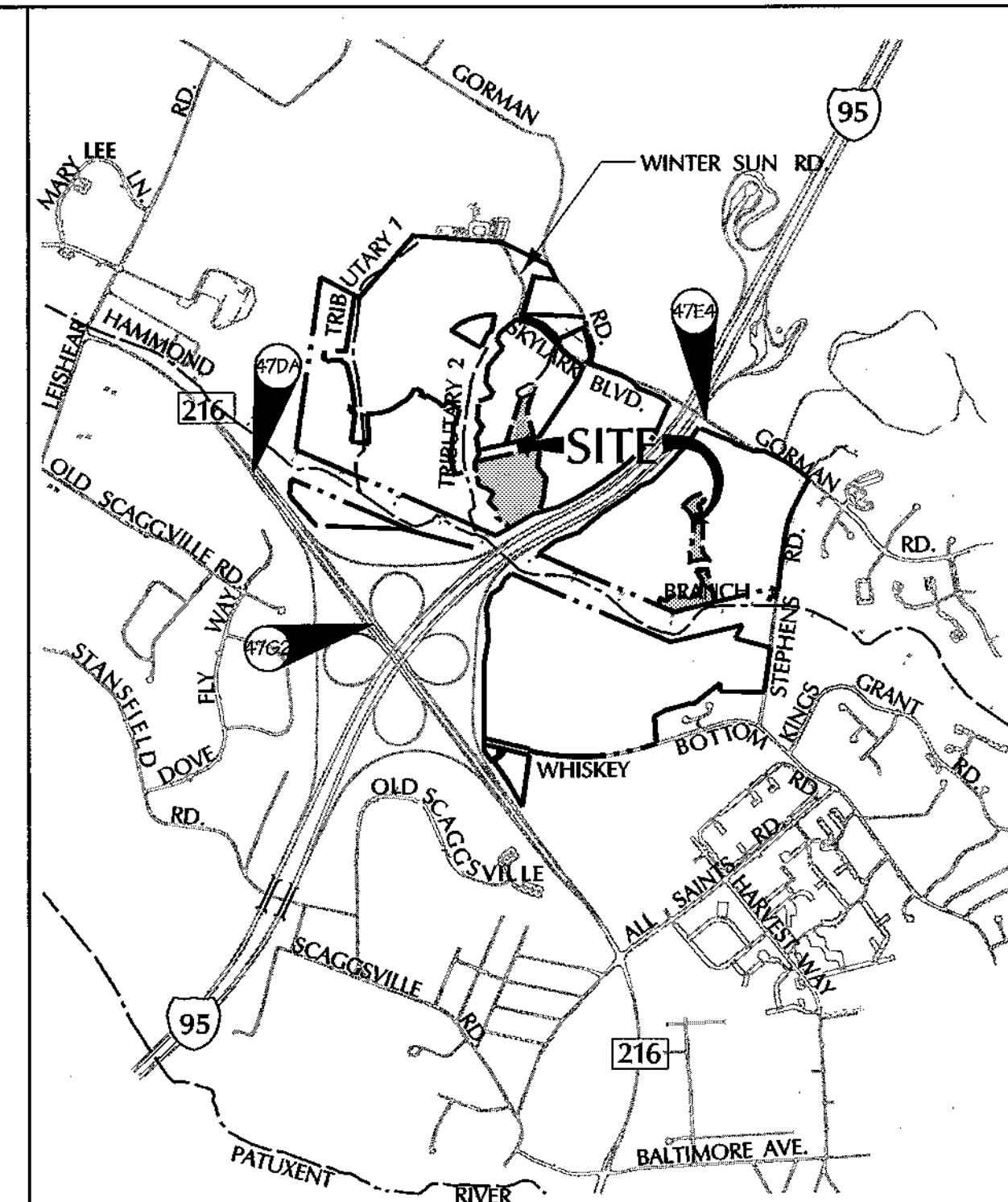


General Notes

- OPEN SPACE AREAS MAY CONTAIN ACTIVE RECREATION FACILITIES AS ALLOWED IN THE APPROVED DEVELOPMENT CRITERIA.
- SKYLARK BOULEVARD AND STEPHENS ROAD ARE DESIGNATED TRANSIT ROUTES.
- TOPOGRAPHICAL INFORMATION ON EMERSON SECTION 2 WAS OBTAINED THROUGH AERIAL PHOTOGRAPHY DURING THE SUMMER OF 1996.
- BOUNDARY SHOWN IS SURVEY BY DMW JUNE, 1999.
- WETLAND LIMITS WERE FIELD LOCATED IN SEPTEMBER, 1995 AND JANUARY, 2000 BY DMW.
- THE 100 YEAR FLOOD PLAN WITHIN THE 1-95 RIGHT OF WAY SHOWN IS PER A STUDY BY HOWARD COUNTY DATED, 1996; THE 100 YEAR FLOODPLAN IN OPEN SPACE LOTS 2 AND 2 ARE PER A STUDY BY DMW AND APPROVED IN P-03-13 SECTION 2, PHASE 5A.
- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- PROPOSED WATER SYSTEM IS PUBLIC.
- PROPOSED SEWER SYSTEM IS PUBLIC.
- EXISTING UTILITIES ARE BASED ON PLANS OF RECORD.
- THERE ARE NO KNOWN CEMETERIES OR GRAVE SITES ON THIS PROPERTY.
- STREAM BUFFERS ARE DETERMINED BY LAND USE ADJOINING THE OPEN SPACE. EMPLOYMENT USE= 50' BUFFER FROM ANY STREAM, RESIDENTIAL USES = 50' BUFFER FOR INTERMITTENT STREAMS AND 75' BUFFER FOR PERENNIAL STREAMS.
- PHASING FOR THIS PROJECT IS IN ACCORDANCE WITH THE DECISION AND ORDER FOR ZONING CASE ZB-979 M AND THE DECISION AND ORDER FOR P3-339 (COMPREHENSIVE SKETCH PLAN 9-99-12).
- ON SEPTEMBER 3, 1999, THE ZONING BOARD GRANTED APPROVAL OF ZB-979 M FOR THE PRELIMINARY DEVELOPMENT PLAN AND DEVELOPMENT CRITERIA FOR 516.9 ACRES OF LAND RE-ZONED AS PEC-MXD-3 AND K-SC-MXD-3.
- P3 CASE 339 GRANTED APPROVAL TO THE COMPREHENSIVE SKETCH PLAN, 99-12, ON JULY 1, 1999 SUBJECT TO: 1. COMPLIANCE WITH STAFF COMMENTS; 2. PROVISION OF ADDITIONAL LANDSCAPING ALONG THE FRONTS OF HOMES ON WINTER SUN ROAD; AND 3. PROVISION OF ADDITIONAL LANDSCAPING ALONG THE REARS OF HOUSES BACKING TO STEPHENS ROAD.
- DEVELOPMENT FOR THIS PHASE WILL BE DONE IN ACCORDANCE WITH THE DEVELOPMENT CRITERIA APPROVED WITH COMPREHENSIVE SKETCH PLAN 9-99-12 (P3-339).
- THE STORMWATER MANAGEMENT FACILITY SHOWN ON SHEETS 2 AND 3 ARE SCHEMATIC ONLY. ACTUAL SIZE AND LOCATION OF THE FACILITIES MAY CHANGE PRIOR TO CONSTRUCTION. THE DEVELOPER ACKNOWLEDGES THAT THIS FACILITY MUST MEET CURRENT HOWARD COUNTY DESIGN CRITERIA OR AS APPROVED BY WAIVER.
- ALL COMMON OPEN AREA AND HOA LOTS WILL BE OWNED BY THE EMERSON HOMEOWNERS ASSOCIATION. OPEN SPACE LOTS WILL BE OWNED BY THE DRP.
- THERE ARE NO KNOWN WELLS OR SEPTIC SYSTEMS WITHIN THE LIMITS OF PHASE 5A.
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT OF WAY LINE, AND NOT TO THE PIPESTEM DRIVEWAY.
- NOISE STUDY APPROVED ON JULY 1, 1999.
- PARCELS WILL ACCEPT ALLOCATIONS IN THE FUTURE.
- DEVELOPMENT OF EMERSON 2, SECTION 51B UNDER THE CURRENT FOREST CONSERVATION ACT PROPOSES APPROXIMATELY 15.65 ACRES OF FOREST CLEARING, 1.0 ACRES OF FOREST RETENTION AND 2.4 ACRES OF REFORESTATION WHEN EVALUATED CUMULATIVELY WITH PREVIOUS PHASES OF THE PROJECT, 63.29 ACRES OF CLEARING, 52.02 ACRES OF RETENTION AND 0.36 ACRES OF REFORESTATION IS PROPOSED. THE CUMULATIVE REFORESTATION OBLIGATION IS 724 ACRES.
- PARCEL A, SECTION 3, PHASE 4 MAY BE PRESERVED FOR OTHER RESIDENTIAL USES IN ACCORDANCE WITH THE APPROVED COMPREHENSIVE SKETCH PLAN (9-99-12) AND DEVELOPMENT CRITERIA.
- TRAFFIC STUDY FOR THIS PROJECT IS APPROVED WITH THE COMPREHENSIVE SKETCH PLAN (9-99-12).
- THE 60 APARTMENT UNITS DESIGNATED FOR PARCEL A OF EMERSON SECTION 3, AREA 4 WILL BE MODERATE INCOME HOUSING UNITS.
- THE CUTTAL FOR STORMWATER MANAGEMENT FACILITY #1 EXTENDS INTO THE FLOODPLAIN AND STREAM BUFFER IN THE 1-95 RIGHT OF WAY. THIS IS A NECESSARY DISTURBANCE TO A UNFORESEEN, MAN MADE CHANNEL, AS THE ONLY ALTERNATIVE IS AN OUTFALL TO A FORESTED, NATURAL STREAM.
- WP-03-154, EMERSON 215B APPROVED ON AUGUST 6, 2003, SECTION 16.32(a)(1) WAIVED REQUIRING MINIMUM 40' FRONTAGE ONTO A PUBLIC ROAD RIGHT-OF-WAY FOR OPEN SPACE LOTS. APPROVAL GRANTED WITH THE FOLLOWING CONDITIONS: THE PRELIMINARY PLAN FOR PHASE 5P-03-154 SHALL SHOW A TEMPORARY 40' ACCESS EASEMENT TO OPEN SPACE LOTS 2-3, AND THAT EASEMENT SHALL BE MAINTAINED UNTIL ETERNAL RINGS DRIVE IS EXTENDED ON A FUTURE PLAN FOR EMERSON 2ND.

Preliminary Plan for Emerson Section 2, Phase 5B Parcel AA & Section 3, Area 4, Parcel A (Formerly Key Property)

Howard County Maryland



Vicinity Map
SCALE: 1"=2000'

BENCHMARK DESCRIPTION

COORDINATES IN MARYLAND NAD83(91) (HORIZONTAL) AND NGVD29 (VERTICAL) DATUMS.

47DA NORTHING: 163191.9104
EASTING: 41265759
ELEVATION: 315905 ft.

47EA NORTHING: 163326.2295
EASTING: 41316.2550
ELEVATION: 339.3039 ft.

47G2 NORTHING: 162440.1212
EASTING: 4105339279
ELEVATION: 364.2109 ft.

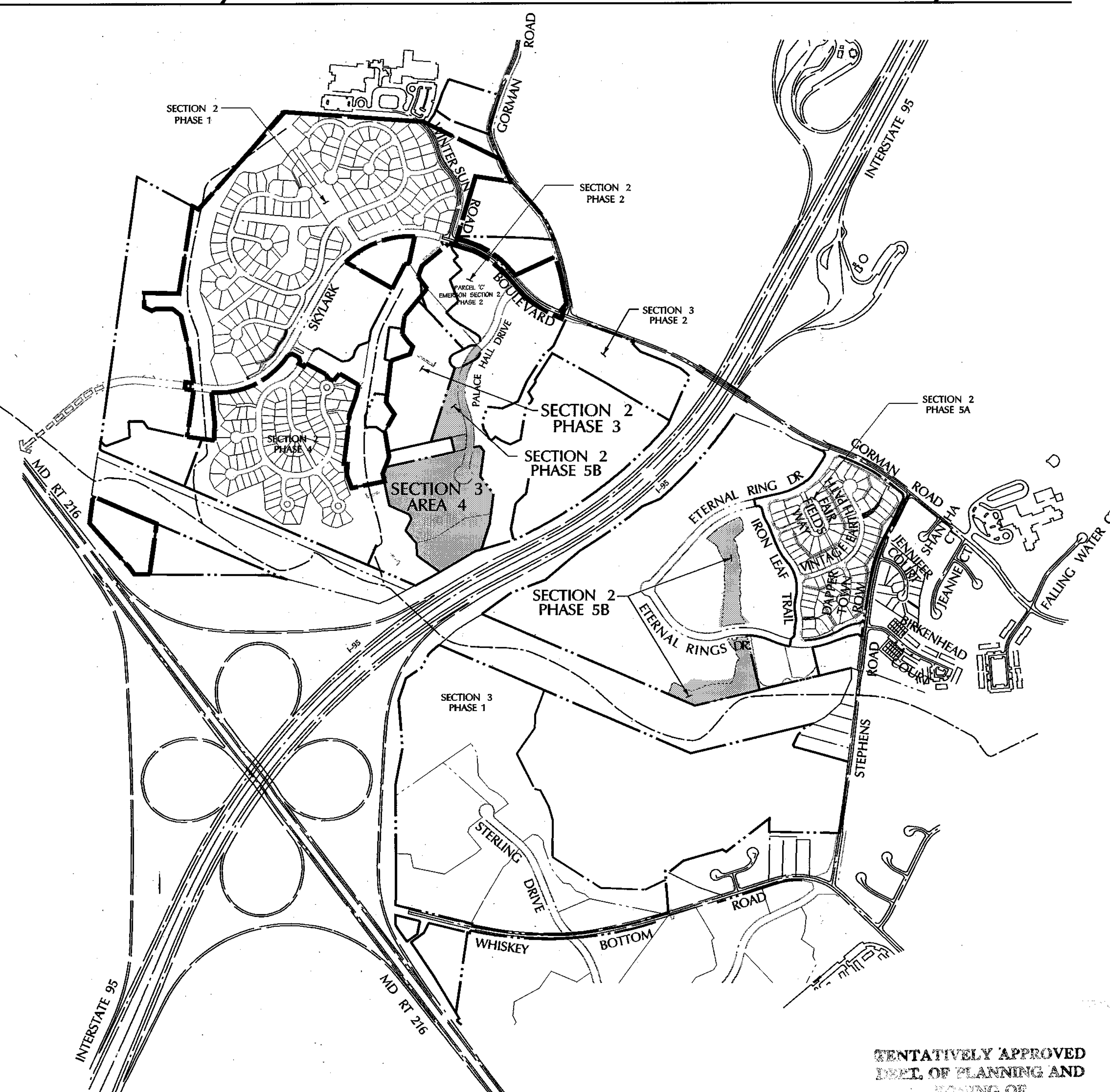
Site Analysis Data Chart

- General Site Data**
 - a. Present Zoning: PEC-MXD-3 & K-SC-MXD-3
 - b. Applicable DPT File Reference: 9-99-15, P3-339, ZB-979M, F-01-145
 - c. Proposed Use of Site or Structure(s): Residential SFA & Age Restricted Housing
 - Proposed Water and Sewer Systems: Public
 - Any Other Relevant Information: _____
- Area Tabulation**
 - a. Gross site area for Phase 5B: 23.7 acres
 - b. Approximate Area of 100 Year Floodplain: 0.2 Acres
 - c. Approximate Area of Steep Slope (25% or Greater): 0.2 Acres
 - d. Net Site Area: 19.7 Acres
 - e. Area of Proposed SFD Lots: 0 Acres
 - f. Area of Proposed OR Lots/Parcels: 19 Acres
 - g. Area of Employment Lots/Parcels: 13.6 Acres
 - h. Proposed Open Space Lots: 6.4 Acres
 - Proposed HOA Open Space Lots: 6.4 Acres
 - Proposed DRP Open Space Lots: 0 Acres
 - i. Area of Proposed Common Open Area Lots: 0 Acres
 - k. Area of Proposed Public Roadway: 1.0 Acres
 - l. Area of Proposed Private Roadway: 0 Acres
- Residential Unit/Lot Tabulation**
 - a. Total Number of Residential Units/Lots Allowed for Overall Project: 1200
 - b. Number of SFD Residential Units/Lots Proposed: 0
 - c. Number of Other Residential SFA Units/Lots Proposed: 33
 - d. Number of Other Residential Apartment Units Proposed: 0
 - e. Number of Other Residential Parcels Proposed: 1
 - f. Total Number of Common Open Area Lots Proposed: 0
 - g. Total Number of Residential Units/Parcels Proposed: 33
 - h. Total Number of Residential Units Proposed: 33 SFA, 60 AGE RESTRICTED UNITS
- Open Space Data**
 - a. Number of Open Space Lots/Parcels Proposed: 3 LOTS
 - b. Open Space Required: 3.4 Acres (35.4 % of gross acreage)
 - c. Open Space Provided: 6.3 Acres. (21 Acres of previously recorded Open Space will be used for credits for this phase.)
 - d. Excess Open Space available for credits in other phases: 0
 - e. No Recreational Open Space is Required for the Emerson Section 2 Development
- Density Tabulations**
 - a. Maximum Allowed Density for SFD Areas: 5.0 Units/Gross acre for any individual SFD area.
 - b. Maximum allowed density for Other Residential (OR) areas: of all OR areas: 20.0 Units/gross acre of any individual OR area.
 - c. Proposed OR Density: " TBD with future reevaluation or site plan "

Development Tracking Chart

Section and Phase	File Reference Number	Gross Acreage	SFD Ac. (S)	Other Res. Ac. (R)	Employment Ac. (E)	Open Space Ac. (O)	SFD Units	SFD Density	Other Res. Units (SFA/PR/CR/AR)	Other Res. Density
21A	F-01-136	84	3.0(3.6%)	0	0	42(97%)	-	-	-	-
21B	F-01-137	87.5	487(556%)	80(92%)	0	401(46%)	160	332 D.U./Ac.	80	100 D.U./Ac.
22	F-01-148	123	123(100%)	0	0	0	100	840 D.U./Ac.	-	-
25	F-02-08	165	0	12(7.3%)	0	68(41%)	-	120	100 D.U./Ac.	-
26	F-01-18	485	0	0	281(58.1%)	474(97.5%)	-	-	-	-
32	F-01-179	123	0	0	68(55.2%)	34(27.6%)	-	-	-	-
35	F-01-15	443	274(61.8%)	0	0	171(38.6%)	120	442 D.U./Ac.	-	-
28A	F-01-175	30	0	0	0	21(70%)	-	-	-	-
28A & 35	F-01-153	303	215(70.9%)	0	0	145(48%)	87	400 D.U./Ac.	-	122 D.U./Ac.
28B & 34	F-01-16	235(97)	0	27(11.5%)	145(61.1%)	63(26.4%)	0	-	33 SFA (OR), 60 APT (EMP)	-
TOTAL		3164	116(36.7%)	284(9.0%)	577(18.2%)	1283(40.6%)	367	-	413	-

(A) SFD and OR acreage includes Common Open Areas (COA) Lots.
 (B) Overall allowed density based on maximum number of units allowed per 28 SFD and Max. Allowed Lot Use Acreage.
 (C) Max. Density for any individual SFD area is 5.0 units/acre.
 (D) Max. Density for any individual OR area is 20.0 units/acre.
 (E) Proposed density tabulations are shown for informational purposes only. The proposed density tabulations are based on proposed land use acreage. These tabulations will be reconciled against the maximum density tabulations in the final plan phase.
 (F) The gross area of this phase is 23.7 acres. However, 0.22 acres of land was previously accounted for and passed as road right of way in T-01-145, and so this area is not included here.



Overall Property Outline
Scale: 1"=600'

TENTATIVELY APPROVED
DEPT. OF PLANNING AND
ZONING OF
HOWARD COUNTY
Date: 11/21/03

Professional Engineer No. 10571

Sheet Index

SHEET	DESCRIPTION
1	COVER SHEET
2	PRELIMINARY PLAN
3	PRELIMINARY PLAN
4	SCHEMATIC SEDIMENT CONTROL AND PRELIMINARY GRADING
5	PRELIMINARY LANDSCAPE PLAN AND FOREST CONSERVATION PLAN NOTES AND DETAILS
6	PRELIMINARY LANDSCAPE PLAN AND FOREST CONSERVATION PLAN NOTES AND DETAILS

EMERSON (KEY PROPERTY)
SECTION 2 PHASE 5B, PARCEL AA,
SECTION 3 AREA 4, PARCEL A

OWNER/DEVELOPER:
THE HOWARD RESEARCH & DEVELOPMENT CORPORATION
10275 Little Patuxent Parkway
Columbia, Maryland 21044

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

DATE	NO.	REVISION DESCRIPTION

EMERSON PHASE 5B
FILE OF OR # 572/430
DATE OF OR 7,8,9,13
MWD
WATER CODE
PHASE 5B
TOWSON 47
BLOCK/TRACT 6 TH
OWNER TRACT

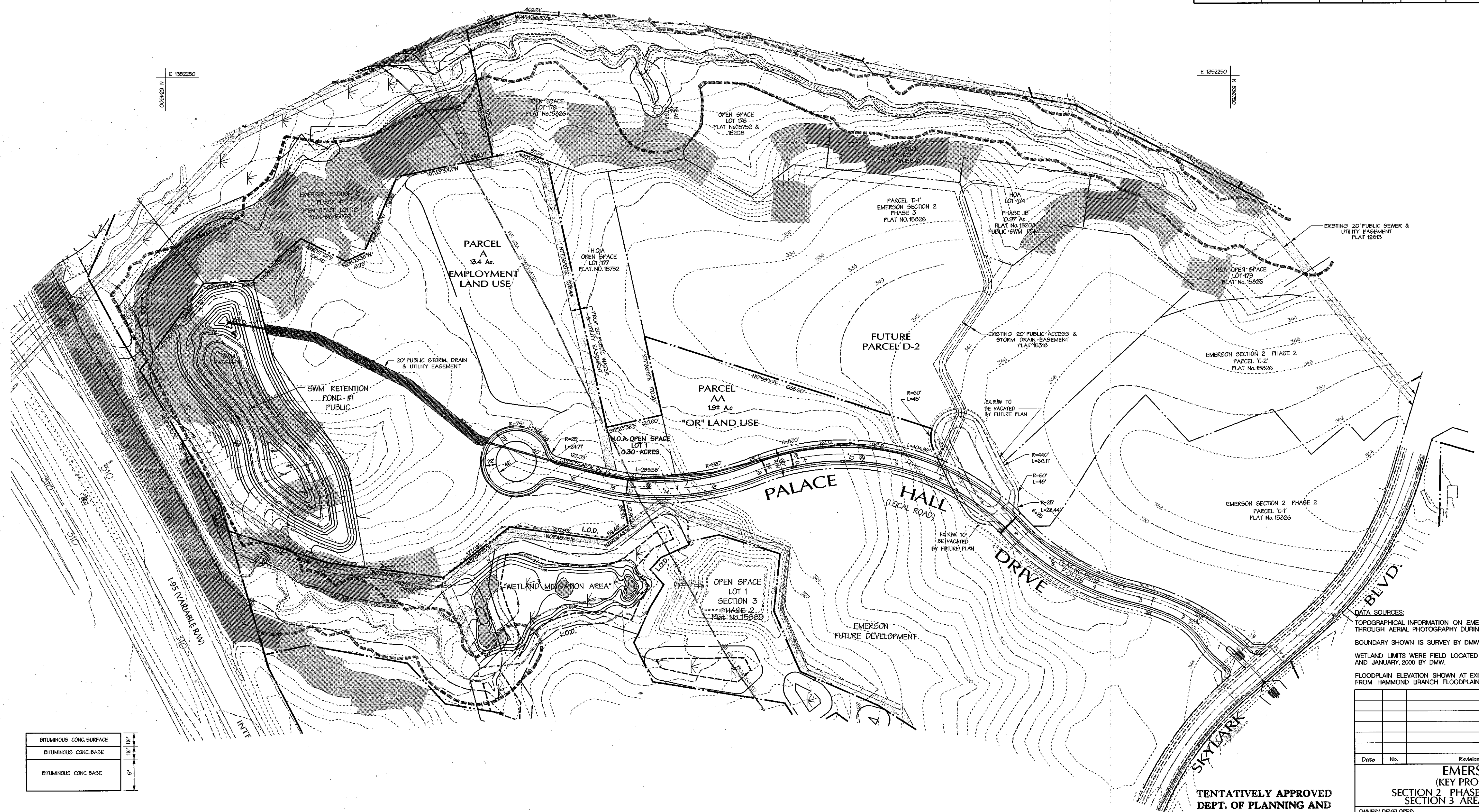
TITLE: **Cover Sheet**

Drawn By: KDE
Scale: 1"=600'
Date: 11/23/03
Proj. No. 95054.03

Checked By: _____
Professional Engineer No. 10571

1 of 6

CURVE DATA						
CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD	
A	68°10'55"	500.00'	596.00'	338.41'	512°36'54"W	560.51'
B	31°15'10"	950.00'	300.00'	153.84'	90°55'58"E	296.30'



DATA SOURCES:
 TOPOGRAPHICAL INFORMATION ON EMERSON SECTION 2 WAS OBTAINED THROUGH AERIAL PHOTOGRAPHY DURING THE SUMMER OF 1998.
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 WETLAND LIMITS WERE FIELD LOCATED IN SEPTEMBER, 1998 AND JANUARY, 2000 BY DMW.
 FLOODPLAIN ELEVATION SHOWN AT EXISTING POND WAS INTERPOLATED FROM HAMMOND BRANCH FLOODPLAIN STUDY BY HOWARD COUNTY.

Date	No.	Revision Description

TENTATIVELY APPROVED
 DEPT. OF PLANNING AND ZONING OF
 HOWARD COUNTY

James A. ...
 PLANNING DIRECTOR DATE

11/23/03
 Date



EMERSON
 (KEY PROPERTY)
 SECTION 2 PHASE 5B, PARCEL AA,
 SECTION 3 AREA 4, PARCEL A

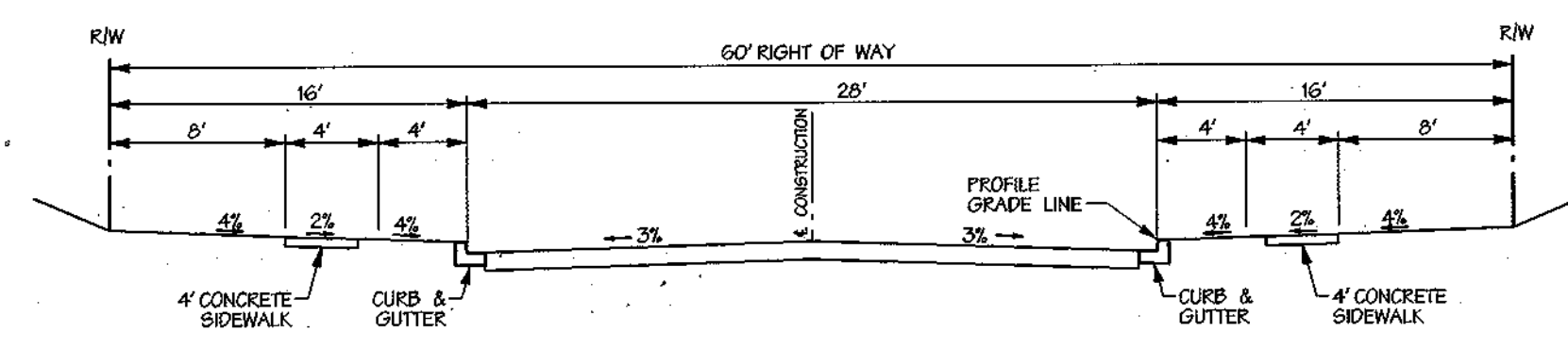
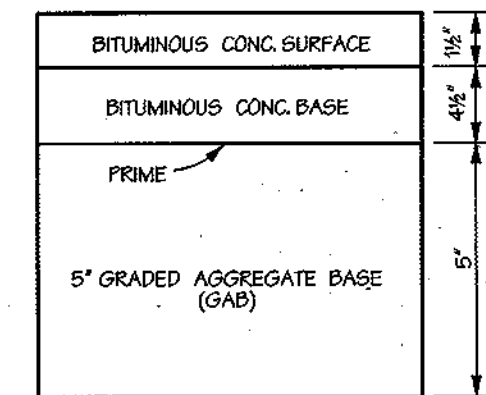
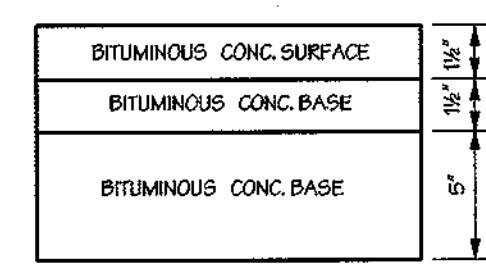
OWNER/DEVELOPER:
 THE HOWARD RESEARCH & DEVELOPMENT CORPORATION
 10275 Little Patuxent Parkway
 Columbia, Maryland 21044

DMW
 Daft - McCune - Walker, Inc.
 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 410 296 5333 Fax 296 4705

SUBDIVISION NAME			
EMERSON	PHASE 5B	LOT/ACRES	657
572/430	7.8, 8.15	MMX	47
WATER CODE	6 TH	SECT. DISTRICT	6 TH
SEWER CODE		CHECK TRAIL	

TITLE: **PRELIMINARY PLAN**
 6TH ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND

Drawn By: ADL	Scale: 1"=100'	Proj. No. 95054.03
Des. By:	Date: 11/23/03	
Chk. By:	Approved:	2 of 6

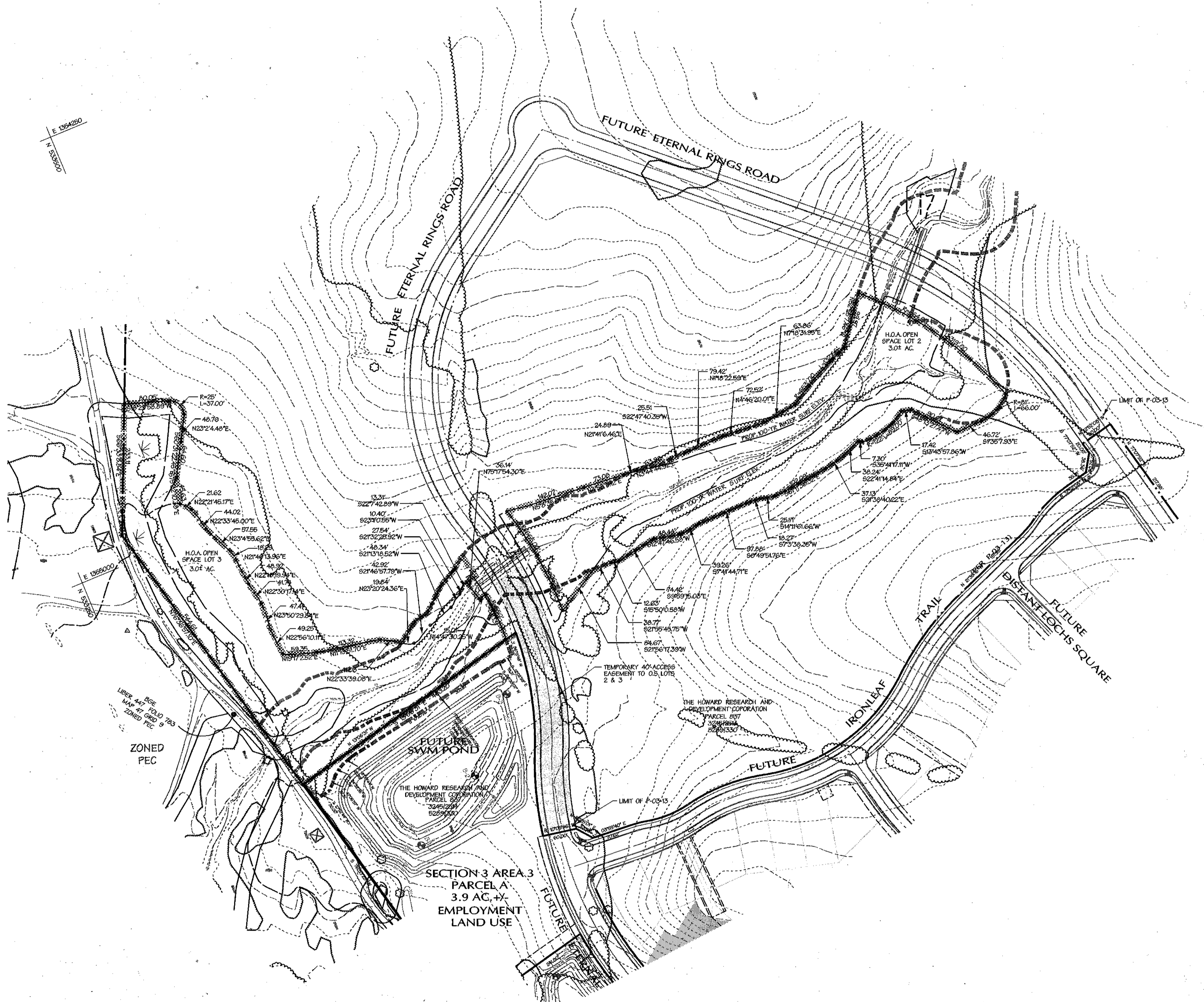
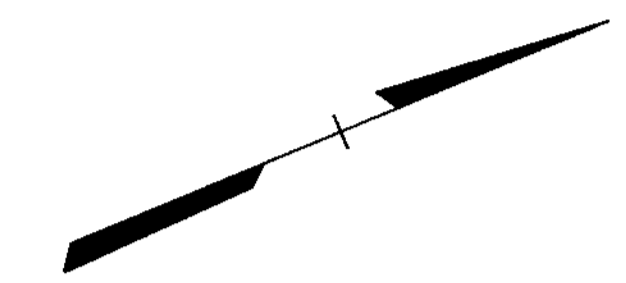
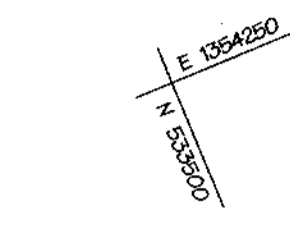


TYPICAL SECTION - PALACE HALL DRIVE
 CLOSED SECTION 60' RW
 LOCAL ROAD
 30 MPH DESIGN SPEED
 NTS

LEGEND

- EX. CURB & GUTTER
- EX. MAJOR CONTOURS
- EX. MINOR CONTOURS
- EX. STORM DRAIN
- EX. SEWER
- EX. WATER
- EXISTING TREE LINE
- EXISTING WETLAND LIMIT
- WETLAND BUFFER
- 100 YR. FLOODPLAIN
- STREAM BUFFER
- LIMIT OF DISTURBANCE
- PROP. STORM DRAIN
- PROP. SEWER
- PROP. WATER
- PROPERTY LINE
- ROADWAY RIGHT-OF-WAY
- PROPOSED LOT LINE
- PROPOSED EASEMENT
- PROPOSED CURB & GUTTER
- PROPOSED SIDEWALK
- SLOPE 1% - 24.9%
- FOREST CONSERVATION EASEMENT
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- 15' D.
- 8' S.
- 8' W.
- 100 YEAR WATER SURF. ELEV.

PAVING SECTION P-3
 MINOR & MAJOR COLLECTORS
 NO SCALE



LEGEND

EX CURB & GUTTER	PROF. STORM DRAIN	15' D.
EX MAJOR CONTOURS	PROF. WATER	8' S.
EX MINOR CONTOURS	PROF. WATER	8' W.
EX STORM DRAIN	PROPERTY LINE	
EX SEWER	ROADWAY RIGHT-OF-WAY	
EX WATER	PROPOSED LOT LINE	
EXISTING TREE LINE	PROPOSED EASEMENT	
EXISTING WETLAND LIMIT	PROPOSED CURB & GUTTER	
WETLAND BUFFER	PROPOSED SIDEWALK	
100 YR FLOODPLAIN	SLOPE 15% - 24.3%	
STREAM BUFFER	FOREST CONSERVATION EASEMENT	
	PROPOSED MINOR CONTOUR	
	PROPOSED MAJOR CONTOUR	

DATA SOURCES:
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Date	No.	Revision Description

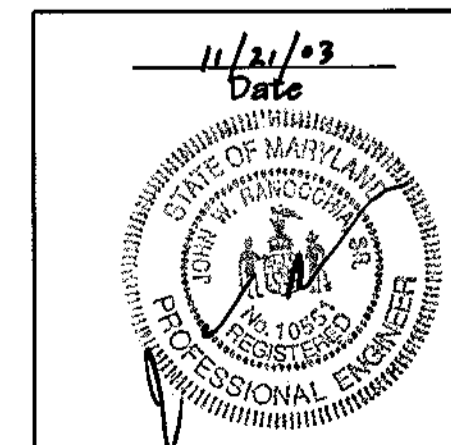
EMERSON (KEY PROPERTY)
 SECTION 2 PHASE 5B, PARCEL AA,
 SECTION 3 AREA 4, PARCEL A
 OWNER/DEVELOPER:
 THE HOWARD RESEARCH & DEVELOPMENT CORPORATION
 10275 Little Patuxent Parkway
 Columbia, Maryland 21044

DMW
 Daft · McCune · Walker, Inc.
 A Team of Land Planners, 200 East Pennsylvania Avenue
 Landscape Architects, Towson, Maryland 21286
 Engineers, Surveyors & 410 296 5353
 Environmental Professionals Fax 296 4705

SECTION NAME	EMERSON	SECTION AREA	PHASE 5B	LOT/PARCEL	057
PLAT NO.	572/430	BLDG #	7,8,15	ZONE	MXD
WATER CODE		TOWNSHIP	47	ELECT. DISTRICT	6 TH
		OWNER CODE		CHECK TRACT	

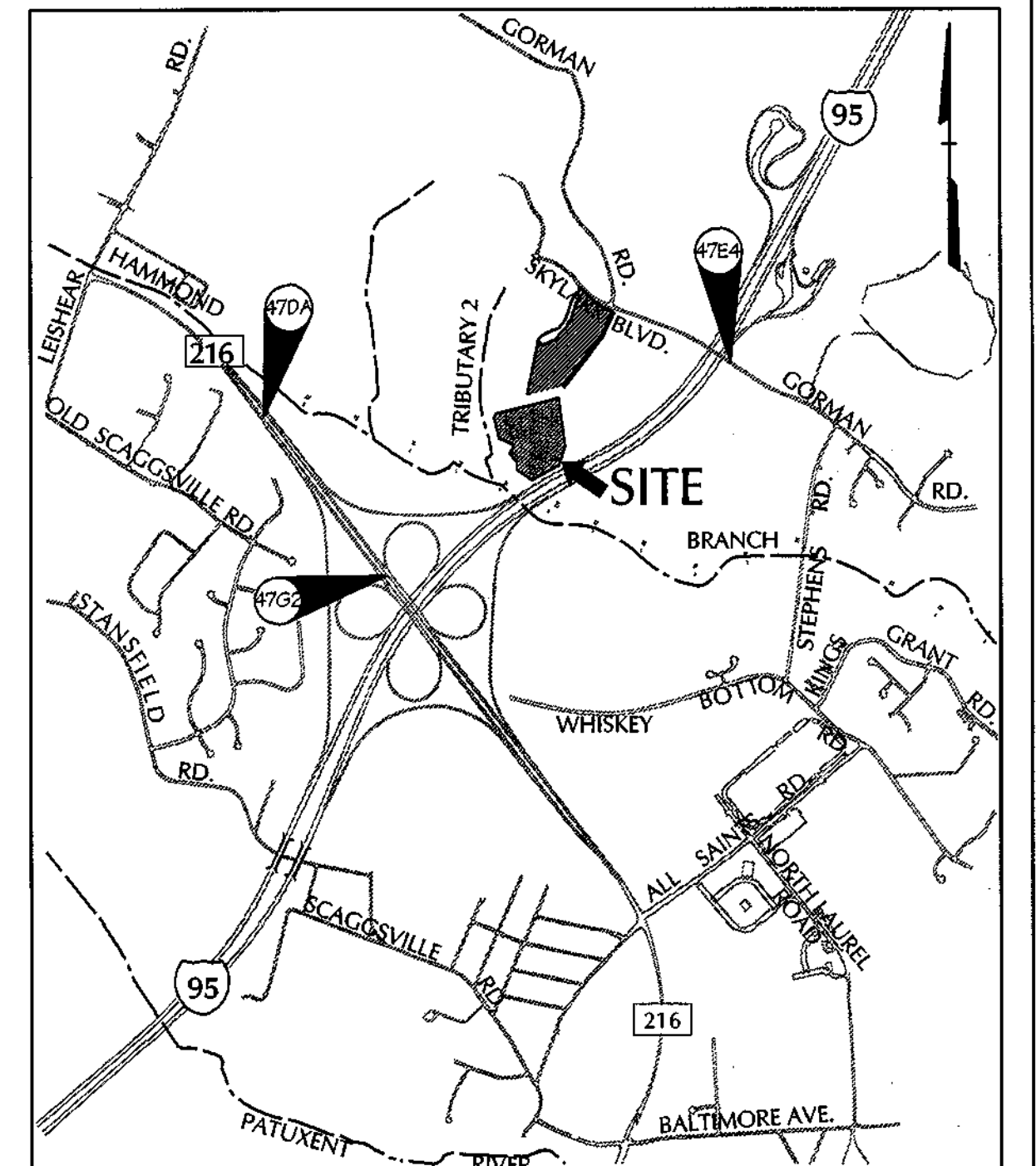
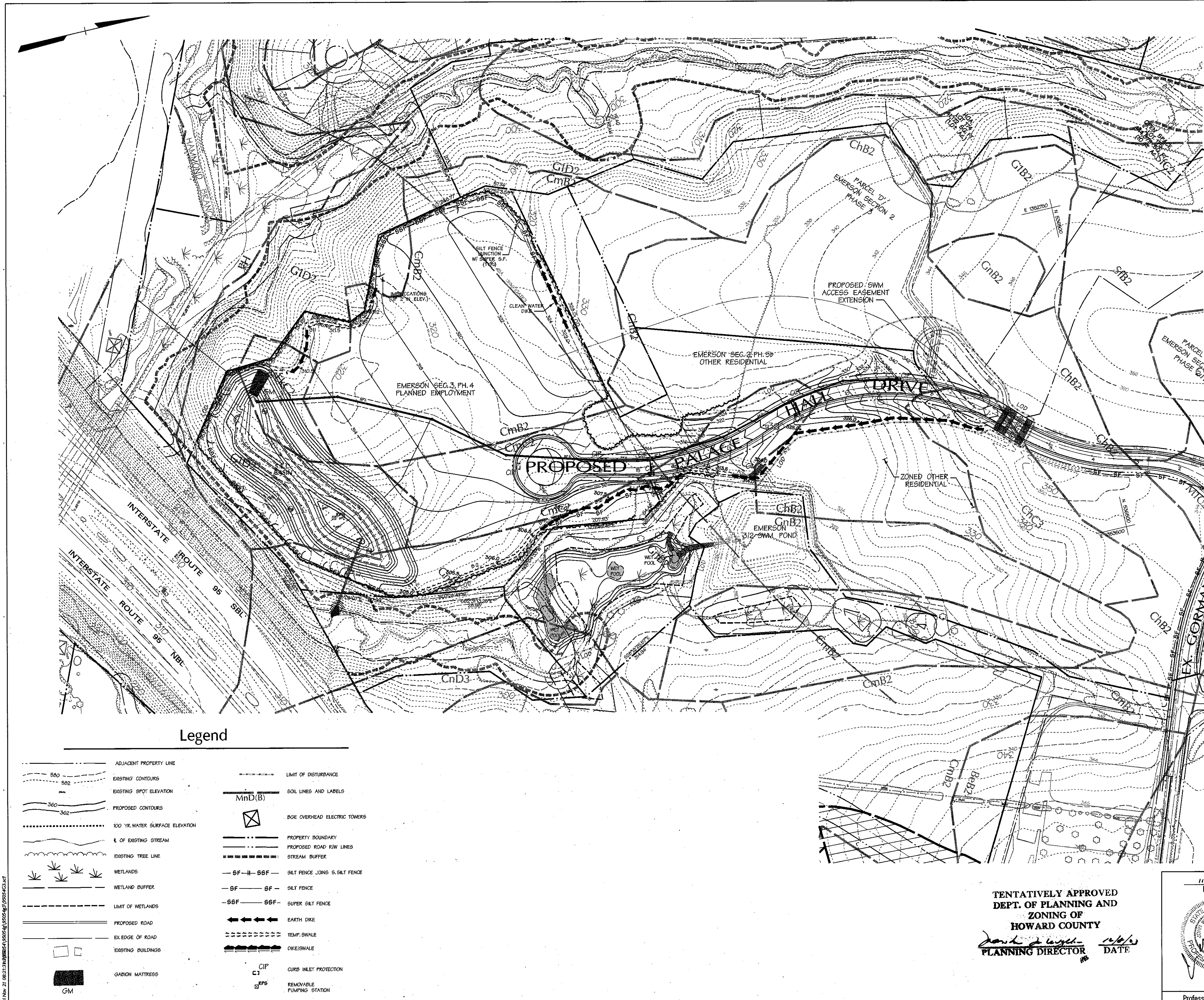
TITLE
PRELIMINARY PLAN
 6TH ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND
 Dwn By: _____ Scale: 1"=100' Proj. No. 95054.03
 Des By: _____ Date: 11/23/03
 Cht By: _____ Approved: _____ 3 of 6

TENTATIVELY APPROVED
 DEPT. OF PLANNING AND ZONING OF
 HOWARD COUNTY
 Planning Director: _____ DATE: 11/23/03



Professional Engr. No. 10551

P-03-16



Vicinity Map
SCALE: 1"=2000'
Benchmark

Description
 COORDINATES IN MARYLAND NAD83(91) (HORIZONTAL) AND NGVD29 (VERTICAL) DATUMS.
 47DA NORTING: 163191.9104
 EASTING: 412266759
 ELEVATION: 315.905 ft.
 47E4 NORTING: 163326.2295
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 ELEVATION: 338.909ft.
 47G2 NORTING: 162440.1212
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 ELEVATION: 364.210ft.

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APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS	
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
Date	No. Revision Description

EMERSON
 SECTION 2, PHASE 5B, PARCEL AA
 AND SECTION 3, AREA 4 PARCEL A
 OWNER / DEVELOPER:
 THE HOWARD RESEARCH & DEVELOPMENT CORPORATION
 10275 Little Patuxent Parkway
 Columbia, Maryland 21044

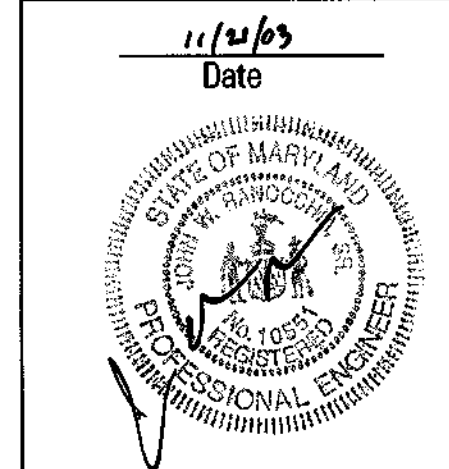
DMW
 Duff McCune Walker, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3338
 Fax: 296-4702
 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

AREA	TAX MAP 47	PARCEL 837
	6TH ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND	
TITLE	SCHEMATIC SEDIMENT CONTROL AND PRELIMINARY GRADING	
Des By	MRT	Scale 1"=100'
Drn By	JSB	Date 11/23/03
Chk By		Approved
Professional Engr. No.	10551	4 of 6

Legend

- 580 --- ADJACENT PROPERTY LINE
- 580 --- EXISTING CONTOURS
- 360 --- EXISTING SPOT ELEVATION
- 360 --- PROPOSED CONTOURS
- 100 YR. WATER SURFACE ELEVATION
- 1/2 OF EXISTING STREAM
- EXISTING TREE LINE
- WETLANDS
- WETLAND BUFFER
- LIMIT OF WETLANDS
- PROPOSED ROAD
- EX. EDGE OF ROAD
- EXISTING BUILDINGS
- GABION MATRESS
- LIMIT OF DISTURBANCE
- SOIL LINES AND LABELS
- BGE OVERHEAD ELECTRIC TOWERS
- PROPERTY BOUNDARY
- PROPOSED ROAD R/W LINES
- STREAM BUFFER
- SF --- SFT SILT FENCE JOINS S. SILT FENCE
- SF --- SF SILT FENCE
- SFT --- SFT SUPER SILT FENCE
- EARTH DIKE
- TEMP. SWALE
- DIKE/SWALE
- CURB INLET PROTECTION
- REMOVABLE PUMPING STATION

TENTATIVELY APPROVED
 DEPT. OF PLANNING AND ZONING OF
 HOWARD COUNTY
 Planning Director
 DATE 11/23/03



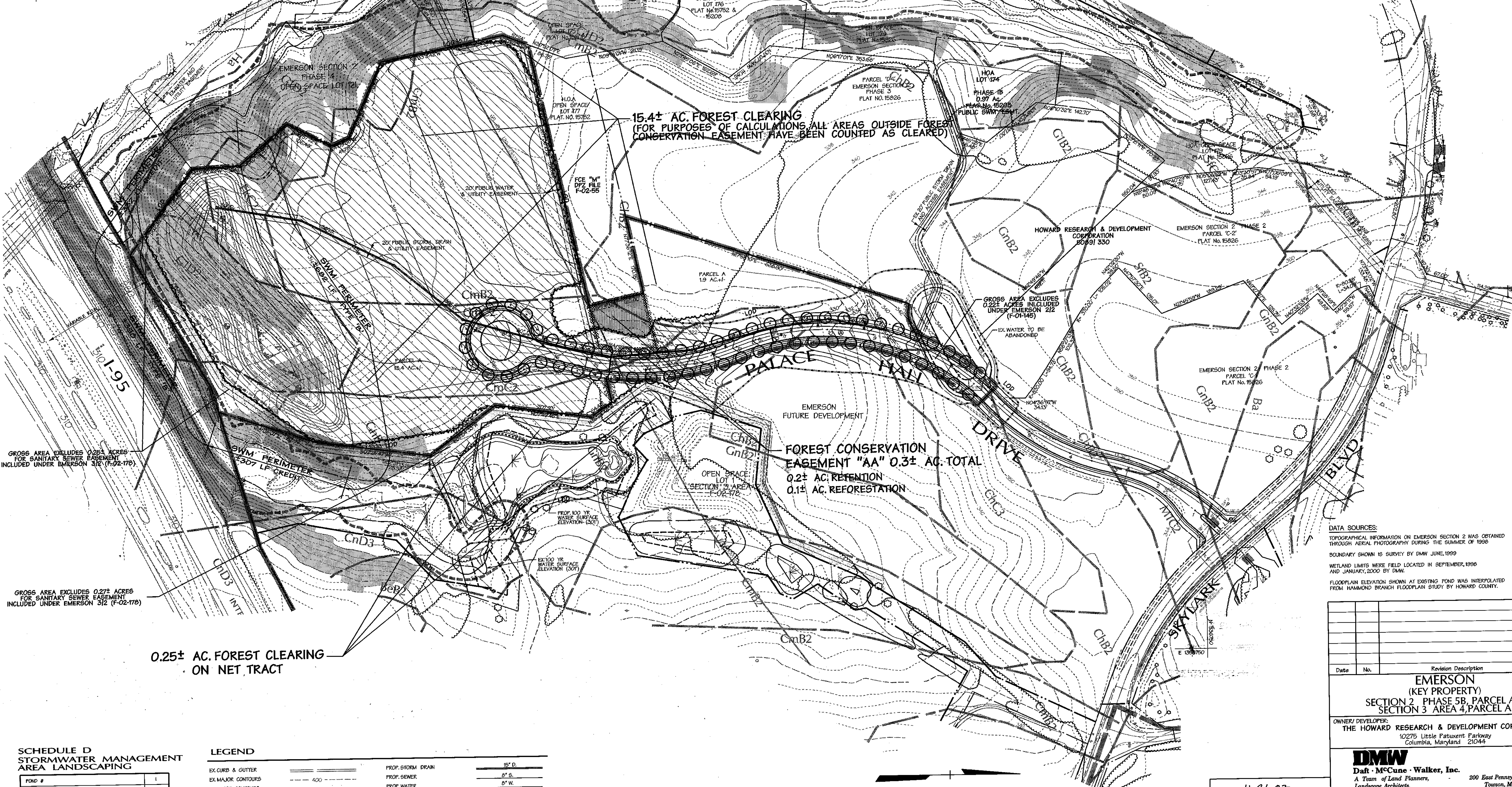
P-03-16

GOALS AND OBJECTIVES

THE GOALS AND OBJECTIVES OF THIS FOREST CONSERVATION PLAN ARE TO IDENTIFY FORESTED AREAS TO BE CLEARED UNDER EMERSON 2 PHASE 5B, AND TO PROVIDE LONG TERM PROTECTION FOR RETENTION AND REFORESTATION AREAS PROPOSED UNDER THIS PHASE, APPROXIMATELY 15.65 ACRES OF FOREST CLEARING AND 1.0 ACRES OF FOREST RETENTION IS PROPOSED UNDER THIS PHASE, AND APPROXIMATELY 2.4 ACRES OF REFORESTATION IS PROPOSED WITHIN THE FLOODPLAIN AND STREAM BUFFERS ON THE SOUTHERN PORTION OF THIS PROJECT, AND ADJACENT TO THE RIGHT-OF-WAY ON THE NORTHERN PORTION OF THE PROJECT. WHEN EVALUATED CUMULATIVELY WITH PREVIOUS PHASES OF THIS PROJECT, 7.24 ACRES OF REFORESTATION IS REQUIRED, AND 8.26 ACRES OF REFORESTATION IS PROVIDED. PLANT SPECIES WILL BE CHOSEN TO TOLERATE FLOODPLAIN AND UPLAND MOISTURE CONDITIONS WITHIN THE REFORESTATION AREAS.

NOTE: SEE SHEET 6 OF 6 FOR FOREST CONSERVATION CALCULATIONS & TRACKING CHART.

E 1362250
N 1362250



15.4± AC. FOREST CLEARING
(FOR PURPOSES OF CALCULATIONS ALL AREAS OUTSIDE FOREST CONSERVATION EASEMENT HAVE BEEN COUNTED AS CLEARED)

FOREST CONSERVATION EASEMENT "AA" 0.3± AC. TOTAL
0.2± AC. RETENTION
0.1± AC. REFORESTATION

0.25± AC. FOREST CLEARING ON NET TRACT

GROSS AREA EXCLUDES 0.28± ACRES FOR SANITARY SEWER EASEMENT INCLUDED UNDER EMERSON 312 (F-02-176)

GROSS AREA EXCLUDES 0.27± ACRES FOR SANITARY SEWER EASEMENT INCLUDED UNDER EMERSON 312 (F-02-176)

DATA SOURCES:
TOPOGRAPHICAL INFORMATION ON EMERSON SECTION 2 WAS OBTAINED THROUGH AERIAL PHOTOGRAPHY DURING THE SUMMER OF 1998.
BOUNDARY SHOWN IS SURVEY BY DMW JUNE, 1999.
WETLAND LIMITS WERE FIELD LOCATED IN SEPTEMBER, 1998 AND JANUARY, 2000 BY DMW.
FLOODPLAIN ELEVATION SHOWN AT EASTING ROAD WAS INTERPOLATED FROM HAMMOND BRANCH FLOODPLAIN STUDY BY HOWARD COUNTY.

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING

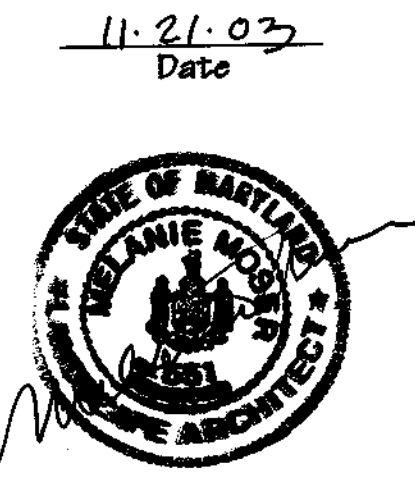
FOOD #	I
LINEAR FT OF PERIMETER (TYPE "B")	171 LF
NUMBER OF TREES REQUIRED	
SHADE TREES @ 150 LF.	21
EVERGREEN TREES @ 140 LF.	27
CREDIT FOR EXISTING VEGETATION	659 LF
CREDIT FOR OTHER LANDSCAPING	NA
NUMBER OF TREES PROVIDED	
SHADE TREES	
EVERGREEN TREES	
SHRUBS	

NOTES:
THE DEVELOPER WILL PROVIDE ALL SWM LANDSCAPE OBLIGATIONS. GI STREET TREES SHOWN THIS SHEET.
NO PERIMETER REQUIREMENTS HAVE BEEN SHOWN BECAUSE LIMITS OF CURRENT PHASE ARE BORDERED ON ALL SIDES BY OTHER EMERSON HOLDINGS (LANDSCAPE PERIMETERS) ADJACENT TO I-95 ARE INCLUDED IN SWM FORD PERIM. CALCULATIONS.

LEGEND

EX. CURB & GUTTER	15" D.
EX. MAJOR CONTOURS	8" S.
EX. MINOR CONTOURS	8" W.
EX. STORM DRAIN	PROPERTY LINE
EX. SEWER	ROADWAY RIGHT-OF-WAY
EX. WATER	PROPOSED LOT LINE
EXISTING TREE LINE	PROPOSED EASEMENT
EXISTING WETLAND LIMIT	PROPOSED CURB & GUTTER
WETLAND BUFFER	PROPOSED SIDEWALK
EX. 100 YR. FLOODPLAIN	SLOPE 15% - 24.9%
PROP. 100 YR. FLOODPLAIN	SLOPE 25% +
LIMIT OF DISTURBANCE	FOREST RETENTION AREA
SON(S) LINE (NOT SHOWN)	FOREST CONSERVATION EASEMENT
STREAM BUFFER	PROPOSED MINOR CONTOUR
PROPOSED STREET TREE	PROPOSED MAJOR CONTOUR
REFORESTATION AREA	PROPOSED PHASE LINE
FOREST CLEARING	

TENTATIVELY APPROVED
DEPT. OF PLANNING AND ZONING OF HOWARD COUNTY
David DeLorenzo
PLANNING DIRECTOR
DATE



Date	No.	Revision Description
		EMERSON (KEY PROPERTY) SECTION 2 PHASE 5B, PARCEL AA, SECTION 3 AREA 4, PARCEL A
OWNER/DEVELOPER: THE HOWARD RESEARCH & DEVELOPMENT CORPORATION 10275 Little Patuxent Parkway Columbia, Maryland 21044		
DMW Daft - McCune - Walker, Inc. A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals 200 East Pennsylvania Avenue Towson, Maryland 21286 410 296 3333 Fax 296 4705		
SECTION NAME EMERSON	BLOCK # 872/430	PHASE 5B
TRACED LF 7,8315	MDX 47	BLK. OBJECT 6 TH
WATER CODE	SEWER CODE	GEN. TRACT
TITLE PRELIMINARY LANDSCAPE & FOREST CONSERVATION PLAN		
Drn By: RDW	Scale: 1"=100'	Proj. No. 95054.03
Des By:	Date: 11/23/03	
Drk By: MM	Approved:	5 of 6

P-03-16

FOREST CONSERVATION CALCULATIONS

BASIC SITE DATA		ACRES (1100)
GROSS SITE AREA		322.37
AREA WITHIN 100 YEAR FLOODPLAIN		32.71
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL (IF APPLICABLE)	N/A	
NET TRACT AREA		289.66
LAND USE CATEGORY		CA1

INFORMATION FOR CALCULATIONS		
A. NET TRACT AREA		289.66
B. REFORESTATION THRESHOLD (15% x A)		43.45
C. AFFORESTATION MINIMUM (15% x A)		43.45
D. EXISTING FOREST ON NET TRACT AREA		115.31
E. FOREST AREAS TO BE CLEARED		63.28
F. FOREST AREAS TO BE RETAINED		52.03

REFORESTATION CALCULATIONS		
A. NET TRACT AREA		289.66
B. REFORESTATION THRESHOLD (15% x A)		43.45
C. EXISTING FOREST ON NET TRACT AREA		115.31
D. FOREST AREAS TO BE CLEARED		63.28
E. FOREST AREAS TO BE RETAINED		52.03
F. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD		63.28
G. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD		0.00
H. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD		5.58

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	Fx14	15.82
REFORESTATION FOR CLEARING BELOW THRESHOLD	Gx2	0.00
TOTAL REFORESTATION REQUIRED	(Fx14) + (Gx2)	15.82

CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD		5.58
REFORESTATION REQUIRED		7.24 ACRES
REFORESTATION PROVIDED		8.36 ACRES

LEGEND

EX CURB & GUTTER	=====	PROP. STORM DRAIN	15" D.
EX MAJOR CONTOURS	-----	PROP. SEWER	8" S.
EX MINOR CONTOURS	-----	PROP. WATER	8" W.
EX STORM DRAIN	-----	PROPERTY LINE	-----
EX SEWER	-----	ROADWAY RIGHT-OF-WAY	-----
EX WATER	-----	PROPOSED LOT LINE	-----
EXISTING TREE LINE	-----	PROPOSED CURB & GUTTER	-----
EXISTING WETLAND LIMIT	-----	PROPOSED SIDEWALK	-----
WETLAND BUFFER	-----	100 YR FLOODPLAIN	-----
100 YR FLOODPLAIN	-----	LIMIT OF DISTURBANCE	-----
LIMIT OF DISTURBANCE	-----	SOIL(S) LINE (NOT SHOWN)	-----
SOIL(S) LINE (NOT SHOWN)	-----	STREAM BUFFER	-----
STREAM BUFFER	-----	PROPOSED STREET TREE	-----
PROPOSED STREET TREE	-----	REFORESTATION AREA	-----
REFORESTATION AREA	-----	FOREST CLEARING	-----
FOREST CLEARING	-----		

DATA SOURCES:

TOPOGRAPHICAL INFORMATION ON EMERSON SECTION 2 WAS OBTAINED THROUGH AERIAL PHOTOGRAPHY DURING THE SUMMER OF 1999.
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 WETLAND LIMITS WERE FIELD LOCATED IN SEPTEMBER, 1999 AND JANUARY, 2000 BY DMW.
 DATA SOURCES:
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 FLOODPLAIN ELEVATION SHOWN AT EXISTING POND WAS INTERPOLATED FROM HAMMOND BRANCH FLOODPLAIN STUDY BY HOWARD COUNTY.

TENTATIVELY APPROVED
 DEPT. OF PLANNING AND ZONING OF
 HOWARD COUNTY
 Daniel H. ...
 PLANNING DIRECTOR DATE

FOREST CONSERVATION TRACKING CHART

Section/Phase Number	Gross Area	Floodplain	Net Tract Area	Ex. Forest Area	Forest Cleared	Forest Retained	Reforest./Affor. Required	Reforest./Affor. Provided	Excess Reforest./Affor.	Future Forest Clearing	Future Reforest./Affor.	Comments
2.1	106.20	3.50	102.70	24.70	7.93	16.77	0.61	5.03	4.42	4.48	3.41	
2.2	118.90	3.50	115.40	24.90	8.03	16.77	2.95	5.03	2.08	3.28	3.41	SEE NOTE 'A'
2.3	137.35	4.00	133.35	34.40	12.53	21.87	1.27	5.03	3.76	2.18	3.91	SEE NOTE 'B'
3.1	206.85	21.19	185.66	85.30	39.47	45.83	0.00	5.03	5.03	2.18	3.91	
3.2	220.27	21.27	199.00	87.50	41.67	45.83	0.00	5.03	5.03	2.18	3.91	SEE NOTE 'C'
2.4	264.81	26.57	238.24	98.15	47.15	51.03	0.00	5.03	5.03	2.49	5.24	
2.5(a & 3.3)	297.02	27.51	269.51	98.66	47.63	51.03	1.31	5.96	4.65	2.49	5.24	
2.5(b & 3.4)	322.37	32.71	289.66	115.31	63.28	52.03	7.24	8.36	1.12	2.49	5.24	SEE NOTE 'D'
TOTAL	322.37	32.71	289.66	115.31	63.28	52.03	7.24	8.36	1.12	2.49	5.24	

A. 1.02± ACRES OF FUTURE FOREST CLEARING SHOWN ON F-01-137 WAS CLEARED FOR SWM ON OPEN SPACE LOT 17A.
 B. 1.10± ACRES OF FUTURE FOREST CLEARING SHOWN ON F-01-137 WAS CLEARED FOR SWM ON OPEN SPACE LOT 17B.
 C. GROSS AREA INCLUDES 1.07± ACRES FOR SANITARY SEWER EXTENSION AND CONTAINS 0.08± ACRES OF FLOODPLAIN.
 D. GROSS AREA EXCLUDES 0.02± ACRES FOR SANITARY SEWER SHOWN ON F-02-178, AND 0.2 ACRES FOR PALACE HALL DRIVE RIGHT-OF-WAY SHOWN ON F-01-145. GROSS AREA INCLUDES 2.37 ACRES FOR THE WETLAND MITIGATION SITE. FLOODPLAIN INCLUDES 12 ACRES FOR THE MITIGATION AREA FLOODPLAIN.

11.21.03
 Date
 STATE OF MARYLAND
 LAND SURVEYOR
 DANIEL H. ...
 LANDSCAPE ARCHITECT

Date	No.	Revision Description

EMERSON
 (KEY PROPERTY)
 SECTION 2 PHASE 5B, PARCEL AA,
 SECTION 3 AREA 4, PARCEL A

OWNER/DEVELOPER:
 THE HOWARD RESEARCH & DEVELOPMENT CORPORATION
 10275 Little Patuxent Parkway
 Columbia, Maryland 21044

DMW
 Dan M. Cune - Walker, Inc.
 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 410 296 3333
 Fax 296 4705

SUPPLEMENT NAME	SECTION/AREA	PHASE	LOT/TRACT
EMERSON	EMERSON	5B	207

DATE OF PLAN: 8/22/03
 BLOCK & LOT: 7, 8, 9, 15
 ZONE: MXD
 PARCELS: 47
 ELEC. DISTRICT: 6 TH
 CENSUS TRACT: -
 WATER CODE: -
 SEWER CODE: -

TITLE
 PRELIMINARY LANDSCAPE & FOREST CONSERVATION PLAN

Drawn By:	Scale:	Proj. No.:
RDW	1"=100'	95054.03

Date: 11/23/03

Checked By:	Approved:	Page:
MM		6 of 6

Landscaper No. 597