-McCune-Walkers, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3333
 Fax 296-4705

A Team of Land Planners,
 Landscape Architects,
 Golf Course Architects,
 Engineers, Surveyors &
 Environmental Professionals

3/8/06
 Date

[Signature]

Professional Engr. No. 14230

TITLE			
GRADING & RAIN GARDEN PLAN			
Des. By	CH	Scale	1"=30'
Dwn. By	CRH	Date	03-12-04
Chk. By		Approved	
Proj. No.		00091F	
		5 of 11	

MATCH LINE SEE SHEET 5



LEGEND

- Existing Contours
- Proposed Contours
- EX. 15" D. Existing Utilities
- 15" D. Proposed Utilities
- Existing Building
- Proposed Building
- Existing Curb
- Proposed Curb
- Existing Tree Line
- Existing Property Line
- L.O.D. Limit of Disturbance
- Proposed Tree Line
- Proposed Easements
- TP 2 Soil Boring
- 4" D. PVC Pipe
- Rip Rap

ADJUST FIRST FLOOR OF LOT 10

5/13/10	7	ADD "STEVENSON" MODEL TO GENERIC BOX 2
5/13/10	6	REVISE RAINGARDEN #6 & 7 LOC. ON LOT 12
5/26/09	5	ADD "STEVENSON" MODEL TO HOUSE TYPES

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

[Signature] 4/10/06
 CHIEF, DEVELOPMENT ENGINEERING DIVISION AS. DATE

[Signature] 4/10/06
 CHIEF, DIVISION OF LAND DEVELOPMENT CAN DATE

[Signature] 4/10/06
 DIRECTOR DATE

11-30-07	4	Rev. Grading on Lot 11
7-17-07	3	Revise Generic Boxes, Lot 11
Date	No.	Revision Description

CHESTNUT CREST
 LOTS 4 THRU 12
 AND OPEN SPACE LOT 15

OWNER/DEVELOPER: Grayson Homes, Inc.
 9025 Chevrolet Drive
 Ellicott City, MD 21042

DMW
 Daft-McCune-Walker, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3383
 Fax 296-4706

A Team of Land Planners,
 Landscape Architects,
 Golf Course Architects,
 Engineers, Surveyors &
 Environmental Professionals

3/8/06
 Date

[Signature]
 Professional Engr. No. 14230

TITLE		
GRADING & RAIN GARDEN PLAN		
Des. By	Scale 1"=30'	Proj. No. 00091.F
Dwn. By CRH	Date 03-12-04	6 of 11
Chk. By	Approved	

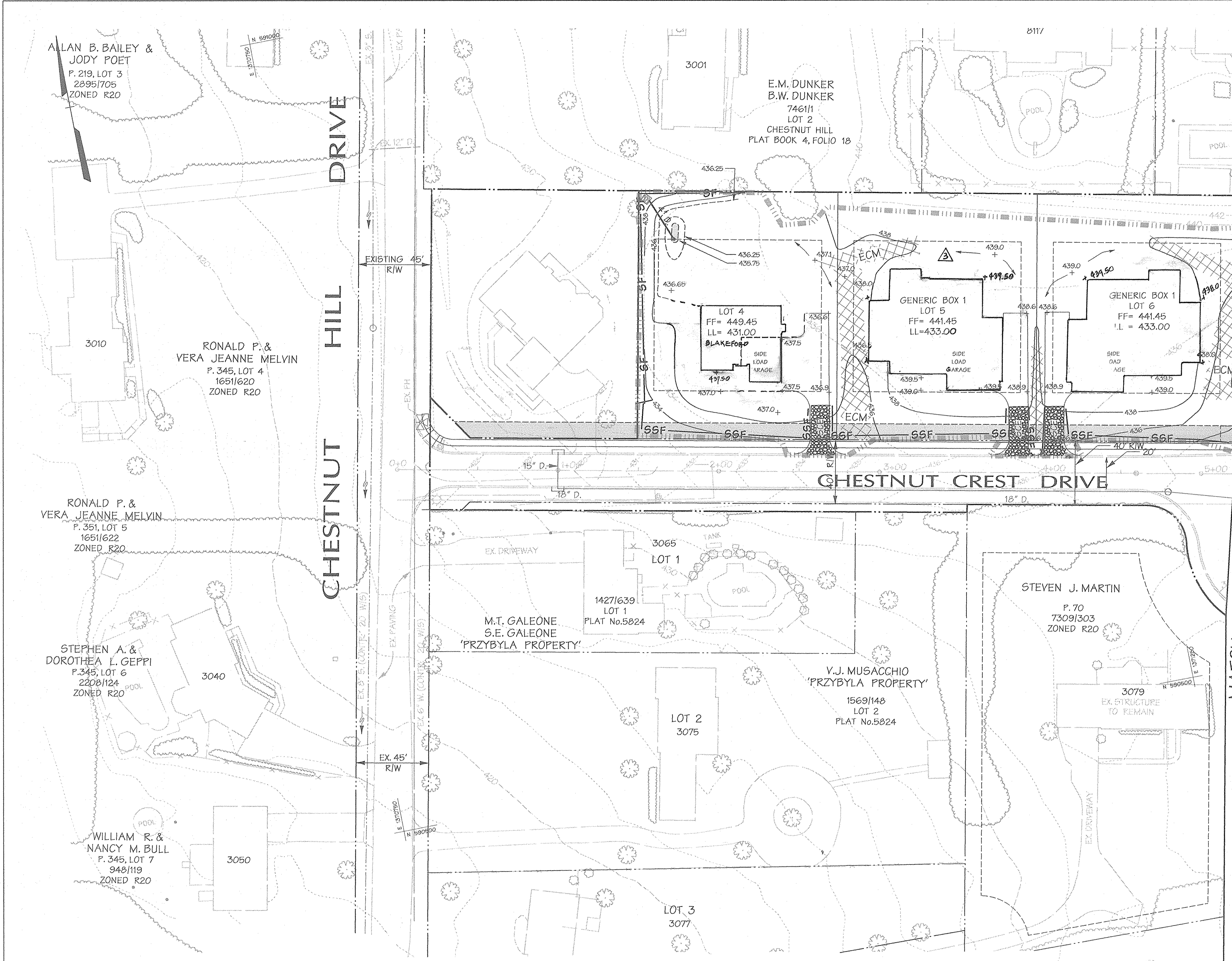
Sequence of Construction

SEQUENCE	NUMBER OF DAYS
1. OBTAIN A GRADING PERMIT.	7
2. INSTALL EROSION AND SEDIMENT CONTROL MEASURES AND STABILIZE.	6
3. WITH PERMISSION FROM THE COUNTY INSPECTOR TO PROCEED INSTALL UTILITIES AND CONSTRUCT HOUSES. (EXCLUDE RAIN GARDENS)	400
4. STABILIZE ALL AREAS IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS. CLEAN AND STABILIZE THE POND OF LOT 15 TO ITS ORIGINAL, APPROVED CONDITION OF F-04-080. BUILD RAIN GARDENS ON LOTS 10-12 ONCE DRAINAGE AREA TO RAIN GARDENS HAS BEEN STABILIZED.	42
5. UPON APPROVAL OF THE EROSION AND SEDIMENT CONTROL INSPECTOR, REMOVE ALL EROSION AND SEDIMENT CONTROL MEASURES AND STABILIZE.	7

LEGEND

--- 110 ---	Existing Contours
--- 108 ---	Proposed Contours
--- EX. 15" D. ---	Existing Utilities
--- 15" D. ---	Proposed Utilities
[Existing Building Symbol]	Existing Building
[Proposed Building Symbol]	Proposed Building
[Existing Curb Symbol]	Existing Curb
[Proposed Curb Symbol]	Proposed Curb
[Existing Tree Line Symbol]	Existing Tree Line
[Existing Property Line Symbol]	Existing Property Line
[L.O.D. Symbol]	Limit of Disturbance
[Proposed Tree Line Symbol]	Proposed Tree Line
[Proposed Easements Symbol]	Proposed Easements
[SF Symbol]	Silt Fence
[S6F Symbol]	Super Silt Fence
[ECM Symbol]	Erosion Control Matting
[Stabilized Construction Entrance Symbol]	Stabilized Construction Entrance

MATCH LINE SEE SHEET 8



OWNER'S CERTIFICATION:
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Christopher L. Rachuba
 SIGNATURE OF DEVELOPER
 PRINT NAME BELOW SIGNATURE
Christopher L. Rachuba

3-8-06
 DATE

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS

James Meyer
 SIGNATURE OF N.C.S. SERVICE
 DATE 4/4/06

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Robertson
 SIGNATURE OF HOWARD S.C.D.
 DATE 4/4/06

ENGINEER'S CERTIFICATION:
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Jeffrey L. Schwab
 SIGNATURE OF ENGINEER
 PRINT NAME BELOW SIGNATURE
Jeffrey L. Schwab

3/8/06
 DATE

3/8/06
 DATE

Jeffrey L. Schwab
 SIGNATURE OF ENGINEER
 PRINT NAME BELOW SIGNATURE
Jeffrey L. Schwab

Professional Engr. No. 14230

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Howard County Seal
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE 4/10/06

Howard County Seal
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE 4/10/06

Howard County Seal
 DIRECTOR
 DATE 4/12/06

Date	No.	Revision Description
7/17/07	3	Reloca Generic Boxes, Owner

CHESTNUT CREST
 LOTS 4 THRU 12
 AND OPEN SPACE LOT 15

OWNER/DEVELOPER: *Graydon Hoag, Inc.*
 425 Chestnut Drive
 Ellicott City, MD 21042

DMW
 Dan McCune-Walker, Inc.
 300 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3333
 Fax: 296-4795

A Team of Land Planners,
 Landscape Architects,
 Golf Course Architects,
 Engineers, Surveyors &
 Environmental Professionals

TITLE: **SEDIMENT & EROSION CONTROL PLAN**

Des. By CW	Scale 1"=30'	Proj. No. 00091F
Dwn. By CRH, CH	Date 03-12-04	7 of 11
Chk. By	Approved	

Sediment Control General Notes

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (410-343-1899).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" AND REVISIONS THEREOF.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - A. SEVEN CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1.
 - B. FOURTEEN DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE "HOWARD COUNTY DESIGN MANUAL", STORM DRAINAGE.
5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR PERMANENT SEEDINGS, SODS, TEMPORARY SEEDING AND MULCHING (SECTION G). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7. SITE ANALYSIS:

TOTAL AREA OF SITE	8.11 ACRES
AREA DISTURBED	4.0 ACRES
AREA TO BE ROOFED OR PAVED	1.34 ACRES
AREA TO BE VEGETATIVELY STABILIZED	2.66 ACRES
TOTAL CUT	300 CUBIC YARDS
TOTAL FILL	300 CUBIC YARDS

* OFF-SITE WASTE/BORROW AREA LOCATION WASTE = 0 CUBIC YARDS
8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
11. THE CONTRACTOR SHALL ONLY EXCAVATE TRENCHES FOR UTILITY CONSTRUCTION THAT CAN BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY.

MATCH LINE SEE SHEET 7

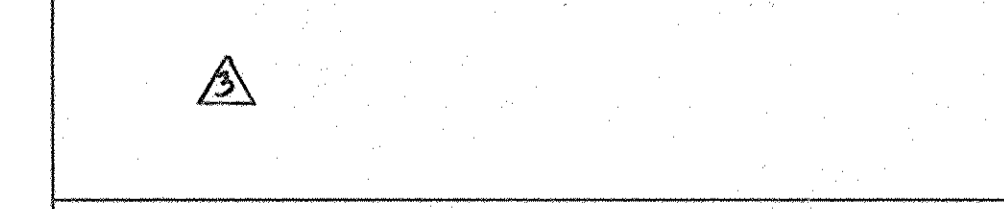


SEE SHEET 7 FOR LEGEND

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	
<i>[Signature]</i>	4/10/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION	A.S. DATE
<i>[Signature]</i>	4/24/06
CHIEF, DIVISION OF LAND DEVELOPMENT	CRH DATE
<i>[Signature]</i>	4/26/06
DIRECTOR	DATE

7/17/07	3	Revise Lot 11, Generic Boxes, Owner
Date	No.	Revision Description

CHESTNUT CREST
 LOTS 4 THRU 12
 AND OPEN SPACE LOT 15
 OWNER/DEVELOPER: Grayson Homes, Inc.
 1025 Chevrolet Drive
 Ellicott City, Md. 21042



DMW
 Daft-McCune-Walker, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3333
 Fax 296-4705
 A Team of Land Planners, Landscape Architects, Golf Course Architects, Engineers, Surveyors & Environmental Professionals

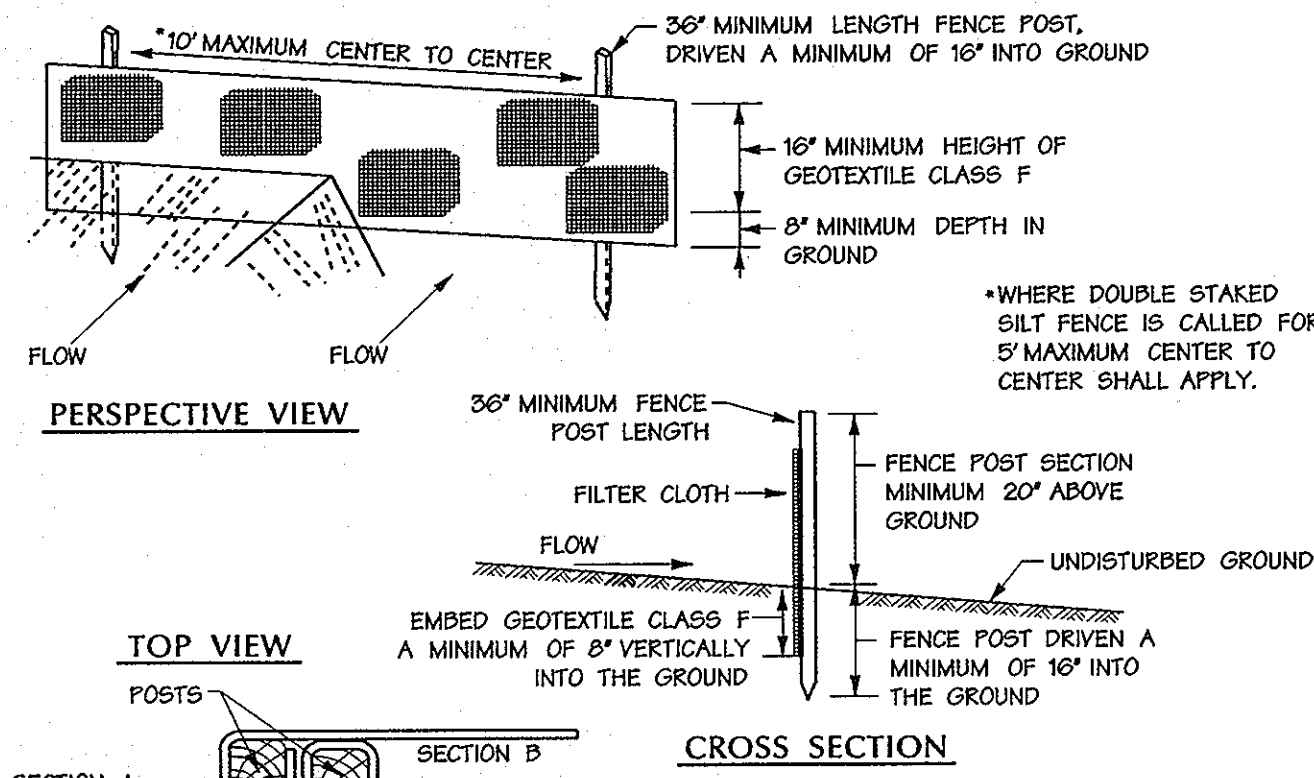
OWNER'S CERTIFICATION:
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
[Signature]
 SIGNATURE OF DEVELOPER
 PRINT NAME BELOW SIGNATURE
 Christopher L. Rachuba
 3-8-06
 DATE

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS
[Signature] 4/14/06
 U.S. NATURAL RESOURCE CONSERVATION SERVICE DATE
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature] 4/14/06
 HOWARD S.C.D. DATE

ENGINEER'S CERTIFICATION:
 "I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
[Signature]
 SIGNATURE OF ENGINEER
 PRINT NAME BELOW SIGNATURE
 Jeffrey L. Schwab
 3/8/06
 DATE

3/8/06
 Date
[Signature]
 Professional Engr. No. 14230

TITLE		
SEDIMENT & EROSION CONTROL PLAN		
Des. By CW	Scale 1"=30'	Proj. No. 00091F
Drn. By CRH, CW	Date 03-12-04	8 of 11
Chk. By	Approved	



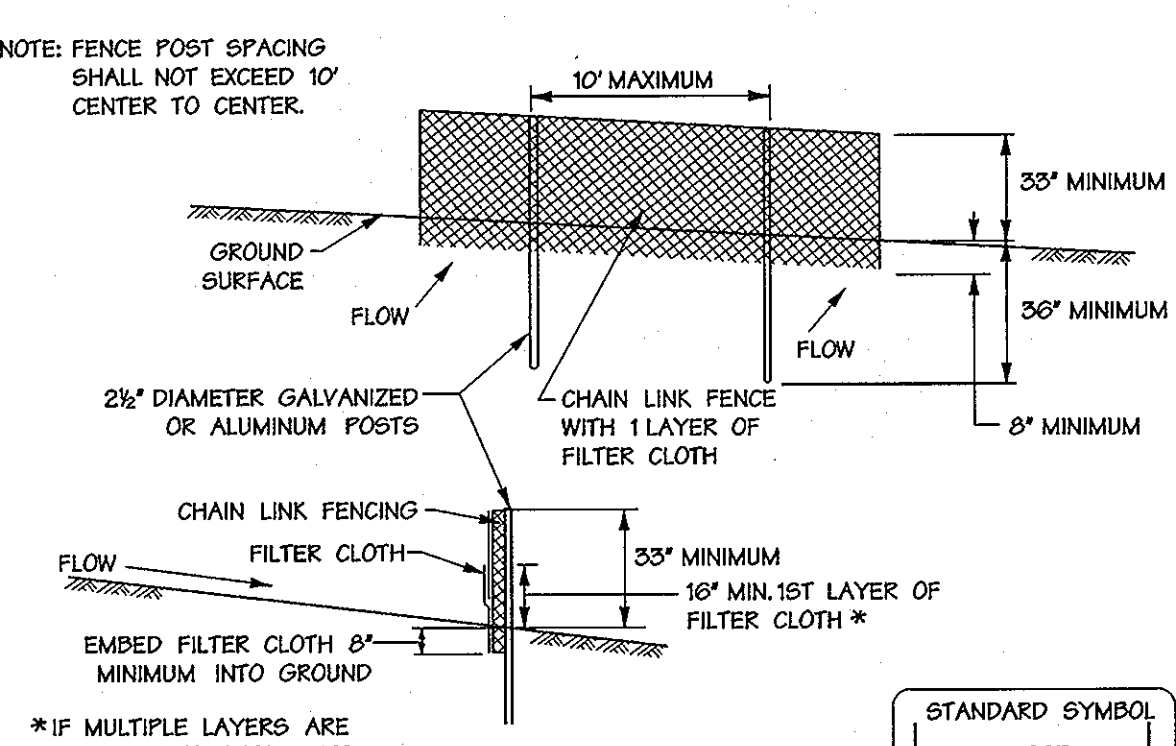
CONSTRUCTION SPECIFICATIONS

- FENCE POSTS SHALL BE A MINIMUM OF 36" LONG DRIVEN 10" MINIMUM INTO THE GROUND. WOOD POSTS SHALL BE 1 1/2" x 1 1/2" SQUARE (MINIMUM) CUT OR 1 1/2" DIAMETER (MINIMUM) ROUND AND SHALL BE OF SOUND QUALITY HARDWOOD. STEEL POSTS WILL BE STANDARD 1" OR 1 1/2" SECTION WEIGHTING NOT LESS THAN 100 POUND PER LINEAR FOOT.
- GEOTEXTILE SHALL BE FASTENED SECURELY TO EACH FENCE POST WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS F:

TENSILE STRENGTH	50 LBS/IN (MIN)	TEST: MSMT 509
TENSILE MODULUS	20 LBS/IN (MIN)	TEST: MSMT 509
FLOW RATE	0.3 GAL/FIN (MAX)	TEST: MSMT 322
FILTERING EFFICIENCY	75% (MIN)	TEST: MSMT 222
- WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER, THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT SEDIMENT BYPASS.
- SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL EVENT AND MAINTAINED WHEN BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHED 50% OF THE FABRIC HEIGHT.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE E - 15 - 3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Silt Fence Not To Scale

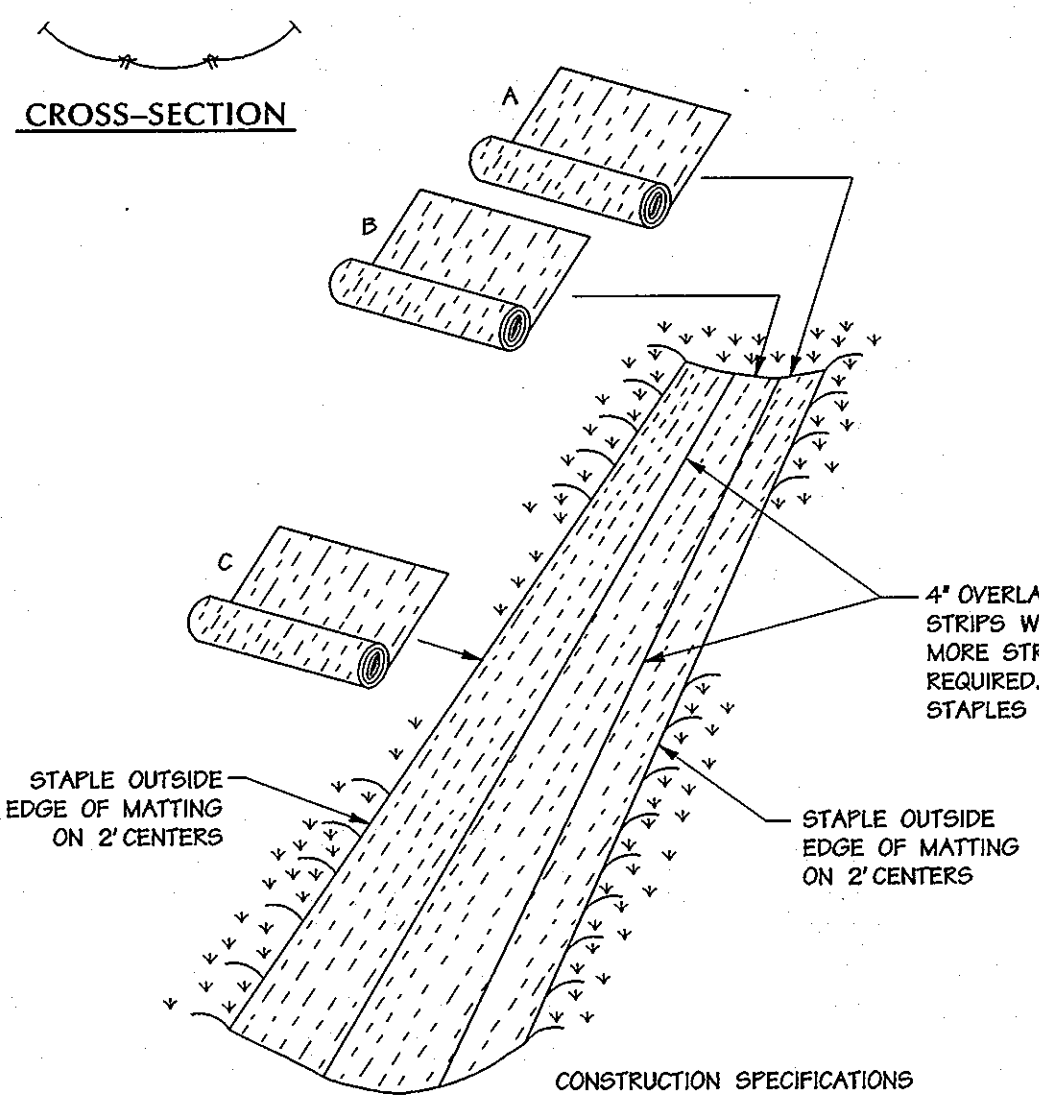


CONSTRUCTION SPECIFICATIONS

- FENCING SHALL BE 42 INCHES IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST MARYLAND STATE HIGHWAY (SHA) DETAILS FOR CHAIN LINK FENCINGS. THE SPECIFICATION FOR A 6" FENCE SHALL BE USED, SUBSTITUTING 42" FABRIC AND 6" LENGTH POSTS. THE POSTS DO NOT NEED TO BE SET IN CONCRETE.
- CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES OR STAPLES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, DRIVE ANCHORS AND POST CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE. THE CHAIN LINK FENCINGS SHALL BE 6" (6) GAUGE OR HEAVIER.
- FILTER CLOTH SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT THE TOP AND MID SECTION.
- FILTER CLOTH SHALL BE EMBEDDED A MINIMUM OF 8" INTO THE GROUND.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT BUILDUPS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE, OR WHEN SILT REACHES 50% OF FENCE HEIGHT.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE H - 28 - 3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Super Silt Fence Not To Scale



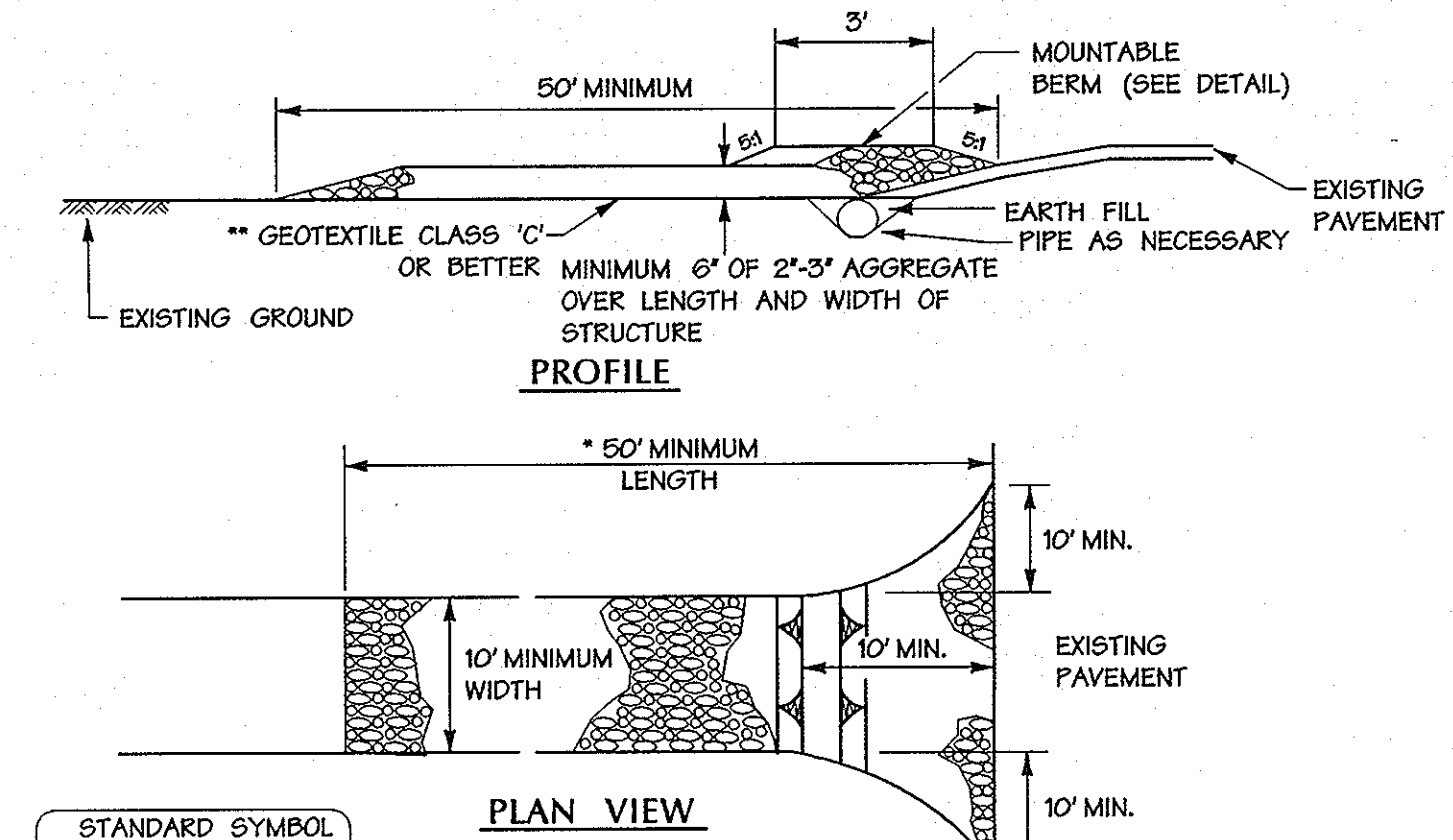
CONSTRUCTION SPECIFICATIONS

- KEY-IN THE MATTING BY FLAGGING THE TOP ENDS OF THE MATTING IN A NARROW TRENCH, 6" IN DEPTH. PACKFILL THE TRENCH AND TAMP FIRMLY TO CONFORM TO THE CHANNEL CROSS-SECTION. SECURE WITH A ROW OF STAPLES ABOUT 4" DOWN SLOPE FROM THE TRENCH. SPACING BETWEEN STAPLES IN 6".
- STAPLE THE 4" OVERLAP IN THE CHANNEL CENTER USING AN 18" SPACING BETWEEN STAPLES.
- BEFORE STAPLING THE OUTER EDGES OF THE MATTING, MAKE SURE THE MATTING IS SMOOTH AND IN FIRM CONTACT WITH THE SOIL.
- STAPLES SHALL BE PLACED 2" APART WITH 4 ROWS FOR EACH STRIP, 2 OUTER ROWS, AND 2 ALTERNATING ROWS DOWN THE CENTER.
- WHERE ONE ROLL OF MATTING ENDS AND ANOTHER BEGINS, THE END OF THE TOP STRIP SHALL OVERLAP THE UPPER END OF THE LOWER STRIP BY 4" SHIP-LAP FASHION. REINFORCE THE OVERLAP WITH A DOUBLE ROW OF STAPLES SPACED 6" APART IN A STAGGERED PATTERN ON EITHER SIDE.
- THE DISCHARGE END OF THE MATTING LINER SHOULD BE SIMILARLY SECURED WITH 2 DOUBLE ROWS OF STAPLES.

NOTE: IF FLOW WILL ENTER FROM THE EDGE OF THE MATTING THEN THE AREA EFFECTED BY THE FLOW MUST BE KEYED-IN.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE G - 22 - 2 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Erosion Control Matting Not To Scale



CONSTRUCTION SPECIFICATIONS

- LENGTH - MINIMUM OF 50' (30' FOR SINGLE RESIDENCE LOT).
- WIDTH - 10' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- GEOTEXTILE FABRIC CLASS C (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.
- STONE - CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.
- SURFACE WATER - ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE MAINTAINING POSITIVE DRAINAGE.
- LOCATION - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE F - 17 - 3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Stabilized Construction Entrance Not To Scale

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION - LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS - IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- PREPARED - APPLY 2 TONS PER ACRES DOLOMITE LIMESTONE (92 LBS/1000 SQFT) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQFT) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 20-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQFT).
- ACCEPTABLE - APPLY 2 TONS PER ACRES DOLOMITE LIMESTONE (92 LBS/1000 SQFT) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQFT) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 15 THRU OCTOBER 15, SEED WITH 60 LBS PER ACRE (14 LBS/1000 SQFT) OF KENTUCKY 31 TALL FESCUE FOR THE PERIOD MAY 1 THRU JULY 31 SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (0.5 LBS/1000 SQFT) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) - USE SOD. OPTION (2) - SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQFT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 210 GAL PER ACRE (5 GALLON SQFT) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 340 GALLONS PER ACRE (8 GALLON SQFT) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDING.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION - LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS - APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQFT).

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 15 THRU OCTOBER 15, SEED WITH 240 BUSHEL PER ACRE OF ANNUAL RYE (32 LBS/1000 SQFT). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (0.7 LBS/1000 SQFT). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING - APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQFT) OF UNROTTED WEEP FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 210 GAL PER ACRE (5 GALLON SQFT) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FT. OR HIGHER, USE 340 GAL PER ACRE (8 GALLON SQFT) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

DUST CONTROL SPECIFICATIONS

TEMPORARY METHODS:

- MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKED TO PREVENT BLOWING.
- VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.
- TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART. SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
- IRRIGATION - THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED, AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THE RUNOFF BEGINS TO FLOW.
- BARRIERS - SOLID BOARD FENCES, SNOW FENCES, BURGLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWING.
- CALCIUM CHLORIDE - APPLY AT A RATE THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

PERMANENT METHODS:

- PERMANENT VEGETATION - SEE STANDARDS FOR PERMANENT VEGETATIVE COVER, AND PERMANENT STABILIZATION WITH SOD. EXISTING TREES OR LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.
- TOPSOILING - COVERING WITH LESS EROSION SOIL MATERIALS. SEE STANDARDS FOR TOPSOILING.
- STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE H - 30 - 1 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Dust Control Specifications Not To Scale

Topsoil Specifications

FOR SEDIMENT CONTROL / STABILIZATION PURPOSES

2.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

Definition
Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose
To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable sodgradation.

Conditions Where Practice Applies

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

Construction and Material Specifications

- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slags, coarse fragments, gravel sticks, roots, trash, and other materials larger than 1 1/2 inch in diameter.
 - Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutedge, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- For sites having disturbed areas under 5 acres:
 - Place topsoil (if required) and apply soil amendments as specified in 2.0.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

III. For sites having disturbed areas over 5 acres:

- On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
 - Organic contents of topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.
- Place topsoil (if required) and apply soil amendments as specified in 2.0.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.
- Topsoil Application
 - When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slop Silt Fence and Sediment Traps and Basins.
 - Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4% - 8% higher in elevation.
 - Topsoil shall be uniformly distributed in a 4% - 8% layer and lightly compacted to a minimum thickness of 4%. Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
 - Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

APPROVED:

[Signature] 4/10/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION J.S. DATE

[Signature] 4/10/06
CHIEF, DIVISION OF LAND DEVELOPMENT ORL DATE

[Signature] 4/12/06
DIRECTOR D. J. Cafferky DATE

CHESTNUT CREST
LOTS 4 THRU 12
AND OPEN SPACE LOT 15

OWNER/DEVELOPER: Grayson Homes, Inc.
3072 Chestnut Drive
Bristol City, MD 21042

DMW
Dak-McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4705

A Team of Land Planners,
Landscape Architects,
Golf Course Architects,
Engineers, Surveyors &
Environmental Professionals

3/8/06
Date

Professional Engr. No. 14230

TEMPORARY AND PERMANENT SEEDING NOTES

OWNER'S CERTIFICATION:
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

[Signature] 3-8-06
SIGNATURE OF DEVELOPER DATE
PRINT NAME: Christopher L. Rachuba

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS

[Signature] 4/14/06
U.S. NATURAL RESOURCE CONSERVATION SERVICE DATE

[Signature] 4/14/06
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
HOWARD S.C.D. DATE

ENGINEER'S CERTIFICATION:
"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

[Signature] 3/8/06
SIGNATURE OF ENGINEER DATE
PRINT NAME: Jeffrey L. Schwabe

B.3.B Specifications for Raingardens

1. Material Specifications
The allowable materials to be used in raingarden area are detailed in Table B.3.2.

2. Planting Soil
The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two-inches. No other materials or substances shall be mixed or dumped within the raingarden area that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations.
The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05.
The planting soil shall be tested and shall meet the following criteria:

pH range	5.2 - 7.0
organic matter	1.5 - 4% (by weight)
magnesium	35 lb./ac
phosphorus (phosphate - P2O5)	75 lb./ac
potassium (potash - K2O)	85 lb./ac
soluble salts	not to exceed 500 ppm

All raingarden areas shall have a minimum of one test. Each test shall consist of both the standard soil test for pH, phosphorus, and potassium and additional tests of organic matter, and soluble salts. A textural analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the topsoil was excavated.
Since different labs calibrate their testing equipment differently, all testing results shall come from the same testing facility.
Should the pH fall out of the acceptable range, it may be modified (higher) with lime or (lower) with iron sulfate plus sulfur.

3. Compaction
It is very important to minimize compaction of both the base of the raingarden area and the required backfill. When possible, use excavation hoses to remove original soil. If raingarden areas are excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high-pressure tires will cause excessive compaction resulting in reduced infiltration rates and is not acceptable. Compaction will significantly contribute to design failure.
Compaction can be alleviated at the base of the raingarden facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to refracture the soil profile through the 12-inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.
Rototill two to three-inches of sand into the base of the raingarden facility before backfilling the optional sand layer. Pump any ponded water before preparing (rototilling) base.
When backfilling the topsoil over the sand layer, first place three to four-inches of topsoil over the sand, then rototill the sand/topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.
When backfilling the raingarden facility, place soil in lifts 12-inches to 18-inches. Do not use heavy equipment within the raingarden basin. Heavy equipment can be used around the perimeter of the basin to supply soils and sand. Grade raingarden materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

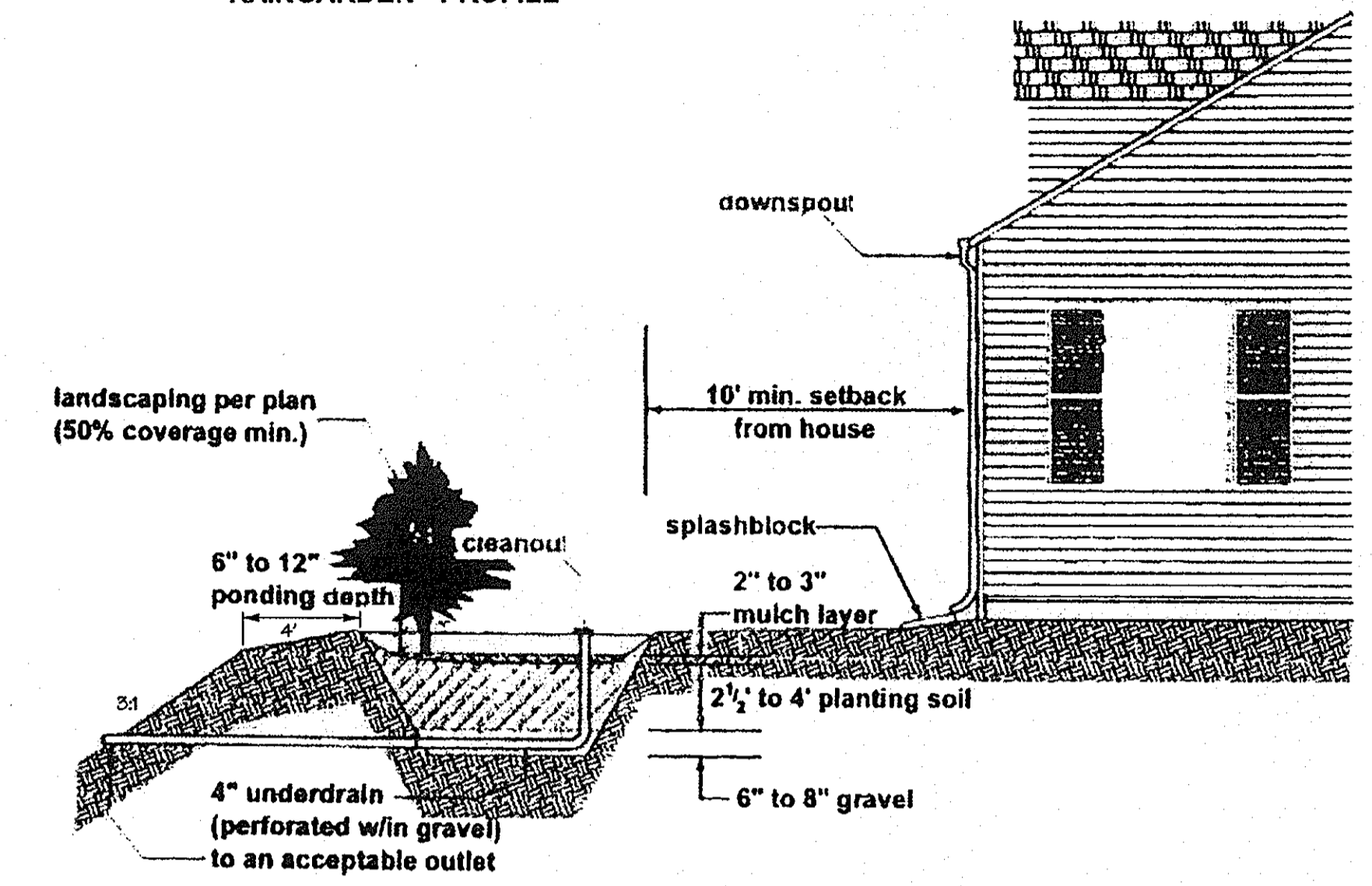
4. Plant Material
Recommended plant material for raingarden areas can be found in Appendix A, Section A.2.3.

5. Plant Installation
Mulch should be placed to a uniform thickness of two to three-inches. Shredded hardwood mulch is the only accepted mulch. Pine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable. Shredded mulch must be well aged (6 to 12 months) for acceptance.
Root stock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8th of the ball is above final grade surface. The diameter of the planting pit shall be at least six-inches larger than the diameter of the planting ball.
Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.
Trees shall be braced using two-inch by two-inch stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.
Grasses and legume seed should be drilled into the soil to a depth of at least one-inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.
The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the raingarden structure is to improve water quality. Adding fertilizers defeats, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch are used to amend the soil. Rototill urea fertilizer at a rate of two pounds per 1,000 square feet.

6. Underdrains
Underdrains are to be placed on a 3'-0" wide section of filter cloth. Pipe is placed next, followed by the gravel bedding. The ends of underdrain pipes not terminating in an observation well shall be capped.
The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5 percent. Observation wells and/or clean-out pipes must be provided (one minimum per every 1,000 square feet of surface area).

7. Miscellaneous
The raingarden facility may not be constructed until all contributing drainage area has been stabilized.

RAINGARDEN - PROFILE



NOTE: SEE RAINGARDEN TABLE ON SHEET 3 FOR SURFACE AREA AND APPROPRIATE ELEVATIONS FOR EACH RAINGARDEN.

Raingarden - Profile

Not To Scale

Table B.3.2 Materials Specifications for Raingarden

Material	Specification	Size	Notes
plantings	see sheet 11	n/a	see sheet 11
planting soil (2.5' to 4' deep)	sand 35-60% silt 30-55% clay 0-12%	n/a	USDA soil types loamy sand, sandy loam or loam
mulch	shredded hardwood	n/a	aged 6 months, minimum
geotextile	Class 'C' - apparent opening size (ASTM-D-4751) grab tensile strength (ASTM-D-4632) puncture resistance (ASTM-D-4833)	n/a	for use beneath underdrains ONLY
underdrain gravel	AASHTO M-43 #57 or #67	0.375" to 0.75"	
underdrain piping	F 750, Type PS 2B or AASHTO M-27B	4" to 6" rigid sched. 40 PVC or SPR35 or HDPE	3/4" perf. @ 6" on center, 4 holes per row minimum of 3" gravel over pipes, gravel not necessary beneath pipes

Rain Garden

	IMPERVIOUS S.F.	SURFACE AREA REQUIRED S.F.	SURFACE AREA PROVIDED	BOTTOM ELEV.	TOP ELEV.	BOTTOM DIMENSION	SIDE SLOPES
1	885	46	48	439.75	436.25	4.0' x 12.0'	4:1
2	832	44	49	423.0	424.0	4.0' x 11.0'	4:1
3	832	44	50	423.0	424.0	4.0' x 11.0'	4:1
4	885	48	49	430.0	431.0	4.0' x 12.0'	4:1
5	885	48	49	424.0	425.0	4.0' x 12.0'	4:1
6	1000	52	50.4	429.0	430.0	4.0' x 13.0'	4:1
7	885	48	50	428.8	429.8	4.0' x 12.0'	4:1
8	885	48	49	424.0	425.0	4.0' x 12.0'	4:1
9	1000	52	50	424.0	425.0	4.0' x 13.0'	4:1
10	832	44	50	424.0	425.0	4.0' x 11.0'	4:1
11	832	44	50	424.0	425.0	4.0' x 11.0'	4:1

OPERATION AND MAINTENANCE SCHEDULE FOR RAINGARDEN AREAS (F-6)

- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH-OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING.
- SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING & FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES & WIKES.
- MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2-3 YEARS.
- SOIL EROSION TO BE ADDRESSED ON AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

OWNER'S CERTIFICATION:
"I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
Signature of Developer: *Chris St. Peter*
Date: 3-8-06

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS
U.S. NATURAL RESOURCE CONSERVATION SERVICE DATE: *3/8/06*
THE DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Signature: *Jeffrey L. Schwab*
Date: 3/8/06

ENGINEER'S CERTIFICATION:
"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
Signature: *Jeffrey L. Schwab*
Date: 3/8/06

3/8/06
Date
Professional Engr. No. 14230

APPROVED:
Signature: *William J. ...* DATE: 4/10/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION A.S.
Signature: *...* DATE: 4/24/06
CHIEF, DIVISION OF LAND DEVELOPMENT CAH
Signature: *...* DATE: 4/26/06
DIRECTOR

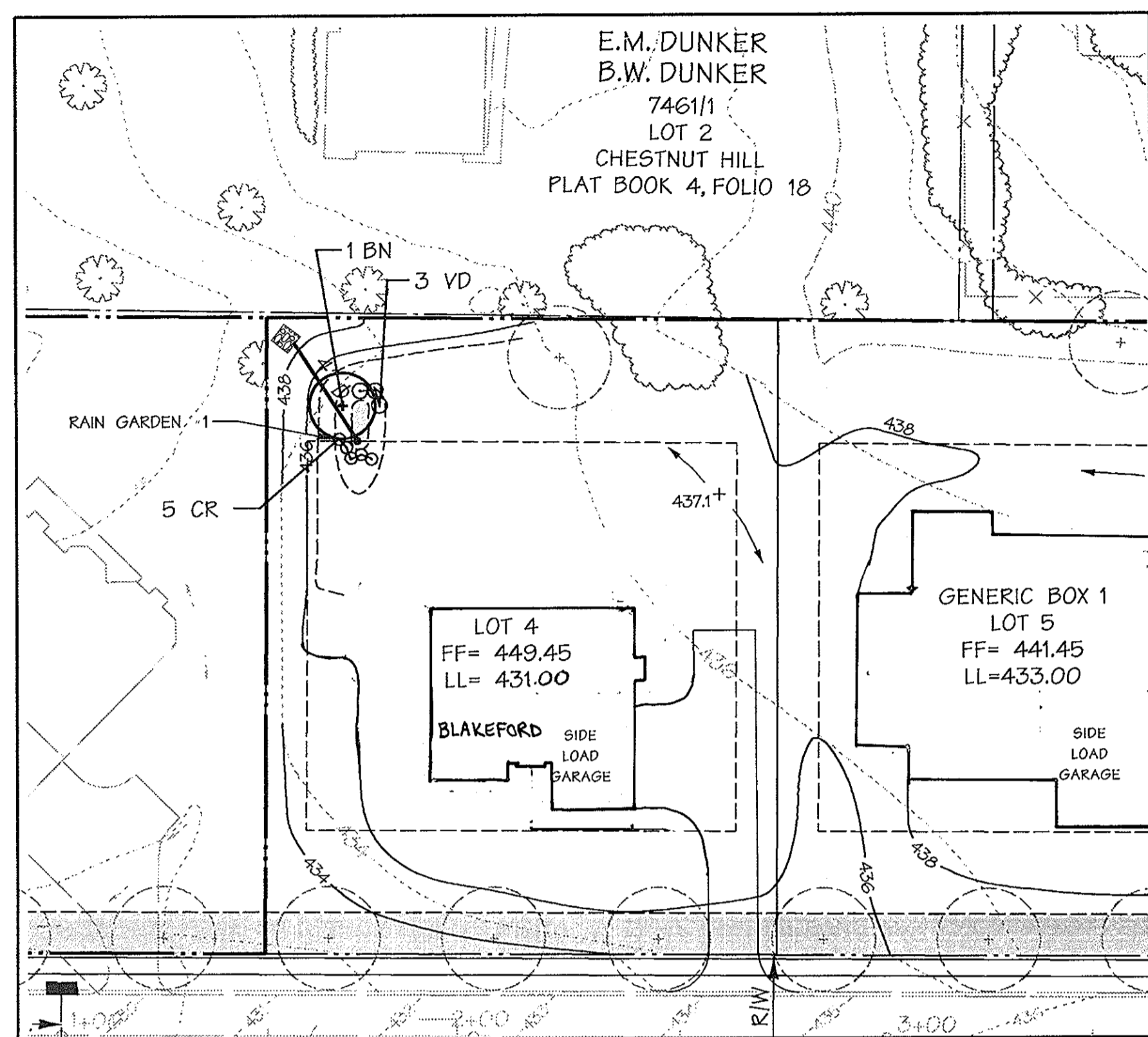
Date	No.	Revision Description
7-17-07	3	Revise Owner

CHESTNUT CREST
LOTS 4 THRU 12
AND OPEN SPACE LOT 15

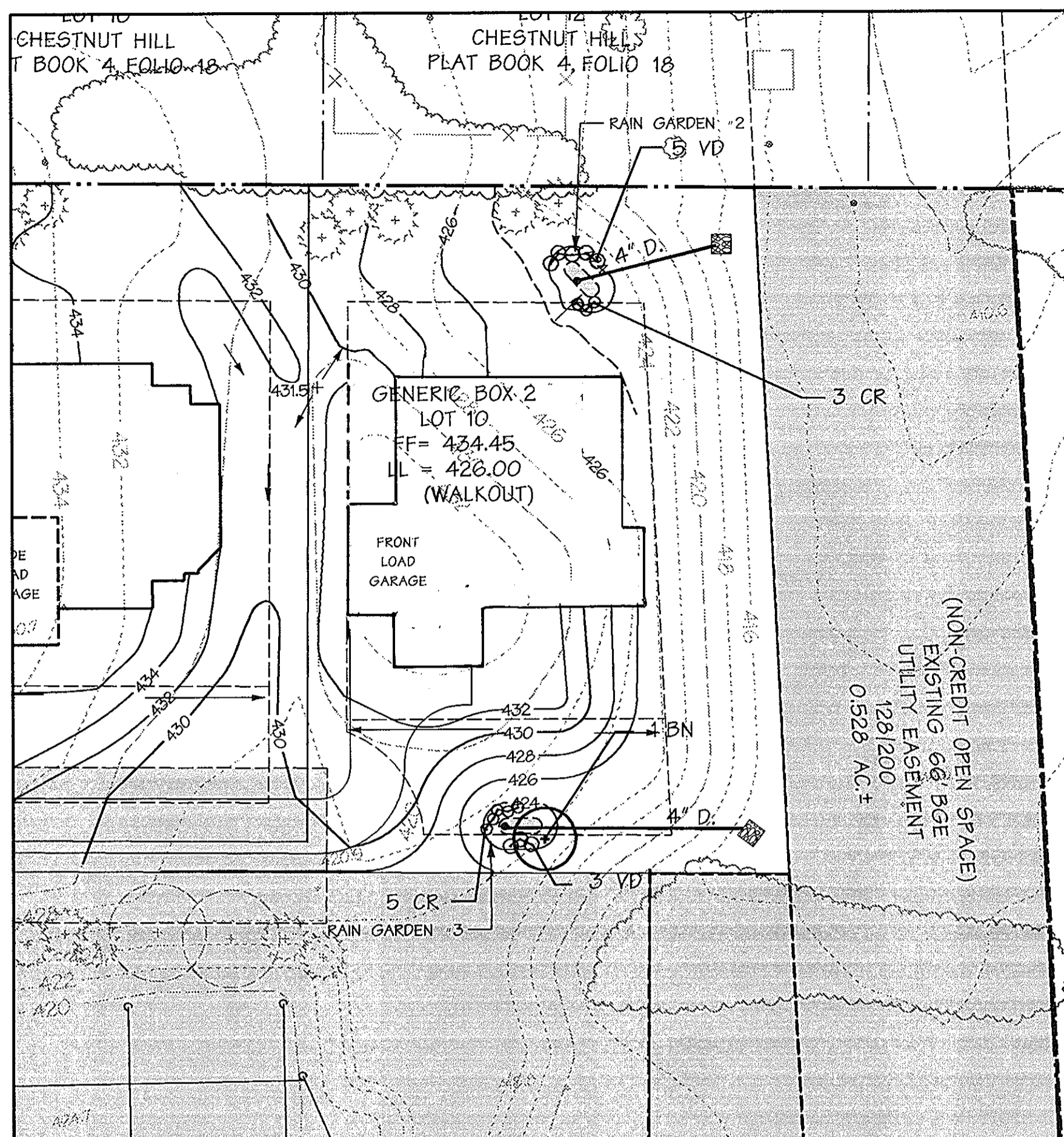
OWNER/DEVELOPER: Grayson Homes Inc.
2925 Chestnut Drive
Ellicott City MD 21042

DMW
Duff-McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4705
A Team of Land Planners, Landscape Architects, Golf Course Architects, Engineers, Surveyors & Environmental Professionals

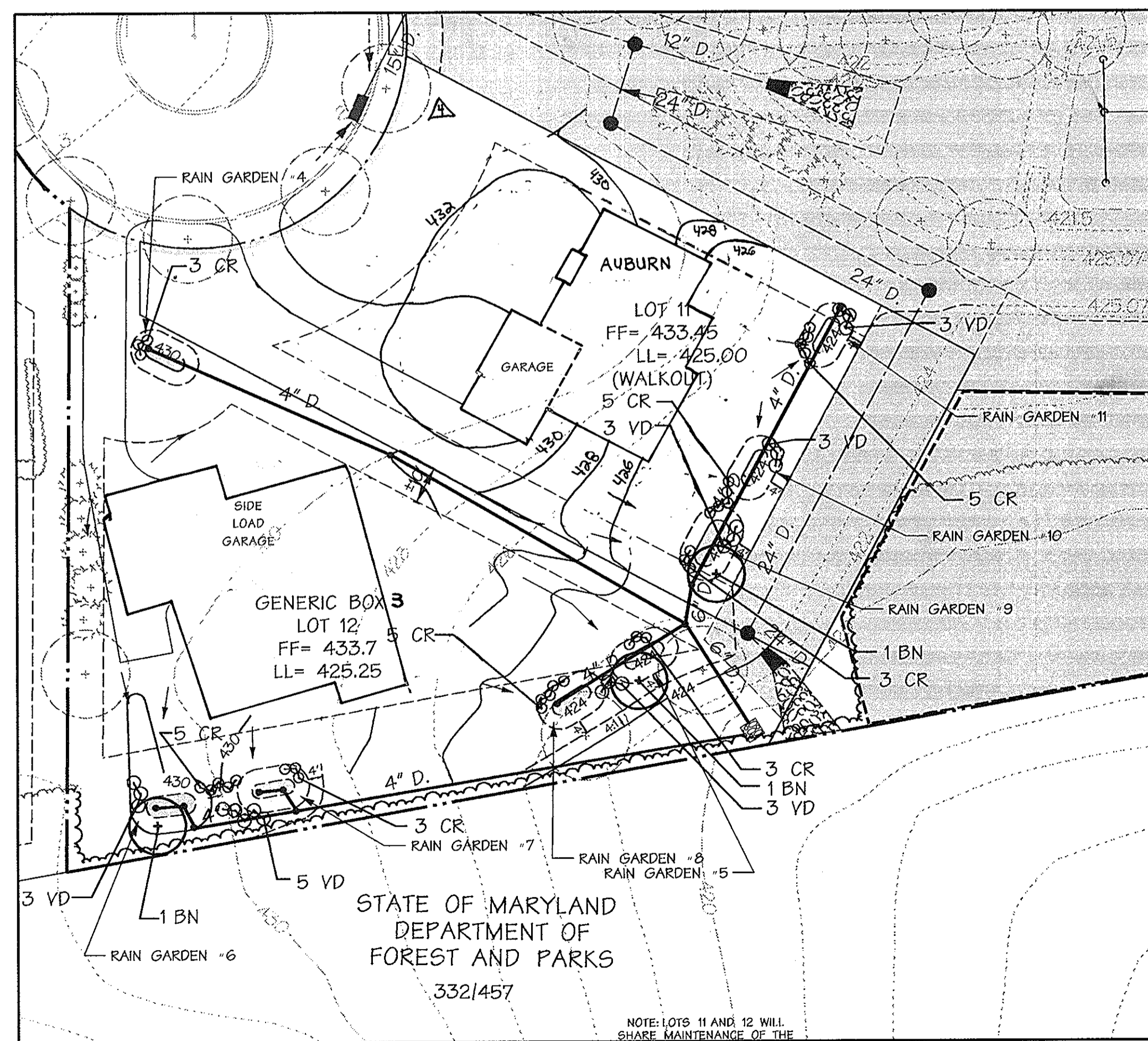
TITLE: SEDIMENT & EROSION CONTROL AND STORM WATER MANAGEMENT DETAILS
Des. By: CW Scale: AS NOTED Proj. No.: 00091.F
Dm. By: CH Date: 03-12-04
Chk. By: Approved 10 of 11



LOT 4
RAIN GARDEN #1



LOT 10
RAIN GARDENS #2 & #3



LOTS 11 & 12
RAIN GARDENS #4 - #11

WATER QUALITY PLANT LIST

QTY	SYM	BOTANICAL NAME/ COMMON NAME	SIZE	REMARKS
5	BN	BETULA NIGRA River Birch	6'-8' HT.	B & B
45	CR	CORNUS RACEMOSA Gray Dogwood	2' HT.	B & B
31	VD	VIBURNUM DENTATUM Nannyberry Viburnum	2' HT.	B & B

NOTE: BUILDER TO PROVIDE POSITIVE FLOW TO ALL RAIN GARDENS VIA A DOWNSLOPE OR SWALE.

NOTE

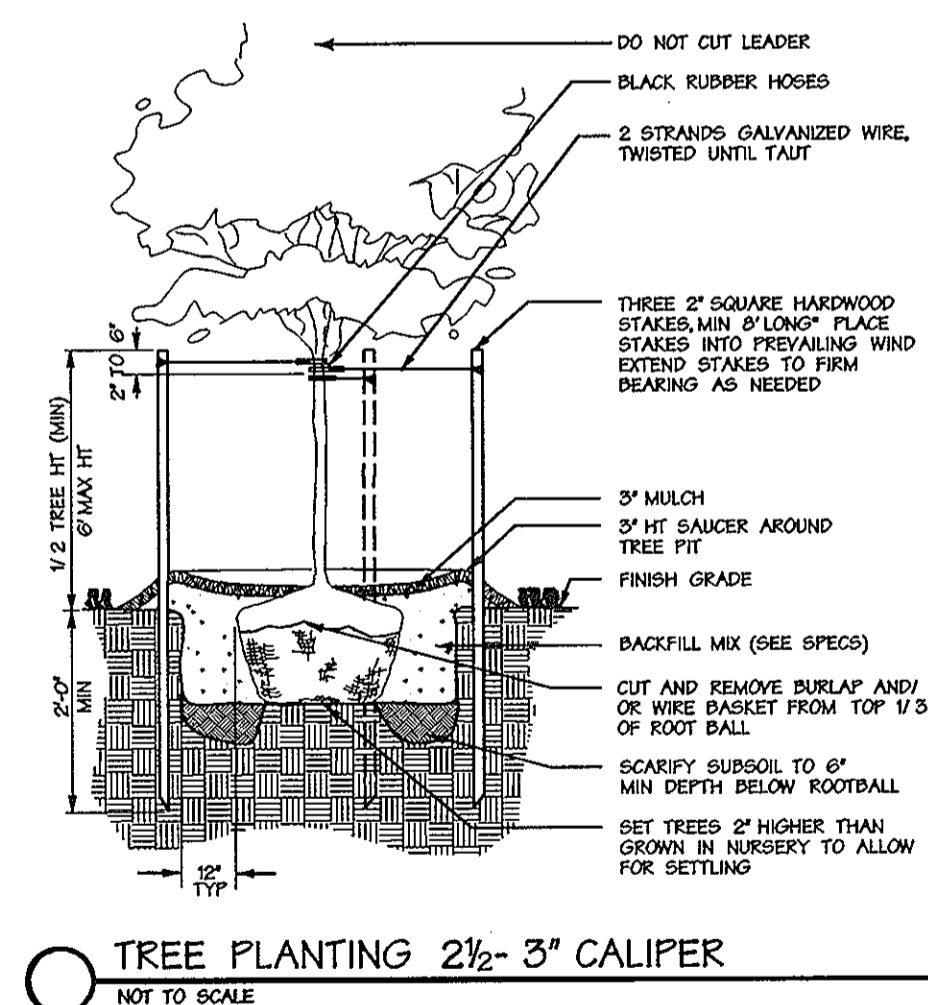
THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 10-24 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL FINANCIAL SURVEY FOR THE REQUIRED 5 TREES AND 70 SHRUBS IN THE AMOUNT OF \$5,750.00 IS PART OF THE DEVELOPER'S AGREEMENT.

LEGEND

EX. CURB & GUTTER	---
EX. MAJOR CONTOURS	--- 400 ---
EX. MINOR CONTOURS	--- 402 ---
EX. SEWER	--- 3" S ---
EX. WATER	--- 3" W ---
EX. TREE	(Tree symbol)
EX. WOODS	(Woods symbol)
PROPERTY BOUNDARY LINE	---
BUILDING SETBACK	---
PROPOSED MINOR CONTOUR	--- 402 ---
PROPOSED MAJOR CONTOUR	--- 400 ---
LIMIT OF DISTURBANCE	--- 11' ---
PROPOSED SHADE TREE	(Shade tree symbol)
PROPOSED ORNAMENTAL TREE	(Ornamental tree symbol)
PROPOSED EVERGREEN TREE	(Evergreen tree symbol)
PROPOSED TREE LINE	---

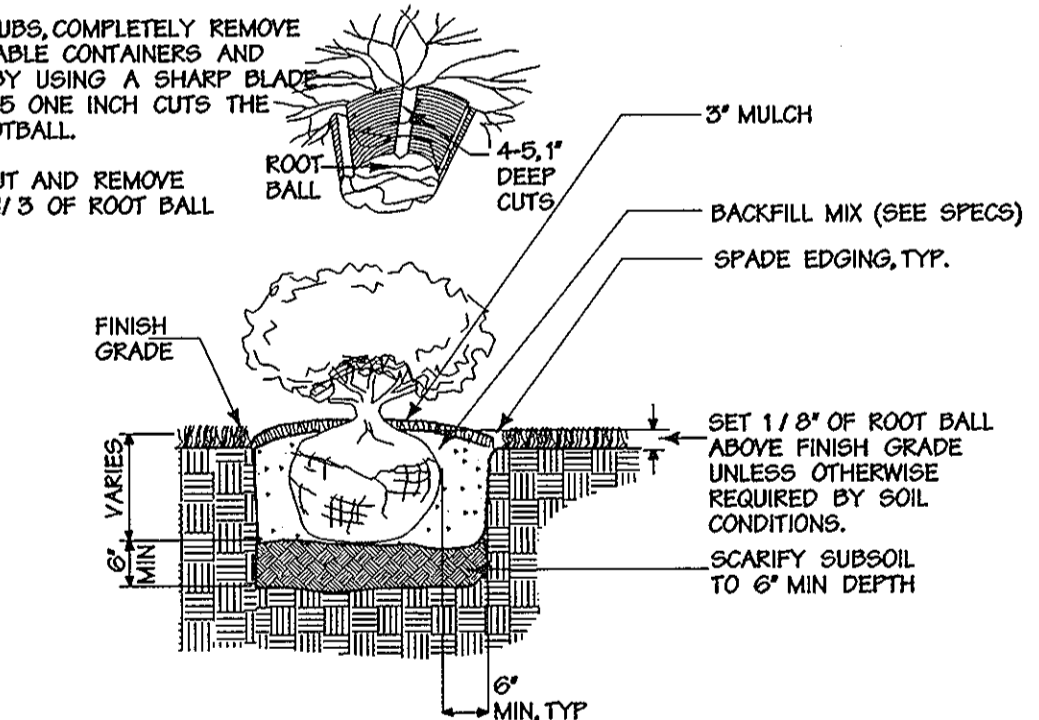
DATA SOURCES:

- EXISTING TOPO INFORMATION SHOWN IS FROM AERIAL TOPOGRAPHY, PLANNED BY SOL LLC DATED JANUARY 13, 2001.
- BOUNDARY LINES SHOWN FROM DMW SURVEY DATED MARCH 2001.
- BOUNDARY WEST OF CHESTNUT HILL DRIVE ARE PROVIDED BY HOWARD COUNTY GIS DATED 2000.



NOTES:

- FOR CONTAINER SHRUBS, COMPLETELY REMOVE ALL NON-Biodegradable CONTAINERS AND SCARIFY ROOTBALL BY USING A SHARP BLADE AND MAKING 4 TO 5 ONE INCH CUTS THE LENGTH OF THE ROOTBALL.
- FOR B&B SHRUBS, CUT AND REMOVE BURLAP FROM TOP 1/3 OF ROOT BALL.



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION *[Signature]* 4/10/06 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT *[Signature]* 4/10/06 DATE

DIRECTOR *[Signature]* 4/26/06 DATE

1/30/07	4	Rev Grading, Lot 11
7-17-07		Revise Inset Plans / Owner
Date	No.	Revision Description

CHESTNUT CREST
LOTS 4 THRU 12
AND OPEN SPACE LOT 15

OWNER/DEVELOPER: Grayson Homes, Inc.
3925 Chevrolet Drive
Ellicott City, MD 21034

DMW
Dan McCune-Walkers, Inc.
300 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-5333
Fax: 296-4705

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

[Signature]
Date

STATE OF MARYLAND
DEPARTMENT OF PLANNING & ZONING

Landscape Architect *[Signature]*

TITLE RAIN GARDEN LANDSCAPE PLAN		
Des. By	RLH	Scale 1"=30'
Drn. By	CRH	Date 03-12-04
Chk. By	Approved	Proj. No. 00091F
		11 of 11