

**Development Tracking Chart**

Section and Phase	File Reference Number	Gross Acreage	SFD Ac. (A)	Other Res. Ac. (B)	Employment Ac. (C)	Open Space Ac. (D)	SFD Units	SFD Density (E)	Other Res. Units (F) (Apt/Condo)	Other Res. Density (G)
21A	F-01-136	8.4	3.6 (43%)	0	0	4.8 (57%)				
21B	F-01-137	97.8	497 (508%)	0.0 (0.2%)	0	401 (414)	160	3.2 DU/Ac.	80 SFA	10 DU/Ac.
21C	F-01-145	127	0	127 (100%)	0	0			120 SFA	9.4 DU/Ac.
21D	F-02-145	18.5	0	12.0 (64.9%)	0	6.5 (35.1%)			120 SFA	10 DU/Ac.
311	F-02-131	68.5	0	0	221 (31.8%)	474 (68.2%)				
312	F-02-178	12.3	0	0	8.9 (72.4%)	3.4 (27.6%)				
214	F-03-13	44.5	274 (615%)	0	0	171 (385%)	120	4.4 DU/Ac.		
215C	F-03-175	3.0	0.7 (23.3%)	0	0.2 (6.7%)	2.1 (70%)				
215A (F)	F-04-68	10.4	0	9.4 (90.4%)	0	1.0 (9.6%)			100 SFA	10.6 DU/Ac.
215A & 313	F-04-53	29.2	227 (77.7%)	0	3.9 (13.4%)	2.6 (8.9%)	87	3.9 DU/Ac.		
215B & 314	F-04-127	23.9	0	2.9 (12.1%)	141 (59%)	6.9 (28.9%)			60 Apt (24%) 30 Apt (12%)	11.4 DU/Ac.
216B	F-05-89	6.2	4.9 (79.0%)	0	0	1.3 (21.0%)	20	4.1 DU/Ac.		
217	F-05-93	8.5	0	8.5 (100%)	0	0			73 Apt 47 SFA	14.1 DU/Ac.
218A (G)	F-07-128	0.0	0	0	0	0	3			
218B & 315	F-07-141	28.8	0	8.2 (28.5%)	12.9 (44.8%)	7.7 (26.7%)			117 Apt	14.3 DU/Ac.
219	F-08-82	52.4	0	0	0	52.4 (100%)				
316	F-08-04 (SDP-08-54)	13.08	0	0	13.08 (100%)					
317	F-08-08	45.13	0	0	45.13 (100%)					
Total		484.31	109 (22.5%)	617 (12.7%)	180.2 (37.2%)	193.3 (39.9%)	390	3.6 DU/Ac.	250 Apt 500 SFA	12.1 DU/Ac.

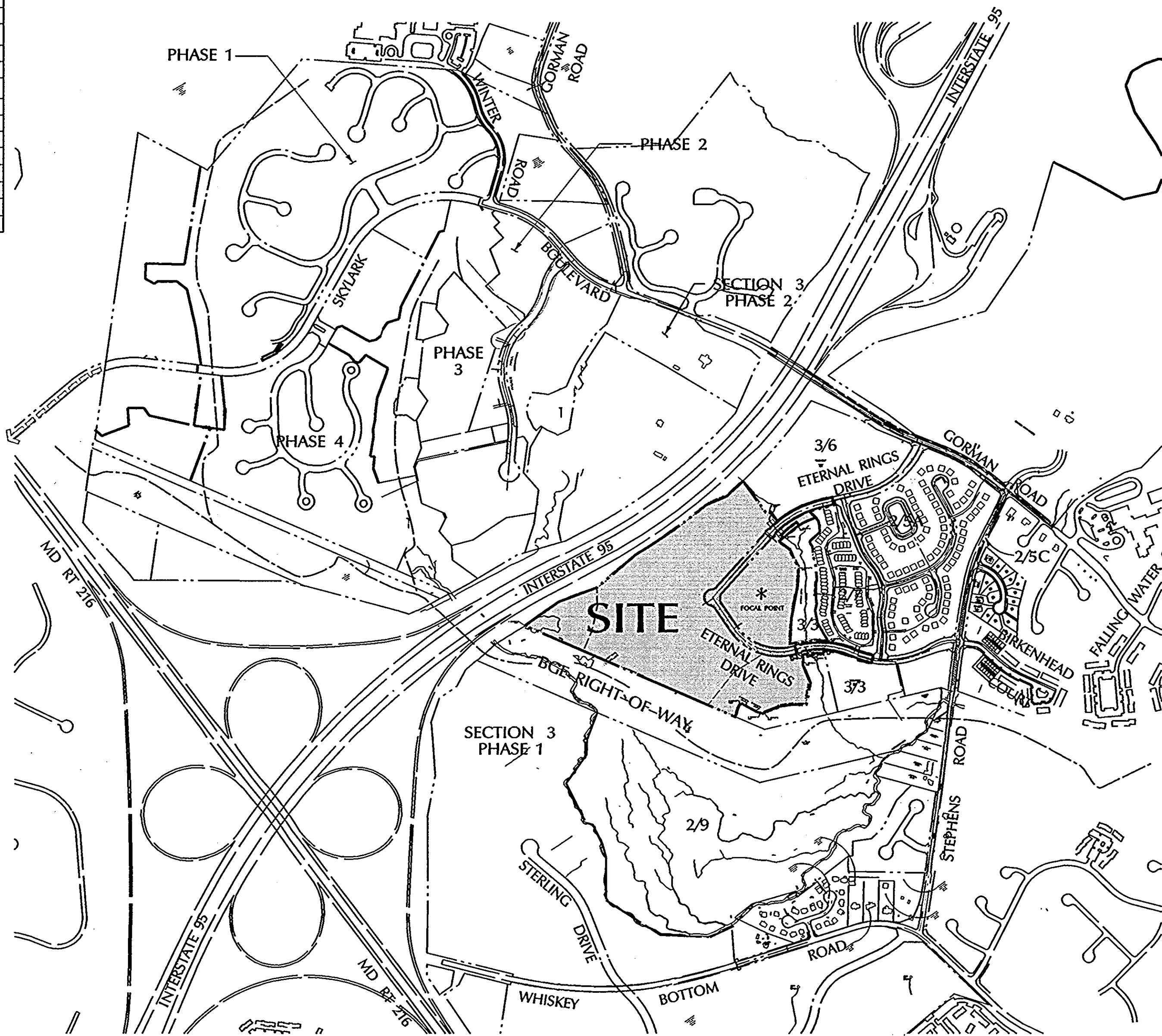
(A) SFD and OR acreages includes Common Open Areas (COA) lots.  
 (B) Overall allowed density based on maximum number of units allowed per ZB 979 M and Max. Allowed Land Use Acreages.  
 (C) Max. density for any individual SFD area is 5.0 units/acre.  
 (D) Max. density for an individual OR area is 20.0 units/acre.  
 (E) Proposed density calculations are shown for informational purposes only. The proposed density table is based on proposed land use acreages. Those calculations will be recorded against the maximum density table with the final plat/phase.  
 (F) Re-subdivided by F-06-25 to create 10 acres of created Open Space.  
 (G) This is a re-subdivision of SFD Land Use recorded with F-03-13.

**General Notes**

- The project is in conformance with the latest Howard County standards unless waivers have been approved.
- Location of tree lines, streams, topography, etc. structures, etc. derived from low-level flight & aerial photo acquired April 8, 2002. 100' floodplain per previously approved study submitted with Emerson Section 2 Phase 5A (F-04-53).
- Water and sewer extensions for this project will be public. Contract Nos. 24-4548-D
- Existing utilities shown are taken from record drawings obtained from Howard County Water & Sewer Contract Nos. 24-4120 and 528-5
- Boundary shown hereon is based on field survey by DMW dated September, 2002.
- Wetland report was prepared by DMW dated February, 2002.
- AFPO Traffic Analysis approved under 5-99-12.
- A noise study was approved under 5-99-12.
- There are no known cemeteries or grave sites on this property.
- Stormwater Management Quality and Quantity is provided by two P-3 Wet Extended Detention Facilities (WetPonds). Recharge to be provided at time of development. The facilities are to be privately owned and maintained by the property owner.
- This proposal is subject to the Fifth Edition of the Subdivision and Land Development Regulations and is compliance with County Council Bill 50-2001 which amends portions of the Zoning Regulations.
- This phase of the Emerson project complies with Section 16.1200 of the Howard County Code for Forest Conservation by retaining 137.2 acres of existing forest and providing 5.22 acres of reforestation. When evaluated cumulatively with previous phases of the project, 34.67 acres of forest have been cleared, 57.67 acres have been retained, and 24.72 acres have been reforested. The cumulative reforestation obligation is 24.60 acres.
- The subject property is zoned MDD-3 per the 2/02/04 Comprehensive Zoning Plan, the 7/22/06 Comp Lite Zoning Regulation Amendments and per ZB Case No. 979M approved on 09/03/06.
- Phasing for this project is in accordance with the Decision and Order for Zoning Case ZB-979M and Decision and Order for PB-339 and PB-359 (Comprehensive Sketch Plan, 5-99-12).
- On September 3, 1998, the Zoning Board granted approval of ZB-979M for the Preliminary Development Plan and Development Criteria to establish the MDD-3 Zoning District for this project.
- The minimum building setback restrictions from property lines and public road right-of-way lines is to be in accordance with the Development Criteria approved with 5-99-12 and the Decision and Order for PB-339 and PB-359.
- The stream delineation for this project was prepared by DMW and dated June, 2006.
- No grading, removal of vegetative cover or trees, paving and new structures shall be permitted within the wetlands, streams, or their required buffers, forest conservation easement and 100' year flood plain, except as determined essential or necessary.
- 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, or building and grading permits.
- There are no known cemeteries or historic structures located within the limits of this plan.
- The Division of Land Development has determined that the two proposed stream/flood plain crossings for the Eternal Rings Drive extension is considered necessary or essential stream/flood plain crossings for this subdivision because the ultimate road alignment was shown and approved under Comprehensive Sketch Plan 5-99-12 and PB Cases, PB-339 and PB-359 and in accordance with Sections 16.11(c) and 16.11(c) of the Subdivision and Land Development Regulations.
- 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 Nos. 47DA, 47EA and 47G2 were used for this project.
- The floodplain study for this project was prepared by DMW Inc, dated June 2003, and was approved under F-04-053.
- The geotechnical report for this project was prepared by the Balter Company, dated December 17, 2007.
- 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 Nos. 47DA, 47EA and 47G2.

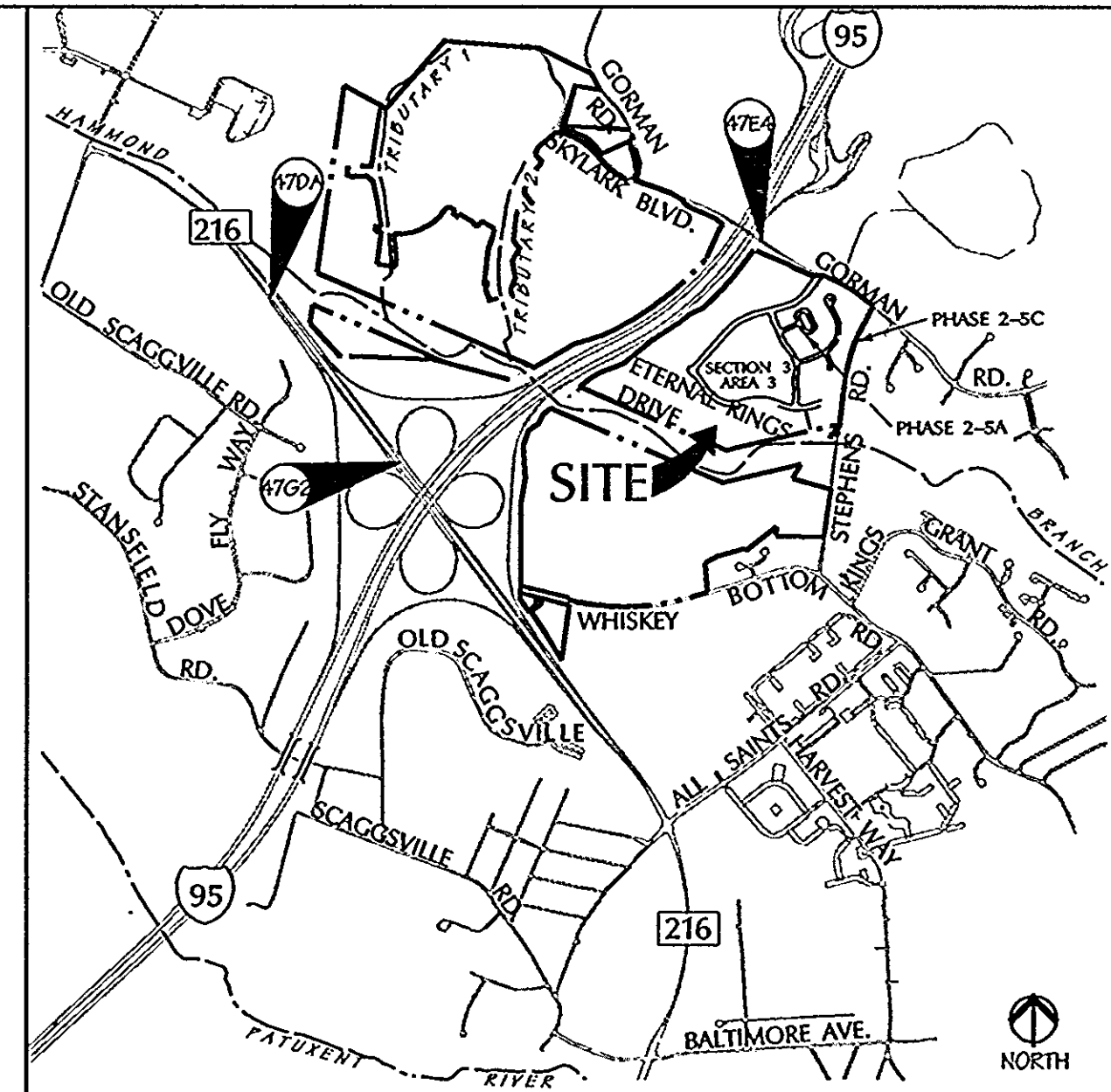
# Preliminary Plan EMERSON

## SECTION 3 - AREA 7 - PARCEL A Howard County, Maryland



**LOCATION MAP**

Scale: 1"=600'



**VICINITY MAP**

SCALE: 1"=2000'  
HOWARD COUNTY ADC MAP COORDINATES: MAP 19-17 11

**BENCHMARK**

DESCRIPTION		
COORDINATES IN MARYLAND NAD83(99) (HORIZONTAL) AND NAD83(99) (VERTICAL) DATUMS.		
47DA	47EA	47G2
NORTHING: 1633191.904	NORTHING: 1633226.2295	NORTHING: 1624010.1212
EASTING: 4128667.79	EASTING: 413136.2560	EASTING: 4193392.79
ELEVATION: 3158.05 ft.	ELEVATION: 336.929 ft.	ELEVATION: 364.20 ft.

**Sheet Index**

SHEET	DESCRIPTION
1	COVER SHEET
2	SITE PLAN & SOILS MAP
3	GRADING AND SEDIMENT CONTROL PLAN
4	STORMWATER MANAGEMENT PLAN
5	SWM EXISTING CONDITIONS DRAINAGE AREA MAP
6	SWM PROPOSED CONDITIONS DRAINAGE AREA MAP
7	LANDSCAPE AND STREET TREE PLAN
8	LANDSCAPE DETAILS
9	FOREST CONSERVATION PLAN
10	FOREST CONSERVATION DETAILS
11	STORM DRAIN DRAINAGE AREA MAP

**DATA SOURCES**

WETLANDS AND SOME STREAMS LOCATED IN FIELD BY GPS ON 12/10/01  
 LOCATIONS OF TREE LINES, STREAMS, TOPOGRAPHY, EX. STRUCTURES, ETC., DERIVED FROM LOW-LEVEL FLIGHT & AERIAL PHOTO ACQUIRED APRIL 8, 2002  
 BOUNDARY SHOWN PER BOUNDARY SURVEY DATED SEPTEMBER, 2002, PREPARED BY DAVE MCCUNE - WALKER, INC.  
 SOILS (IF SHOWN) TAKEN FROM HOWARD COUNTY SOIL SURVEY, 1966.

**Site Analysis Data Chart**

- General Site Data**
  - a. Present Zoning: PEC-MDD-3
  - b. Applicable DPZ File References: SDP-06-113, SDP-06-112, PLAT NOS. 17669 & 17366 5-99-12, PB-339, PB-359, F-04-53, AND ZB-979M
  - c. Proposed Use of Site or Structure(s): COMMERCIAL
  - Proposed Water and Sewer Systems:  Public  Private
  - Any Other Information Which May be Relevant: \_\_\_\_\_
- Area Tabulation**
  - a. Total Area of Site: 45.13 Acres (this phase).
  - b. Approximate Area of 100 Year Floodplain: 1.61± Acres.
  - c. Approximate Area of Steep Slopes (25% or Greater): N/A
  - d. Net Area of Site: 43.52± Acres.
  - e. Area of Proposed Building Lots: N/A
  - f. Area of Proposed Open Space Lots: N/A
  - g. Area of Proposed Preservation Parcels: N/A
  - h. Area of Bulk Parcel A: 43.58± Acres.
  - i. Area of Proposed Public Roads: 1.66± Acres.
  - j. Area of Proposed Private Roads: N/A Acres.
- Unit/Lot Tabulation**
  - a. Total Number of Residential Units/Lots Allowed for Project by Right: N/A
  - b. Total Number of Residential Units/Lots Proposed on this Submission: N/A
  - c. Density of Project Per Gross Acre: N/A
  - d. Total Number of Preservation Parcels Proposed: N/A
  - e. Total Number of Open Space Lots Proposed: N/A
  - f. Total Number of Non-Buildable Bulk Parcels Proposed: N/A
  - g. Total Number of Lot/Lot Parcels Proposed: 1
- Open Space Data**
  - a. Minimum Residential Lot Size Selected: N/A
  - b. Open Space Required: N/A
  - c. Total Open Space Provided on This Submission: N/A
  - d. Area of Recreation Open Space Required: N/A
  - e. Area of Rec. Open Space Provided on This Submission: N/A

TENTATIVELY APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY

*Mark A. Long*  
 PLANNING DIRECTOR

5/20/08  
 DATE

08-05-08  
 Date

28770  
 Professional Engr. No.

Date	No.	Revision Description
		PRELIMINARY PLAN EMERSON SECTION 3 - AREA 7 - PARCEL A Future Employment Use

OWNER/ DEVELOPER:  
**THE HOWARD RESEARCH & DEVELOPMENT CORPORATION**  
 10275 Little Patuxent Parkway  
 Columbia, Maryland 21044  
 (410) 992-6284

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

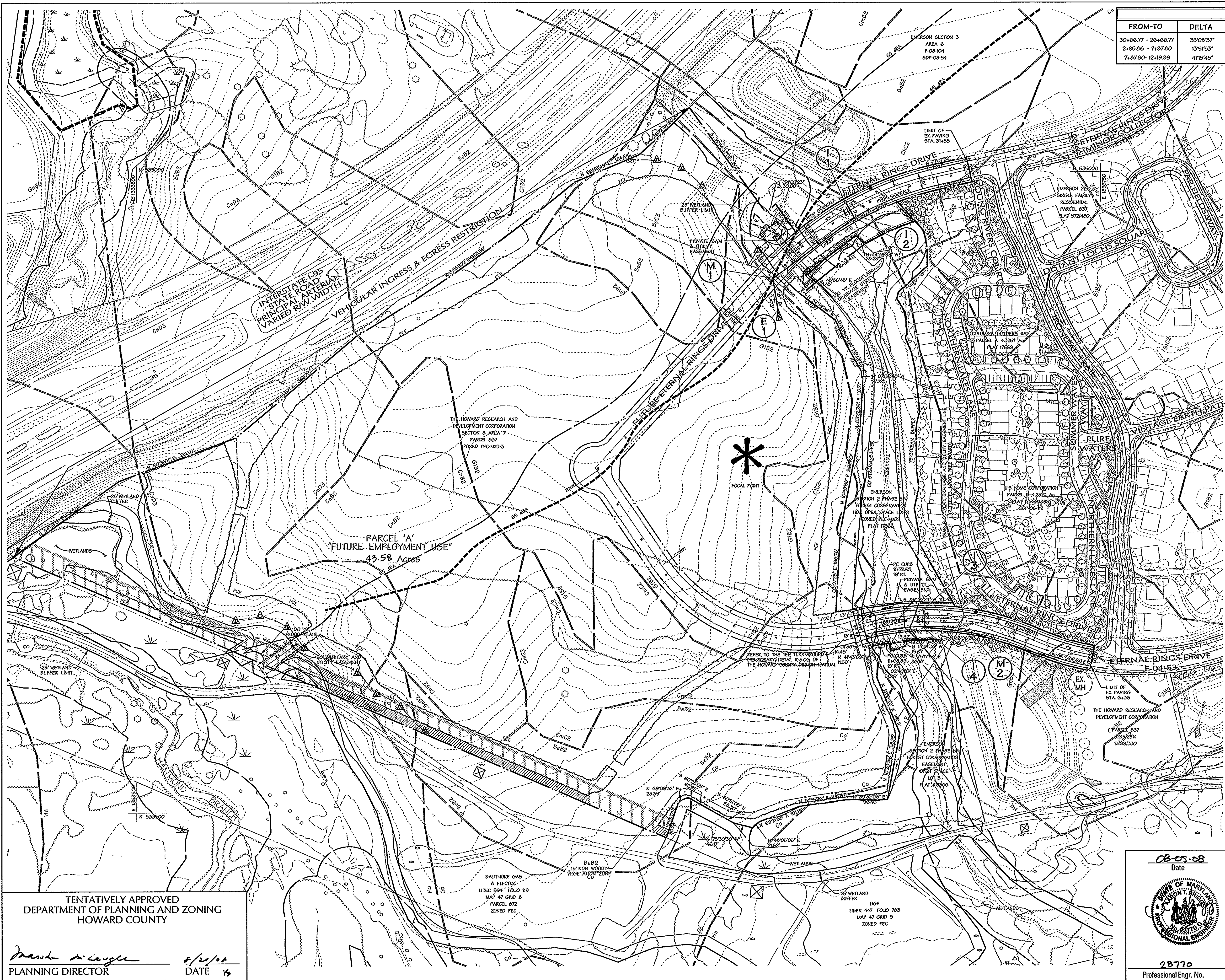
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

SECTION NAME	SECTION/AREA	SEC.3 AREA 7	LOT/PARCEL #
EMERSON	47	6TH	Part of 837
DATE OF MAP	DATE OF PLAN	DATE OF PLAN	DATE OF PLAN
15	PEACED 31	6TH	6069.03

TITLE: **COVER SHEET**

Des By	RJD	Scale	AS SHOWN	Proj. No.	95054.W
Drn By	GMO	Date	8/8/08		
Chk By		Approved			1 of 11

CURVE DATA					
FROM-TO	DELTA	RADIUS	LENGTH	TANGENT	CHORD
30+66.77 - 26+66.77	39°08'37"	750.00'	460.03'	237.51'	S 59°33'34" E 452.25'
2+35.26 - 7+87.20	13°51'53"	600.00'	145.19'	72.95'	S 72°54'17" W 144.84'
7+87.20 - 12+19.89	41°19'45"	600.00'	432.10'	225.90'	S 88°36'13" E 422.82'



**Legend**

- EX CURB & GUTTER
- EX MAJOR CONTOURS
- EX MINOR CONTOURS
- EX STORM DRAIN
- EX SEWER
- EX WATER
- EXISTING TREE LINE
- EXISTING WETLAND LIMIT
- PROPERTY LINE
- ROADWAY RIGHT-OF-WAY
- FOREST CON EASEMENT
- SOILS
- PROPOSED TREE LINE
- FLOODPLAIN
- STREAM BUFFER

**DATA SOURCES**  
 WETLANDS AND SOME STREAMS LOCATED IN FIELD BY GPS ON 12/10/01  
 LOCATIONS OF TREE LINES, STREAMS, TOPOGRAPHY, EX STRUCTURES, ETC., DERIVED FROM LOW-LEVEL FLIGHT & AERIAL PHOTO ACQUIRED APRIL 8, 2002  
 BOUNDARY SHOWN PER BOUNDARY SURVEY DATED SEPTEMBER, 2002, PREPARED BY DAFT-MACONE - WALKER, INC.  
 SOILS TAKEN FROM HOWARD COUNTY SOIL SURVEY, 1968.

Date	No.	Revision Description

**PRELIMINARY PLAN**  
**EMERSON**  
 SECTION 3 - AREA 7 - PARCEL A  
 "Future Employment Use"  
 THE HOWARD RESEARCH & DEVELOPMENT CORPORATION  
 10275 Little Patuxent Parkway  
 Columbia, Maryland 21044  
 (410) 932-6224

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 Dan McCune-Walker, Inc.  
 200 East Pennsylvania Avenue  
 Towson, Maryland 21286  
 (410) 286-3353  
 Fax: 286-4705

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

08-05-08  
 Date

28770  
 Professional Engr. No.

DESIGNER NAME	SECTION/AREA	SEC. 3 AREA 7	DATE/NO. #
EMERSON			
DATE ON CD	NO. OF SHEETS	TOTAL SHEETS	DATE/NO. #
15	47	6711	6069.03
DATE	NO. OF SHEETS	TOTAL SHEETS	DATE/NO. #

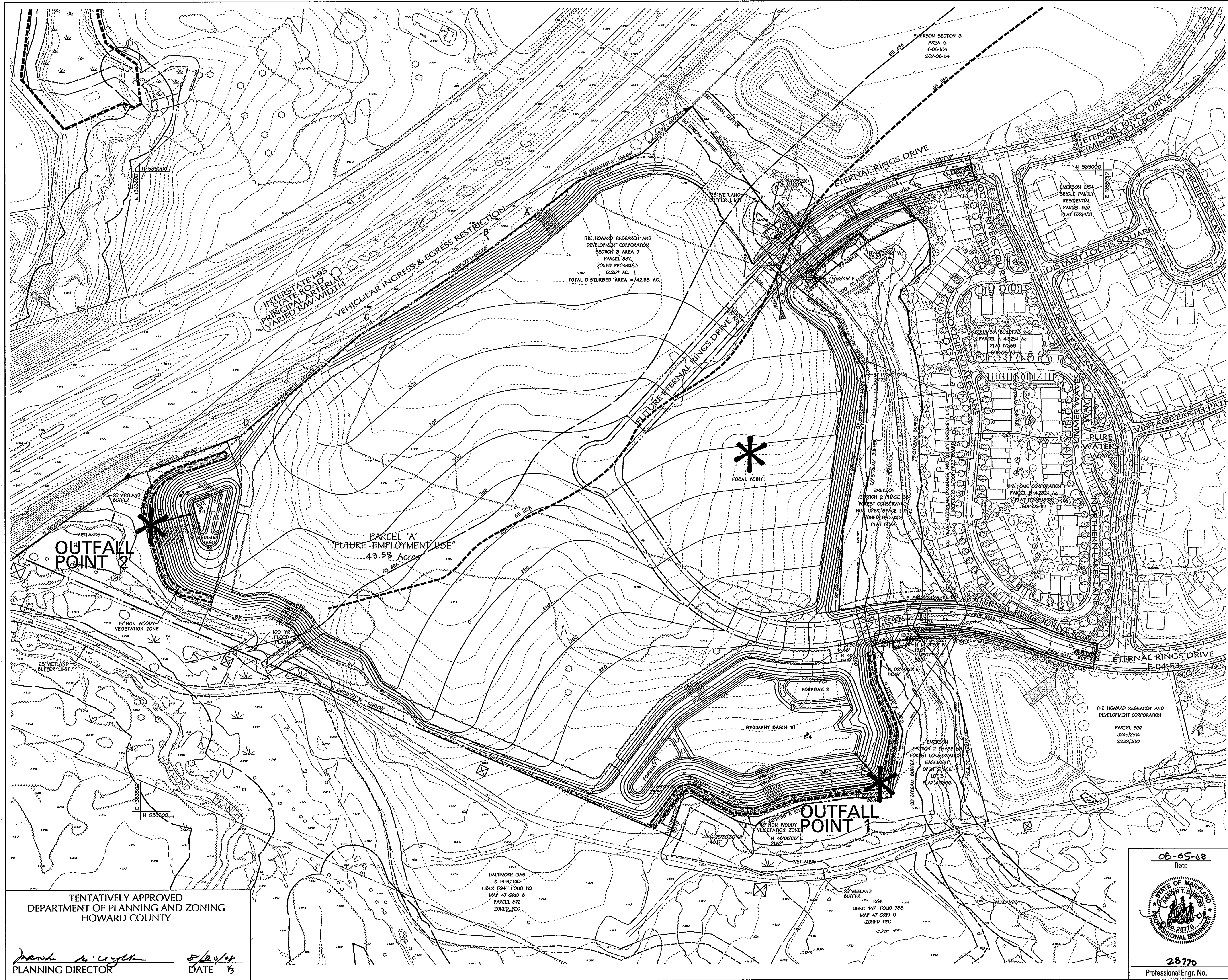
**TITLE**  
 PRELIMINARY  
 SITE PLAN & SOILS MAP

Des By	RJD	Scale	1"=100'	Proj. No.	95054.W
Drn By	GMO	Date	8/8/08	2 of 11	
Chk By		Approved			

TENTATIVELY APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY

*Dan A. Leight*  
 PLANNING DIRECTOR

8/20/08  
 DATE



### Legend

EX CURB & GUTTER	---
EX MAJOR CONTOURS	---
EX MINOR CONTOURS	---
EX STORM DRAIN	---
EX SEWER	---
EX WATER	---
EXISTING TREE LINE	---
EXISTING WETLAND LIMIT	---
PROPERTY LINE	---
ROADWAY RIGHT-OF-WAY	---
PROPOSED LOT LINE	---
PROPOSED EASEMENT	---
PROPOSED CURB & GUTTER	---
PROPOSED SIDEWALK	---
PROP. STORM DRAIN	---
PROP. SEWER	---
PROP. WATER	---
PROP. MAJOR CONTOURS	---
PROP. MINOR CONTOURS	---
SILT FENCE	---
LIMIT OF DISTURBANCE	---
STABILIZED CONSTRUCTION ENTRANCE	---
PROPOSED TREE LINE	---
FLOODPLAIN	---
STREAM BUFFER	---

**DATA SOURCES**  
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 LOCATIONS OF TREE LINES, STREAMS, TOPOGRAPHY, EX STRUCTURES, ETC., DERIVED FROM LOW-LEVEL FLIGHT & AERIAL PHOTO ACQUIRED APRIL 8, 2002.  
 BOUNDARY SHOWN PER BOUNDARY SURVEY DATED SEPTEMBER, 2002, PREPARED BY DAFT-MCQUINN - WALKER, INC.  
 SOILS (IF SHOWN) TAKEN FROM HOWARD COUNTY SOIL SURVEY, 1958.

Date	No.	Revision Description
		PRELIMINARY PLAN EMERSON
		OWNER/DEVELOPER: SECTION 3 - AREA 7 - PARCEL A "Future Employment Use" THE HOWARD RESEARCH & DEVELOPMENT CORPORATION 10275 Little Patuxent Parkway Columbia, Maryland 21044 (410) 392-6284

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

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

08-65-68  
 Date

28770  
 Professional Engr. No.

P-08-08

TITLE: PRELIMINARY GRADING AND SEDIMENT CONTROL PLAN			
Des By	RJD	Scale	1"=100'
Drn By	GMO	Date	8/10/08
Chk By	Approved	Proj. No.	95054.W
			3 of 11

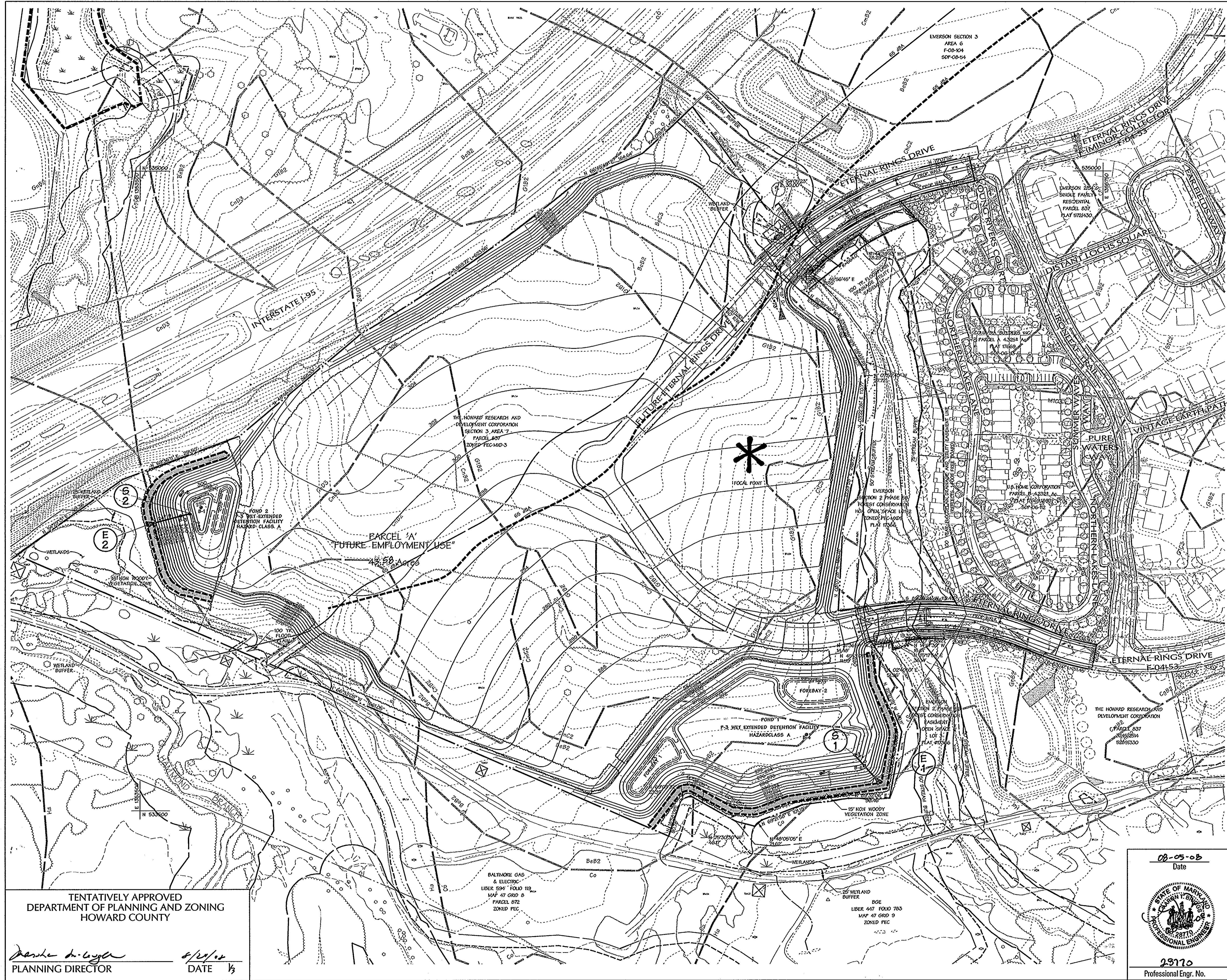
TENTATIVELY APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY

*Frank A. Light*  
 PLANNING DIRECTOR

8/20/08  
 DATE

BALTIMORE GAS & ELECTRIC  
 LIBER 594 FOLIO 119  
 MAP 47 GRID 6  
 PARCEL 872  
 ZONED\_FEC

BGE  
 LIBER 447 FOLIO 783  
 MAP 47 GRID 9  
 ZONED\_FEC



### Legend

EX CURB & GUTTER	---
EX MAJOR CONTOURS	--- 400 ---
EX MINOR CONTOURS	--- 402 ---
EX STORM DRAIN	---
EX SEWER	---
EX WATER	---
EXISTING TREE LINE	---
EXISTING WETLAND LIMIT	---
PROPERTY LINE	---
ROADWAY RIGHT-OF-WAY	---
PROPOSED LOT LINE	---
PROPOSED EASEMENT	---
PROPOSED CURB & GUTTER	---
PROPOSED SIDEWALK	---
PROP. STORM DRAIN	15" RCP
PROP. SEWER	6" S.
PROP. WATER	4" W.
PROP. MAJOR CONTOURS	400
PROP. MINOR CONTOURS	402
SOIL BOUNDARY	B-4
NON WOODY VEGETATION ZONE	---

DATA SOURCES  
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 SOILS (IF SHOWN) TAKEN FROM HOWARD COUNTY SOIL SURVEY, 1968.

Date	No.	Revision Description

**DMW**  
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 (410) 296-5853  
 Fax 296-4705

A Team of Land Planners,  
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08-05-08  
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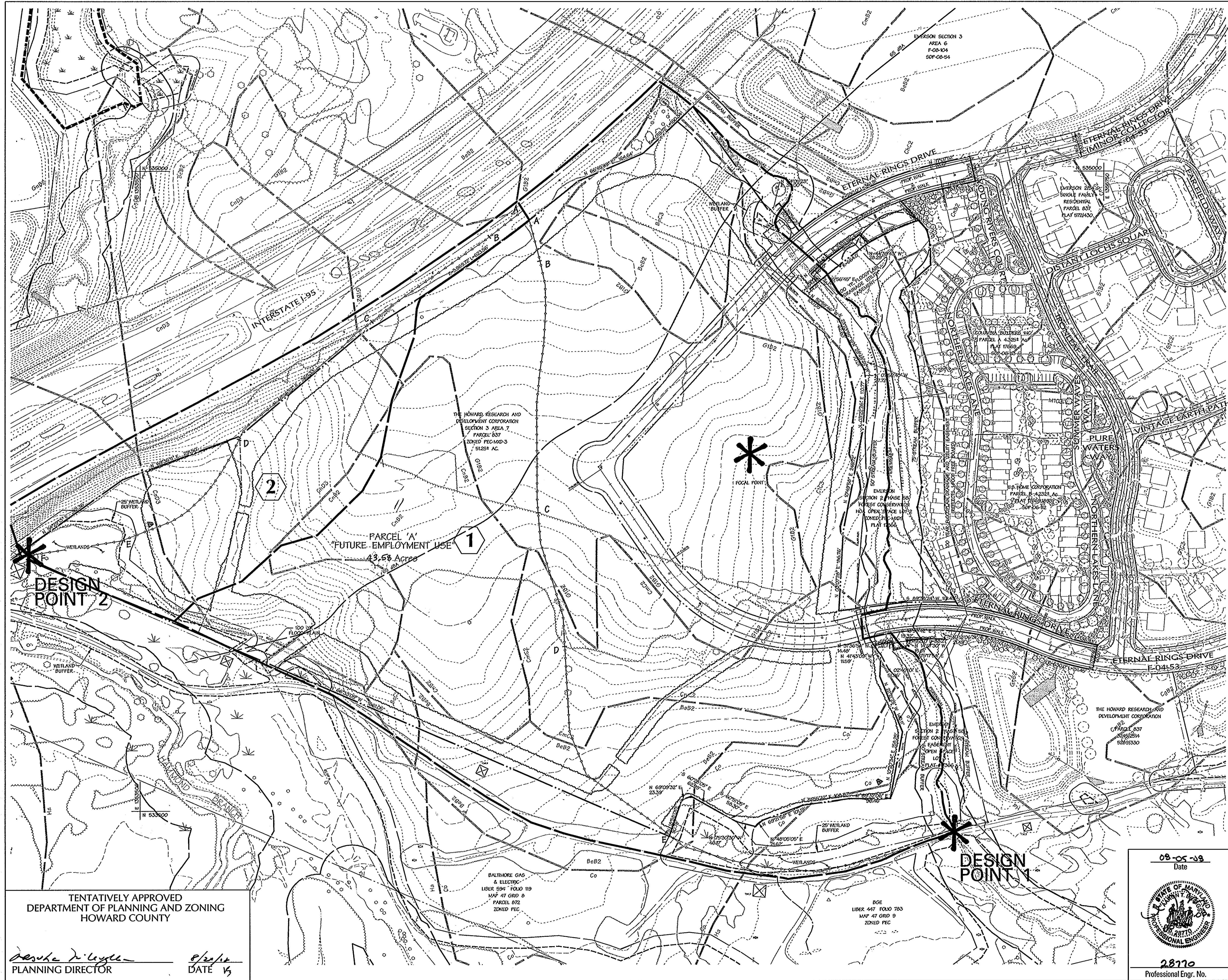
P-08-08

SURVEYOR NAME	EMERSON	SECTION/AREA	SEC.3 AREA 7	LOT/PARCEL #	LOT/PARCEL #
PLAT OR LOT	15	SECTION	47	TRACT	6069.03
DATE	15 FEBRUARY 2008	DATE	6TH	DATE	
TITLE	PRELIMINARY STORMWATER MANAGEMENT PLAN				
Des By	RJD	Scale	1"=100'	Proj. No.	95054.W
Drn By	GMO	Date	8/18/08		4 of 11
Chk By	Approved				

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 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY

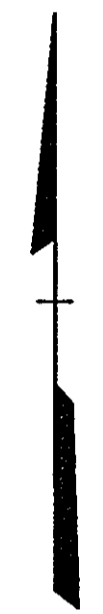
*Debra L. Unger*  
 PLANNING DIRECTOR

8/20/08  
 DATE



DA=50.50 Ac.  
0.0789 SQ.MI. **1** RCN=69  
Tc=0.47 HRS.

DA=8.47 Ac.  
0.0132 SQ.MI. **2** RCN=77  
Tc=0.59 HRS.



**Legend**

EX CURB & GUTTER	---
EX MAJOR CONTOURS	---
EX MINOR CONTOURS	---
EX STORM DRAIN	---
EX SEWER	---
EX WATER	---
EXISTING TREE LINE	---
EXISTING WETLAND LIMIT	---
PROPERTY LINE	---
ROADWAY RIGHT-OF-WAY	---
EXISTING DRAINAGE AREA	---
EXISTING TO PATH	---

**DATA SOURCES**  
 WETLANDS AND SOME STREAMS LOCATED IN FIELD BY GPS ON 12/10/01.  
 LOCATIONS OF TREELINES, STREAMS, TOPOGRAPHY, EX STRUCTURES, ETC., DERIVED FROM LOW-LEVEL FLIGHT & AERIAL PHOTO ACQUIRED APRIL 6, 2002.  
 BOUNDARY SHOWN PER BOUNDARY SURVEY DATED SEPTEMBER, 2002, PREPARED BY DAFT-MCGUIRE - WALKER, INC.  
 SOILS (IF SHOWN) TAKEN FROM HOWARD COUNTY SOIL SURVEY, 1968.

Date	No.	Revision Description
		PRELIMINARY PLAN EMERSON SECTION 3 - AREA 7 - PARCEL A Future Employment Use

OWNER/DEVELOPER:  
**THE HOWARD RESEARCH & DEVELOPMENT CORPORATION**  
 10275 Little Patuxent Parkway  
 Columbia, Maryland 21044  
 (410) 992-6284

**DMW**  
 Daft-McGuire-Walker, Inc.  
 200 East Pennsylvania Avenue  
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 (410) 296-5859  
 Fax 296-4705

A Team of Land Planners,  
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08-05-09  
Date

28770  
Professional Engr. No.

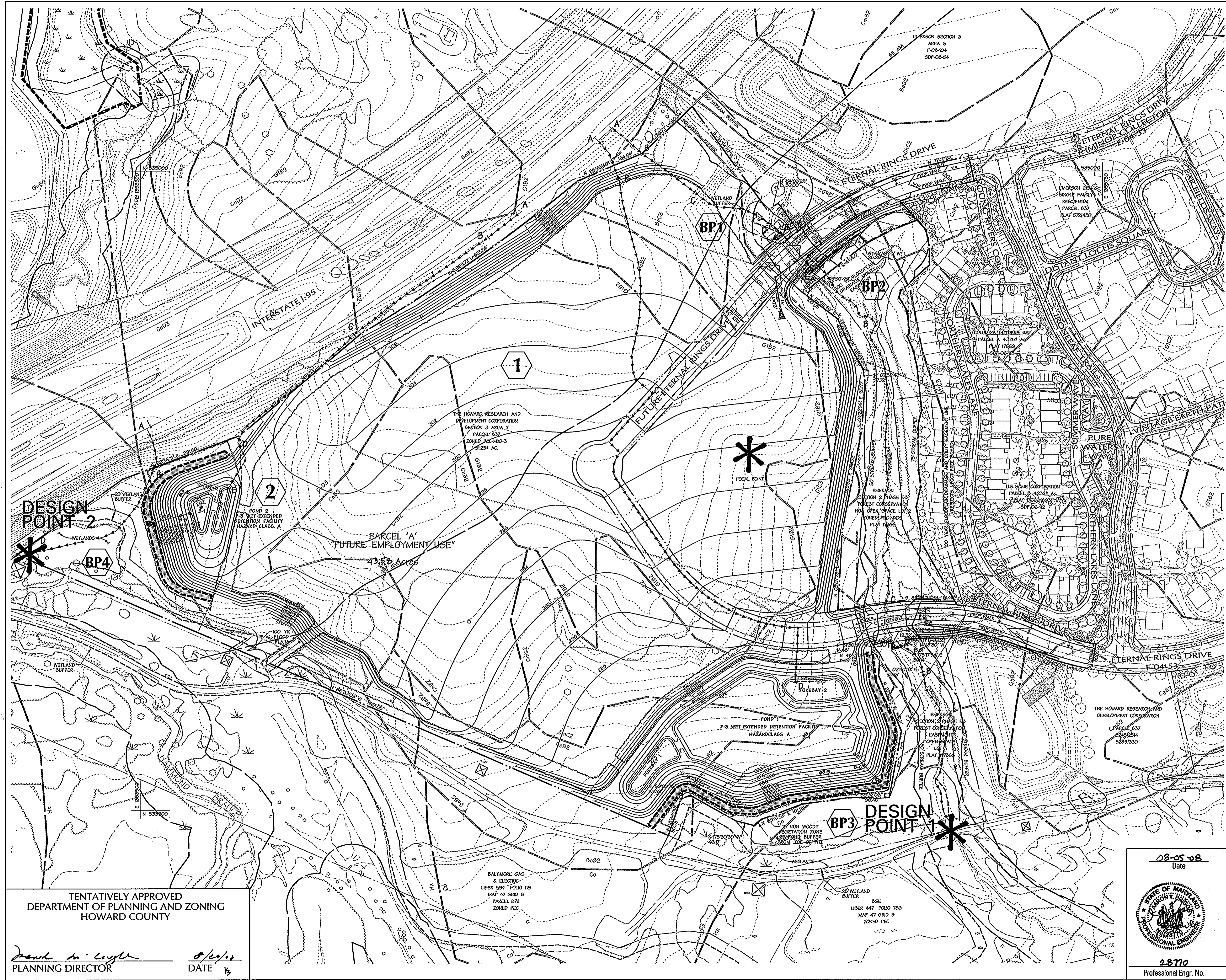
P-08-08

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 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY

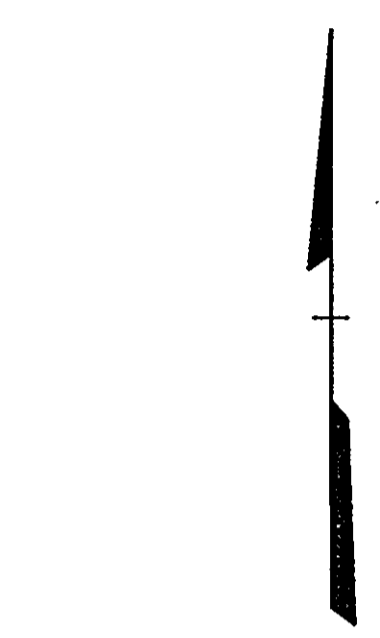
*Debra D. Lytle*  
 PLANNING DIRECTOR

8/22/08  
 DATE 13

DESIGNER NAME	SECTION/AREA	SEC. 3 AREA 7	LOT/PARCEL #
EMERSON	SECTION 3	AREA 7	PART OF 837
MAP OR LOT	LIBER 594 FOLIO 119	MAP 47 GRID 9	PARCEL 872
WATER CODE	15 (PECMDD 3)	47	6069.03
TITLE	PRELIMINARY EXISTING CONDITIONS DRAINAGE AREA MAP		
Des By	RJD	Scale	1"=100'
Drn By	GMO	Date	8/18/08
Chk By	Approved	Proj. No.	95054.W
			5 of 11



DA=32.90 Ac. 0.0514 SQ.MI.	<b>1</b>	RCN=94 Tc=0.26 HRS.
DA=4.78 Ac. 0.0075 SQ.MI.	<b>2</b>	RCN=94 Tc=0.37 HRS.
DA=2.26 Ac. 0.0035 SQ.MI.	<b>BP1</b>	RCN=79 Tc=0.15 HRS.
DA=2.73 Ac. 0.0043 SQ.MI.	<b>BP2</b>	RCN=70 Tc=0.10 HRS.
DA=9.04 Ac. 0.0141 SQ.MI.	<b>BP3</b>	RCN=71 Tc=0.10 HRS.
DA=2.82 Ac. 0.0044 SQ.MI.	<b>BP4</b>	RCN=77 Tc=0.14 HRS.



**Legend**

EX CURB & GUTTER	---
EX MAJOR CONTOURS	-----
EX MINOR CONTOURS	-----
EX STORM DRAIN	---
EX SEWER	---
EX WATER	---
EXISTING TREE LINE	---
EXISTING WETLAND LIMIT	---
PROPERTY LINE	---
ROADWAY RIGHT-OF-WAY	---
PROPOSED LOT LINE	---
PROPOSED EASEMENT	---
PROPOSED CURB & GUTTER	---
PROPOSED SIDEWALK	---
PROP. STORM DRAIN	---
PROP. SEWER	---
PROP. WATER	---
PROP. MAJOR CONTOURS	---
PROP. MINOR CONTOURS	---
EXISTING DRAINAGE AREA	---
EXISTING T&E PATH	---

DATA SOURCES  
 WETLANDS AND SOME STREAMS LOCATED IN FIELD BY GPS ON 12/10/04.  
 LOCATIONS OF TREELINES, STREAMS, TOPOGRAPHY, EX STRUCTURES, ETC., DERIVED FROM LOW-LEVEL FLIGHT & AERIAL PHOTO ACQUIRED APRIL 8, 2002.  
 BOUNDARY SHOWN PER BOUNDARY SURVEY DATED SEPTEMBER 2002, PREPARED BY DAFT-MAGNIE - WALKER, INC.  
 SOILS (IF SHOWN) TAKEN FROM HOWARD COUNTY SOIL SURVEY, 1968.

Date	No.	Revision Description
		PRELIMINARY PLAN EMERSON SECTION 3 - AREA 7 - PARCEL A "Future Employment Use" THE HOWARD RESEARCH & DEVELOPMENT CORPORATION 10275 Little Patuxent Parkway Columbia, Maryland 21044 (410) 392-6284

**DMW**  
 Daft-McCune-Walker, Inc.  
 200 East Pennsylvania Avenue  
 Towson, Maryland 21286  
 (410) 296-3833  
 Fax: 296-4705

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

SUBDIVISION NAME	EMERSON	BETH/AREA	SEC 3 AREA 7	LOT/BLK. #	PART OF 837
DATE OF SURVEY	15	DATE OF MAP	47	DATE OF PLAN	6069.03
WATER CODE		SEWER CODE	6TH		

08-05-08  
 Date

28710  
 Professional Engr. No.

TENTATIVELY APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY

*Frank A. Coyle*  
 PLANNING DIRECTOR

*G. Kelly*  
 DATE 1/3

TITLE			
PRELIMINARY PROPOSED CONDITIONS DRAINAGE AREA MAP			
Des By	RJD	Scale	1"=100'
Proj. No.	95054.W	Date	8/8/08
Drn By	GMO	Professional Engr. No.	6 of 11
Chk By	Approved		



**SCHEDULE A  
PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJACENT to ROADWAYS		ADJACENT to PERIMETER PROP.				
			P 2		P 5	P 7	
LANDSCAPE TYPE "A"							
LINEAR FEET OF PERIMETER			1390 LF.		2865 LF.	420 LF.	
LANDSCAPE TYPE "B"							
LINEAR FEET OF PERIMETER							
LANDSCAPE TYPE "C"	P 6	P 1		P 3	P 4		
LINEAR FEET OF PERIMETER	1900 LF.	60 LF.		40 LF.	20 LF.		
CREDIT FOR EXISTING VEGETATION (DESCRIBE BELOW IF NEEDED)	470 LF.	N/A	1390 LF.	N/A	N/A	2865 LF.	420 LF.
CREDIT FOR BERM (DESCRIBE BELOW IF NEEDED)	N/A	N/A	N/A	N/A	N/A		
NUMBER OF PLANTS REQUIRED							
SHADE TREES	36	2	0	1	1	0	0
EVERGREEN TREES	72	3	0	2	1	--	0
SHRUBS	--	--	--	--	--	--	--
NUMBER OF PLANTS PROVIDED							
SHADE TREES	36	2	0	1	1	0	0
EVERGREEN TREES	72	3	0	2	1	--	0
OTHER TREES (2:1 SUBSTITUTION)	--	--	--	--	--	--	--
SHRUBS (10:1 SUBSTITUTION)	--	--	--	--	--	--	--
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	--	--	--	--	--	--	--

NOTES:  
 1. THE DEVELOPER WILL PROVIDE ALL PERIMETER LANDSCAPE OBLIGATIONS.  
 2. PERIMETER LANDSCAPING WILL BE PROVIDED AT THE FINAL PLAN STAGE.  
 3. STREET TREES WILL BE PROVIDED @ 1140 LF. STREET TREE LOCATIONS SHALL COMPLY WITH SECTION IX OF THE DEVELOPMENT CRITERIA. STREET TREE SPECIES TO BE DETERMINED AND PROVIDED ON THE FINAL PLAN.

**SCHEDULE D  
STORMWATER MANAGEMENT AREA LANDSCAPING**

POND #	1	2
LINEAR FT OF PERIMETER (TYPE "B")	1,820 LF.	990 LF.
NUMBER OF TREES REQUIRED		
SHADE TREES @ 1150 LF.	15	12
EVERGREEN TREES @ 1140 LF.	19	15
CREDIT FOR OTHER VEGETATION	1,060 LF.	400 LF.
CREDIT FOR OTHER LANDSCAPING	N/A	N/A
NUMBER OF TREES PROVIDED		
SHADE TREES	15	12
EVERGREEN TREES	19	15
SHRUBS	0	0

NOTES:  
 1. THE DEVELOPER WILL PROVIDE ALL SWM LANDSCAPE OBLIGATIONS.  
 2. SWM LANDSCAPING TO BE PROVIDED AT THE FINAL PLAN STAGE.  
 3. STORM WATER MANAGEMENT PLANTINGS MAY BE LOCATED IN ADJACENT FOREST CONSERVATION EASEMENTS AND WILL MEET THE CALIPER SIZE, LOCATION CRITERIA AND SURETY REQUIREMENTS OF THE HOWARD COUNTY LANDSCAPE MANUAL.

**STREET TREE SCHEDULE**

ROAD NAME	LENGTH OF ROAD (BOTH SIDES)	CREDIT FOR EXISTING VEGETATION	# OF TREES REQUIRED (1 PER 40 LF.)	# OF TREES PROVIDED
ETERNAL RINGS ROAD	2,188	N/A	54.7	55

NOTE:  
 1. STREET TREES TO BE PROVIDED AT FINAL PLAN STAGE.

**ADDITIONAL LANDSCAPE REQUIREMENTS**

(BASED UPON EMERSON CORPORATE COMMONS DESIGN AND DEVELOPMENT STANDARDS, 16 MAY 2005)

GROSS SITE ACREAGE	REQUIRED SHADE TREES PER AC.	REQUIRED SHADE TREES	(MINUS COUNTY REQUIRED SHADE TREE VALUE*)	NET SHADE TREES REQUIRED
45+ AC.	28 SHADE TREES	1,260 SHADE TREES	-(178)	1,082 SHADE TREES

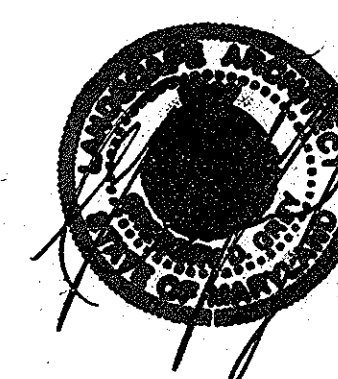
NOTES:  
 \*1. "COUNTY REQUIRED SHADE TREE VALUE" IS BASED UPON SCHEDULES A, D AND THE REQUIRED STREET TREE OBLIGATION. TWO EVERGREEN TREES ARE COUNTED AS ONE SHADE TREE AS DESCRIBED IN THE EMERSON CORP. COMMONS DESIGN & DEV. STANDARDS. FUTURE CALCULATIONS MAY INCLUDE PARKING LOT REQUIRED SHADE TREES AND OTHER REQUIRED SHADE TREE OBLIGATIONS NOT KNOWN AT THIS TIME.  
 2. INTERNAL LANDSCAPING TO BE PROVIDED AT THE SDP PLAN STAGE.

TENTATIVELY APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY

*David A. Lytle*  
 PLANNING DIRECTOR

8/20/08  
 DATE

8/5/08  
 Date



Landscape Architect No. 3397

Date	No.	Revision Description
		PRELIMINARY PLAN EMERSON SECTION 3 - AREA 7 - PARCEL A "Future Employment Use"
		OWNER/DEVELOPER: THE HOWARD RESEARCH & DEVELOPMENT CORPORATION 10275 Little Patuxent Parkway Columbia, Maryland 21044 (410) 992-6284
<b>DMW</b> Daft McCune Walker, Inc. 200 East Pennsylvania Avenue Towson, Maryland 21286 (410) 296-3333 Fax 296-4705		
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals		
SUBMISSION NAME	EMERSON	SECTION/AREA
SEC. 3 AREA 7		LOT/PARCEL #
PLAT # OR LOT #	7	TAX/ZONE MAP
15	PECMXD 3	47
WATER CODE		SEWER CODE
TITLE PRELIMINARY LANDSCAPE SCHEDULES		
Des By	SHH	Scale NO SCALE
Drn By	GW0	Date 8/8/08
Chk By		Approved
		Proj. No. 95054.W
		8 of 11





**FOREST CONSERVATION GOALS AND OBJECTIVES**

The goals and objectives of this Forest Conservation Plan are to account for the clearing of approximately 12.77 acres, the retention of approximately 1.37 acres, and the reforestation of approximately 5.22 acres. Reforestation species will be chosen to reflect and enhance the existing forest communities.

When calculated cumulatively with previous phases of this project, a total of 24.67 acres of forest will be cleared and 57.67 acres will be retained. The total reforestation obligation is 24.60 acres, and 26.72 acres of reforestation have been provided.

The forest conservation easement has been established to fulfill the requirements of Section 16.1200 of the Howard County Code and the Forest Conservation Manual. No clearing, grading or construction is permitted within the forest conservation easement, however, forest management practices as defined in the Deed of Forest Conservation Easement are allowed.

**CUMULATIVE FOREST CONSERVATION CALCULATIONS**

BASIC SITE DATA	ACRES (11/00)
GROSS SITE AREA	484.42
AREA WITHIN 100 YEAR FLOODPLAIN	85.52
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL (IF APPLICABLE)	N/A
AREA WITHIN BGE RESTRICTED AREA (OUTSIDE 100-YEAR FLOODPLAIN)	1.34
NET TRACT AREA	397.56
LAND USE CATEGORY	C41

**INFORMATION FOR CALCULATIONS**

A. NET TRACT AREA	397.56
B. REFORESTATION THRESHOLD (15% x A)	59.63
C. AFFORESTATION MINIMUM (15% x A)	59.63
D. EXISTING FOREST ON NET TRACT AREA	142.34
E. FOREST AREAS TO BE CLEARED	24.67
F. FOREST AREAS TO BE RETAINED	57.67

**REFORESTATION CALCULATIONS**

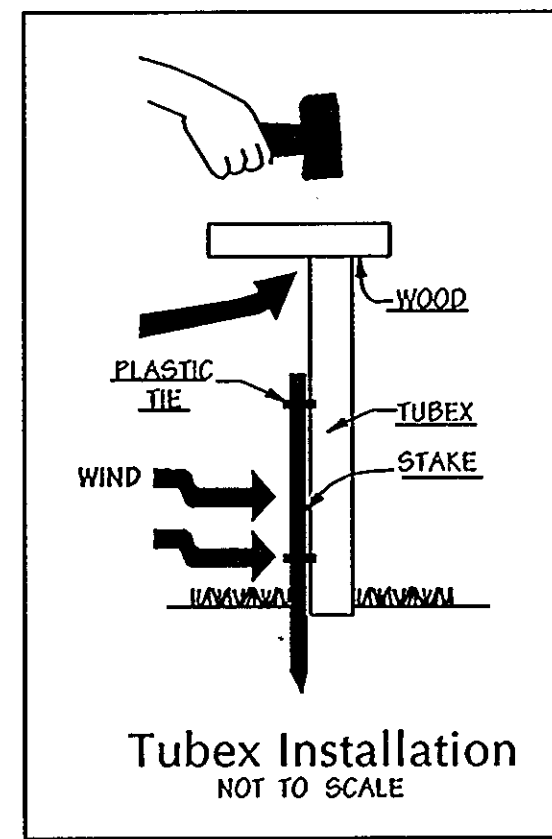
A. NET TRACT AREA	397.56
B. REFORESTATION THRESHOLD (15% x A)	59.63
C. EXISTING FOREST ON NET TRACT AREA	142.34
D. FOREST AREAS TO BE CLEARED	24.67
E. FOREST AREAS TO BE RETAINED	57.67
F. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD	92.71
G. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD	1.36
H. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD	0.00

**CLEARING ABOVE THE THRESHOLD**

IF FOREST AREAS TO BE RETAINED ARE LESS THAN THE REFORESTATION THRESHOLD (IF F IS GREATER THAN B), THE FOLLOWING CALCULATIONS APPLY:

REFORESTATION FOR CLEARING ABOVE THRESHOLD	20.68
REFORESTATION FOR CLEARING BELOW THRESHOLD	3.92
TOTAL REFORESTATION REQUIRED	24.60

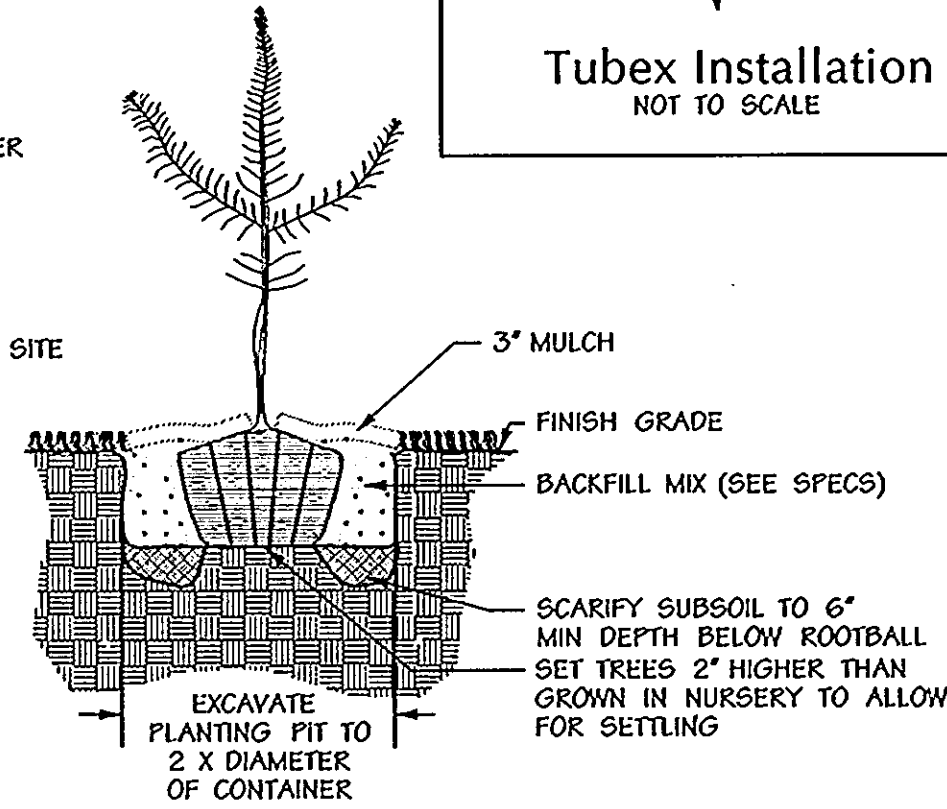
CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD	0.00
REFORESTATION REQUIRED	24.60 ACRES
REFORESTATION PROVIDED	26.72 ACRES



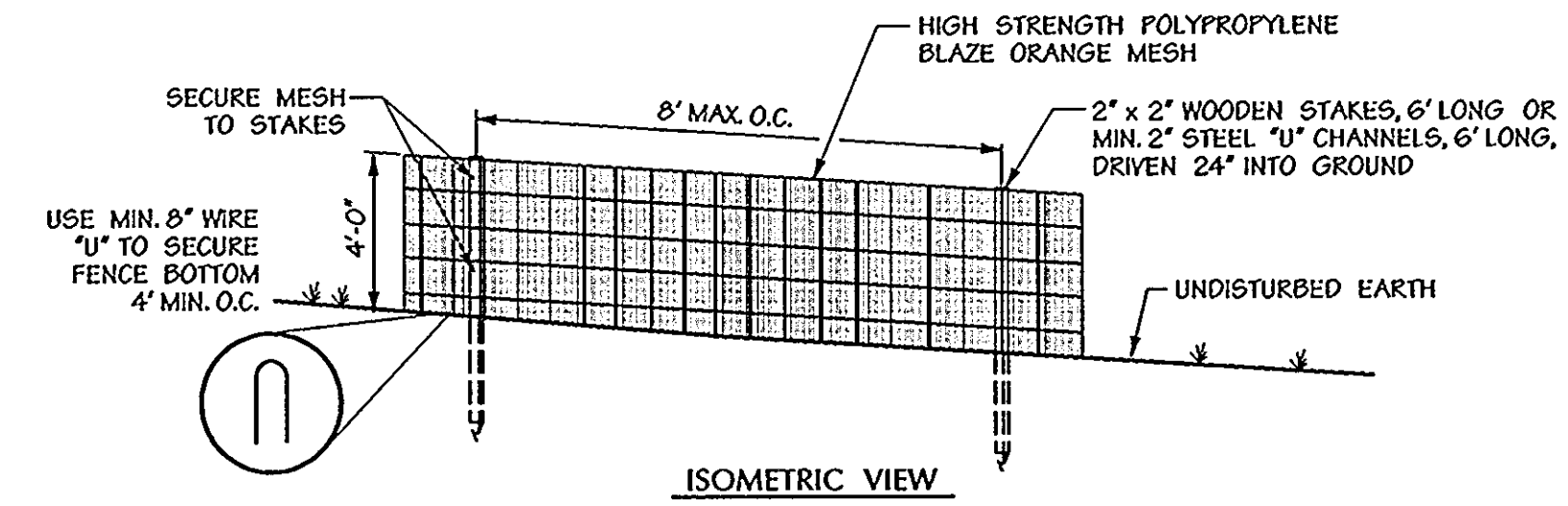
**Tubex Installation**  
NOT TO SCALE

**PLANTING PROCEDURES FOR ALL CONTAINER GROWN TREES AND SHRUBS:**

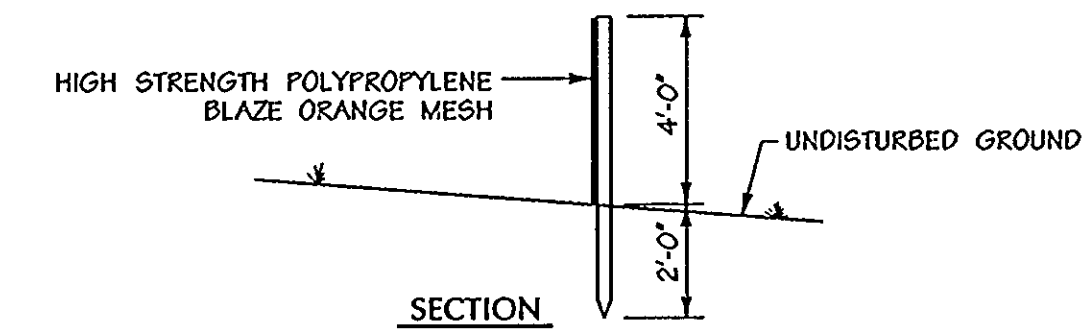
1. REMOVE THE PLANT EITHER BY CUTTING OR INVERTING THE CONTAINER
2. GENTLY LOOSEN ROOTS FROM SOILS. ROOTS MAY NOT BE CUT OR TRIMMED ON SITE
3. PLANT SHRUB OR TREE 1 TO 2 INCHES ABOVE THE EXISTING GRADE
4. APPLY 2 TO 3 INCH THICK LAYER OF SHREDDED HARDWOOD MULCH



**Typical Tree Planting (For container grown whips)** NOT TO SCALE



**ISOMETRIC VIEW**



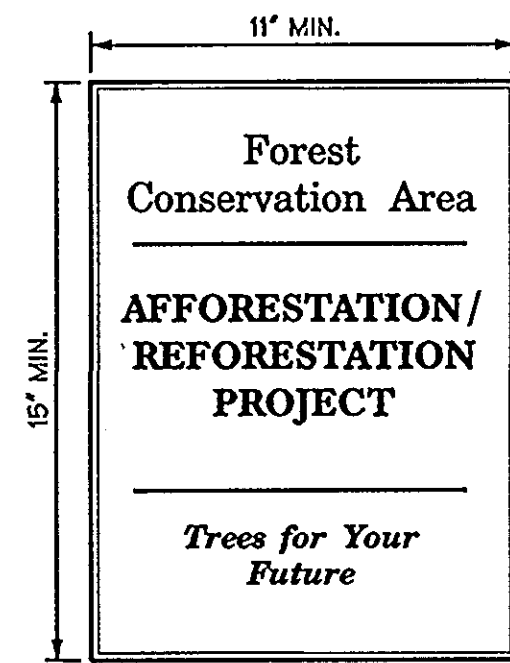
**SECTION**

- NOTES:**
1. THIS DETAIL IS FOR FOREST PROTECTION DEVICE ONLY.
  2. FOREST RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
  3. BOUNDARIES OF FOREST RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING THE DEVICE.
  4. ROOT DAMAGE SHALL BE AVOIDED.
  5. PROTECTION SIGNAGE MAY ALSO BE USED.
  6. FOREST PROTECTION FENCE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
  7. INSTALLATION OF FOREST PROTECTION FENCE MUST BE APPROVED BY BALTIMORE COUNTY EIR (410-887-3980) PRIOR TO ISSUANCE OF BUILDING OR GRADING PERMITS.

Enviro.col / ALEFF

**Forest Protection Fence**

NOT TO SCALE



SIGNS TO BE PLACED ON METAL POSTS 5'± ABOVE FINISH GRADE PRIOR TO PLANTING. PLACE SIGNS EVERY 100' AROUND PERIMETER OF FOREST CONSERVATION AREA.

**Permanent Signage**

NOT TO SCALE

**FOREST CONSERVATION TRACKING CHART**

DIST. FILE NUMBER	Section Phase Number	Gross Area	Floodplain	Net Tract Area	Ex Forest Area	Forest Cleared	Forest Retained	Reforest./Affor. Required	Reforest./Affor. Provided	Dispers. Reforest./Affor.	Future Forest Clearing	Future Reforest./Affor.	Comments
F-01-137	2 14B	106.20	3.50	102.70	24.70	7.93	16.77	0.61	5.00	4.39	4.48	3.41	See Note K
F-01-148	21E	118.90	3.50	115.40	24.80	8.03	16.77	2.96	5.00	2.05	3.28	3.41	See Note A
F-02-56	21S	137.36	4.00	133.36	34.40	12.53	21.87	1.27	5.00	3.73	2.18	3.91	See Note B
F-02-131	3H	206.86	2.19	185.66	85.30	39.47	45.83	0.00	5.00	5.00	2.18	3.91	
F-02-178	3I2	220.27	2.27	199.00	87.50	41.67	45.83	0.00	5.00	5.00	2.18	3.91	See Note C
F-03-13	2 14	264.81	26.57	238.24	88.18	47.15	91.03	0.00	5.00	5.00	2.18	8.24	
F-03-175	275C	267.84	27.10	240.74	88.62	47.59	91.03	0.00	5.74	5.74	2.18	5.24	
F-04-66	218A	271.75	27.10	250.36	88.62	47.59	91.03	0.00	5.74	5.74	2.18	5.24	See Note D
F-04-131	214	271.75	27.10	250.36	88.62	47.59	91.03	0.00	8.52	8.52	2.18	3.91	See Note E
F-04-53	215A	306.93	27.91	279.02	88.66	47.63	91.03	2.79	8.71	5.92	2.49	3.91	
F-04-127	217B	332.63	32.43	300.20	115.66	63.31	92.35	8.91	11.48	2.83	2.49	3.91	See Note F
F-05-49	217B	332.63	32.43	300.20	115.66	61.73	93.83	6.53	13.26	6.73	0.49	1.84	See Note G
F-05-93	217	341.19	32.43	308.76	115.66	61.73	93.83	7.21	13.26	5.45	0.49	1.84	
F-05-89	216B	347.46	32.43	315.03	121.26	67.33	93.83	10.75	13.49	3.34	0.49	1.84	
SOP-05-124	"FARM POND"	347.46	32.43	315.03	121.26	67.33	93.83	10.75	15.46	5.31	0.49	1.84	
F-07-141	218D	373.80	32.75	341.05	125.82	71.14	94.68	14.27	16.03	1.76	0.49	1.84	See Note H
F-08-82	219	426.21	83.88	342.33	126.72	71.14	95.58	13.50	20.53	7.03	0.49	1.84	See Note I
SOP-08-54	316	439.29	83.88	355.03	128.20	71.80	96.30	15.11	21.50	6.39	0.49	1.84	
F-08-08	317	484.42	85.52	397.56	142.34	84.67	97.67	24.60	26.72	2.12	0.49	1.84	See Note J

A. 120± ACRES OF FUTURE FOREST CLEARING SHOWN ON F-01-137 WAS CLEARED FOR SWM ON OPEN SPACE LOT 17A.  
 B. 100± ACRES OF FUTURE FOREST CLEARING SHOWN ON F-01-137 WAS CLEARED FOR SWM ON OPEN SPACE LOT 17B.  
 C. GROSS AREA INCLUDES 107± ACRES FOR SANITARY SEWER EXTENSION AND CONTAINS 0.08± ACRES OF FLOODPLAIN.  
 D. GROSS AREA EXCLUDES 0.39 ACRES FOR THE SANITARY SEWER SHOWN ON F-02-175. GROSS AREA ALSO INCLUDES 0.07 ACRES FOR AREA PREVIOUSLY ACCOUNTED FOR UNDER F-03-16.  
 E. THIS LINE ITEM ACCOUNTS FOR REFORESTATION PROVIDED RETROSPECTIVELY ON A PHASE THAT PREVIOUSLY ADDRESSED FOREST CONSERVATION APPROXIMATELY 1.33 ACRES OF FUTURE REFORESTATION AREA WILL BE USED UNDER THIS REFORESTATION PLAN.

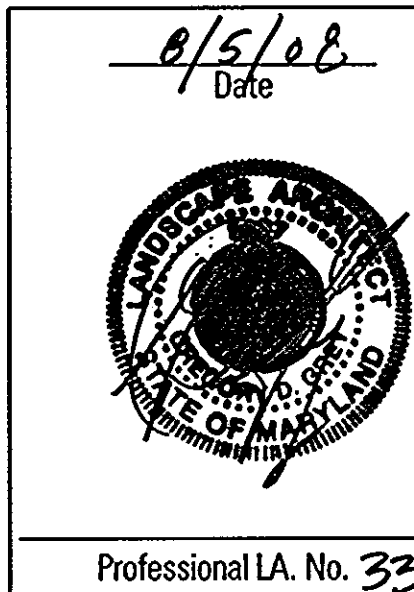
F. GROSS AREA INCLUDES 0.52± ACRES FOR SANITARY SEWER SHOWN ON F-02-175. GROSS AREA INCLUDES 2.37 ACRES FOR THE WETLAND MITIGATION SITE. FLOODPLAIN INCLUDES 1.2 ACRES FOR THE MITIGATION AREA FLOODPLAIN.  
 G. APPROXIMATELY 0.42 ACRES OF FUTURE CLEARING/FUTURE REFORESTATION IS BEING CLEARED AND IS NOT BEING REFORRESTED. APPROXIMATELY 1.58 ACRES OF FUTURE CLEARING/FUTURE REFORESTATION IS BEING RETAINED. APPROXIMATELY 0.13 ACRES OF FUTURE REFORESTATION IS BEING REFORRESTED.  
 H. GROSS AREA INCLUDES 0.13 AC FOR SEWER SHOWN ON F-02-175. GROSS AREA ALSO INCLUDES 2.37 AC FOR WETLAND MITIGATION AREA COUNTER UNDER F-04-127. FLOODPLAIN INCLUDES 1.52 AC FOR MITIGATION AREA FLOOD PLAN COUNTED UNDER F-04-127.

I. NET TRACT AREA EXCLUDES 0.28 ACRES OUTSIDE THE FLOODPLAIN WITHIN THE BGE RESTRICTED AREA.  
 J. NET TRACT AREA EXCLUDES 0.06 ACRES OUTSIDE THE FLOODPLAIN WITHIN THE BGE RESTRICTED AREA.  
 K. APPROXIMATELY 0.03 ACRES OF FOL AREA "A" WAS ABANDONED FOR F-01-137.

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

PLANNING DIRECTOR

DATE



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A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals		
SUBGROUP NAME	SECTION/AREA	SEC.3 AREA 7
DATE OR 15 DAY	DATE	DATE
DATE	DATE	DATE
TITLE: PRELIMINARY FOREST CONSERVATION DETAILS		
Des By	CRH	Scale 1"=100'
Drn By	CRH	Date 8/1/08
Chk By		Approved
Professional LA. No. 33917		Proj. No. 95054.W
P-08-08		10 of 11

