

**SITE ANALYSIS DATA CHART**

- SUBJECT PROPERTY IS ZONED: MXD-3 (PER THE COMPREHENSIVE PLAN 2/2/2004 AND ZB CASE NO. 974-11).
- UNIT TYPE PROPOSED: SINGLE FAMILY ATTACHED
- NUMBER OF LOTS PROPOSED: 47
  - NUMBER OF OPEN SPACE LOTS: 2
  - NUMBER OF TOWNHOUSE LOTS: 45
- NUMBER OF PARKING SPACES REQUIRED: 104 (2 PARKING SPACES ARE REQUIRED PER UNIT PER THE EMERSON DEVELOPMENT CRITERIA AND 0.3 PARKING SPACES ARE REQUIRED PER UNIT FOR OVERFLOW/VISITORS PER THE DESIGN MANUAL).
- NUMBER OF PARKING SPACES PROVIDED: 126 SPACES(36 COMMON ON-STREET SPACES AND AT LEAST 90 SPACES ON LOTS)
- AREA TABULATION:
  - TOTAL AREA OF PARCEL: 4.835 ACRES
  - TOTAL LOT AREA: 2.396 ACRES
  - TOTAL OPEN SPACE AREA: 1.5665 ACRES
  - TOTAL AREA OF ROADWAY TO BE RECORDED: 0.873 ACRES
  - LIMIT OF DISTURBED AREA: 3.07 ACRES

**GENERAL NOTES**

- TOPOGRAPHY SHOWN HAS A 2' CONTOUR INTERVAL AND WAS OBTAINED FROM FIELD RUN AND AERIAL TOPO PROVIDED BY Christopher consultants, Ltd, DECEMBER 2005.
- APPLICABLE DPZ FILE REFERENCES: S 99-12, F 02-178, PB-334, ZB-974-11, F-04-68, F-01-145, F-02-55, PB-354, P 05-15, F 06-25, WP 04-13, F 06-142, F 06-143.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 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.
- UTILITIES SHOWN AS EXISTING ARE TAKEN FROM WATER AND SEWER PLANS CONTRACT #24-4322-D, CONTRACT #24-4318-D, ROAD CONSTRUCTION PLANS F 06-142, AND ACTUAL FIELD SURVEY.
- FOR DRIVEWAY ENTRANCE DETAILS, REFER TO HO.CO. DESIGN MANUAL VOLUME IV, DETAILS R.6.03 & R.6.05.
- ANY DAMAGE TO COUNTY OWNED RIGHTS-OF-WAY SHALL BE CORRECTED AT OWNER'S EXPENSE.
- WATER MANAGEMENT IS PROVIDED PER: F 02-178 & F 01-145.
- SHC ELEVATIONS SHOWN ARE AT THE PROPERTY LINES.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MD PLAN COORDINATE SYSTEM: HOWARD COUNTY MONUMENTS 47DA,47G & 47EA.
- PUBLIC WATER & SEWER IS TO BE UTILIZED. (CONTRACT NO.24-4318-D)
- IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS. OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- SFA SETBACKS IN ACCORDANCE WITH THE APPROVED EMERSON DEVELOPMENT CRITERIA PER PB-334.
  - FRONT: 5' FROM SIDE LINE OR PROPERTY LINE TO THE HOUSE OR GARAGE
  - REAR: 15' FROM THE REAR PROPERTY LINE
  - SIDE: 5' TO THE PROPERTY LINE FOR END UNITS

MINIMUM DISTANCE BETWEEN SFA BUILDINGS:

  - FRONT TO FRONT: 30'
  - BACK TO BACK: 50'
  - FRONT TO BACK: 50'
  - ALL OTHER CONDITIONS: 15'
  - FROM THE EDGE OF PARKING LOT SPACES: 15'
- SOME ROADS WITHIN THE DEVELOPMENT ARE PRIVATE.
- THERE ARE NO 100 YR. FLOODPLAINS WITHIN THIS PROPERTY BOUNDARY.
- TRAFFIC STUDY WAS SUBMITTED AND APPROVED AS PART OF THE SKETCH PLAN 5 99-12, FEBRUARY, 2000.
- A NOISE STUDY BY CENTURY ENGINEERING WAS SUBMITTED AND APPROVED FOR THE AREA COVERED BY THIS PLAN UNDER 5 99-12, MARCH, 1999.
- FOREST CONSERVATION OBLIGATIONS AND OPEN SPACE REQUIREMENTS FOR THIS PHASE OF EMERSON MXD PROJECT WERE ADDRESSED UNDER F-04-68.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE, THE LANDSCAPE MANUAL AND THE EMERSON LANDSCAPE DESIGN CRITERIA. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING IN THE AMOUNT OF \$47,850.00 MUST BE POSTED AS PART OF THE BUILDER'S GRADING PERMIT APPLICATION (18" SHADE TREES, 14 EVERGREEN TREES AND 120 SHRUBS).
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THIER BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YR FLOODPLAIN.
- DRIVEWAYS SHALL BE PROVIDED TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
  - WIDTH - 12'(14' SERVING MORE THAN ONE RESIDENCE)
  - SURFACE - 6" OF COMPACTED CRUSHER RUN BASE W/TAR AND CHIP COATING (1-1/2" MIN);
  - GEOMETRY - MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45' TURNING RADIUS;
  - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS(425 LOADINGS);
  - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
  - MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
- THE SDP IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PER COUNCIL BILL NO. 45-2003 AND THE AMENDED ZONING REGULATIONS PER COUNCIL BILL NO. 75-2003. DEVELOPMENT OR CONSTRUCTION ON THIS PROPERTY MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION, APPLICATION OR BUILDING/GRADING PERMIT APPLICATIONS.
- TRASH SERVICE WILL BE PROVIDED AT THE PUBLIC RIGHT OF WAY FOR LOTS 45-89. MAIL WILL BE PROVIDED IN A CENTRAL KIOSK SERVICE.
- EMERSON SECTION 2 PHASE 6A WAS ALLOCATED 100 UNITS WITH THE RECORDATION OF PLAT NO. 16427. WITHIN THE RESUBDIVISION OF EMERSON SECTION 2 PHASE 3, PLAT NO. 17381, BULK PARCEL A RECEIVED 30 ADDITIONAL UNIT ALLOCATIONS. THIS RESUBDIVISION PLAT HEREBY RESERVES 45 TENTATIVE UNIT ALLOCATIONS FOR PARCEL A AND 4 TENTATIVE UNIT ALLOCATIONS FOR PARCEL B. THE REMAINING 44 UNITS ARE HEREBY SHIFTED TO EMERSON SECTION 2 PHASE 7, PARCEL A, F-05-93.
- THE MINIMUM BUILDING SETBACK RESTRICTIONS FROM PROPERTY LINES AND PUBLIC ROAD RIGHT OF WAY LINES FOR ALL SFA LOTS SHALL BE IN ACCORDANCE WITH THE COMPREHENSIVE SKETCH PLAN DEVELOPMENT CRITERIA APPROVED UNDER 5-99-12, PB-334 AND PB-354.
- THIS DEVELOPMENT WILL NOT INCLUDE ANY MODERATE INCOME HOUSING UNITS.
- FOR LOTS 79-84, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED AT THE JUNCTION OF MOSSY BARK LANE AND THE ROAD RIGHT-OF-WAY LINE AND NOT ON SILKEN LEAF COURT.

**NOTE:**

THIS PLAN IS FOR HOUSE SITING AND LOT GRADING ONLY. IMPROVEMENTS SHOWN WITHIN THE PRIVATE HOA AREAS ON THE S.D.P. ARE NOT TO BE USED FOR CONSTRUCTION. FOR CONSTRUCTION, SEE ROAD CONSTRUCTION PLANS F 06-142 AND/OR WATER AND SEWER PLANS CONTRACT # 14-4318-D.

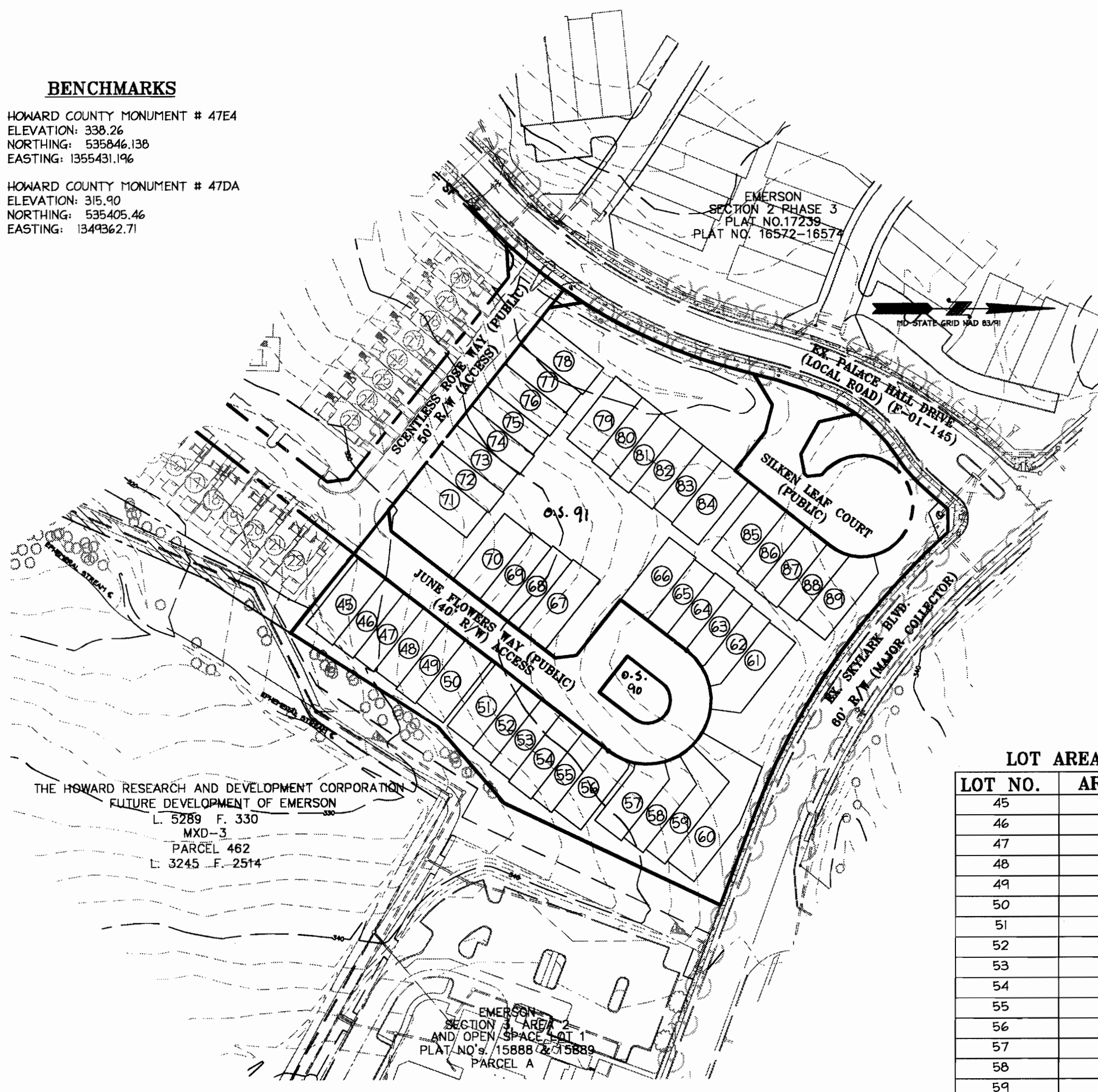
**LEGEND**

- PROPOSED BUILDING
- EXISTING BUILDING
- EXISTING SIDEWALK
- EXISTING CURB & GUTTER
- EXISTING STORM DRAIN
- EXISTING WATER
- EXISTING SEWER
- EXISTING SEWER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING WATER TEE
- EXISTING WATER VALVE
- CURB INLET PROTECTION (CIP)
- STANDARD INLET PROTECTION (SIP)
- EXISTING CONTOURS
- PROPOSED CONTOUR
- PROPOSED LOT LINE
- PROPERTY LINE
- EXISTING TREELINE
- WETLAND
- WETLAND BUFFER
- SUPER SILT FENCE
- SILT FENCE
- LIMIT OF DISTURBANCE
- STABILIZE CONSTRUCTION ENTRANCE
- EARTH DIKE
- STONE OUTLET STRUCTURE

**BENCHMARKS**

HOWARD COUNTY MONUMENT # 47EA  
ELEVATION: 338.26  
NORTHING: 539446.136  
EASTING: 1355431.196

HOWARD COUNTY MONUMENT # 47DA  
ELEVATION: 315.90  
NORTHING: 535405.46  
EASTING: 1349362.71



**OVERALL EX. PROPERTY**

SCALE: 1"=100'

**SHEET INDEX**

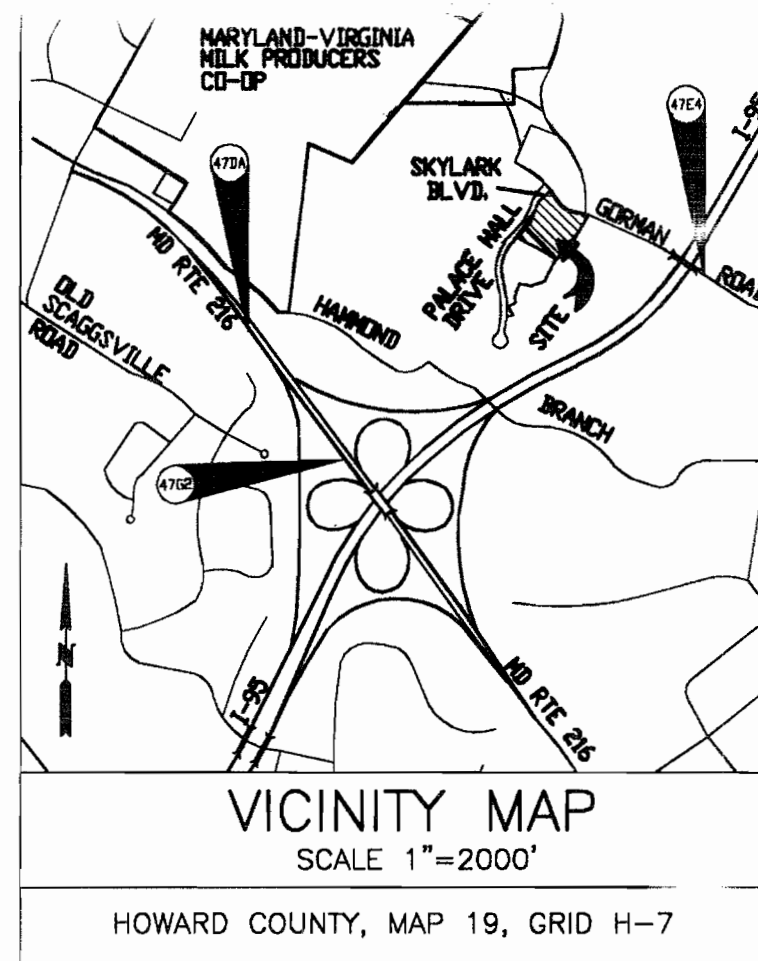
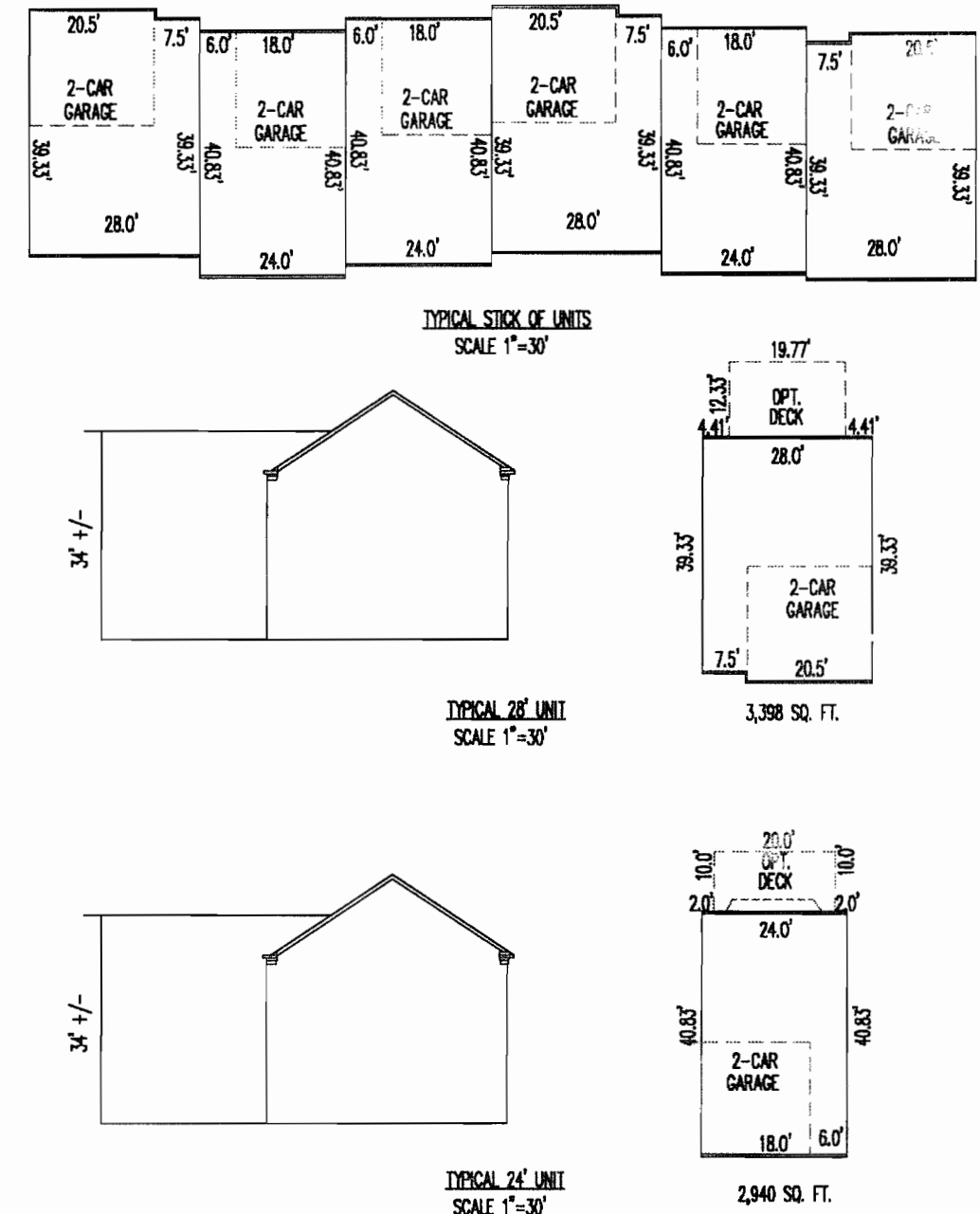
NO.	TITLE
1	COVER SHEET
2	SITE DEVELOPMENT PLAN
3	EROSION & SEDIMENT CONTROL PLAN
4	EROSION AND SEDIMENT CONTROL NOTES & DETAILS
5	LANDSCAPE PLAN
6	LANDSCAPE PLAN DETAILS

**LOT AREA TABLE**

LOT NO.	AREA (S.F.)
45	2,786
46	1,968
47	1,920
48	2,184
49	1,920
50	2,587
51	2,587
52	1,920
53	1,968
54	2,352
55	1,968
56	2,626
57	2,646
58	2,354
59	3,064
60	4,951
61	3,236
62	1,994
63	1,853
64	1,872
65	1,824
66	2,587
67	2,919
68	2,064
69	2,016
70	2,720
71	2,554
72	1,896
73	1,843
74	1,896
75	1,848
76	2,212
77	1,848
78	1,848
79	2,587
80	1,920
81	1,968
82	2,240
83	1,872
84	2,654
85	2,521
86	1,872
87	2,240
88	1,904
89	2,926

**ADDRESS CHART**

LOT NO.	ADDRESS
45	9758 JUNE FLOWERS WAY
46	9760 JUNE FLOWERS WAY
47	9762 JUNE FLOWERS WAY
48	9764 JUNE FLOWERS WAY
49	9766 JUNE FLOWERS WAY
50	9768 JUNE FLOWERS WAY
51	9772 JUNE FLOWERS WAY
52	9774 JUNE FLOWERS WAY
53	9776 JUNE FLOWERS WAY
54	9778 JUNE FLOWERS WAY
55	9780 JUNE FLOWERS WAY
56	9782 JUNE FLOWERS WAY
57	9786 JUNE FLOWERS WAY
58	9788 JUNE FLOWERS WAY
59	9790 JUNE FLOWERS WAY
60	9792 JUNE FLOWERS WAY
61	9800 JUNE FLOWERS WAY
62	9802 JUNE FLOWERS WAY
63	9804 JUNE FLOWERS WAY
64	9806 JUNE FLOWERS WAY
65	9808 JUNE FLOWERS WAY
66	9810 JUNE FLOWERS WAY
67	9771 JUNE FLOWERS WAY
68	9769 JUNE FLOWERS WAY
69	9767 JUNE FLOWERS WAY
70	9765 JUNE FLOWERS WAY
71	9717 SCENTLESS ROSE WAY
72	9715 SCENTLESS ROSE WAY
73	9713 SCENTLESS ROSE WAY
74	9711 SCENTLESS ROSE WAY
75	9709 SCENTLESS ROSE WAY
76	9707 SCENTLESS ROSE WAY
77	9705 SCENTLESS ROSE WAY
78	9703 SCENTLESS ROSE WAY
79	9711 MOSSY BARK LANE
80	9709 MOSSY BARK LANE
81	9707 MOSSY BARK LANE
82	9705 MOSSY BARK LANE
83	9703 MOSSY BARK LANE
84	9701 MOSSY BARK LANE
85	9602 SILKEN LEAF COURT
86	9604 SILKEN LEAF COURT
87	9606 SILKEN LEAF COURT
88	9608 SILKEN LEAF COURT
89	9610 SILKEN LEAF COURT



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 1/9/07  
Chief, Division of Land Development Date

*[Signature]* 1/3/07  
Chief, Development Engineering Division Date

*[Signature]* 1/9/07  
Director, Department of Planning and Zoning Date

Date	No.	Revision Description

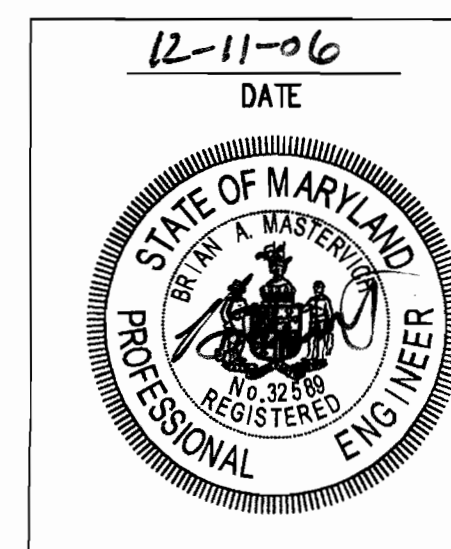
**EMERSON TOWNHOUSES**  
SECTION 2, PHASE 6A, LOTS 45 THRU 89 AND OPEN SPACE LOTS 90 AND 91

**OWNER / DEVELOPER**  
WILLIAMSBURG GROUP, LLC 5495 HARPER'S FARM ROAD  
COLUMBIA, MARYLAND 21044  
CONTACT: ROBERT CORBETT TEL. (410) 997-8800 FAX (410) 997-4358

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7172 columbia gateway drive (suite 100) - columbia, md 21046-2990  
410.872.8690 - metro 301.861.0146 - la 410.872.8693

**PERMIT INFORMATION CHART**

PROJECT NAME	LOT/PARCEL NO.	CENSUS TRACT	
EMERSON TOWNHOUSES	LOTS 45 THRU 89	606902	
PLAT NO.	GRID NO.	TAX MAP	ELECTION DISTRICT
18740-41	8 1 9	MXD-3-OR 47	6TH ELECTION DISTRICT
WATER CODE	SEWER CODE		
124-4318-D	124-4318-D		



**COVER SHEET**

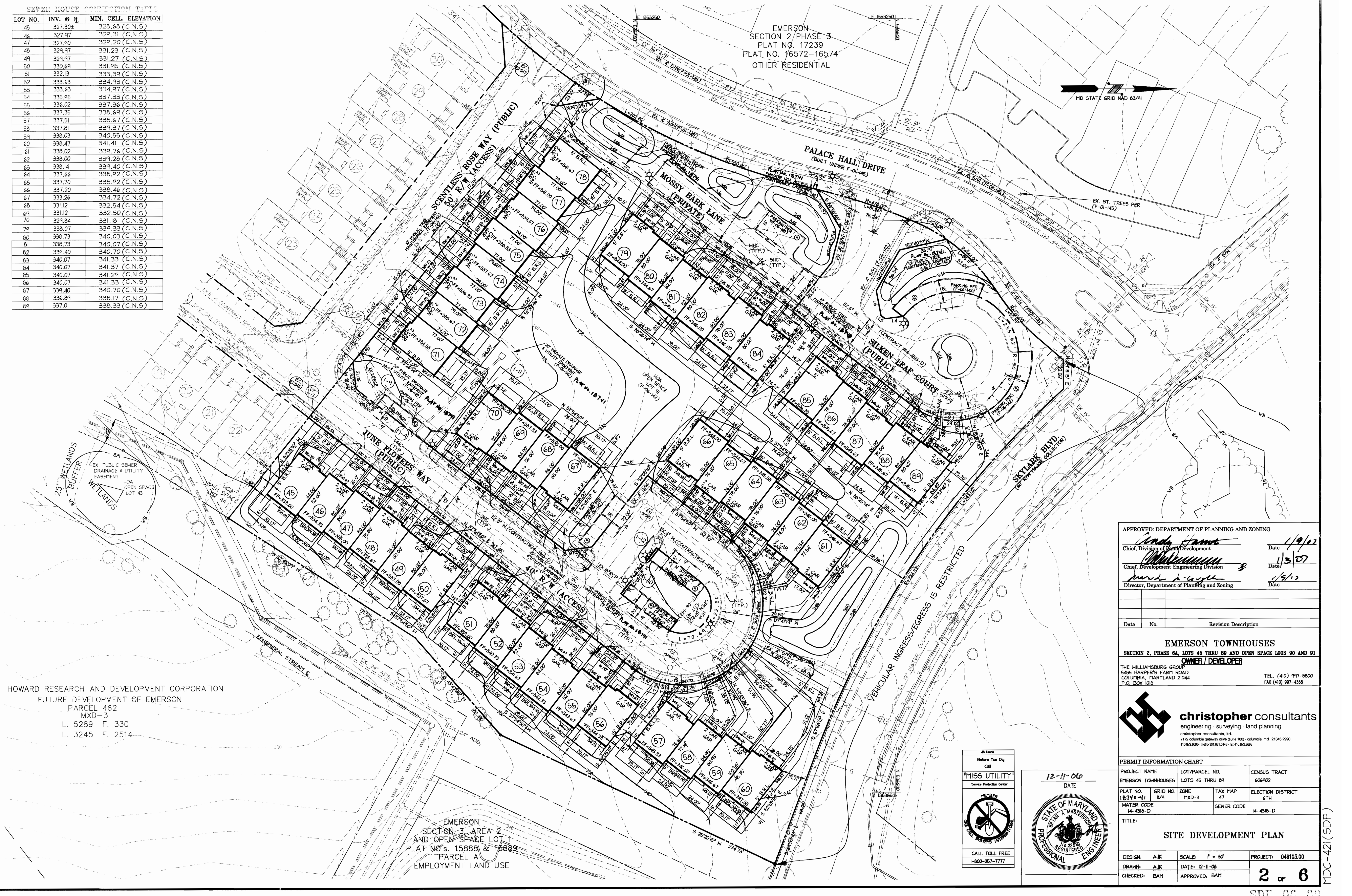
DESIGN:	SCALE:	PROJECT:
AJK	AS SHOWN	049103.00
DRAWN:	DATE:	
AJK	12-11-06	
CHECKED:	APPROVED:	
BAT1	BAT1	

**1 of 6**

SEWER HOUSE CONNECTION TABLE

LOT NO.	INV. @ P.	MIN. CELL ELEVATION
45	327.30±	328.68 (C.N.S)
46	327.97	329.31 (C.N.S)
47	327.90	329.20 (C.N.S)
48	329.97	331.23 (C.N.S)
49	329.97	331.27 (C.N.S)
50	330.64	331.95 (C.N.S)
51	332.13	333.39 (C.N.S)
52	333.63	334.93 (C.N.S)
53	333.63	334.97 (C.N.S)
54	335.95	337.33 (C.N.S)
55	336.02	337.36 (C.N.S)
56	337.35	338.69 (C.N.S)
57	337.51	338.67 (C.N.S)
58	337.81	339.37 (C.N.S)
59	338.03	340.55 (C.N.S)
60	338.47	341.41 (C.N.S)
61	338.02	339.76 (C.N.S)
62	338.00	339.28 (C.N.S)
63	338.14	339.40 (C.N.S)
64	337.66	338.92 (C.N.S)
65	337.70	338.92 (C.N.S)
66	337.20	338.46 (C.N.S)
67	333.26	334.72 (C.N.S)
68	331.12	332.54 (C.N.S)
69	331.12	332.50 (C.N.S)
70	329.84	331.18 (C.N.S)
79	338.07	339.33 (C.N.S)
80	338.73	340.03 (C.N.S)
81	338.73	340.07 (C.N.S)
82	339.40	340.70 (C.N.S)
83	340.07	341.33 (C.N.S)
84	340.07	341.37 (C.N.S)
85	340.07	341.29 (C.N.S)
86	340.07	341.33 (C.N.S)
87	339.40	340.70 (C.N.S)
88	336.89	338.17 (C.N.S)
89	337.01	338.33 (C.N.S)

EMERSON  
SECTION 2/PHASE 3  
PLAT NO. 17239  
PLAT NO. 16572-16574  
OTHER RESIDENTIAL



HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
FUTURE DEVELOPMENT OF EMERSON  
PARCEL 462  
MXD-3  
L. 5289 F. 330  
L. 3245 F. 2514

EMERSON  
SECTION 3 AREA 2  
AND OPEN SPACE LOT 1  
PLAT NO'S. 15888 & 15889  
PARCEL A  
EMPLOYMENT LAND USE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

<i>[Signature]</i> Chief, Division of Urban Development	Date 1/9/07
<i>[Signature]</i> Chief, Development Engineering Division	Date 1/3/07
<i>[Signature]</i> Director, Department of Planning and Zoning	Date 1/9/07

Date	No.	Revision Description
<b>EMERSON TOWNHOUSES</b>		
SECTION 2, PHASE 0A, LOTS 45 THRU 89 AND OPEN SPACE LOTS 90 AND 91		
<b>OWNER / DEVELOPER</b>		
THE WILLIAMSBURG GROUP 5485 HARRIS FARM ROAD COLUMBIA, MARYLAND 21044 P.O. BOX 1018		TEL. (410) 997-8600 FAX (410) 997-4358

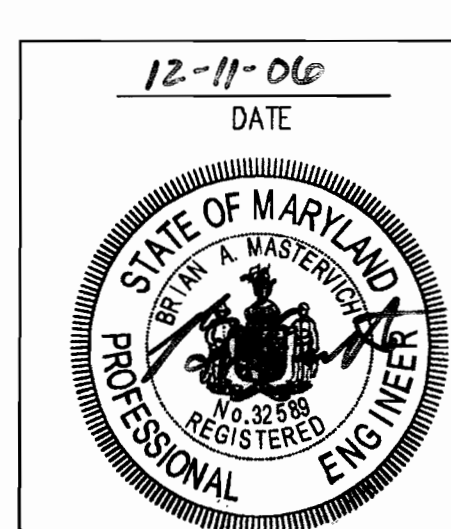
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410.872.8800 · metro 301.981.0148 · fax 410.872.8833

PERMIT INFORMATION CHART

PROJECT NAME EMERSON TOWNHOUSES	LOT/PARCEL NO. LOTS 45 THRU 89	CENSUS TRACT 606902
PLAT NO. 18740-41	GRID NO. ZONE B/9	TAX MAP MXD-3
WATER CODE 14-4318-D	ELECTION DISTRICT 47	SEWER CODE 14-4318-D

TITLE: **SITE DEVELOPMENT PLAN**

DESIGN: AJK	SCALE: 1" = 30'	PROJECT: 049103.00
DRAWN: AJK	DATE: 12-11-06	<b>2 OF 6</b>
CHECKED: BAM	APPROVED: BAM	



MDC-421 (SDP)

**DEVELOPER'S CERTIFICATE**

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 of Developer \_\_\_\_\_ Date \_\_\_\_\_  
 Print name below signature \_\_\_\_\_

**ENGINEER'S CERTIFICATE**

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 of Engineer *Brian A. Mastervich* Date **12-11-06**

BRIAN A. MASTERVICH, P.E.  
 Print name below signature \_\_\_\_\_

**REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.**

Signature *Jim Meyer* Date **12/28/06**  
 USDA-Natural Resources Conservation Service

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.  
 Signature *John M. ...* Date **12/28/06**  
 Howard SCD

EMERSON  
 SECTION 2/PHASE 3  
 PLAT NO. 17239  
 PLAT NO. 16572-16574  
 OTHER RESIDENTIAL



HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
 FUTURE DEVELOPMENT OF EMERSON  
 PARCEL 462  
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 L. 5289 F. 330  
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EMERSON  
 SECTION 3, AREA 2  
 AND OPEN SPACE LOT  
 PLAT NO'S 15888 & 15889  
 PARCEL A  
 EMPLOYMENT LAND USE

APPROVED: DEPARTMENT OF PLANNING AND ZONING	
<i>Chris Harris</i>	1/9/07
Chief, Division of Land Development	Date
<i>John ...</i>	1/3/07
Chief, Development Engineering Division	Date
<i>... ..</i>	1/9/07
Director, Department of Planning and Zoning	Date

Date	No.	Revision Description

**EMERSON TOWNHOUSES**  
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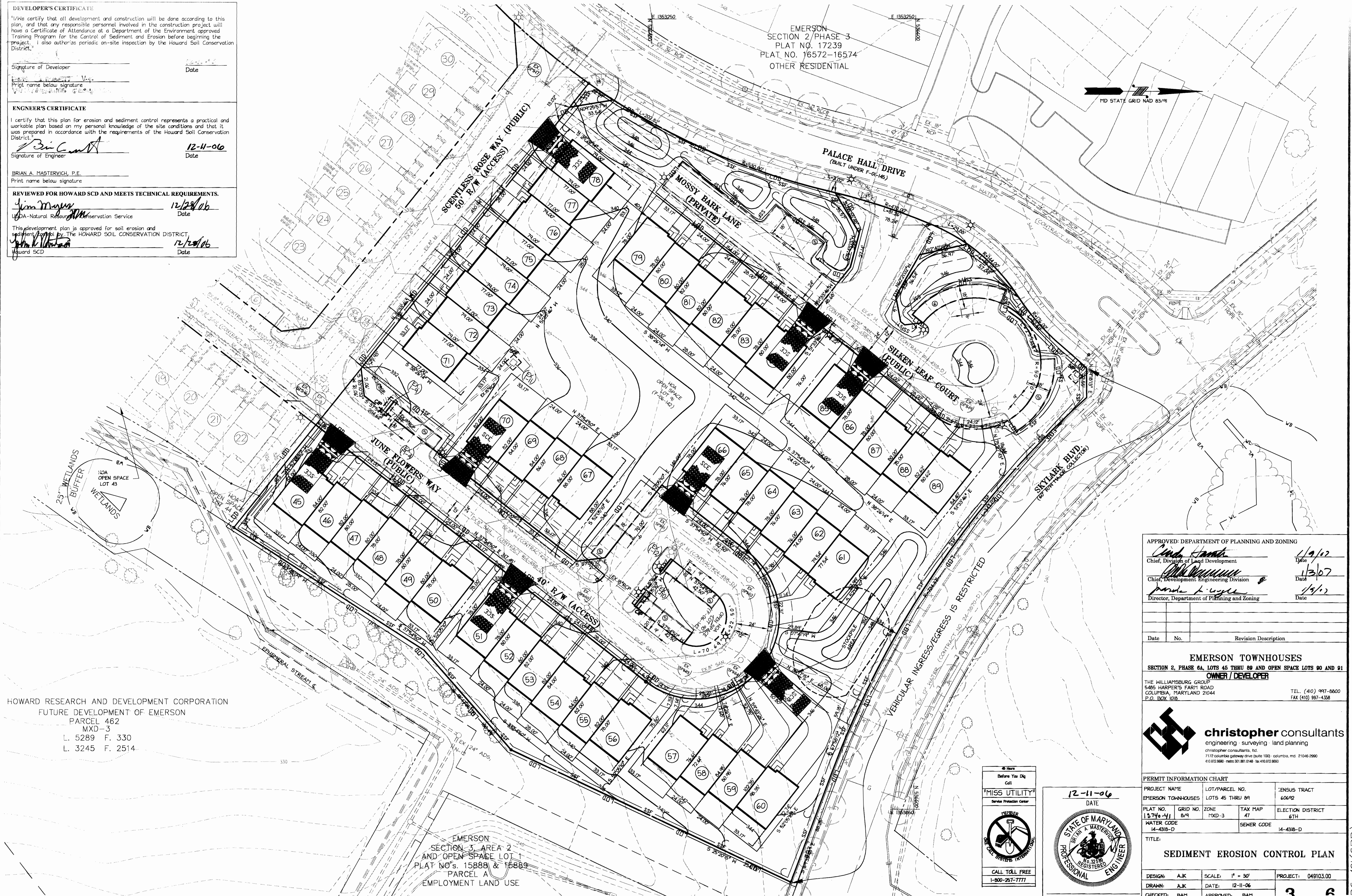


PERMIT INFORMATION CHART

PROJECT NAME	LOT/PARCEL NO.	GENUS TRACT
EMERSON TOWNHOUSES	LOTS 45 THRU 89	60642
PLAT NO.	GRID NO.	ZONE
15740-44	8/9	RXD-3
WATER CODE	TAX MAP	ELECTION DISTRICT
14-4318-D	47	6TH
SEWER CODE	14-4318-D	

TITLE: **SEDIMENT EROSION CONTROL PLAN**

DESIGN: AJK	SCALE: 1" = 30'	PROJECT: 049103.00
DRAWN: AJK	DATE: 12-11-06	
CHECKED: BAH	APPROVED: BAH	



DC-421(SDP)

2.0 Standards and Specifications for Land Grading

Definitions

Reshaping of the existing land surface in accordance with a plan as determined by engineering survey and layout.

Purpose

The purpose of a land grading specification is to provide for erosion control and vegetative establishment on those areas where the existing land surface is to be reshaped by grading according to plan.

Design Criteria

The grading plan should be based upon the incorporation of building designs and street layouts that fit and utilize existing topography and desirable natural surrounding to avoid extreme grade modifications.

Many countries have regulations and design procedures already established for land grading and cut and fill slopes. Where these requirements exist, they should be followed.

1. Provisions shall be made to safely conduct surface runoff to storm drains, protected outlets or to stable water courses to insure that surface runoff will not damage slopes or other graded areas.

2. Cut and fill slopes that are to be stabilized with grasses shall not be steeper than 2:1 (where the slope is to be mowed the slope should be no steeper than 3:1; 4:1 is preferred because of safety factors related to mowing steep slopes.

3. Reverse benches shall be provided whenever the vertical interval (height) of any 2:1 slopes exceeds 20 feet; for 3:1 slopes it shall be increased to 30 feet and for 4:1 to 40 feet. Benches shall be located to divide the slopes face as equally as possible and shall convey the water to a stable outlet.

a. Benches shall be a minimum of six-feet wide to provide ease of maintenance.

b. Benches shall be designed with a reverse slope of 6:1 of flatter to the toe of the upper slope and with a minimum of one foot in depth. Bench gradient to the outlet shall be between 2 percent and 3 percent, unless accompanied by appropriate design and computations.

c. The flow length within a bench shall not exceed 800' unless accompanied by appropriate design and computations. For flow channel stabilization see temporary swales.

4. Surface water shall be diverted from the face of all cut and/or fill slopes by the use of earth dikes, ditches and swales or conveyed downslope by the use of a vegetated structure, except where:

a. The face of the slope is or shall be stabilized and the face of all graded slopes shall be protected for surface runoff until they are stabilized.

b. The face of the slope shall not be subjected to any concentrated flows of surface water such as from natural drainways, graded swales, downspouts, etc.

c. The face of the slope will be protected by special erosion control materials, to include, but not limited to: approved vegetative stabilization practices (see section G), rip-rap or other approved stabilization methods.

5. Cut slopes occurring in rippled rock shall be serrated as shown on the following diagram. These serrations shall be made with conventional equipment as the excavation is made. Each step or serration shall be constructed on the contour and will have steps cut as nominal two-foot intervals with nominal three-foot horizontal shelves.

7. Slopes shall not be created to close to property lines as the endanger adjoining properties without adequately protecting such properties against sediment, erosion, slippage, settlement, subsidence or other related damages.

8. Fill material shall be free of brush, rubbish, rocks, logs, stumps, building debris and other objectionable material. It shall be free of stones over two (2) inches in diameter where compacted by hand or mechanical tampers over eight (8) inches in diameter where compacted by rollers or other equipment.

9. Stockpiles, borrow areas and spoil shall be shown on the plans and shall be subjected to the provisions of the Standard and Specifications.

All disturbed areas shall be stabilized structurally or vegetatively in compliance with 2.0 Standards and Specifications for Vegetative Stabilization.

2.0 Standard and Specifications for Topsoil

Definitions

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

Purpose

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

Conditions Where Practice Applies

This practice is limited to areas having 2:1 or flatter slopes where:

a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.

b. 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.

c. The original soil to be vegetated contains materials toxic to plant growth.

d. The soil is so acidic that treatment with limestone is not feasible.

For the purpose of these Standards and Specification, 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 Experiment Station.

Topsoil Specifications - Soil to be used as topsoil must meet the following:

- i. 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.

ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or other as specified.

iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread to the rate of 4-8 tons/acre (200-400 pounds per 1,000square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked in to 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 I - Vegetative Stabilization Methods and Materials.

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:

a. pH for topsoil shall be between 6.0 and 7.5. If tested soil demonstrates a pH of less the 6.0, sufficient lime shall be prescribed to raise pH to 6.5 or higher.

b. Organic content of topsoil shall be not less than 1.5 percent by weight.

c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.

d. 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 day/min.) to permit dissipation of phytotoxic materials.

Note: Topsoil substitutes or amendments as recommended by a qualified agronomist or soil scientist approved by the appropriate approval authority, may be used in lieu of natural topsoil.

Place topsoil (if required) and apply soil amendments as specified on 2.0.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

Topsoil Application

When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fences and Sediment Traps and Basins.

Grades in 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.

Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:

Composted Sludge Materials for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:

- a. Composted sludge shall be supplied by, or originated from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.

2.0 Standard and Specifications for Topsoil

References: Guideline Specifications, Soil Preparation and Sodding, MD-VA, Pub #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institute, Revised 1973.

3.0.0 Dust Control

Definition

Controlling dust blowing and movement on construction sites and roads.

Purpose

To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off-site damage, health hazards, and improve traffic safety.

Conditions Where Practice Applies

This practice is applicable to areas subject to dust blowing and movement when in and off-site damage is likely without treatment.

Specifications

Temporary Methods

1. Mulches - See standards for vegetative stabilization with mulches only. Mulch should be crimped or tacked to prevent blowing.

2. Vegetative Cover - See standards for temporary vegetative cover.

3. 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 plow spaced about 12' apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.

4. Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until soil surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.

5. Barriers - Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar materials 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.

6. Calcium Chloride - Apply at rates that will keep surface moist. May need retreatment.

Permanent Methods

1. 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. ]

2. Topsoil - Covering with less erosive materials. See Standards for topsoiling.

3. Stone - Cover surface with crushed stone or coarse gravel.

References

1. Agriculture Handbook 346. Wind Erosion Forces in the United States and Their Use in Predicting Soil Loss.

2. Agriculture Information Bulletin 354. How to Control Wind Erosion, USDA - ARS.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seeded 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: 1. Preferred--Apply 2 tons/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 600 lbs/acre 10-10-10 Fertilizer (14 lbs/1000 sq. ft.) before seeding.

2. Acceptable--Apply 2 tons/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 1000 lbs/acre 10-10-10 Fertilizer (23 lbs/1000 sq. ft.) before seeding.

3. Seeding -- For the periods March 1 -- April 30, and August 1 -- October 15, seed with 60 lbs/acre (1.4 lbs/1000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 -- July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs/acre (.05 lbs/1000 sq. ft.) of weeping lovegrass. During the period of October 16 -- February 28, protect site by:

Option 1 - Two tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option 2 - Use sod. Option 3 - Seed with 60 lbs/acre Kentucky 30 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 sq. ft.) of unrattled small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq. ft.) for anchoring.

Maintenance -- Inspect all seeding areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES.

Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.

Seeded 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/acre 10-10-10 Fertilizer (14 lbs/1000 sq. ft.).

Seeding -- For periods March 1 -- April 30 and from August 15 -- October 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs/1000 sq. ft.). For the period May 1 -- August 14, seed with 3 lbs/acre of weeping lovegrass (.07 lbs/1000 sq. ft.). For the period November 16 -- February 28 protect the site by applying 2 tons/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/acre (70 to 90 lbs/1000 sq. ft.) of unrattled weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 ft. or higher, use 348 gal. per acre (8 gal/1000 sq. ft.) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL for additional rates and methods not covered.

DEVELOPER'S CERTIFICATE

I/We certify that all development and construction will be done according to this plan, and that the construction 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 [Signature] Date 12-11-06

ENGINEER'S CERTIFICATE

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 of Engineer [Signature] Date 12-11-06

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT. [Signature] Date 12/29/06

[Signature] Date 12/29/06

[Signature] Date 12/29/06

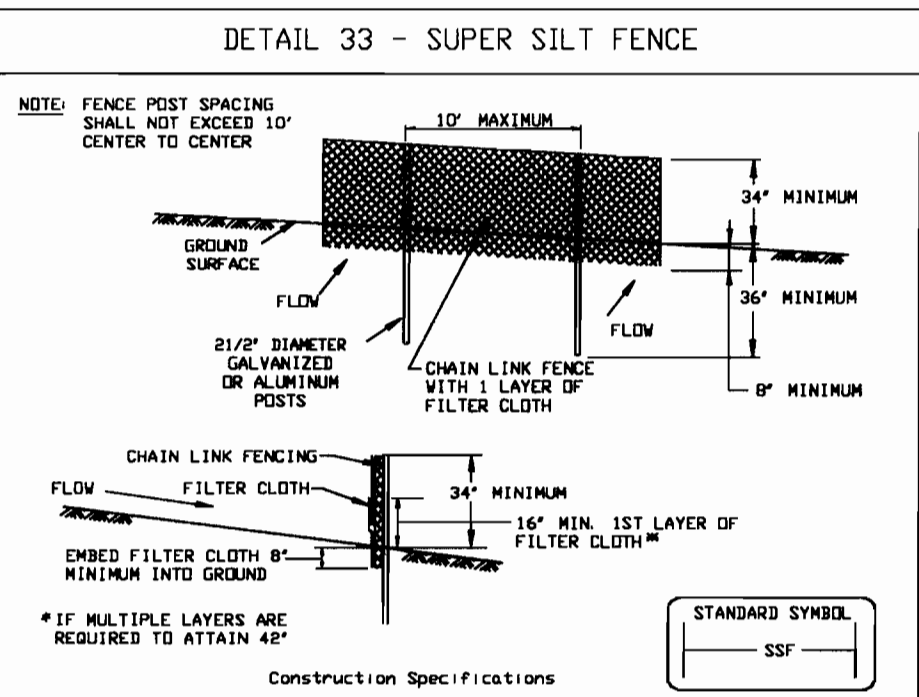


Table with 3 columns: U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE, PAGE 1-6-3, MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION.

SUPER SILT FENCE Design Criteria. Table with 4 columns: Slope, Slope Steepness, Slope Length (Maximum), Silt Fence Length (Maximum). Rows for 0-10%, 10-30%, 30-50%, 50%+ slopes.

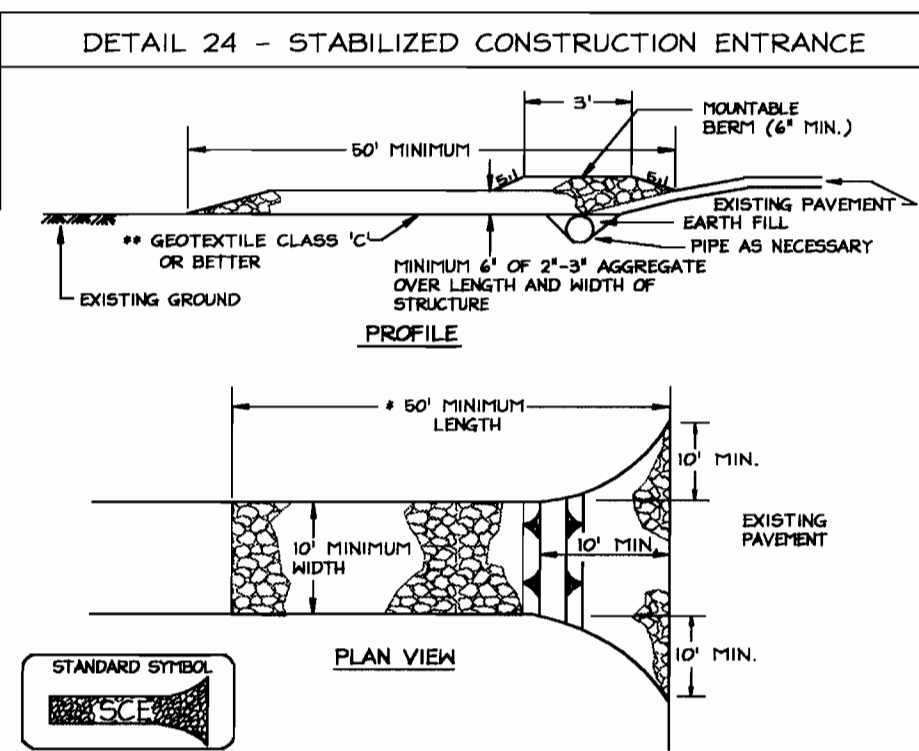


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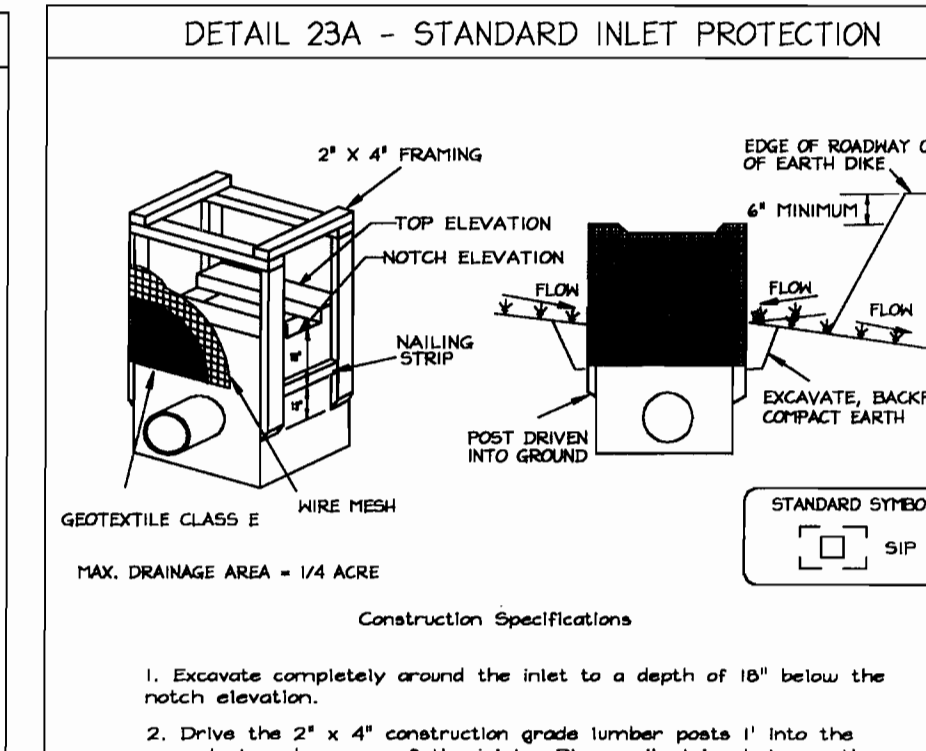


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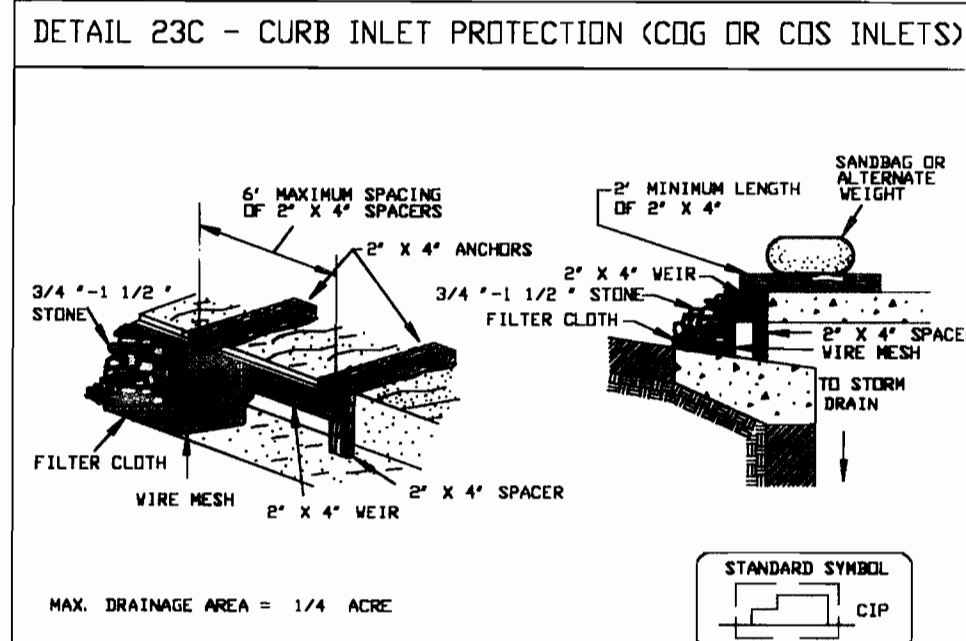


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APPROVED: DEPARTMENT OF PLANNING AND ZONING [Signatures and dates: 1/9/07, 1/3/07, 1/9/07]

Table with 3 columns: Date, No., Revision Description.

EMERSON TOWNHOUSES SECTION 8, PHASE 8A, LOTS 45 THRU 89 AND OPEN SPACE LOTS 90 AND 91

OWNER / DEVELOPER THE WILLIAMSBURG GROUP 5485 HARRERS FARM ROAD COLUMBIA, MARYLAND 21044 P.O. BOX 1018

christopher consultants engineering - surveying - land planning christopher consultants, inc. 7172 columbia gateway drive (suite 100) columbia, md 21046-8680 410.375.7400 fax: 410.375.8918

PERMIT INFORMATION CHART. Table with 3 columns: PROJECT NAME, LOT/PARCEL NO., CENSUS TRACT. Rows for Emerson Townhouses.

EROSION AND SEDIMENT CONTROL NOTES & DETAILS

Table with 3 columns: DESIGN, SCALE, PROJECT; DRAWN, DATE, PROJECT; CHECKED, APPROVED. Values: AJK, 1" = 30', 049102; AJK, 12-11-06, 049102; BA1, [Signature].



**LEGEND**

- EXISTING CONTOURS
- EXISTING STORM DRAIN
- EXISTING SANITARY SEWER
- EXISTING WATER
- EXISTING FENCE
- PROPERTY LINE
- EX. TREELINE
- PROPOSED CONTOUR
- PROPOSED SETBACK LINES
- PROPOSED PRIVACY FENCE
- PROPOSED SHADE TREE
- PROPOSED ORNAMENTAL TREE
- PROPOSED EVERGREEN TREE
- PROPOSED SHRUB
- PROPOSED STREET TREE (PER F-06-142)
- PROPOSED PARKING LOT TREE
- EX. STREET TREE PALACE HALL DRIVE (PER F-01-145)

NOTE: ALL PLANTS IDENTIFIED WITH AN ASTERISK (\*) SATISFIES PERIMETER PLANTING REQUIREMENTS.

EMERSON  
SECTION 2 PHASE 3  
PLAT NO. 17239  
PLAT NO. 16572-16574  
OTHER RESIDENTIAL



HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
FUTURE DEVELOPMENT OF EMERSON  
PARCEL 462

**PLANT LIST:**

SYMBOL	LATIN NAME	COMMON NAME	QUANTITY	S.T.V.	SIZE	REMARKS
ZS	Zelkova Serrata	'Green Vase' Zelkova	1	1.0	2 1/2" - 3" caliper	B4B
PA	Platanus x Acerifolia	London Planetree	11	11.0	2 1/2" - 3" caliper	B4B
UP	Ulmus Parvifolia	'Allee' Chinese Elm	4	4.0	2 1/2" - 3" caliper	B4B
AR	Acer Rubrum 'Red Sunset'	Red Sunset Maple	24	24.0	2 1/2" - 3" caliper	B4B
AO	Acer Rubrum 'Oct. Glory Red Maple'	'Oct. Glory Red Maple'	3	3.0	2 1/2" - 3" caliper	B4B
QP	Quercus Palustris	Pin Oak	8	8.0	2 1/2" - 3" caliper	B4B
BN	Betula Nigra	'Heritage' River Birch	11	11.0	12" - 14" Hgt.	B4B
MS	Magnolia Soulangiana	Saucer Magnolia	22	11.0	8' - 10' Hgt.	B4B
CK	Cornus Kousa	Kousa Dogwood	16	8.0	8' - 10' Hgt.	B4B
PS	Prunus Sargentii 'Columnaris'	Sargent Cherry	2	1.0	8' - 10' Hgt.	B4B Specimen
PC	Prunus Cerasifera 'Thundercloud'	Purpleleaf Plum	7	3.5	8' - 10' Hgt.	B4B Specimen
AG	Amelanchier x Grandiflora	'Autumn Brilliance' Serviceberry	44	22.0	8' - 10' Hgt.	B4B
IF	Ilex x Atenuata 'Fosteri'	Foster Holly	18	9.0	7' - 9' Hgt.	B4B
IN	Ilex x 'Nellie R. Stevens'	Nellie Stevens Holly	28	14.0	7' - 9' Hgt.	B4B
TG	Thuja Occidentalis 'Green Giant'	Green Giant Arborvitae	11	5.5	7' - 9' Hgt.	B4B
PO	Picea Omorika	Serbian Spruce	31	15.5	7' - 9' Hgt.	B4B
EA	Euonymus Alatus 'Compacta'	Dwarf Burning Bush	144	14.4	24" - 36" Hgt.	3' O.C.
BT	Berberis Thunbergii	Crimson Pygmy Barberry	5	---	24" - 36" Hgt.	3' O.C.
LM	Liriope Muscari	'Big Blue' Lilyturf	30	---	1 Qt.	18" O.C.
AC	Annual Color	Annual Color	40 S.F.	---	---	---

NOTE: S.T.V. = SHADE TREE VALUE (TOTAL S.T.V. PROVIDED -- 165.9)

EMERSON  
SECTION 2 PHASE 3  
OPEN SPACE LOT 1  
s. 15888 & 15889  
PARCEL A  
MENT LAND USE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development	1/9/07
Chief, Development Engineering Division	1/23/07
Director, Department of Planning and Zoning	1/5/07

Date	No.	Revision Description

**EMERSON TOWNHOUSES**  
SECTION 2, PHASE 0A, LOTS 45 THRU 89 AND OPEN SPACE LOTS 90 AND 91  
**OWNER / DEVELOPER**  
WILLIAMSBURG GROUP, LLC  
CONTACT: ROBERT CORBETT  
5485 HARPER'S FARM ROAD  
COLUMBIA, MARYLAND 21044  
TEL. (410) 997-8800 FAX (410) 997-4358

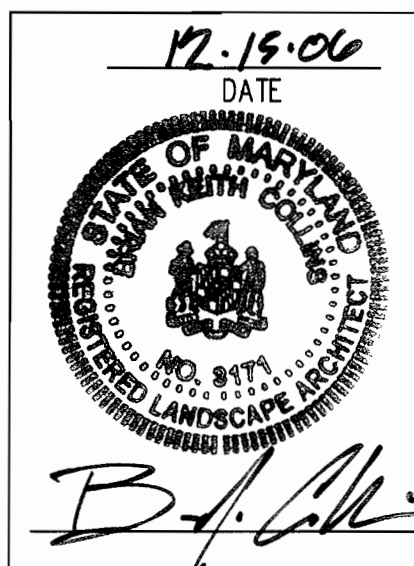
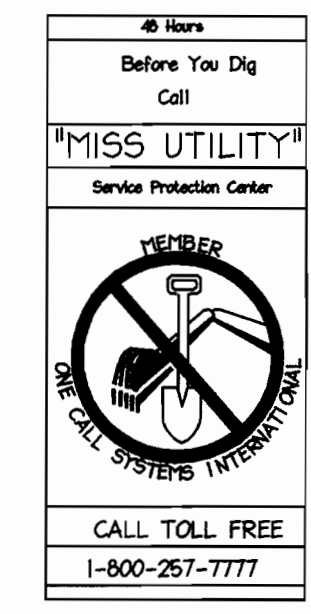
**christopher consultants**  
engineering · surveying · land planning  
christopher consultants, ltd.  
7172 columbia gateway drive (suite 100) · columbia, md. 21046-2990  
410.872.8890 · fax: 410.872.9990

**PERMIT INFORMATION CHART**

PROJECT NAME	LOT/PARCEL NO.	CENSUS TRACT
EMERSON TOWNHOUSES	45 THRU 89	606902
PLAT NO.	GRID NO.	ZONE
18740-41	8 4 9	PXD-3-OR
TAX MAP	ELECTION DISTRICT	
47	6TH	
WATER CODE	SEWER CODE	
#24-4318-D	#24-4318-D	

**LANDSCAPE PLAN**

DESIGN: LNG	SCALE: 1" = 30'	PROJECT: 049103.00
DRAWN: LNG/DAM	DATE: 12-11-06	
CHECKED: BKC	APPROVED:	<b>5 OF 6</b>



MDC-421(SDP)

**SCHEDULE A  
PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJACENT TO ROADWAYS				
LANDSCAPE TYPE 'C'					P 2B
LINEAR FEET OF PERIMETER					376 LF.
LANDSCAPE TYPE 'E'	P 1A	P 1B	P 2A		
LINEAR FEET OF PERIMETER	229 LF.	178 LF.	72 LF.		
CREDIT FOR EXISTING VEGETATION (DESCRIBE BELOW IF NEEDED)	N/A	N/A	N/A	N/A	
REMAINING LINEAR FEET OF PERIMETER (PERIMETER - CREDIT)	229 LF.	178 LF.	72 LF.	376 LF.	
NUMBER OF PLANTS REQUIRED					S.T.V. <sup>(5)</sup>
SHADE TREES	6	4	2	9	21.0
EVERGREEN TREES	-	-	-	19	9.5
SHRUBS	57	45	18	-	12.0
TOTAL REQUIRED S.T.V.					42.5
NUMBER OF PLANTS PROVIDED					
SHADE TREES	4*	0*	0*	8*	12
EVERGREEN TREES	-	-	-	19	9.5
OTHER TREES (2:1 SUBSTITUTION)	4	8	4	2	9
SHRUBS (10:1 SUBSTITUTION)	59	49	27	-	13.5
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)					
					TOTAL S.T.V. PROVIDED
					44.0

- NOTES:
- 1.) P1A - 4 ORNAMENTAL TREES HAVE BEEN SUBSTITUTED FOR 2 SHADE TREES.
  - 2.) P1B - 8 ORNAMENTAL TREES HAVE BEEN SUBSTITUTED FOR 4 SHADE TREES.
  - 3.) P2A - 4 ORNAMENTAL TREES HAVE BEEN SUBSTITUTED FOR 2 SHADE TREES.
  - 4.) P2B - 2 ORNAMENTAL TREES HAVE BEEN SUBSTITUTED FOR 1 SHADE TREE.
  - 5.) S.T.V. = SHADE TREE VALUE

**GENERAL PLANTING NOTES**

1. ALL PLANT MATERIAL TO MEET A.A.N. STANDARDS.
2. LANDSCAPING CONTRACTOR TO FOLLOW LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE WASHINGTON METRO AREA APPROVED BY LCAPIW.
3. NO SUBSTITUTIONS TO BE MADE WITHOUT CONSENT OF LANDSCAPE ARCHITECT OR OWNER.
4. IN THE EVENT OF VARIATION BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND THE PLANS, THE PLANS SHALL CONTROL. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES PRIOR TO THE COMMENCEMENT OF WORK. SOIL QUANTITY TAKE-OFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO BIDDING. THE CONTRACTOR SHALL FURNISH PLANT MATERIAL IN SIZES AS SPECIFIED IN THE PLANT LIST.
5. ALL BEDS TO BE TOPPED WITH THREE INCHES OF HARDWOOD MULCH.
6. LANDSCAPE CONTRACTOR TO VERIFY LOCATION OF UTILITIES WITH OWNERS BEFORE PLANTING.
7. LANDSCAPE ARCHITECT/OWNER SHALL SELECT, VERIFY AND/OR APPROVE ALL PLANT MATERIAL. AT OWNER'S DISCRETION, SPECIMEN AND OTHER PLANT MATERIAL WILL BE SELECTED.
8. LANDSCAPE CONTRACTOR SHALL COORDINATE PLANT BED FILLING OPERATIONS AND PLANT MATERIAL INSTALLATION WITH GENERAL CONTRACTOR AND UTILITIES CONTRACTOR. AT THE TIME OF FINAL INSPECTION WITH ACCEPTANCE, ALL ELECTRIC, WATER, DRAINAGE, AND FOUNTAIN UTILITIES, AS WELL AS ALL PLANT MATERIALS, SHALL REMAIN UNDAMAGED. LIKEWISE, LANDSCAPE CONTRACTOR AND UTILITIES CONTRACTOR SHALL COORDINATE EFFORTS TO ENSURE THAT SURFACE UTILITIES ARE AT THE PROPER ELEVATION RELATIVE TO FINAL GRADES.
9. CONTRACTOR SHALL NOTIFY MISS UTILITY 72 HOURS PRIOR TO CONSTRUCTION.
10. THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERRIES, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
11. TOPSOIL MIX
  - a. Planting mix shall be prepared at approved on-site staging area using approved on-site existing soil. Mix minimum quantities of 20 cubic yards or sufficient mix for entire job if less than 20 cubic yards is required.
  - b. Thoroughly mixed in the following proportions for tree and shrub planting mix:
    - 5 cy existing soil
    - 2 cy sharp sand
    - 3 cy wood residuals
    - 4.5 lbs treble superphosphate
    - 5 lbs dolomite limestone (eliminate for acid loving plants)
  - c. For bed planting, shrubs and groundcover spaces 24 inches or closer, incorporate the following ingredients per 20 sf and incorporate into top 8 inches of existing soils by rototilling or similar method of incorporation.
    - 2 cy sharp sand
    - 3 cy organic material
    - 4.5 lbs treble superphosphate
    - 5 lbs dolomite limestone (eliminate for acid loving plants)
12. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HO. CO. CODE AND THE DEVELOPMENT CRITERIA FOR EMERSON. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING IN THE AMOUNT OF \$47,000.00 MUST BE POSTED AS PART OF THE GRADING PERMIT APPLICATION. (19\* SHADE TREES, 19 EVERGREEN TREES, AND 120 SHRUBS).
13. AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.
14. DEVELOPER'S BUILDER'S CERTIFICATE
 

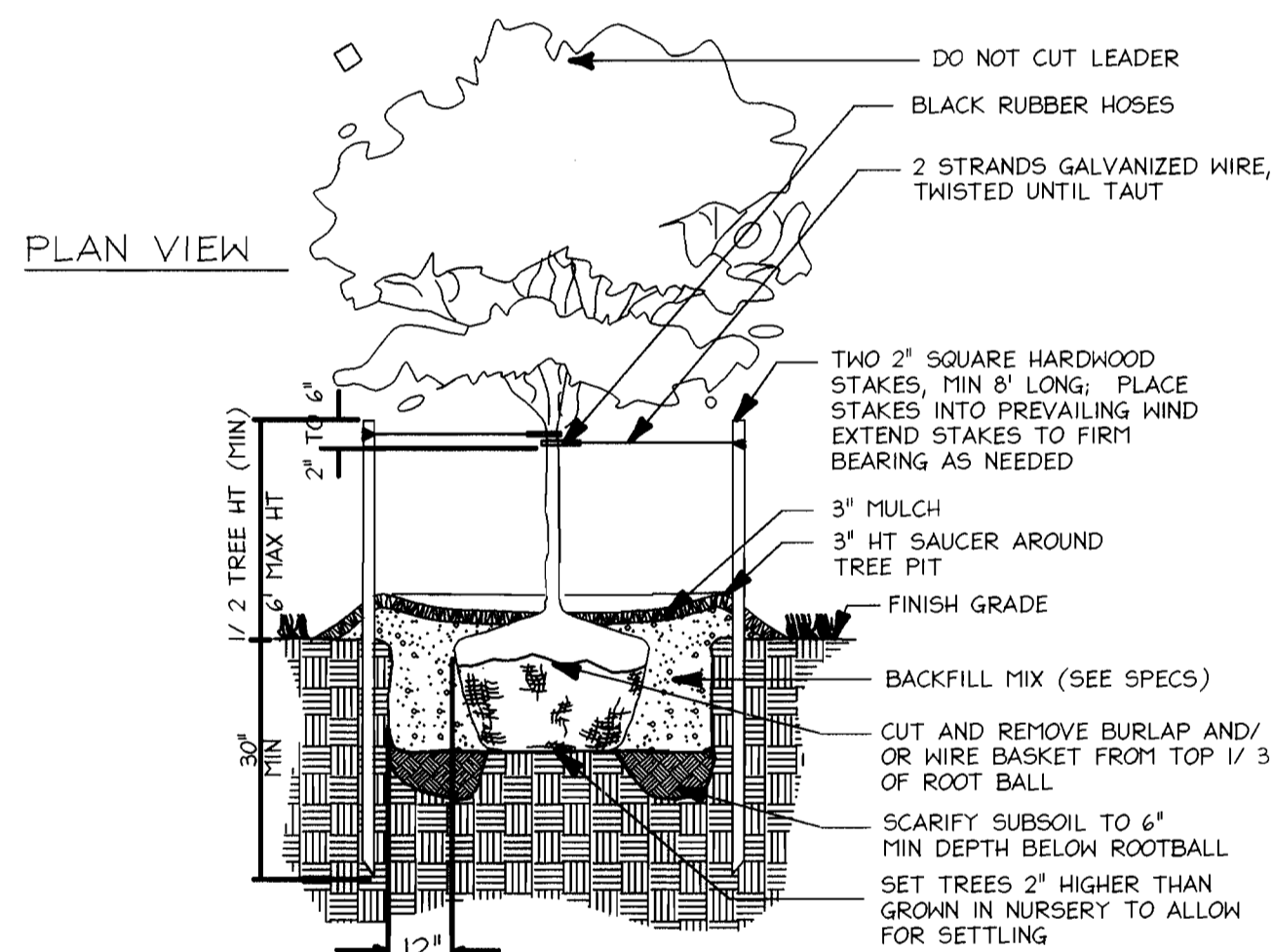
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPING MANUAL. I/WE FURTHER CERTIFY THAT UPON TREES COMPLETION, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE-YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

**SCHEDULE B  
PARKING LOT INTERNAL LANDSCAPING**

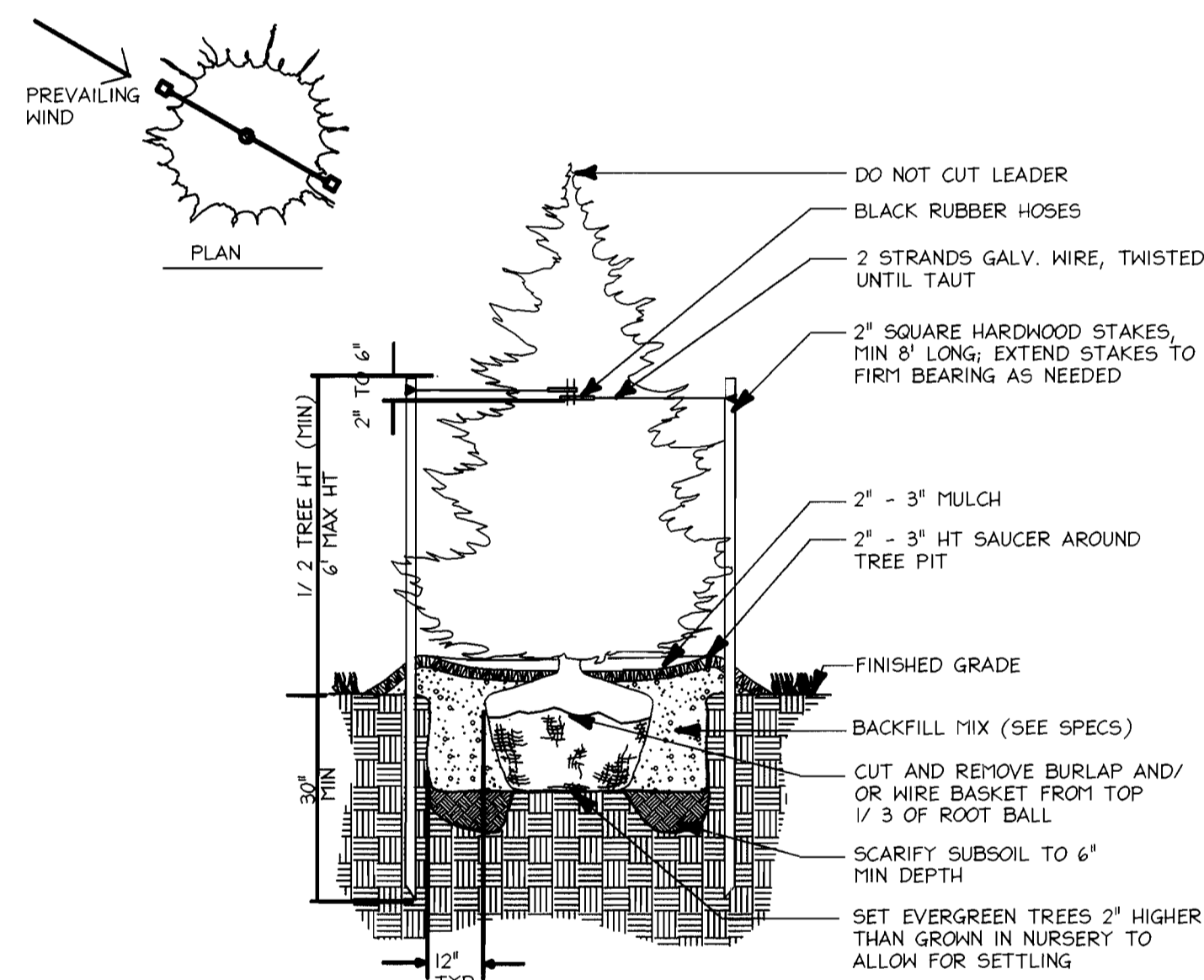
NUMBER OF PARKING SPACES	36	S.T.V.
NUMBER OF TREES REQUIRED	4	4.0
NUMBER OF TREES PROVIDED SHADE TREES OTHER TREES (2:1 SUBSTITUTION)	4	4.0

**SUMMARY OF SHADE TREE VALUE (S.T.V.)**

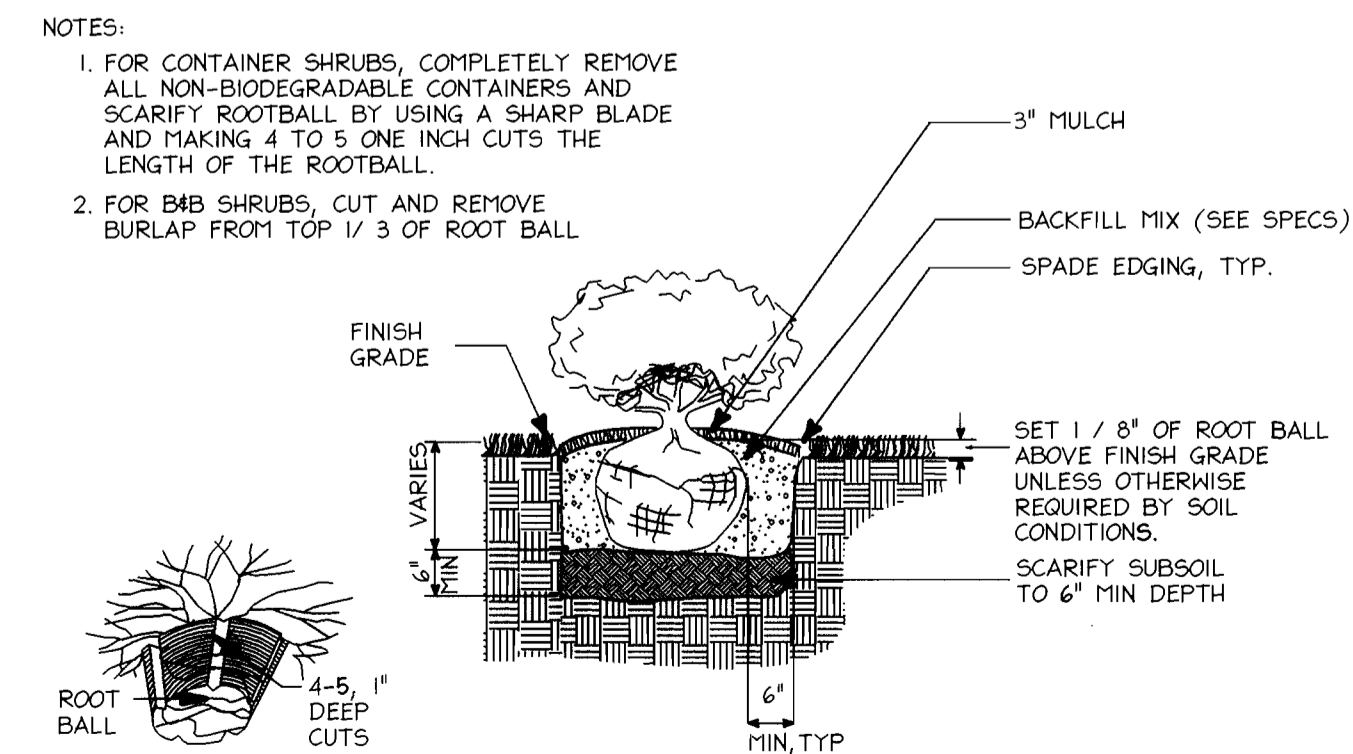
SCHEDULE	REQUIRED	PROVIDED
SCHEDULE 'A'	42.5	44.0
SCHEDULE 'B'	4.0	4.0
SCHEDULE 'C'	112.5	117.9
Total Required	159.0	---
Total Provided (Plant List)	---	165.9



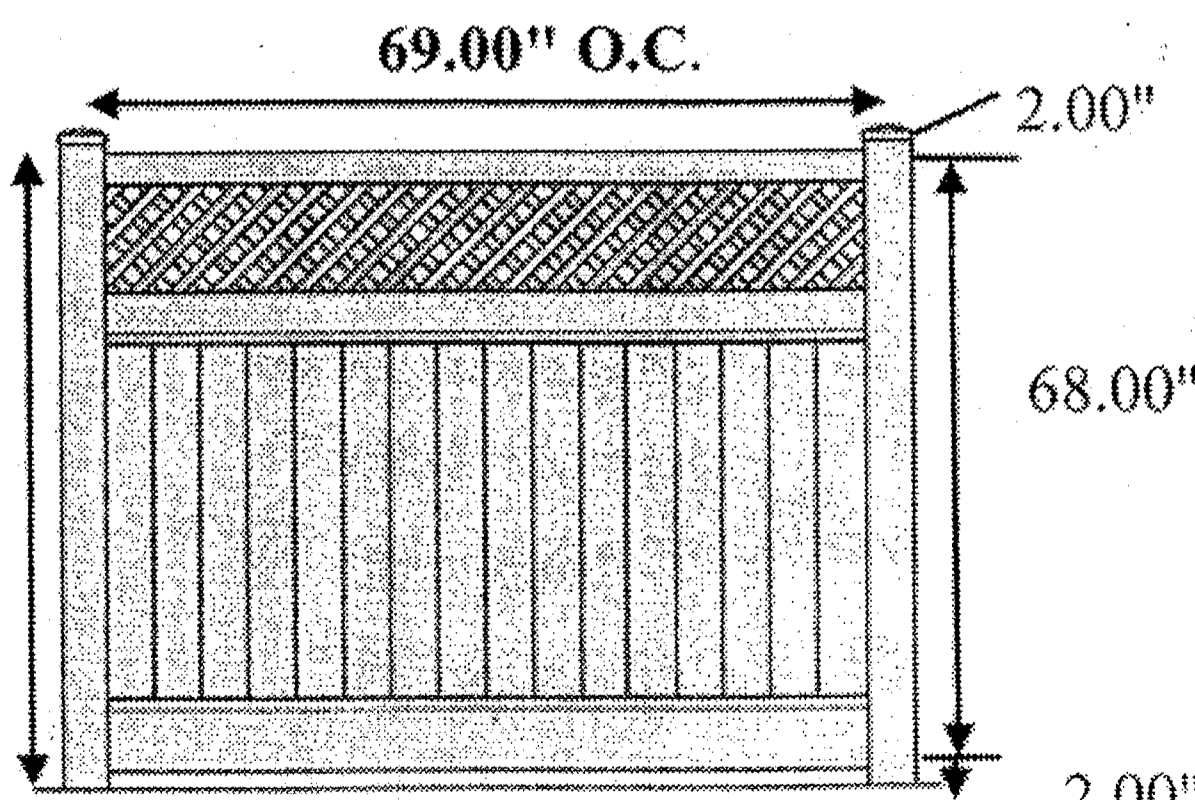
**(A) Tree Planting Detail**  
Not To Scale



**(B) Evergreen Tree Planting Detail**  
Not To Scale



**(C) Shrub Planting Detail**  
Not To Scale



**(D) Typical Privacy Fence Detail**  
Not To Scale

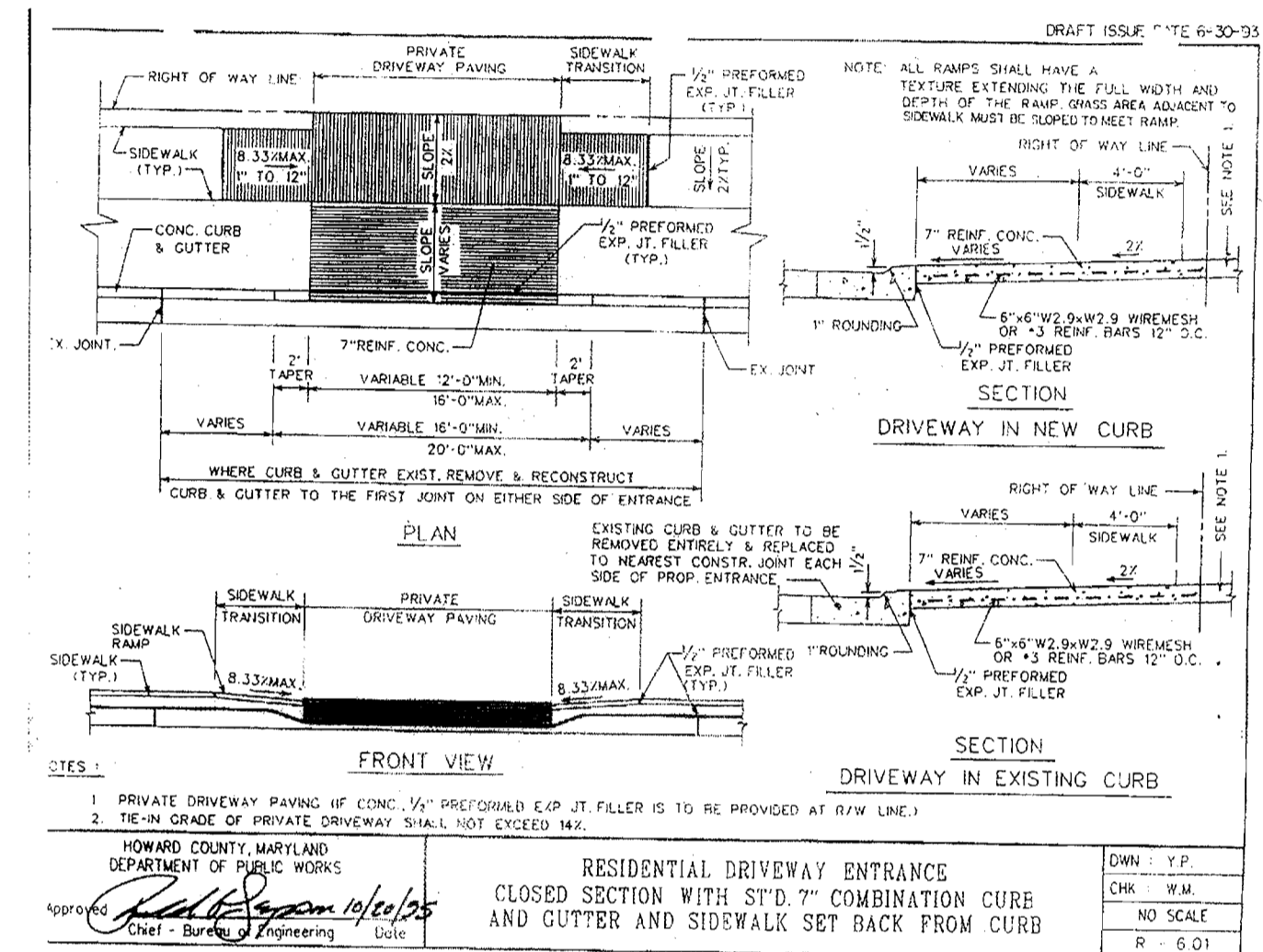
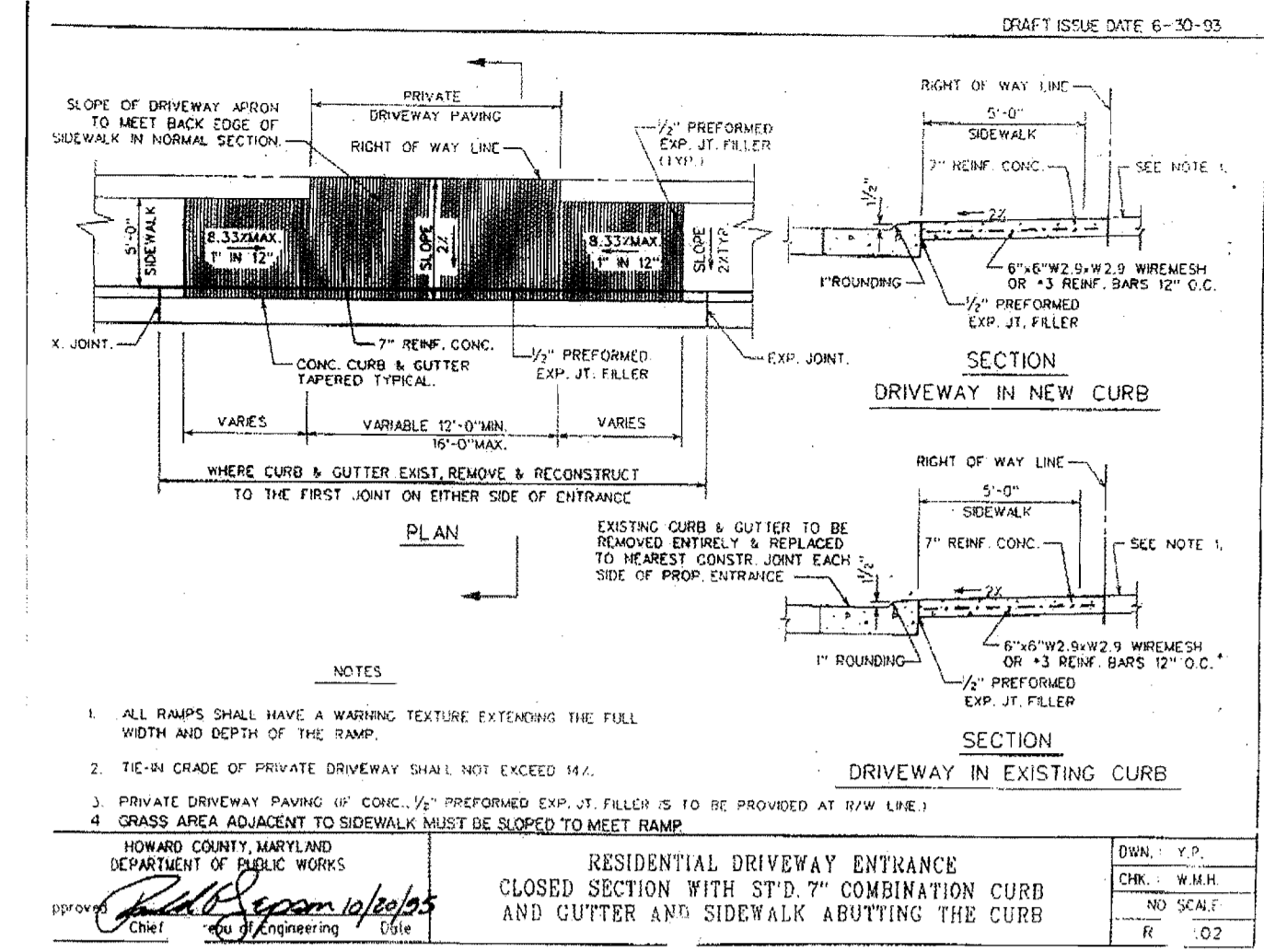
**MODIFIED SCHEDULE C  
RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING**

NUMBER OF DWELLING UNITS: 45 SINGLE-FAMILY ATTACHED DWELLING UNITS		
LOT CLASSIFICATION:	NON-WOODED	
NUMBER OF TREES REQUIRED (SEE NOTE #1 BELOW)	2.5 SHADE TREES/S.F.A. DWELLING UNIT (OR 112.5 SHADE TREES)	
NUMBER OF TREES PROVIDED:		
SHADE TREES	46 SHADE TREES	46.0
INTERMEDIATE TREES (2:1) SUBSTITUTION	78 INTERMEDIATE TREES	36.5
EVERGREEN TREES (2:1) SUBSTITUTION	64 EVERGREEN TREES	34.5
	9 SHRUBS	0.9
	TOTAL SHADE TREE VALUE (S.T.V.)	117.9

- NOTE:
1. ALTHOUGH THE DEVELOPMENT CRITERIA PRESCRIBES (3) S.T.V./D.U. FOR THIS NON-WOODED SITE, UPON REVIEW OF THIS PLAN THE ARCHITECTURAL COMMITTEE (AC) HAS DETERMINED THAT IN ORDER TO AVOID OVERCROWDING, A VALUE OF (2.5) S.T.V./D.U. IS MORE APPROPRIATE FOR THIS PARTICULAR PROJECT.
  2. THE PROPOSED STREET TREES WERE SUBMITTED UNDER THE 'ROAD AND STORM DRAIN CONSTRUCTION PLANS, JUNE FLOWERS WAY AND SILKEN LEAF COURT, EMERSON TOWNHOUSES' (F-06-142).

**KEY PROPERTY DEVELOPMENT CRITERIA, APPROVED 7/1/99  
SECTION VII RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING**

THE QUANTITY AND GENERAL LOCATION OF TREES REQUIRED FOR INTERNAL LANDSCAPING ARE DETERMINED BY CRITERIA APPLIED BY THE ARCHITECTURAL COMMITTEE. THE COMMITTEE WILL CLASSIFY DURING ARCHITECTURAL REVIEW, ALL LOTS AND PARCELS AS 1) NON-WOODED, 2) SEMI-WOODED, AND 3) WOODED. SUCH CLASSIFICATION SHALL TAKE INTO ACCOUNT THE EXISTING TREE COVER AND THE POTENTIAL FOR SAVING TREES IN CONNECTION WITH GRADING AND SITING. THIS CRITERIA ALSO SHALL CONSIDER THE SIZE OF THE LOT, AMOUNT OF EXISTING VEGETATION AND THE TYPE AND SITING OF RESIDENTIAL UNITS. IF, DURING OR AFTER CONSTRUCTION THE COMMITTEE DETERMINES THAT A BUILDER HAS VIOLATED ANY PROVISION OF TREE PRESERVATION, THE BUILDER WILL BE REQUIRED TO ADD NEW PLANT MATERIAL. SHADE TREE REQUIREMENTS FOR THIS PROJECT HAVE BEEN ALTERED BY THE ARCHITECTURAL COMMITTEE PER NOTE #1 ABOVE.



APPROVED: DEPARTMENT OF PLANNING AND ZONING

<i>Cathy Hamer</i>	1/9/07
Chief, Division of Land Development	Date
<i>John DeWitt</i>	1/3/07
Chief, Development Engineering Division	Date
<i>Paul A. Ruppel</i>	1/9/07
Director, Department of Planning and Zoning	Date

**EMERSON TOWNHOUSES**  
SECTION 2, PHASE 6A, LOTS 45 THRU 89 AND OPEN SPACE LOTS 90 AND 91  
**OWNER / DEVELOPER**  
WILLIAMSBURG GROUP, LLC 5485 HARPER'S FARM ROAD  
CONTACT: ROBERT CORBETT COLUMBIA, MARYLAND 21044  
TEL. (410) 997-8800 FAX (410) 997-4358

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410.672.8690 - metro 301.881.0148 - fax 410.672.8683

PERMIT INFORMATION CHART

PROJECT NAME	LOT/PARCEL NO.	CENSUS TRACT		
EMERSON TOWNHOUSES	45 THRU 89	606902		
PLAT NO.	GRID NO.	ZONE	TAX MAP	ELECTION DISTRICT
13746-41	8/9	MXD-3	47	6TH
WATER CODE	SEWER CODE			
24-4318-D	24-4318-D			

**LANDSCAPE DETAILS**

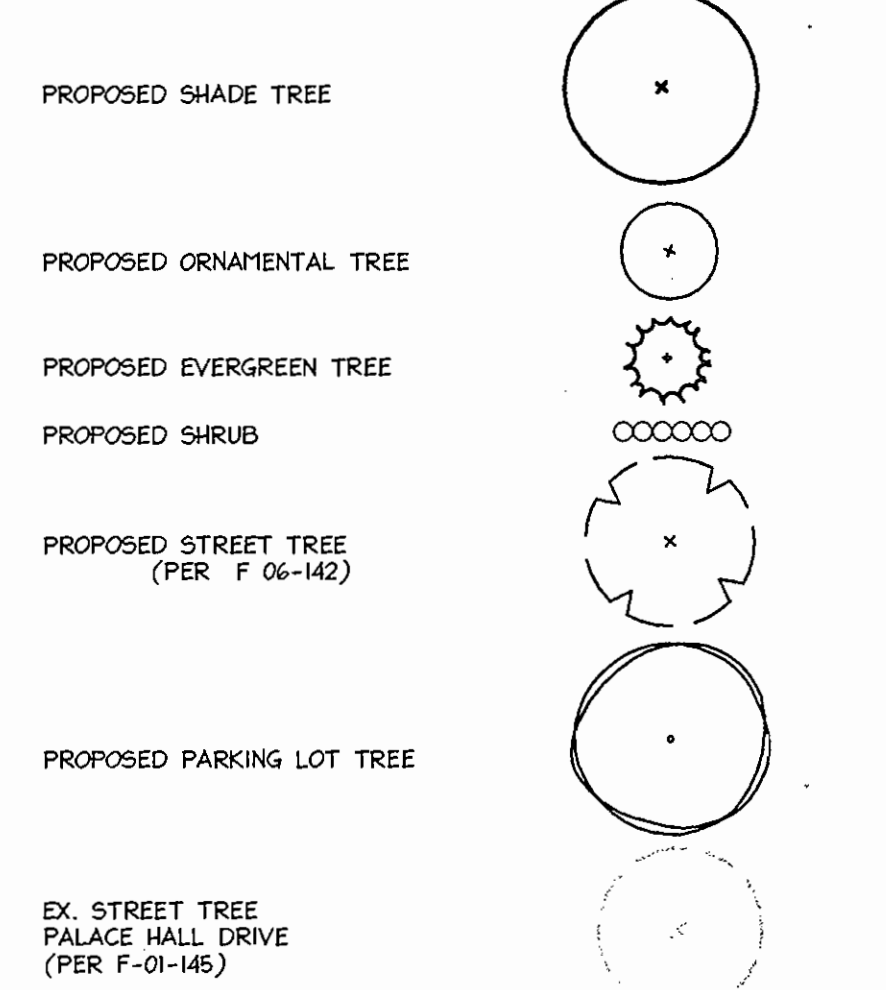
DESIGN: LNG	SCALE: 1" = 30'	PROJECT: 049103.00
DRAWN: LNG/DAI	DATE: 12-11-06	
CHECKED: BKC	APPROVED:	<b>6 OF 6</b>



MDC-421(SDP)

**LEGEND**

EXISTING CONTOURS	---
EXISTING STORM DRAIN	---
EXISTING SANITARY SEWER	---
EXISTING WATER	---
EXISTING FENCE	---
PROPERTY LINE	---
EX. TREELINE	---
PROPOSED CONTOUR	---
PROPOSED SETBACK LINES	---
PROPOSED PRIVACY FENCE	---



NOTE: ALL PLANTS IDENTIFIED WITH AN ASTERISK (\*) SATISFIES PERIMETER PLANTING REQUIREMENTS.

EMERSON  
SECTION 2/PHASE 3  
PLAT NO. 17239  
PLAT NO. 16572-16574  
OTHER RESIDENTIAL



HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
FUTURE DEVELOPMENT OF EMERSON  
PARCEL 462

**PLANT LIST:**

SYMBOL	LATIN NAME	COMMON NAME	QUANTITY	S.T.V.	SIZE	REMARKS
ZS	Zelkova Serrata	'Green Vase' Zelkova	1	1.0	2 1/2" - 3" caliper	B4B
PA	Platanus x Acerfolia	London Planetree	11	11.0	2 1/2" - 3" caliper	B4B
UP	Ulmus Parvifolia	'Allee' Chinese Elm	4	4.0	2 1/2" - 3" caliper	B4B
AR	Acer Rubrum 'Red Sunset'	Red Sunset Maple	24	24.0	2 1/2" - 3" caliper	B4B
AO	Acer Rubrum 'Oct. Glory Red Maple'	'Oct. Glory Red Maple'	3	3.0	2 1/2" - 3" caliper	B4B
QP	Quercus Palustris	Pin Oak	8	8.0	2 1/2" - 3" caliper	B4B
BN	Betula Nigra	'Heritage' River Birch	11	11.0	12" - 14" Hgt.	B4B
MS	Magnolia Soulangiana	Saucer Magnolia	22	11.0	8" - 10" Hgt.	B4B
CK	Cornus Kousa	Kousa Dogwood	16	8.0	8" - 10" Hgt.	B4B
PS	Prunus Sargentii 'Columnaris'	Sargent Cherry	2	1.0	8" - 10" Hgt.	B4B Specimen
PC	Prunus Cerasifera 'Thundercloud'	Purpleleaf Plum	7	3.5	8" - 10" Hgt.	B4B Specimen
AG	Amelanchier x Grandiflora	'Autumn Brilliance' Serviceberry	44	22.0	8" - 10" Hgt.	B4B
IF	Ilex x Attenuata 'Fosteri'	Foster Holly	18	9.0	7" - 9" Hgt.	B4B
IN	Ilex x 'Nellie R. Stevens'	Nellie Stevens Holly	28	14.0	7" - 9" Hgt.	B4B
TG	Thuja Occidentalis 'Green Giant'	Green Giant Arborvitae	11	5.5	7" - 9" Hgt.	B4B
PO	Picea Omorika	Serbian Spruce	31	15.5	24" - 36" Hgt.	B4B
EA	Euonymus Alatus 'Compacta'	Dwarf Burning Bush	144	14.4	24" - 36" Hgt.	3' O.C.
BT	Berberis Thunbergii	Crimson Pygmy Barberry	5	---	24" - 36" Hgt.	3' O.C.
LM	Liriope Muscari	'Big Blue' Lilyturf	40 S.F.	---	1 Ct.	18" O.C.
AC	Annual Color					

NOTE: S.T.V. = SHADE TREE VALUE (TOTAL S.T.V. PROVIDED -- 165.9)

EMERSON  
SECTION 2/PHASE 3  
AREA 2  
OPEN SPACE LOT  
S. 15888 & 15889  
PARCEL A  
MENT LAND USE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Candy Hamilton* 1/9/07  
Chief, Division of Land Development Date

*John Williamson* 1/3/07  
Chief, Development Engineering Division Date

*Mark Z. Coyle* 1/9/07  
Director, Department of Planning and Zoning Date



Date	No.	Revision Description
06.07.07	1	REVISE DRIVEWAY AND ADO ACCESS EASEMENT FOR LOTS 59-60

**EMERSON TOWNHOUSES**  
SECTION 2, PHASE 6A, LOTS 45 THRU 89 AND OPEN SPACE LOTS 90 AND 91

**OWNER / DEVELOPER**  
WILLIAMSBURG GROUP, LLC 5485 HARPER'S FARM ROAD  
COLUMBIA, MARYLAND 21044  
CONTACT: ROBERT CORBETT TEL. (410) 997-8800 FAX (410) 997-4358

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410.872.8880 - fax: 410.872.8883

**PERMIT INFORMATION CHART**

PROJECT NAME EMERSON TOWNHOUSES	LOT/PARCEL NO. 45 THRU 89	CENSUS TRACT 606902
PLAT NO. 18746-41	GRID NO. 8 & 9	ZONE PKD-3-OR
TAX MAP 47	ELECTION DISTRICT 6TH	WATER CODE #24-43B-D
SEWER CODE #24-43B-D	TITLE: <b>LANDSCAPE PLAN</b>	DESIGN: LNG
SCALE: 1" = 30'	PROJECT: 049103.00	DRAWN: LNG/DAM
DATE: 12-11-06	CHECKED: BKC	APPROVED:

5 OF 6

MISS UTILITY  
Service Protection Center

CALL TOLL FREE  
1-800-267-7777

DATE: 12-15-06

*B. Corbett*

MDC-421(SDP)

**DEVELOPER'S CERTIFICATE**

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 of Developer: Bob Corbett V.P.  
 Print name below signature: WILLIAMSBURG GROUP LLC  
 Date: 12-11-06

**ENGINEER'S CERTIFICATE**

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.

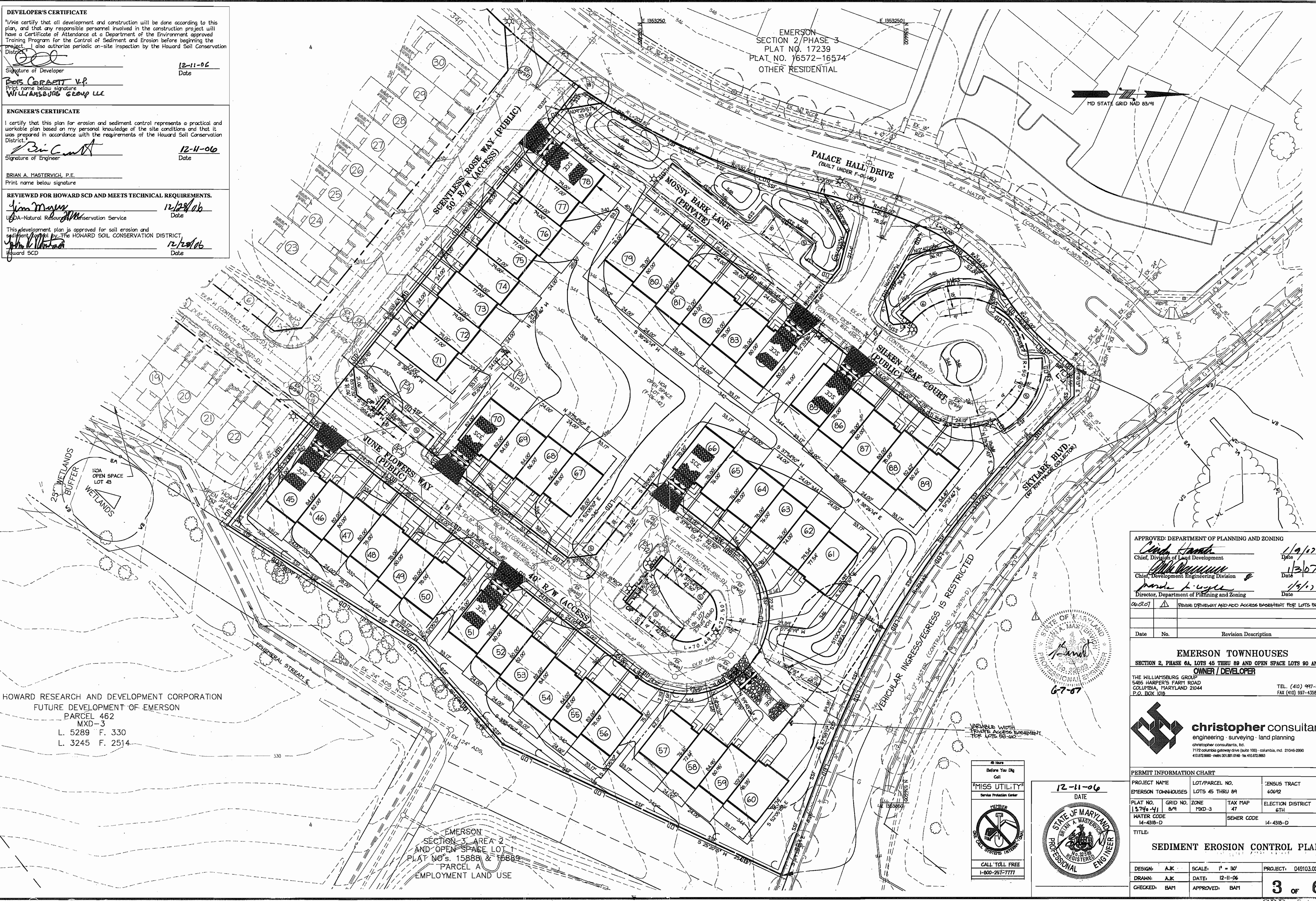
Signature of Engineer: Brian A. Mastervich  
 Print name below signature: BRIAN A. MASTERVICH, P.E.  
 Date: 12-11-06

**REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.**

Signature: Jim Meyer  
 Date: 12/28/06  
 UDA-Natural Resource Conservation Service

Signature: Mark Wilson  
 Date: 12/28/06  
 Howard SCD

EMERSON  
 SECTION 2/PHASE 3  
 PLAT NO. 17239  
 PLAT NO. 16572-16574  
 OTHER RESIDENTIAL



HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
 FUTURE DEVELOPMENT OF EMERSON  
 PARCEL 462  
 MXD-3  
 L. 5289 F. 330  
 L. 3245 F. 2514

EMERSON  
 SECTION 3, AREA 2  
 AND OPEN SPACE LOT  
 PLAT NO'S 15888 & 15889  
 PARCEL A  
 EMPLOYMENT LAND USE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Chief, Division of Land Development: Chris Hantz Date: 1/9/07  
 Chief, Development Engineering Division: John Williams Date: 1/3/07  
 Director, Department of Planning and Zoning: James L. Lytle Date: 1/9/07

Date	No.	Revision Description
06/07	1	REVISE DRIVEWAY AND ADD ACCESS BASEMENT FOR LOTS 58-60

**EMERSON TOWNHOUSES**  
 SECTION 2, PHASE 6A, LOTS 45 THRU 89 AND OPEN SPACE LOTS 90 AND 91  
 OWNER / DEVELOPER  
 THE WILLIAMSBURG GROUP  
 5405 HARPER'S FERRY ROAD  
 COLUMBIA, MARYLAND 21044  
 P.O. BOX 1018  
 TEL: (410) 997-8800  
 FAX: (410) 997-4358

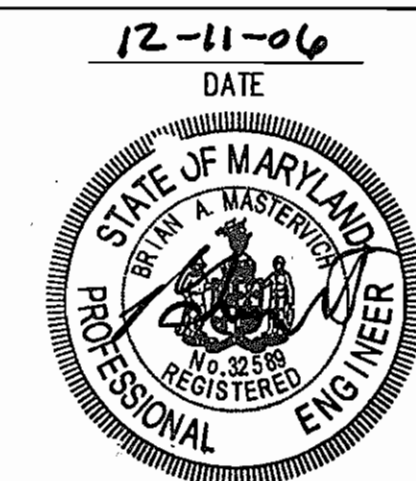
**christopher consultants**  
 engineering · surveying · land planning  
 christopher consultants, Inc.  
 7172 Columbia Gateway Drive (Suite 100) Columbia, MD 21046-2890  
 410.972.8800 · fax: 301.881.0146 · te: 410.972.8803

PERMIT INFORMATION CHART

PROJECT NAME	LOT/PARCEL NO.	ZONING TRACT
EMERSON TOWNHOUSES	LOTS 45 THRU 89	60642
PLAT NO.	GRID NO.	ZONE
15746-41	8/9	TRXD-3
WATER CODE	TAX MAP	ELECTION DISTRICT
14-4318-D	6TH	6TH
SEWER CODE	14-4318-D	

TITLE: **SEDIMENT EROSION CONTROL PLAN**

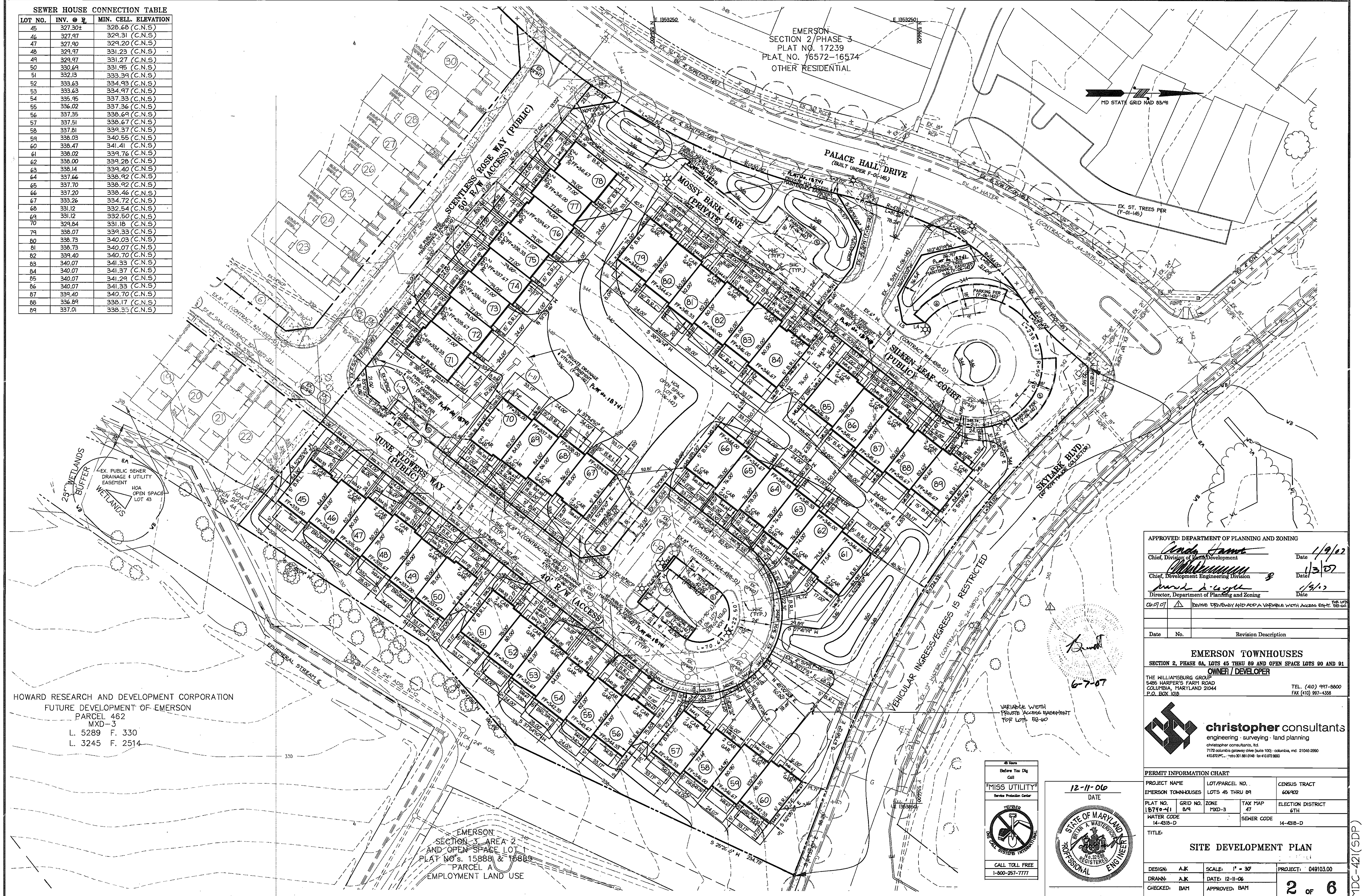
DESIGN: AJK	SCALE: 1" = 30'	PROJECT: 049103.00
DRAWN: AJK	DATE: 12-11-06	
CHECKED: BAM	APPROVED: BAM	<b>3 of 6</b>





LOT NO.	INV. @ F.	MIN. CELL. ELEVATION
45	327.30±	328.68 (C.N.S)
46	327.97	329.31 (C.N.S)
47	327.90	329.20 (C.N.S)
48	329.97	331.23 (C.N.S)
49	329.97	331.27 (C.N.S)
50	330.64	331.95 (C.N.S)
51	332.13	333.39 (C.N.S)
52	333.63	334.93 (C.N.S)
53	333.63	334.97 (C.N.S)
54	335.95	337.33 (C.N.S)
55	336.02	337.36 (C.N.S)
56	337.35	338.64 (C.N.S)
57	337.51	338.67 (C.N.S)
58	337.81	339.37 (C.N.S)
59	338.03	340.55 (C.N.S)
60	338.47	341.41 (C.N.S)
61	338.02	339.76 (C.N.S)
62	338.00	339.28 (C.N.S)
63	338.14	339.40 (C.N.S)
64	337.66	338.92 (C.N.S)
65	337.70	338.92 (C.N.S)
66	337.20	338.46 (C.N.S)
67	333.26	334.72 (C.N.S)
68	331.12	332.54 (C.N.S)
69	331.12	332.50 (C.N.S)
70	329.84	331.18 (C.N.S)
79	338.07	339.33 (C.N.S)
80	338.73	340.03 (C.N.S)
81	338.73	340.07 (C.N.S)
82	339.40	340.70 (C.N.S)
83	340.07	341.33 (C.N.S)
84	340.07	341.37 (C.N.S)
85	340.07	341.29 (C.N.S)
86	340.07	341.33 (C.N.S)
87	339.40	340.70 (C.N.S)
88	336.89	338.17 (C.N.S)
89	337.01	338.33 (C.N.S)

EMERSON  
SECTION 2/PHASE 3  
PLAT NO. 17239  
PLAT NO. 16572-16574  
OTHER RESIDENTIAL



HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
FUTURE DEVELOPMENT OF EMERSON  
PARCEL 462  
MXD-3  
L. 5289 F. 330  
L. 3245 F. 2514

EMERSON  
SECTION 3, AREA 2  
AND OPEN SPACE LOT 1  
PLAT NO'S. 15888 & 15889  
PARCEL A  
EMPLOYMENT LAND USE

APPROVED: DEPARTMENT OF PLANNING AND ZONING	
<i>Andy Hamer</i> Chief, Division of Land Development	Date 1/9/02
<i>William...</i> Chief, Development Engineering Division	Date 1/3/02
<i>Murd...</i> Director, Department of Planning and Zoning	Date 1/9/02
City of Columbia	Revised Driveway and Add a Variable Width Access Easement

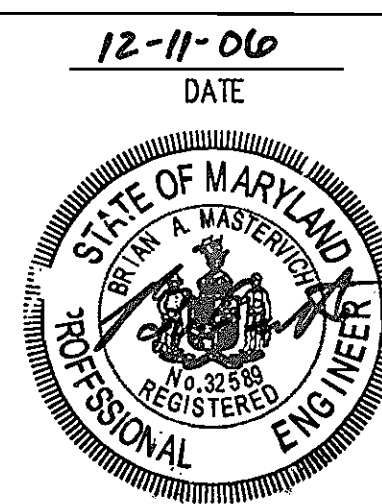
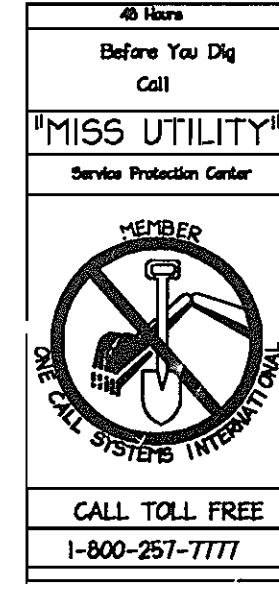
Date	No.	Revision Description
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**EMERSON TOWNHOUSES**  
SECTION 2, PHASE 6A, LOTS 45 THRU 89 AND OPEN SPACE LOTS 90 AND 91  
**OWNER / DEVELOPER**  
THE WILLIAMSBURG GROUP  
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410.872.6700 - fax 410.872.0883

PERMIT INFORMATION CHART		
PROJECT NAME EMERSON TOWNHOUSES	LOT/PARCEL NO. LOTS 45 THRU 89	CENSUS TRACT 606902
PLAT NO. 16740-41	GRID NO. 8/9	ZONE MXD-3
WATER CODE 14-4318-D	TAX MAP 47	ELECTION DISTRICT 6TH
TITLE	SEWER CODE 14-4318-D	

SITE DEVELOPMENT PLAN		
DESIGN: A.K	SCALE: 1" = 30'	PROJECT: 049103.00
DRAWN: A.K	DATE: 12-11-06	
CHECKED: BAY	APPROVED: BAY	<b>2 OF 6</b>



MDC-421(SDP)