

SHEET INDEX

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10	STREET TREE AND LIGHTING PLAN

SCENTLESS ROSE WAY

ROAD AND STORM DRAIN CONSTRUCTION PLANS

JUNE FLOWERS WAY, JUNE FLOWERS WAY AND SILKEN LEAF COURT

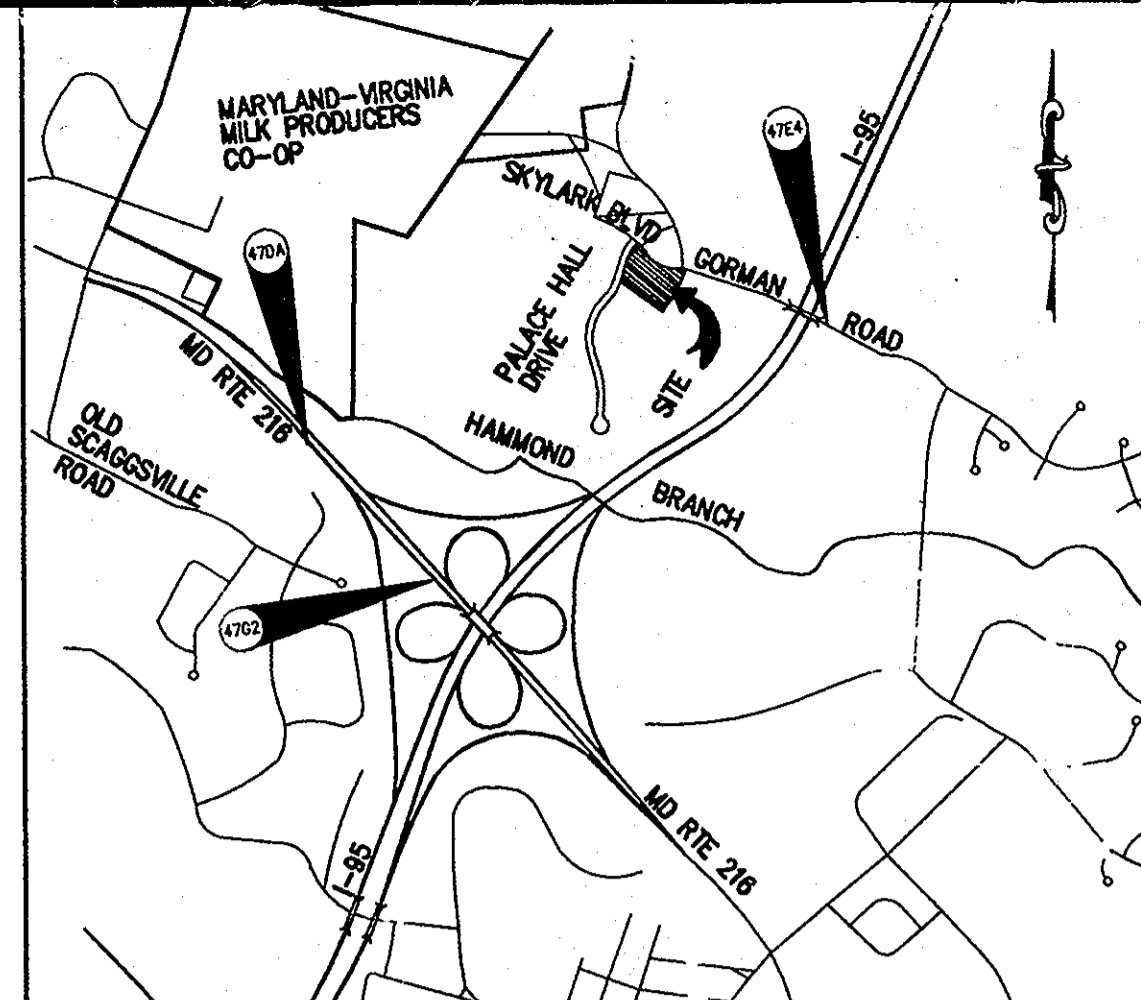
EMERSON TOWNHOMES

SECTION 2, PHASE 6A
 A RESUBDIVISION OF PARCEL A-1
 LOTS 45 THRU 89
 OPEN SPACE LOTS 90 AND 91
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION AT (410) 313-1800 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-267-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET AND REGULATORY SIGNS LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)." A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD SURVEY WITH 2' FOOT CONTOUR INTERVALS COMPLETED BY christopher consultants, ltd. ON DECEMBER 2004.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLAN COORDINATE SYSTEM MONUMENT NOS 47DA, 47E, 47F, AND 47EA WERE USED FOR THIS PROJECT (NAD 1983/91).
- WATER IS TO BE PUBLIC (CONTRACT # 14-4310-D).
- SEWER IS TO BE PUBLIC (CONTRACT # 14-4310-D).
- THE PUBLIC STORMWATER MANAGEMENT FOR THIS SITE WILL BE PROVIDED BY PRIVATE WET PONDS PREVIOUSLY BUILT UNDER F-01-145 & F-02-176.
- EX. UTILITIES ARE BASED ON FIELD RUN TOPOGRAPHY BY christopher consultants, ltd. ON DECEMBER 2004, AND SUPPLEMENTED WITH HOWARD COUNTY RECORDS.
- THERE IS NO FLOODPLAIN ON THIS SITE.
- THERE IS NO WETLANDS ON THIS SITE.
- THE TRAFFIC STUDY FOR THIS SITE WAS PREPARED BY WELLS & ASSOCIATES, DATED FEBRUARY 2000, HAS BEEN APPROVED WITH 5-99-12.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL VERIFY SIZE AND LOCATIONS OF ALL UNDERGROUND UTILITIES AND TEST PIT ALL UTILITIES, INCLUDING PROPOSED TIE IN LOCATIONS, AT LEAST 5 DAYS PRIOR TO STARTING ANY WORK ON THESE DRAWINGS. DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER AND IN ADVANCE OF CONSTRUCTION START.
- ANY DAMAGE CAUSED BY THE CONTRACTOR TO EXISTING PUBLIC RIGHT-OF-WAY, EXISTING FAWING, EXISTING CURB AND GUTTER, EXISTING UTILITIES, ETC. SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
- ALL FILL AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED AND VERIFIED IN ACCORDANCE WITH AASHTO T-100--STANDARD.
- CONTRACTOR SHALL MAINTAIN ALL SEDIMENT CONTROL DEVICES WITHIN THE LIMITS OF THE SITE DURING CONSTRUCTION OF THE SITE IMPROVEMENTS. CONTRACTOR SHALL PROVIDE ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES AS MAY BE NECESSARY DURING CONSTRUCTION AND/OR BY GOVERNING AGENCIES.
- THERE ARE NO KNOWN CEMETERIES OR BURIAL GROUNDS ON THIS SITE. HOWEVER, UPON DISCOVERY OF ANY EVIDENCE OF BURIAL OR GRAVES, THE DEVELOPER WILL BE SUBJECT TO SECTION 16.1305 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- THE SUBJECT PROPERTY IS ZONED RMD-3 "OTHER RESIDENTIAL" PER THE 2/2/04 COMPREHENSIVE ZONING PLAN # ZB-9791.
- THE CONTRACTOR SHALL TEST PIT ALL EXISTING UTILITIES AT LEAST FIVE (5) DAYS PRIOR TO STARTING ANY WORK SHOWN ON THESE DRAWINGS.
- OPERATING EXISTING VALVES, SWITCHES, SERVICES OR START UP OF NEW SERVICES SHALL BE COORDINATED WITH THE OWNERS REPRESENTATIVE.
- FOREST CONSERVATION OBLIGATIONS AND OPEN SPACE REQUIREMENTS FOR THIS PHASE OF EMERSON TOWNHOME PROJECT WERE ADDRESSED UNDER F-04-68.

26. SCENTLESS ROSE WAY FROM CURB TO CURB WILL BE CONSTRUCTED UNDER THIS CONTRACT. THE STORMDRAIN IN THE RIGHT-OF-WAY WILL BE CONSTRUCTED UNDER F-06-143. THAT CONTRACT ALSO INCLUDES THE STREET TREES, LIGHTS, AND SIGNS ASSOCIATED WITH SCENTLESS ROSE WAY.

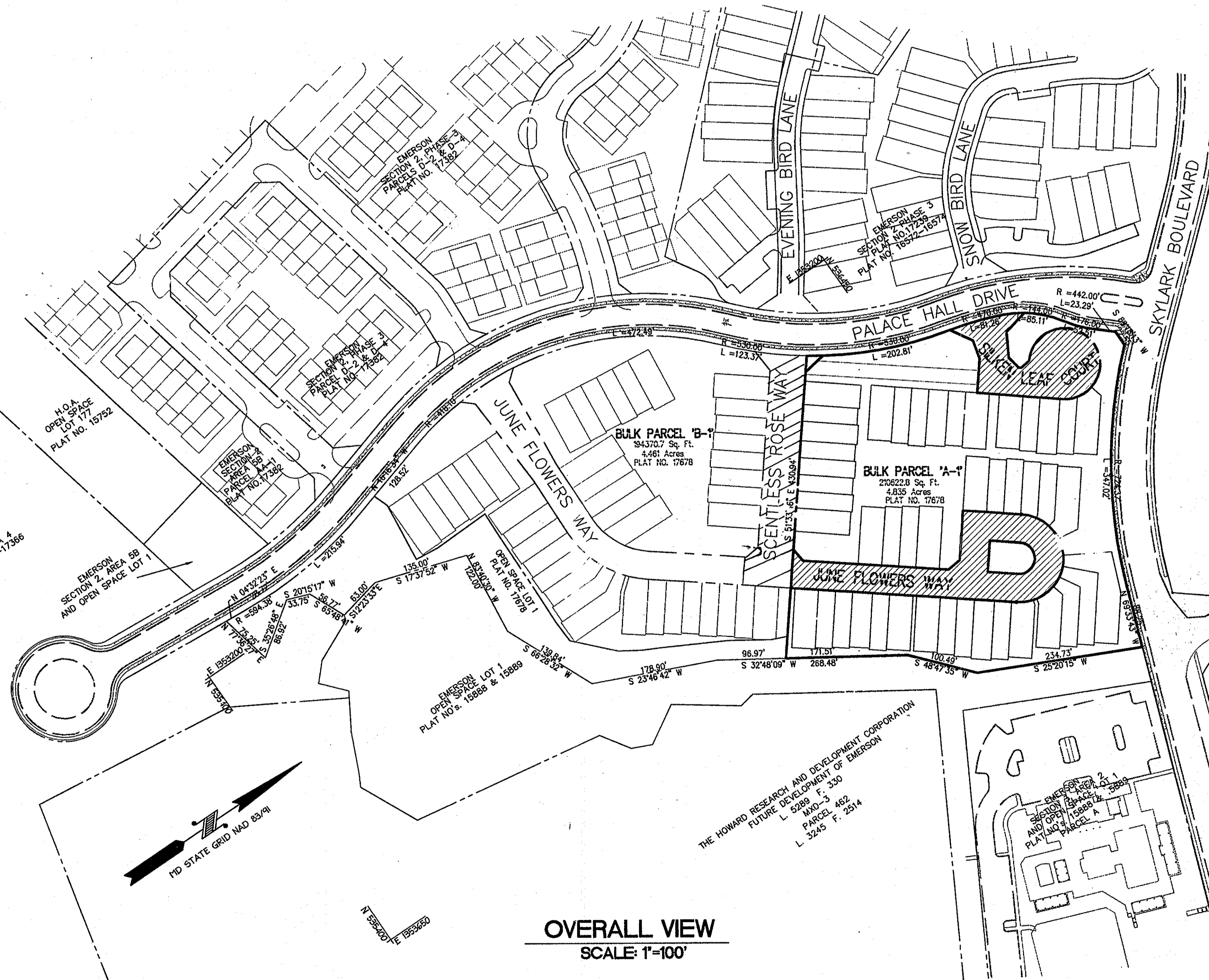


VICINITY MAP
 SCALE 1"=2000'

HOWARD COUNTY, MAP 19, GRID H-7

BENCHMARK

Horizontal Datum: Maryland State Coordinates, NAD 83/91
 Vertical Datum: NAD 88
 Howard County Monument 47DC
 N: 576616.42, E: 115367.09, Elev. 248.182
 Howard County Monument 47EB
 N: 576212.74, E: 115483.57, Elev. 354.230



OVERALL VIEW
 SCALE: 1"=100'

LEGEND

PROPOSED BUILDING	
EXISTING BUILDING	
EXISTING SIDEWALK	
EXISTING CURB & GUTTER	
EXISTING STORM DRAIN	
EXISTING WATER	
EXISTING SEWER	
EXISTING CONTOURS	
PROPOSED CONTOUR	
PROPOSED LOT LINE	
PROPERTY LINE	
EXISTING TREELINE	
SUPER SILT FENCE	
LIMIT OF DISTURBANCE	
STABILIZE CONSTRUCTION ENTRANCE	

I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN MEET THE APPROVED PLANS AND SPECIFICATIONS.

Robert C. Eltel 6/2/11
 ROBERT C. ELTEL, P.E. DATE
 PE #16108

APPROVED: DEPARTMENT OF PUBLIC WORKS	<i>William J. Walsh</i> 10-6-06 Chief, Bureau of Highways Date
APPROVED: DEPARTMENT OF PLANNING AND ZONING	<i>Indy Harris</i> 6/10/06 Chief, Division of Land Development Date
	<i>Michael...</i> 10/12/06 Chief, Development Engineering Div. Date

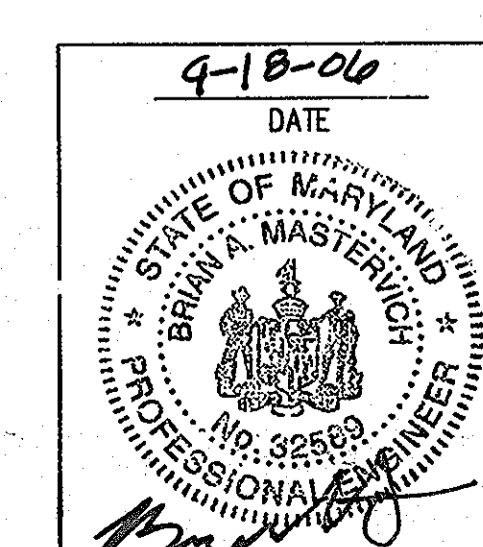
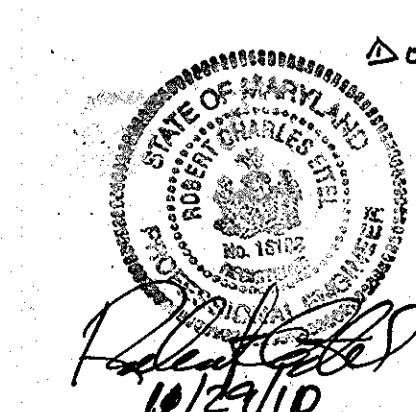
10/10	1	ADD SCENTLESS ROSE WAY TO CONTRACT
Date	No.	Description

PERTINENT INFO:
 TAX MAP NO. 47 G ID NO. B # 9.
 ELECTION DISTRICT: 6 HOWARD COUNTY, MARYLAND
 OWNER/DEVELOPER
 THE WILLIAMSBURG GROUP
 5485 HARPER'S FARM ROAD
 COLUMBIA, MD 21044 TEL: (410) 997-8800
 P.O. BOX 1018 FAX: (410) 997-4358

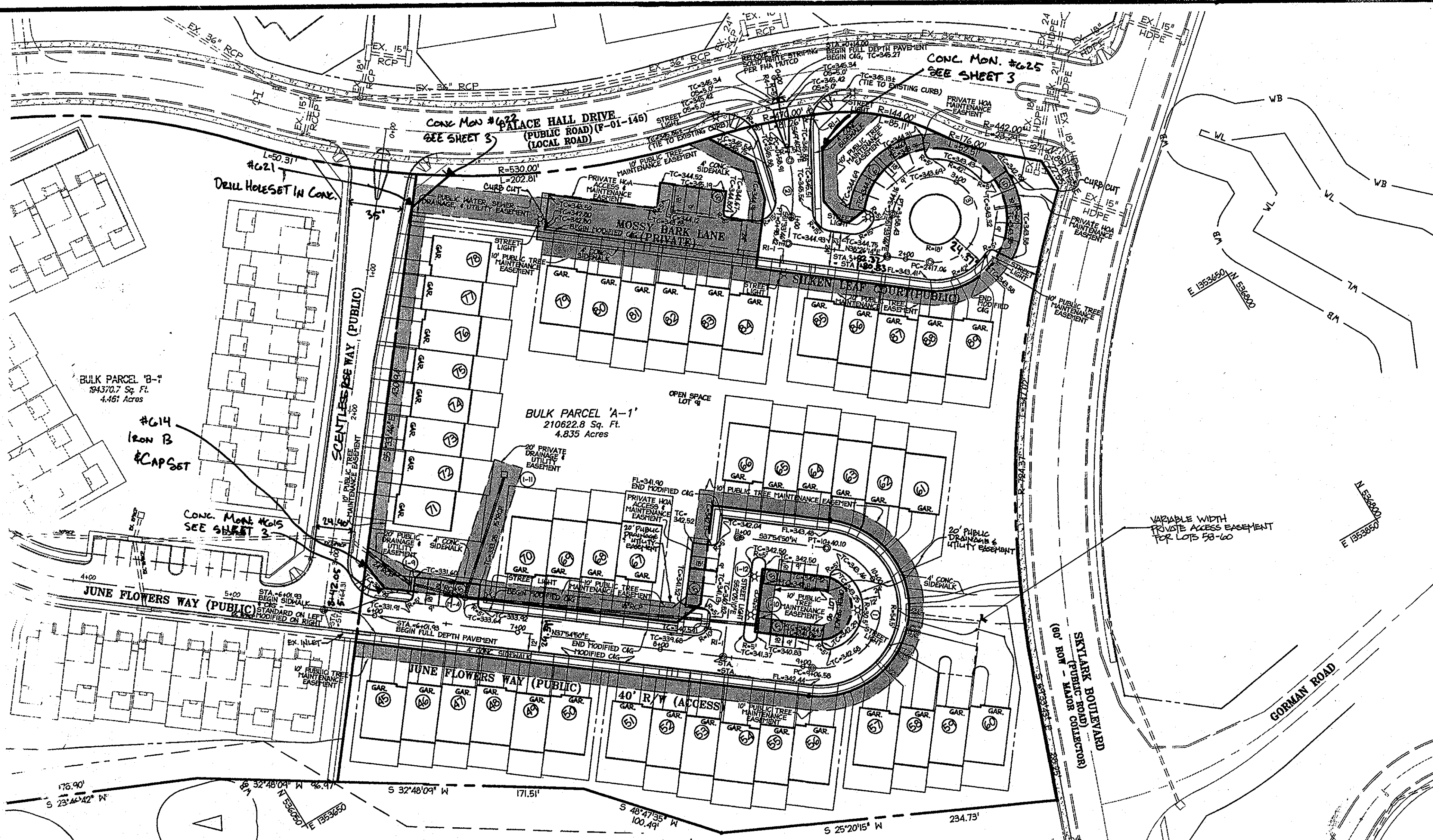
christopher consultants
 engineer, engineering, land planning
 112 coltsville, columbia, md 21046 2990
 410.872.8200 410.872.8888

SCENTLESS ROSE WAY, JUNE FLOWERS WAY & SILKEN LEAF COURT
 EMERSON
 SECTION 2 PHASE 6A LOTS 45-89,
 OPEN SPACE LOTS 90 & 91,
 A RESUBDIVISION OF PARCEL A-1

TITLE:	REVISED FINAL PLAN COVER SHEET AS-BUILT	
DESIGN:	SCALE: AS SHOWN	PROJECT: 04103.00
DRAWN:	DATE: 09-18-06	
CHECKED:	APPROVED: BAM	1 OF 10



MDC-353



CURVE DATA TABLE

NUMBER	ROAD NAME	STA. TO STA.	RADIUS	LENGTH	DELTA	TANGENT	CHORD
①	JUNE FLOWERS WAY	9+06.58 TO 10+40.10	42.50'	133.52'	180°00'00"	-	N52°05'10"W 85.00'
②	SILKEN LEAF COURT	0+58.91 TO 0+98.42	125.00'	39.51'	18°00'00"	19.92'	S60°37'05"E 39.35'
③	SILKEN LEAF COURT	2+17.06 TO 3+58.43	30.00'	141.37'	270°00'00"	30.00'	S83°26'12"W 42.43'

ROADWAY INFORMATION CHART

ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	STATION LIMITS	PAVING SECTION
JUNE FLOWERS WAY	PUBLIC ACCESS	25 M.P.H.	PEC-MXD-3	5+94.31 TO 11+91.61	P-2
SILKEN LEAF COURT	PUBLIC ACCESS	25 M.P.H.	PEC-MXD-3	0+00 TO 3+58.43	P-2

STREET LIGHT TABLE

ROAD NAME	STATION	OFFSET	TYPE
SILKEN LEAF COURT	0+34.93	22.29 R	"
SILKEN LEAF COURT	1+35.09	14.88 L	"
SILKEN LEAF COURT	2+44.32	20.47 R	"
SILKEN LEAF COURT	3+12.15	17.81 R	"
JUNE FLOWERS WAY	6+76.95	14.70 L	"
JUNE FLOWERS WAY	5+75.34	14.77 R	"
JUNE FLOWERS WAY	8+10.97	17.08 L	"
JUNE FLOWERS WAY	9+94.72	16.85 L	"
JUNE FLOWERS WAY	11+29.10	17.77 L	"
MOSSY BANK LANE			"

NOTE: * - 150 WATT HPS VAPOR PREMIER POST-TOP
 ** - 100 WATT HPS VAPOR PREMIER POST-TOP

TRAFFIC CONTROL SIGN

ROAD NAME	STATION	OFFSET	POSTED SIGN	SIGN CODE
SILKEN LEAF COURT	0+28.59	23.05 L	STOP	RI-1
SILKEN LEAF COURT	0+26.68	15.65 R	YIELD	RI-2
SILKEN LEAF COURT	0+16.92	0.00	KEEP RIGHT	RI-1
SILKEN LEAF COURT	0+18.23	0.00	KEEP RIGHT	RI-1
JUNE FLOWERS WAY	11+28.30	13.24 R	STOP	RI-1

I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN MEET THE APPROVED PLANS AND SPECIFICATIONS.

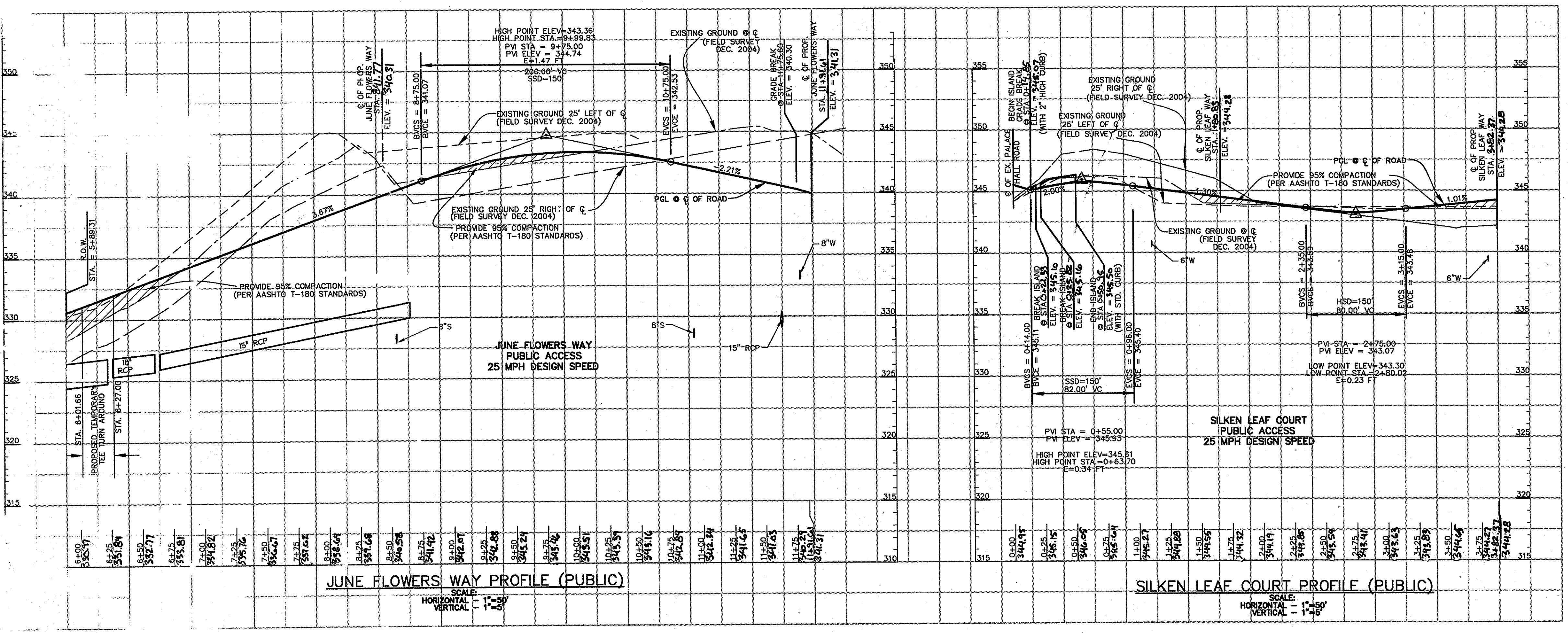
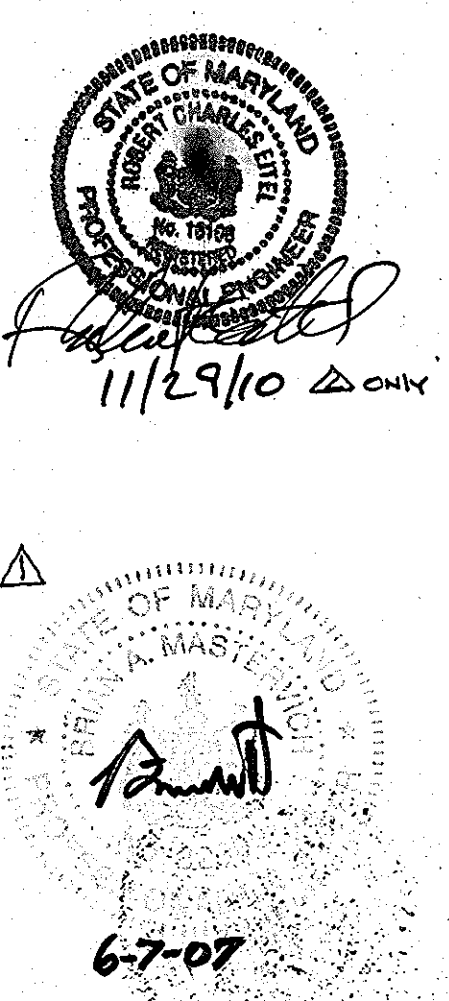
Robert C. Eitel
 ROBERT C. EITEL, P.E.
 PE # 16108
 DATE 10/11/06

APPROVED: DEPARTMENT OF PUBLIC WORKS
Walter J. Mahoney
 Chief, Bureau of Highways
 Date 10-6-06

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Andy Korman
 Chief, Division of Land Development
 Date 10/13/06

John Dorman
 Chief, Development Engineering Division
 Date 10/12/06

06/07/07 1. REVISE DRIVEWAY AND ADD ACCESS BASEMENT FOR LOTS 58-60.
 10/10/07 2. ADD SCENTLESS ROSE WAY TO CONTRACT



Date No. Revision Description

PERTINENT INFO:
 TAX MAP NO. 47 GRID NO. 8 & 9.
 ELECTION DISTRICT: 6 HOWARD COUNTY, MARYLAND

OWNER / DEVELOPER
 THE WILLIAMSBURG GROUP
 5485 HARPER'S FARM ROAD
 COLUMBIA, MD 21044
 P.O. BOX 1018
 TEL: (410) 997-8800
 FAX: (410) 997-4558

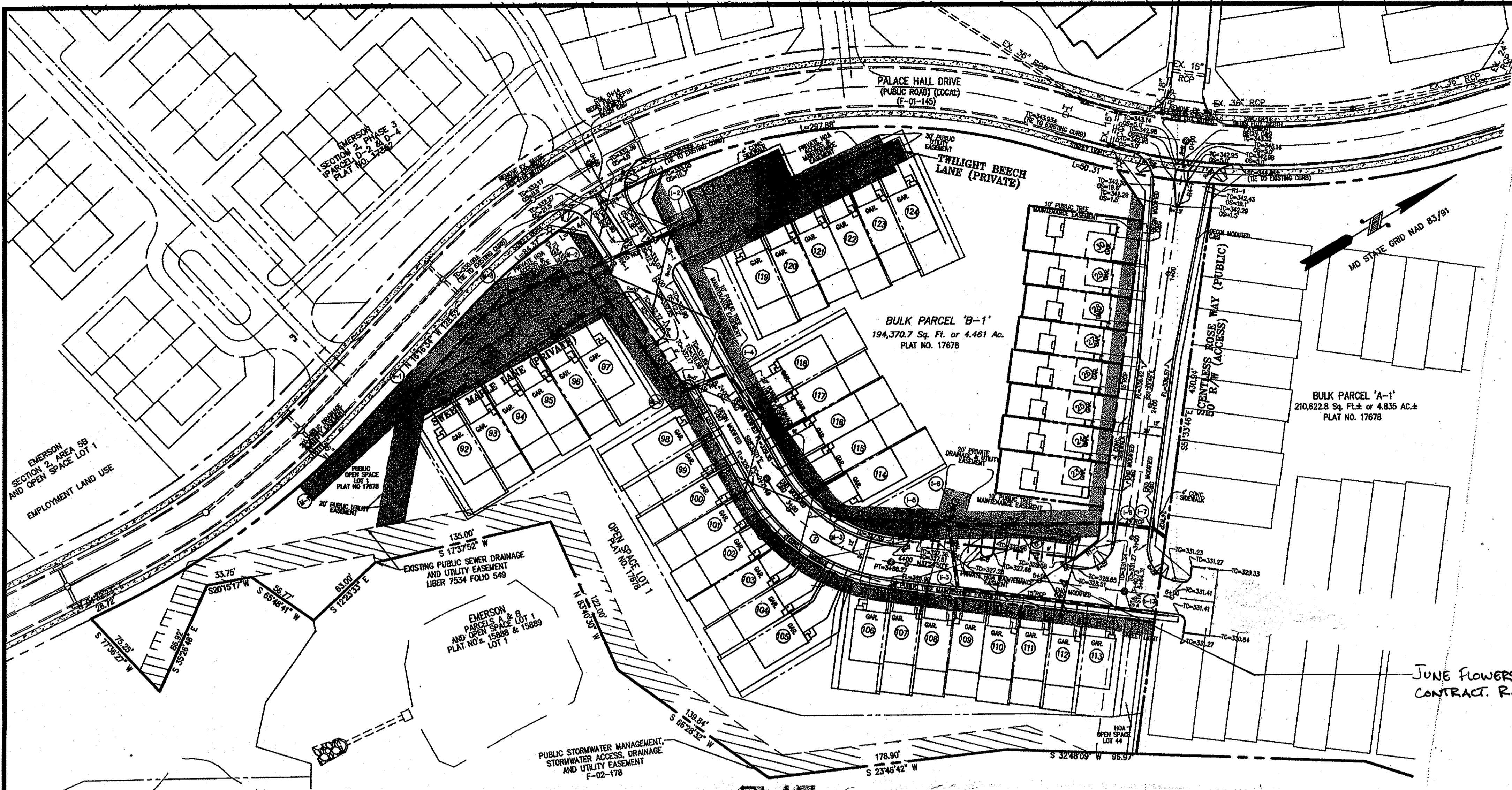


SCENTLESS ROSE WAY
 JUNE FLOWERS WAY & SILKEN LEAF COURT
 EMERSON
 SECTION 2 PHASE 6A LOTS 45-89
 OPEN SPACE LOTS 90 & 91,
 A RESUBDIVISION OF PARCEL 'A-1'

TITLE: **AS-BUILT ROAD PLAN & PROFILES**

DESIGN: SCALE: PROJECT: 049103.00
 DRAWN: DATE: 09-18-06
 CHECKED: APPROVED: BAM

2 OF 10



ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	C STATION LIMITS	PAVING SECTION
SCENTLESS ROSE WAY	PUBLIC ACCESS	25 MPH	TRD-3	0+00 TO 3+842.65	1-2

ROAD NAME	STATION	OFFSET	POSTED SIGN	SIGN CODE
SCENTLESS ROSE WAY	0+27.84	22.81 L	STOP	R1-1
SCENTLESS ROSE WAY	3+09.98	13.53 R	STOP	R1-1
SCENTLESS ROSE WAY	0+16.79	0.00	KEEP RIGHT	R4-1
SCENTLESS ROSE WAY	0+46.28	0.00	KEEP RIGHT	R4-1
SCENTLESS ROSE WAY	1+18.56	15.74 R	SPEED LIMIT 25	R2-1

PLAN
SCALE: 1" = 50'

JUNE FLOWERS WAY NOT IN THIS CONTRACT. REFER TO F-06-143



HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS 'AS-BUILT' PLAN MEET THE APPROVED PLANS & SPECIFICATIONS.

Robert C. Eitel
ROBERT C. EITEL, PE
PE #16108
DATE: 6/2/11

APPROVED: DEPARTMENT OF PUBLIC WORKS
Wade R. Smith 1-4-2011
Chief, Bureau of Highways

APPROVED: DEPARTMENT OF PLANNING AND ZONING
John J. ... 1/11/11
Chief, Department of Planning & Zoning

10/10 1 ADD TO CONTRACT F-06-142

10/10 1 LOT NUMBERS ARE BEING REVIEWED TO REFLECT CHANGES MADE TO F-10-024

REVISION NO. 1
TAX MAP NO. 47 GRID NO. 8 & 9
ELECTION DISTRICT: 6 HOWARD COUNTY, MARYLAND

OWNER/DEVELOPER
THE WILLIAMSBERG GROUP
6485 HARBOR FARM ROAD
COLUMBIA, MD 21044
TEL: 410-997-8800

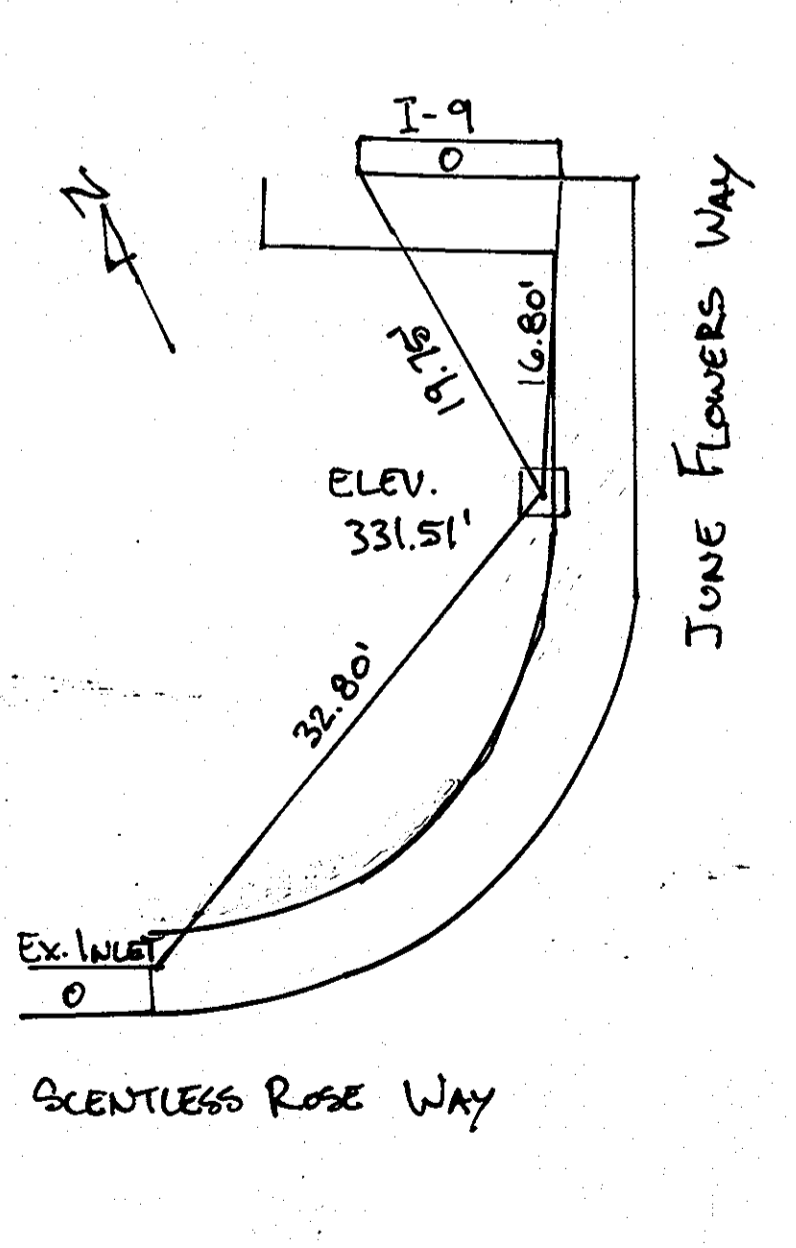
christopher consultants
engineering surveying land planning
7172 columbia green, suite 103, columbia, md 21046-2880
410.336.8800 fax 410.336.8889

SILKEN LEAF COURT, JUNE FLOWERS WAY & SCENTLESS ROSE WAY
EMERSON SECTION 2, PHASE 0A
A PORTION OF BULK PARCEL 3-1-A A PORTION OF OPEN SPACE LOTS 1 & 2

TITLE: **AS-BUILT ROAD PLAN & PROFILES**

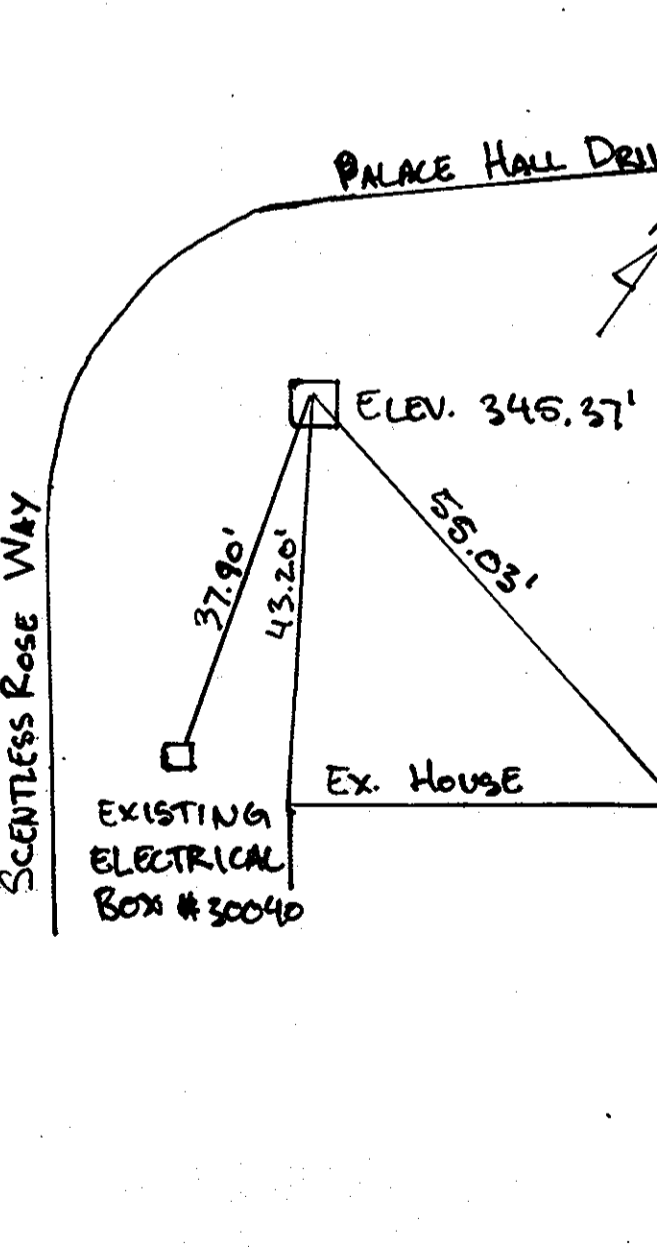
DESIGN: XDF SCALE: PER PLAN
DRAWN: ADL DATE: 9-18-06 PROJECT: 041010.00
CHECKED: BAN APPROVED: *Adrian* 3.10

CONCRETE MONUMENT #615



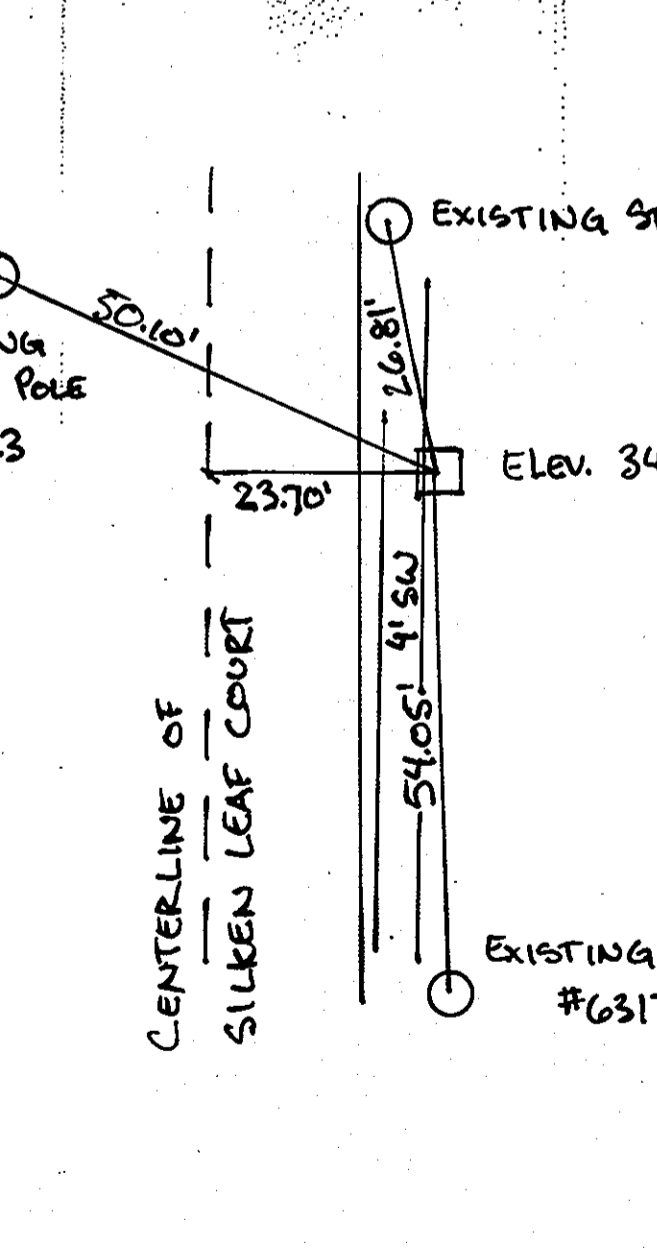
SCALE: 1" = 10'

CONCRETE MONUMENT #622

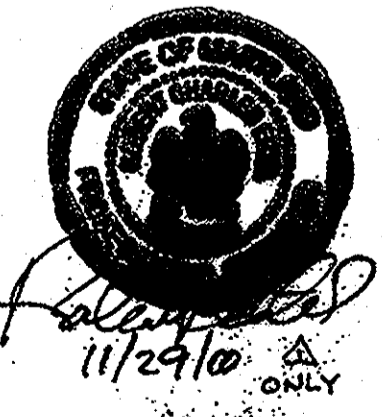
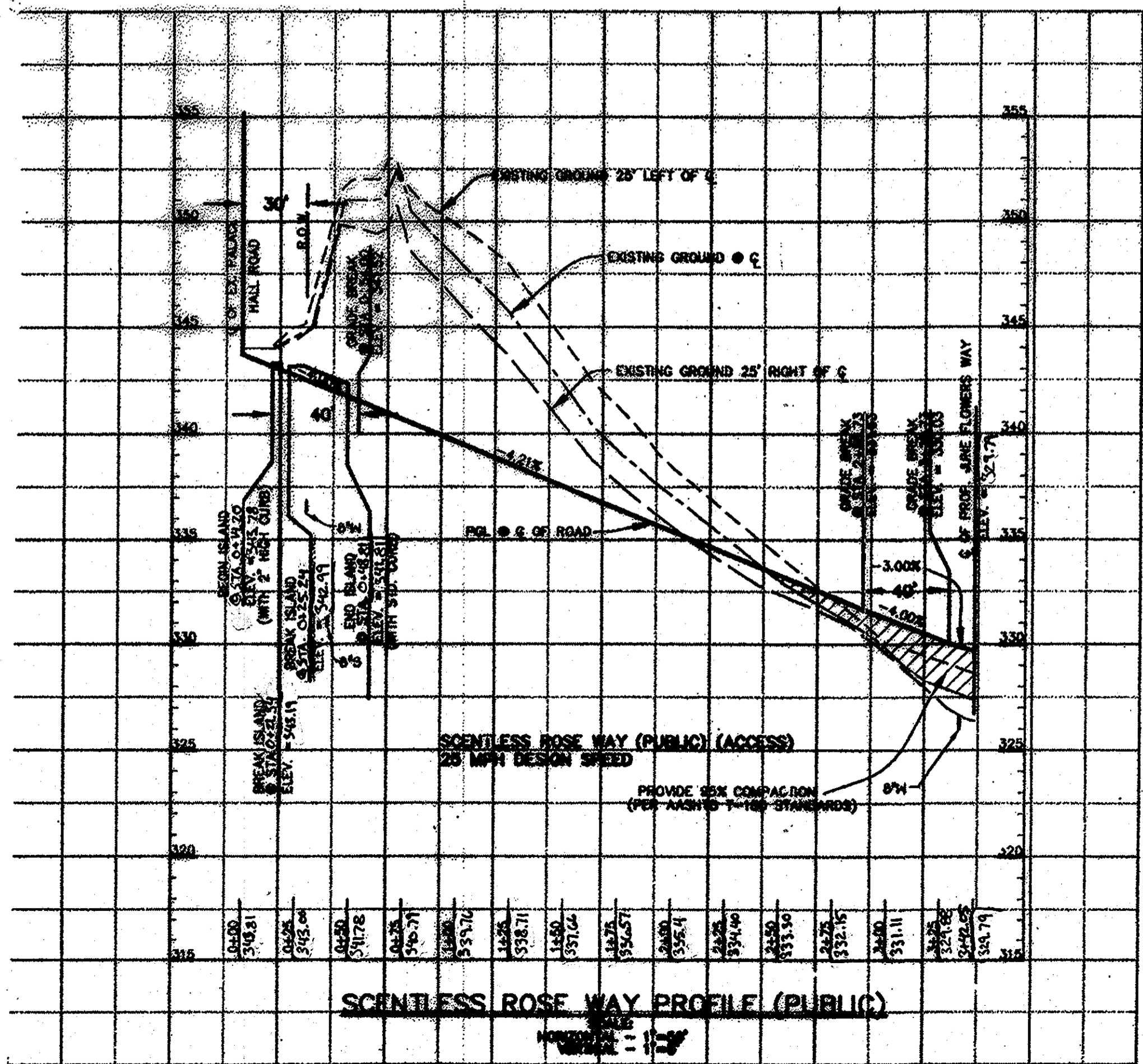


SCALE: 1" = 20'

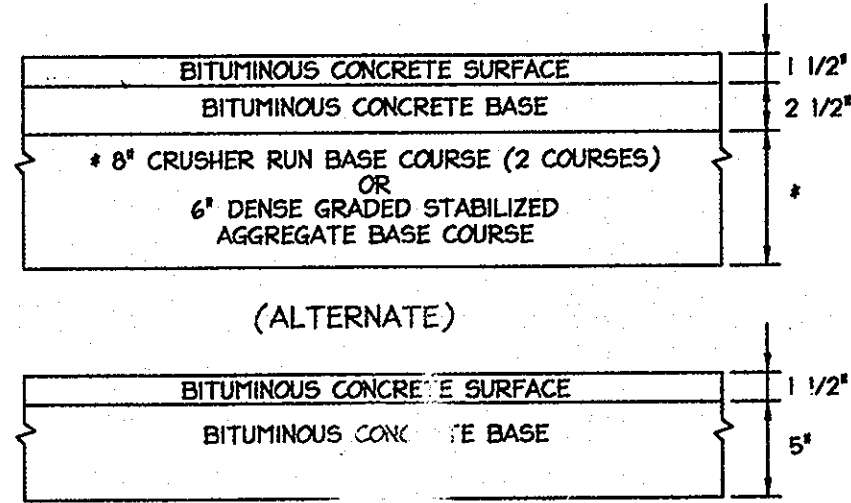
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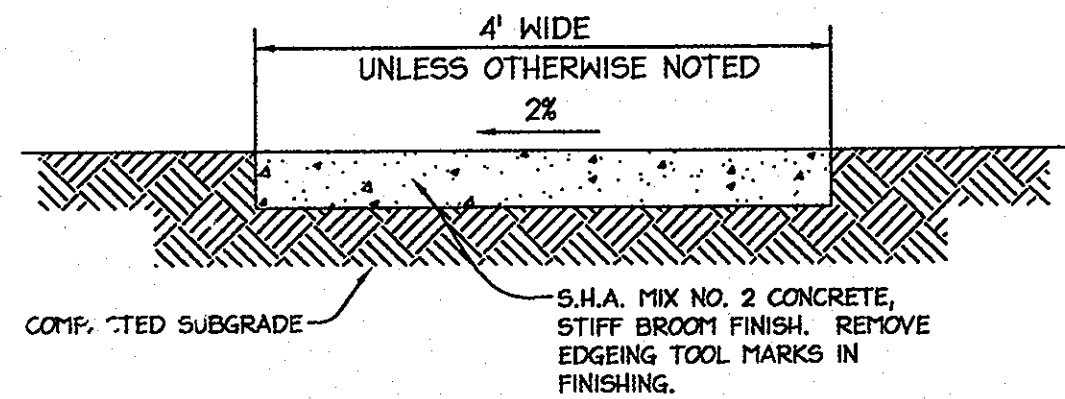


9-18-06 DATE
STATE OF MARYLAND
ENGINEER
ROBERT C. EITEL
PE #16108



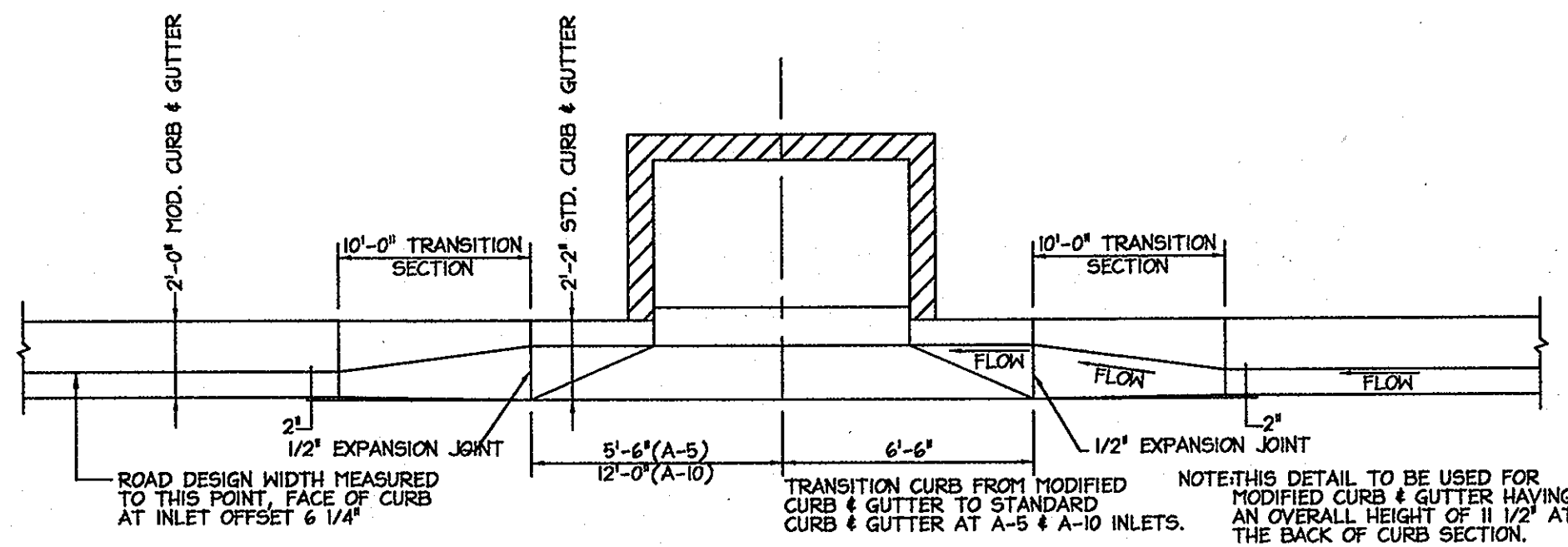
HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

P-2 PAVING
 NOT TO SCALE

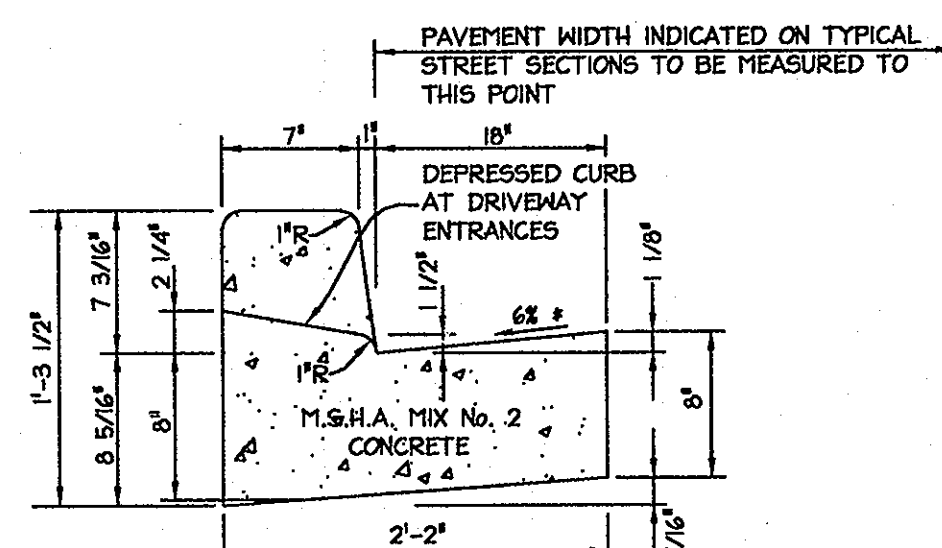


NOTE: PROVIDED LONGITUDINAL EXPANSION JOINTS AT 15' O.C. (MAX.) PROVIDED CONTRACTION (DUMMY) JOINTS AT 5' O.C. INTERVALS BETWEEN EXPANSION JOINTS. SIDEWALK TO BE SCRIBED IN 5' MAX. SQUARES.

SIDEWALK DETAIL
 NOT TO SCALE



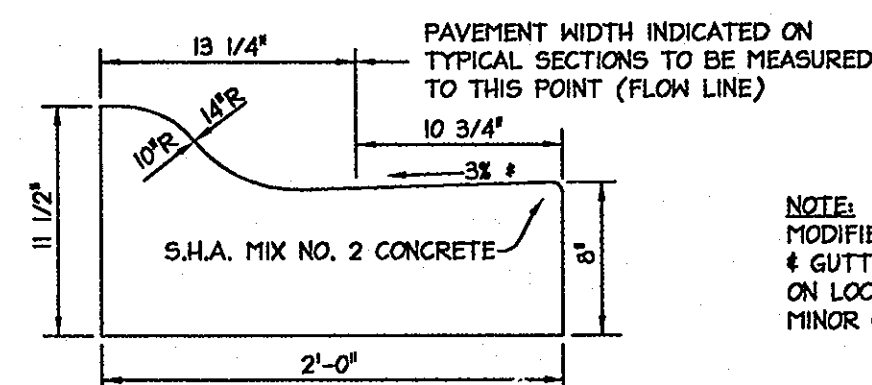
MODIFIED COMBINATION CURB AND GUTTER
 TRANSITION CURB SECTION AT "A" TYPE INLETS
 NOT TO SCALE



HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWINGS R-3.01).

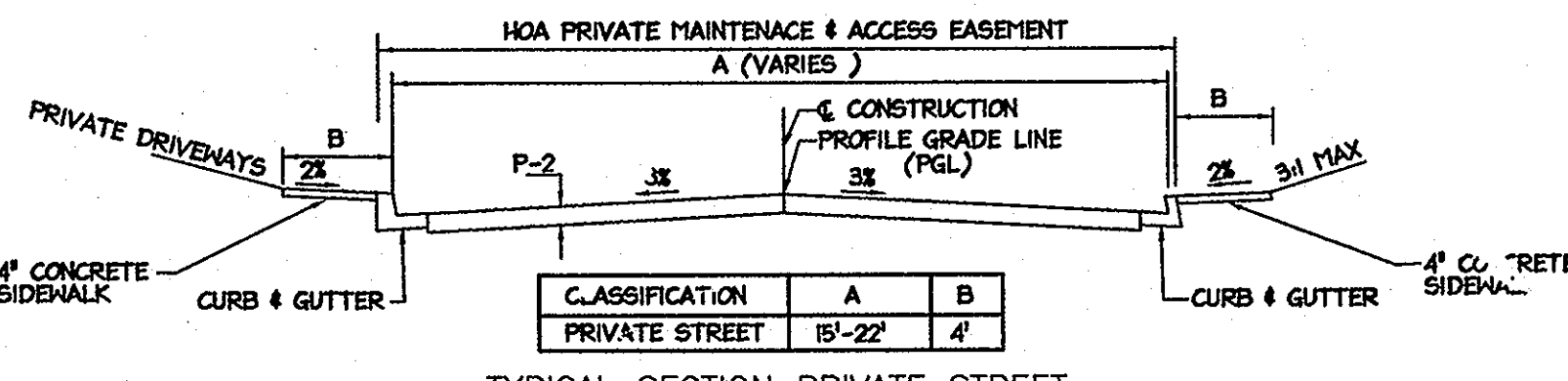
* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AS THE PAVEMENT.

STANDARD 7" COMBINATION CURB AND GUTTER
 NOT TO SCALE

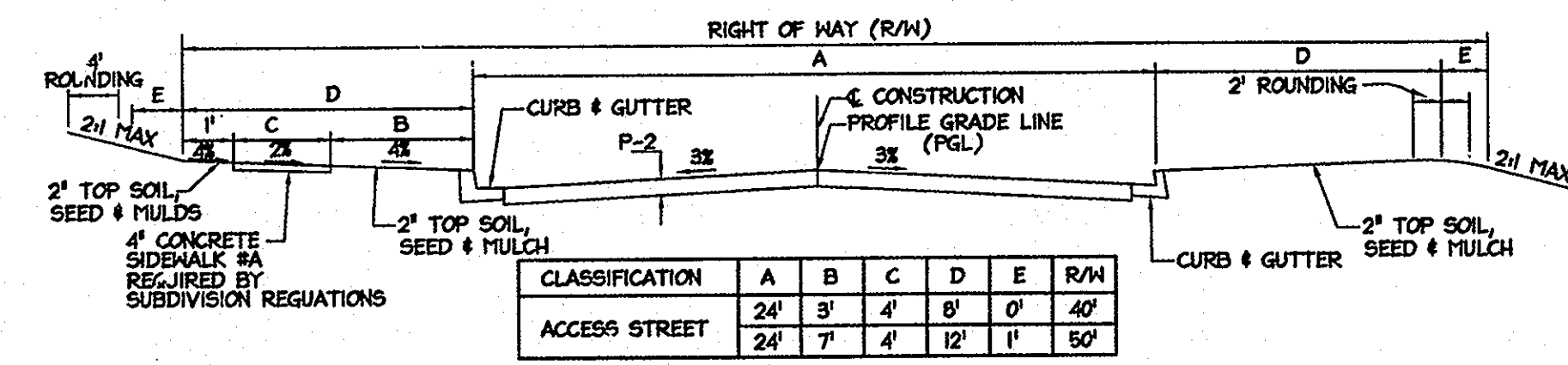


MODIFIED COMBINATION CURB AND GUTTER

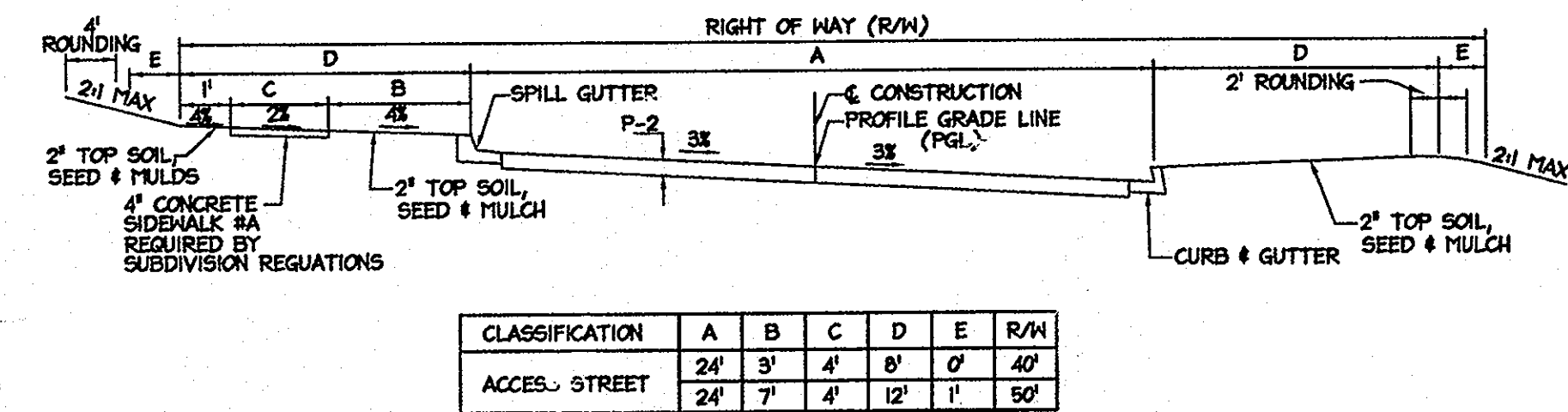
* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OF THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AND IN THE SAME DIRECTION AS THE PAVEMENT. MATCH PAVEMENT CROSS SLOPE WHEN CURB IS LOCATED ON THE LOW SIDE OF SUPERELEVATED SECTION AND THE RATE OF SUPERELEVATION IS GREATER THAN 3% FOR MODIFIED CURB AND GUTTER.



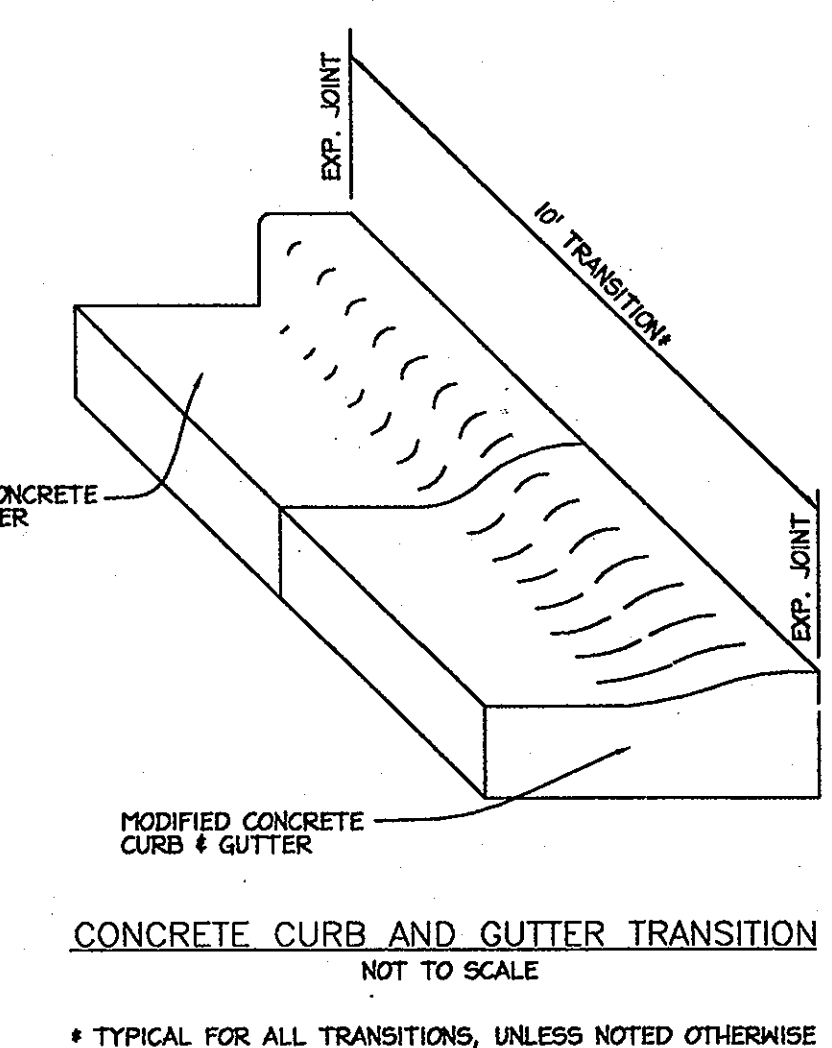
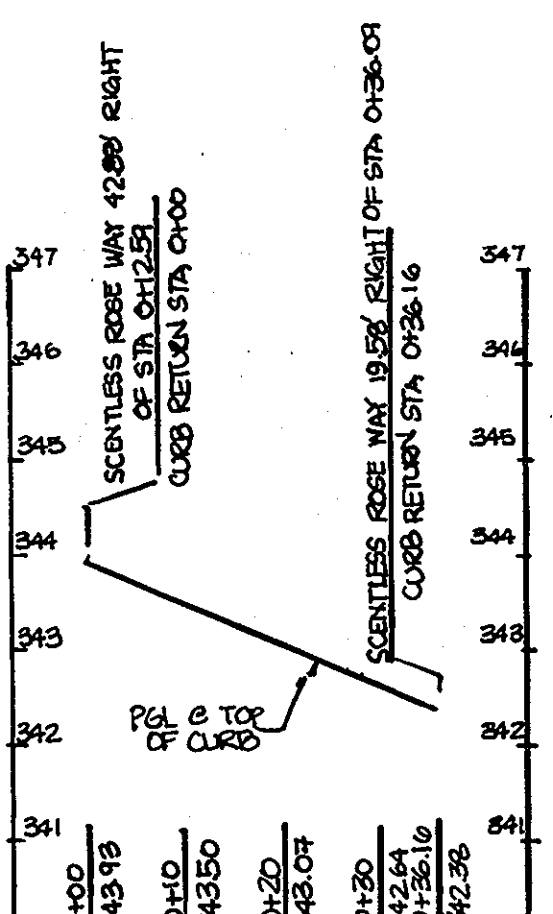
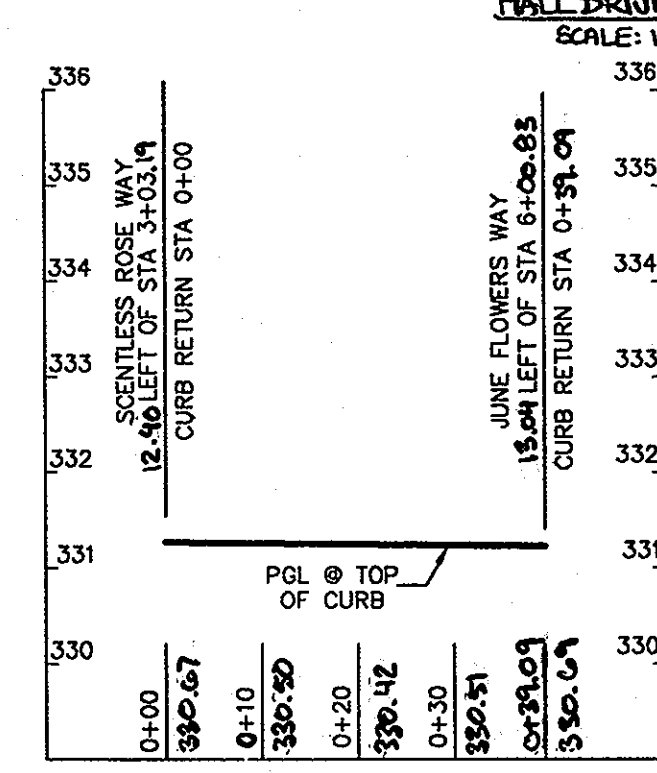
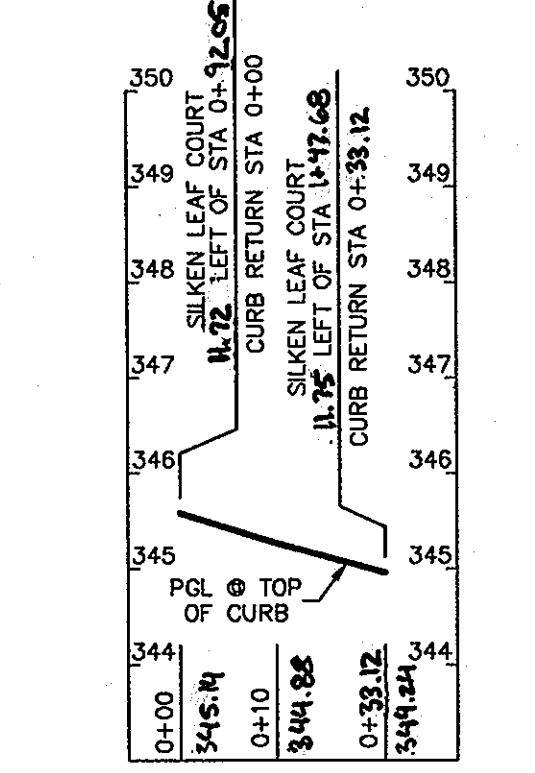
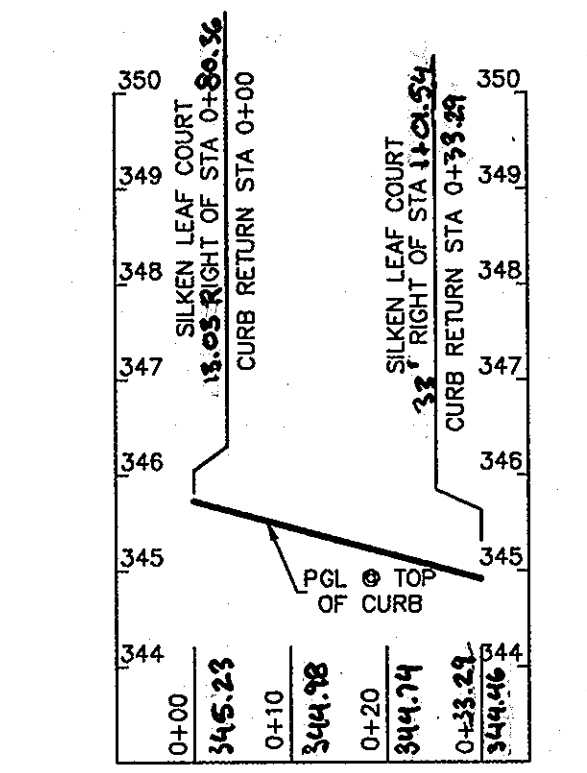
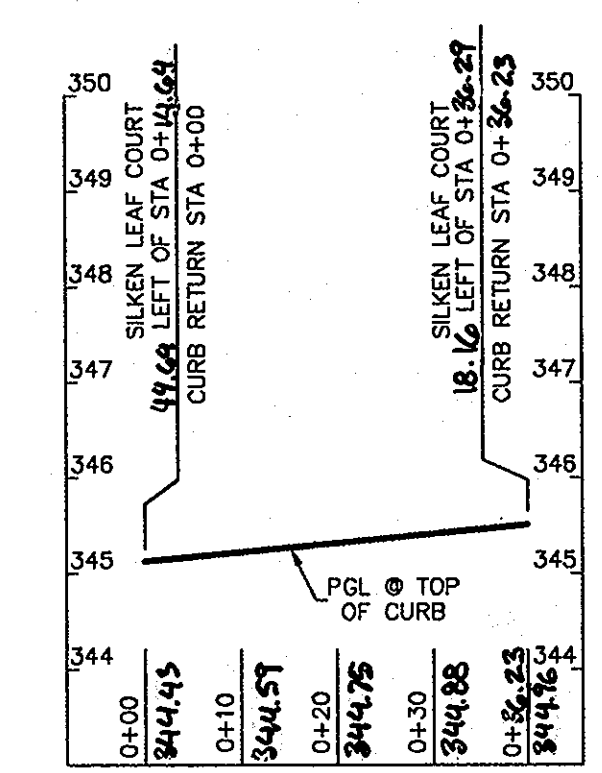
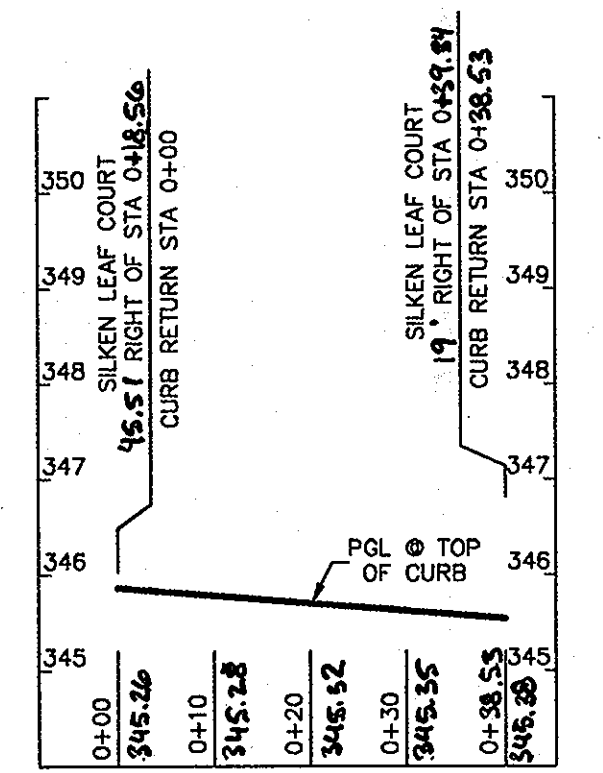
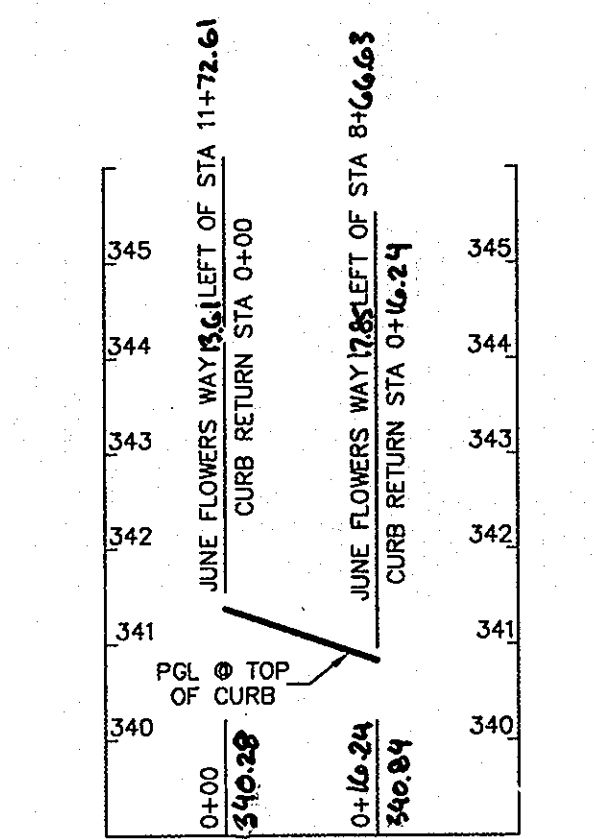
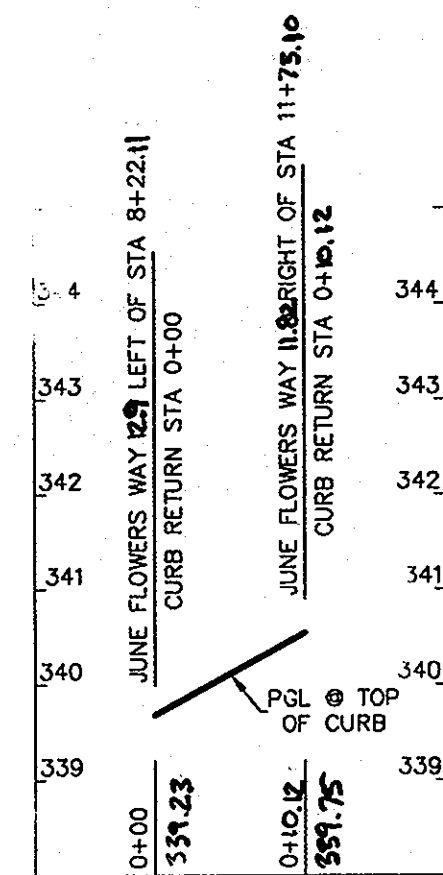
TYPICAL SECTION PRIVATE STREET
 NOT TO SCALE



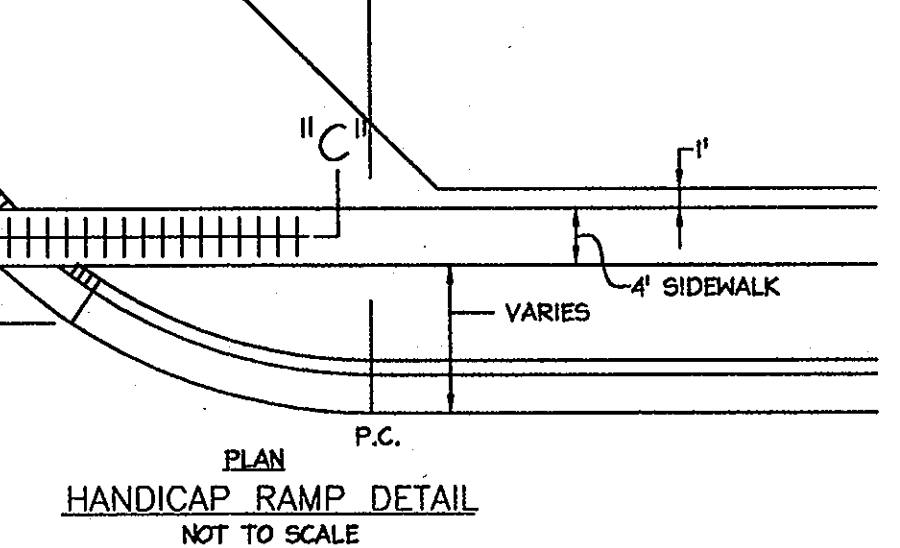
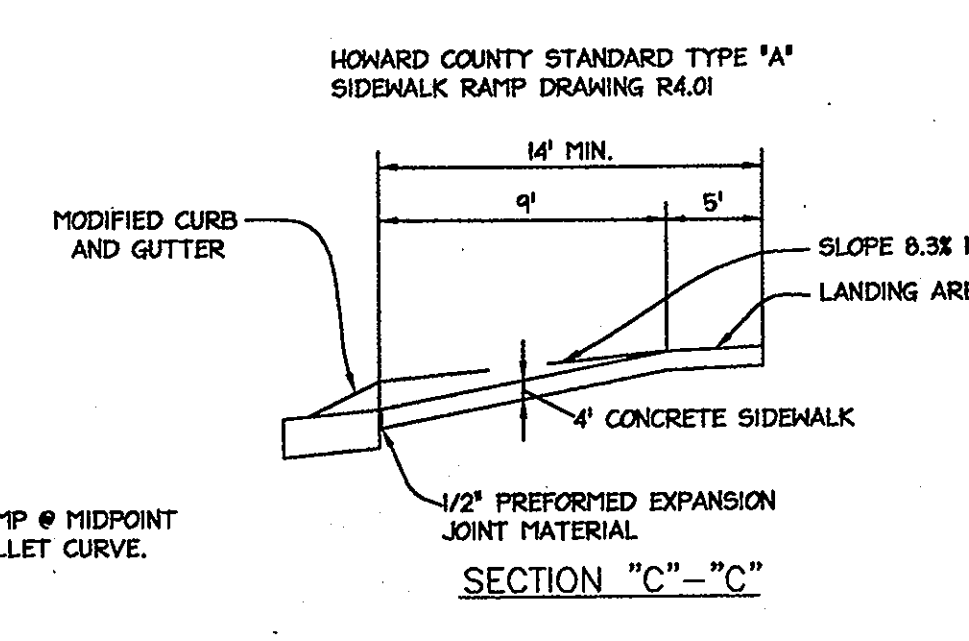
TYPICAL SECTION ACCESS STREET
 JUNE FLOWERS WAY ROAD CL STA. 6+01.93 TO 8+22.08
 SILKEN LEAF COURT ROAD CL STA. 0+14 TO 1+46.24
 NOT TO SCALE



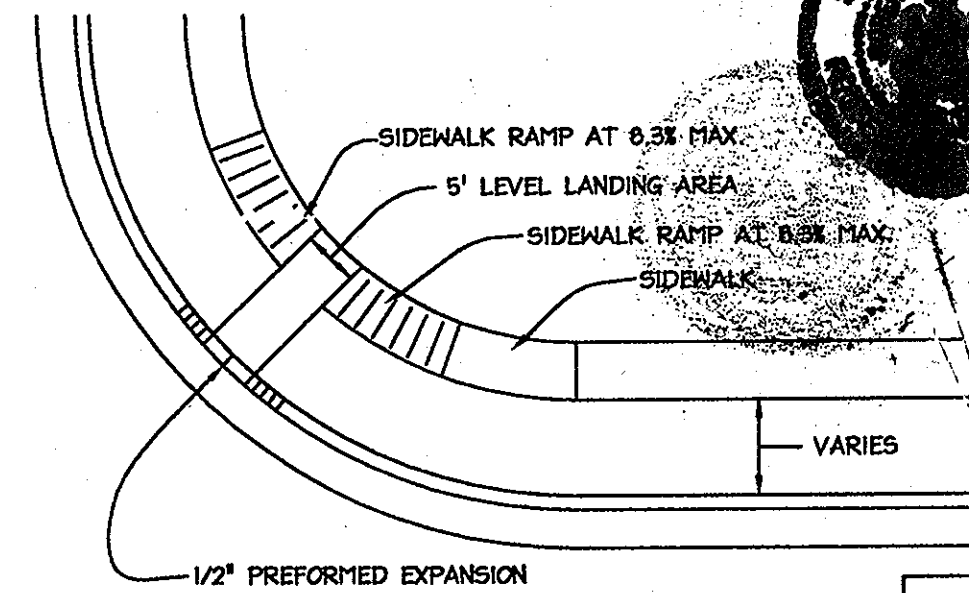
TYPICAL SECTION ACCESS STREET
 JUNE FLOWERS WAY ROAD CL STA. 8+61.08 TO 11+70.60
 SILKEN LEAF COURT ROAD CL STA. 1+74.75 TO 3+76.43
 NOT TO SCALE



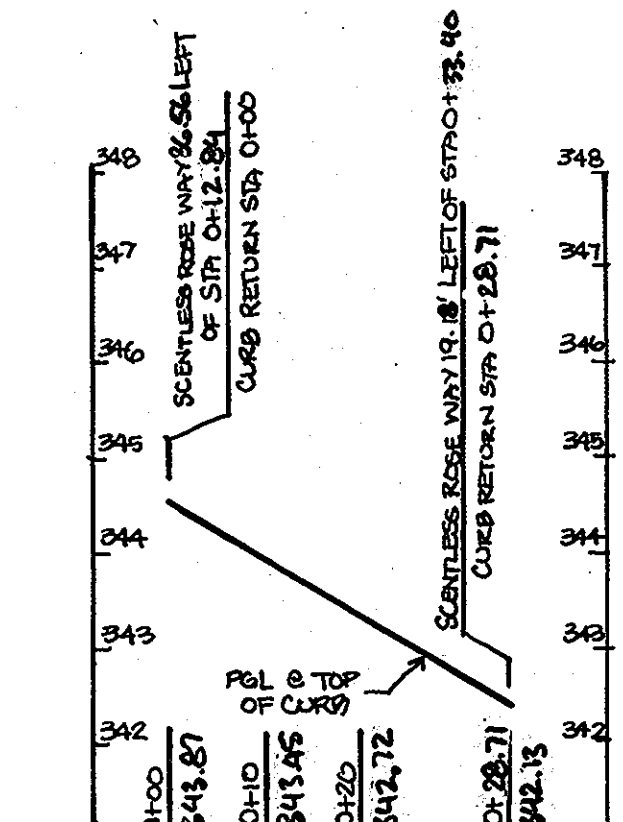
CONCRETE CURB AND GUTTER TRANSITION
 NOT TO SCALE



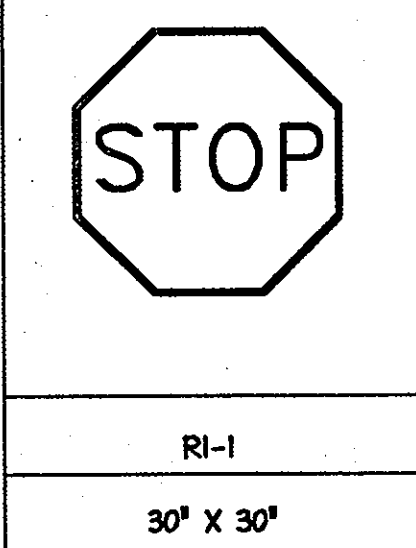
HANDICAP RAMP DETAIL
 NOT TO SCALE



HANDICAP RAMP DETAIL
 NOT TO SCALE



NE CORNER SCENTLESS ROSE WAY & EX. PALACE
 HALL DRIVE INTERSECTION
 SCALE: 1" = 20' H, 1" = 2' V



RI-1
 30" X 30"
 SIGN DETAIL
 N.T.S.



I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN MEET THIS APPROVED PLANS AND SPECIFICATIONS.

Robert C. Eitel
 ROBERT C. EITEL, P.E.
 PE # 16108
 6/2/10
 DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
Walter J. ...
 Chief, Bureau of Highways MS 10-6-06 Date

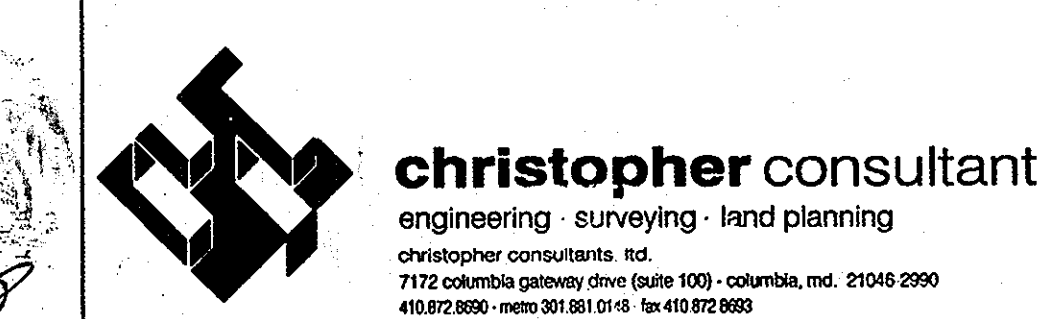
APPROVED: DEPARTMENT OF PLANNING AND ZONING
...
 Chief, Division of Development 10/13/06 Date

APPROVED: DEPARTMENT OF ENGINEERING
...
 Chief, Development Engineering Division 10/16/06 Date

Date	No.	Revision Description
10/10	1	ADD SCENTLESS ROSE WAY TO CONTRACT

PERTINENT INFO:
 TAX MAP NO. 47 GRID NO. 8 & 9.
 ELECTION DISTRICT: 6 HOWARD COUNTY, MARYLAND

OWNER / DEVELOPER
 THE WILLIAMSBURG GROUP
 5485 HARPER'S FARM ROAD
 COLUMBIA, MD 21044 TEL: (410) 997-8800
 P.O. BOX 1018 FAX: (410) 997-4358

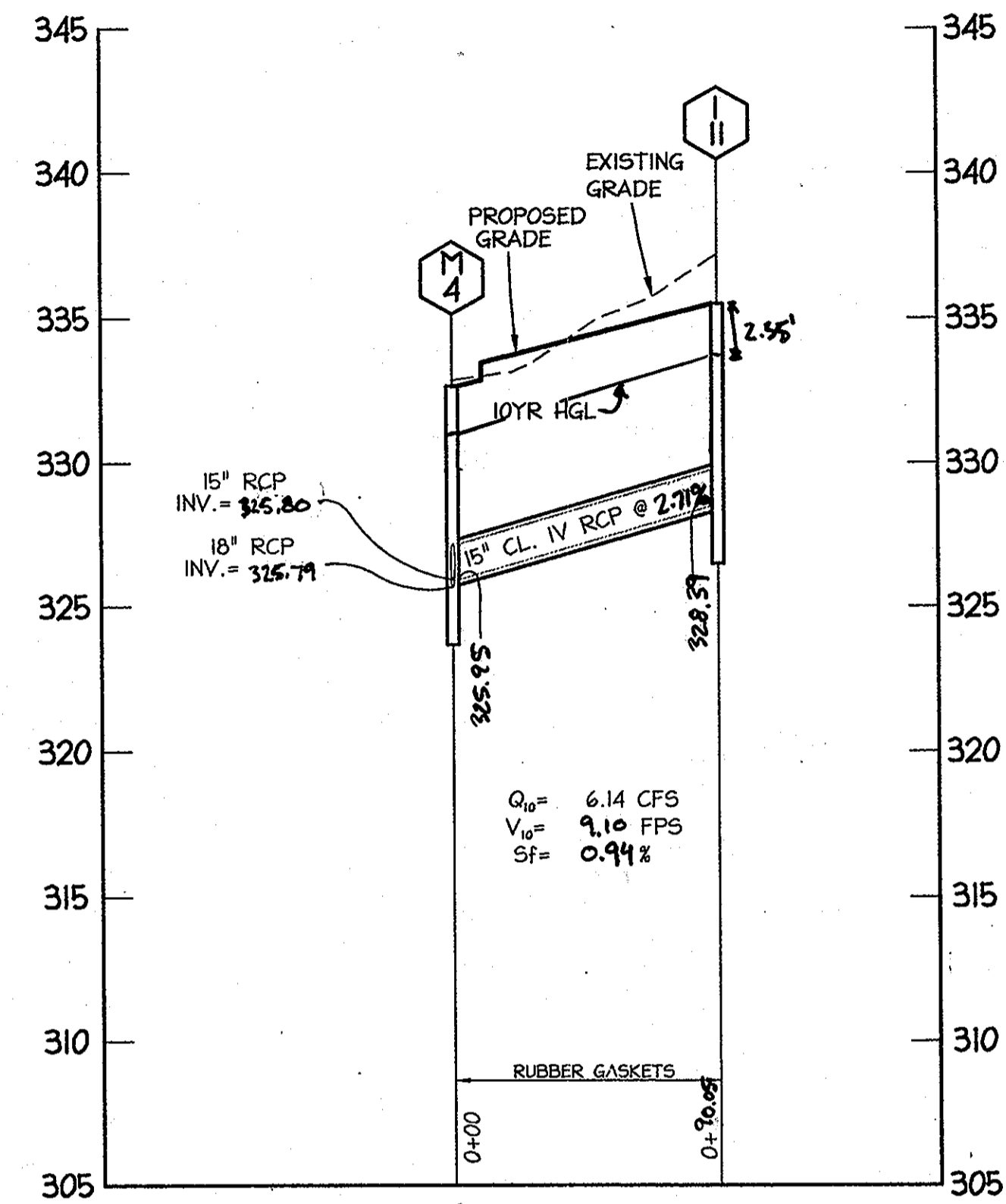
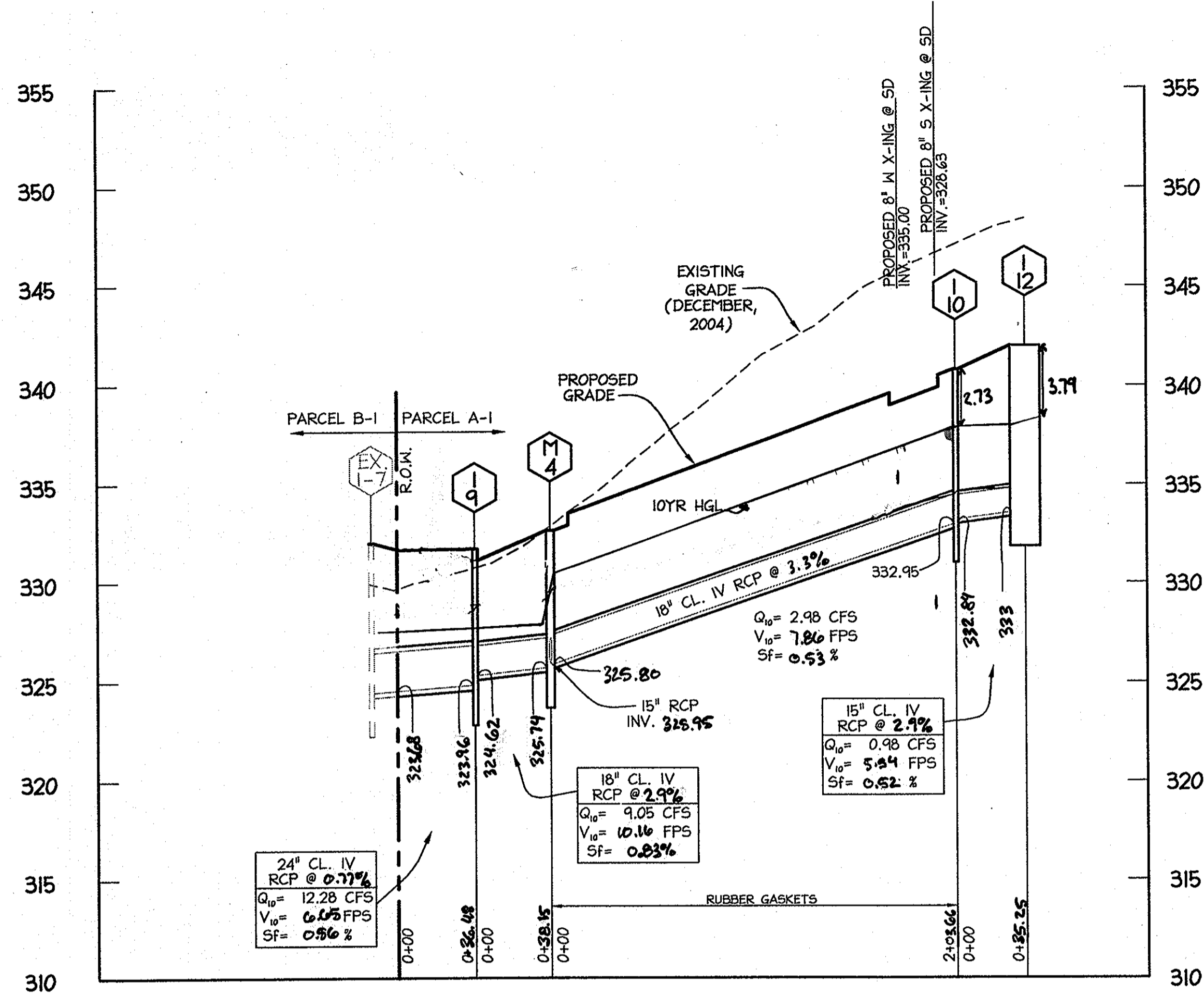


SCENTLESS ROSE WAY,
 JUNE FLOWERS WAY & SILKEN LEAF COURT

EMERSON
 SECTION 2 PHASE 6A LOTS 45-89,
 OPEN SPACE LOTS 90 & 91,
 A RESUBDIVISION OF PARCEL 'A-1'

TITLE:
 TYPICAL ROAD SECTIONS
 AND DETAILS

DESIGN:	SCALE: AS SHOWN	PROJECT: 049103.00
DRAWN:	DATE: 09-18-06	
CHECKED:	APPROVED: BAM	4 OF 10



STRUCTURE SCHEDULE							
STRUCTURE	TYPE	LOCATION	INV. IN	INV. IN	INV. OUT	TOP	REMARKS
I-9	A-10 2.5' WIDE	24.91 LT OF C 6+25.06 ROAD 'A'	324.62 (18')	-	323.96 (24')	331.67	HOCO STD. DETAIL SD-4.41
I-10	A-10 2.5' WIDE	22.00 LT OF C 11+62.60 ROAD 'A'	332.84 (15')	-	332.59 (18')	340.57	HOCO STD. DETAIL SD-4.41
I-11	TYPE 'D' 4.0'x4.0'	N 536295.59 E 193510.60	-	-	328.37 (15')	335.29	HOCO STD. DETAIL SD-4.39 (4 THROAT OPENINGS)
I-12	A-10 2.5' WIDE	22.00 LT OF C 11+27.56 ROAD 'A'	-	-	333.86 (15')	342.36	HOCO STD. DETAIL SD-4.41
M-1	4' MANHOLE	N 536227.59 E 193570.63	325.80 (18')	325.95 (15')	325.79 (18')	332.05	HOCO STD DETAIL G-5.12

NOTE: LOCATIONS OF 'A' INLETS ARE GIVEN AT C. OF OPENING AT FACE OF CURB. TYPE 'D' INLETS & MANHOLES ARE LOCATED BY THEIR CENTROIDS.

PIPE SCHEDULE		
PIPE LENGTH	SIZE	TYPE
126'	15"	RCP CL. IV
242'	18"	RCP CL. IV
39'	24"	RCP CL. IV



I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN MEET THE APPROVED PLANS AND SPECIFICATIONS.

Robert C. Eitel 9/2/11
 ROBERT C. EITEL, P.E. DATE
 PE #16108

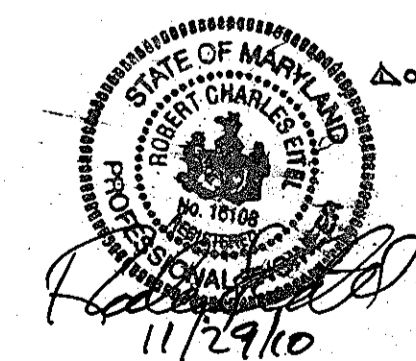
APPROVED: DEPARTMENT OF PUBLIC WORKS
William F. Mahala 10-6-06
 Chief, Bureau of Highways Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Linda Hamer 10/13/06
 Chief, Division of Land Development Date

10/10 1 ADD SCENTLESS ROSE WAY TO CONTRACT
 Date No. Revision Description

PERTINENT INFO:
 TAX MAP NO. 47 GRID NO. 8 & 4.
 ELECTION DISTRICT: 6 HOWARD COUNTY, MARYLAND

OWNER / DEVELOPER
 THE WILLIAMSBURG GROUP
 5405 HARPER'S FARM ROAD
 COLUMBIA, MD 21044 TEL: (410) 997-8800
 P.O. BOX 1018 FAX: (410) 997-4358



christopher consultants
 engineering surveying land planning
 christopher consultants, inc.
 7172 columbia gate (suite 100) columbia, md 21046-2990
 410.872.8897 mdc 201 box 0148 fax 410.872.8888

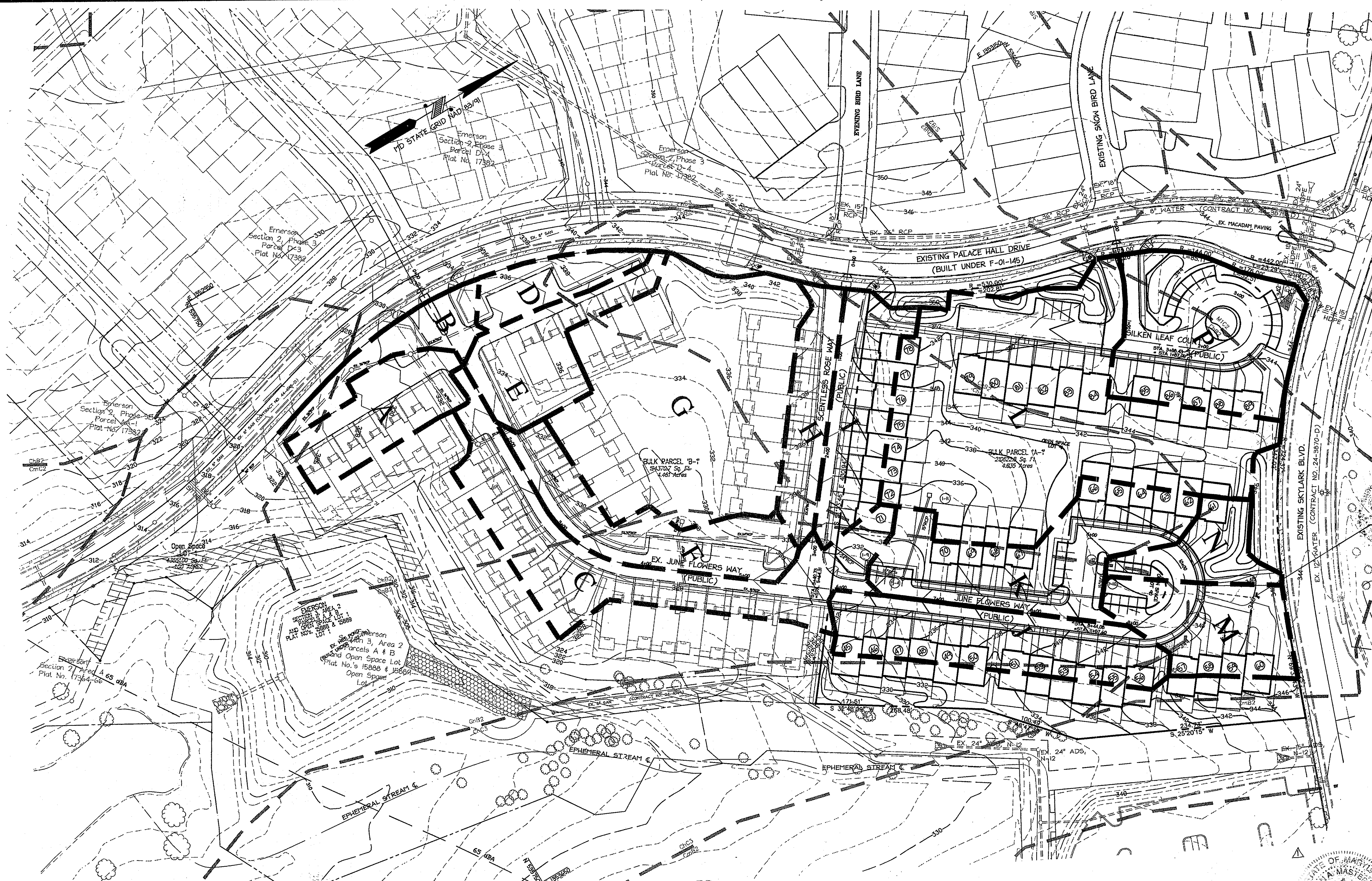
9-18-06
 DATE
 STATE OF MARYLAND
 BRUNN'S MASTER PLAN
 PROFESSIONAL ENGINEER
 No. 32589

SCENTLESS ROSE WAY,
 JUNE FLOWERS WAY & SILKEN LEAF COURT
 EMERSON
 SECTION 2 PHASE 6A LOTS 45-89,
 OPEN SPACE LOTS 90 & 91,
 A RESUBDIVISION OF PARCEL 'A-1'

TITLE: **AS-BUILT STORMDRAIN PROFILES**

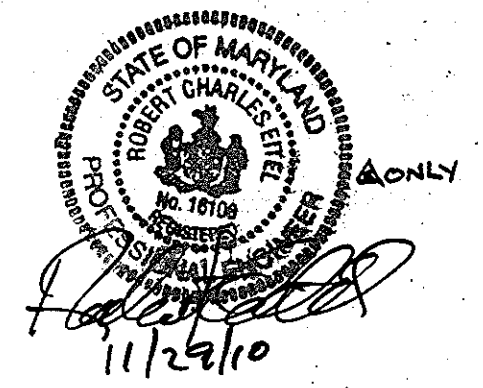
DESIGN: SCALE: PROJECT: 049100.00
 DRAWN: DATE: 9-18-06
 CHECKED: APPROVED: BAM 5 OF 10

MDC-353



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- FOREST CONSERVATION EASEMENT
- PROPOSED STORM DRAIN
- OFF-SITE DRAINAGE AREA DIVIDE
- PROPOSED DRAINAGE AREA DIVIDE PARCEL 'B'
- ★ STREET LIGHT
- GrB2
- ChB2
- SOIL BOUNDARY



APPROVED: DEPARTMENT OF PUBLIC WORKS

William F. Mahan 10-6-06
 Chief, Bureau of Highways Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Carole Henth 10/13/06
 Chief, Division of Land Development Date

Robert C. Eitel 10/16/06
 Chief, Development Engineering Division Date

09/27/07 2 REVOKE DRIVEWAY AND ACCESS EASEMENT FOR LOTS 88-100
 10/10 2 ADD SKENTLESS ROSE WAY TO CONTRACT

Date No. Revision Description

PERTINENT INFO:
 TAX MAP NO. 47 GRID NO. 6 & 9.
 ELECTION DISTRICT: 6 HOWARD COUNTY, MARYLAND

OWNER / DEVELOPER
 THE WILLIAMSBURG GROUP
 5485 HARPER'S FARM ROAD
 COLUMBIA, MD 21044 TEL: (410) 997-8809
 P.O. BOX 1018 FAX: (410) 997-4258



SCENTLESS ROSE WAY,
 JUNE FLOWERS WAY & SILKEN LEAF COURT

EMERSON
 SECTION 2 PHASE 6A LOTS 45-89,
 OPEN SPACE LOTS 90 & 91,
 A RESUBDIVISION OF PARCEL 'A-1'

TITLE:
**AS-BUILT
 STORMWATER DRAINAGE
 AREA MAP**

DESIGN:	SCALE: 1"=50'	PROJECT: 049103.00
DRAWN:	DATE: 09-18-06	
CHECKED:	APPROVED: BAM	

DRAINAGE CHART

INLET #	D.A.#	DESIGNATION	D.A. (ACRES)	'C' FACTOR	PERCENT IMPERVIOUS (%)
I-9	K		0.60	0.57	57
I-10	M		0.36	0.60	61
I-11	L		1.56	0.46	40
I-12	N		0.20	0.46	40
EX. INLET	P		0.62	0.64	68

* D.A. = DRAINAGE AREA

SOIL ANALYSIS (HO. CO. SOILS MAP #33)

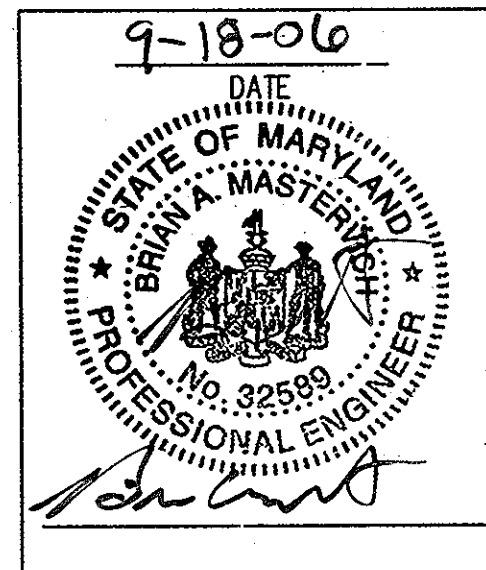
SYMBOL	SOIL NAME	SLOPE	ERODABILITY	GROUP
Ba	BAILE SILT LOAM	0% TO 3%	MODERATELY	D
BaB2	DELTSVILLE FINE SANDY LOAM	2% TO 5%	MODERATELY	C
ChB2	CHESTER SILT LOAM	3% TO 8%	MODERATELY	B
ChC3	CHESTER SILT LOAM	8% TO 15%	SEVERELY	B
CmB2	CHILLUM SILT LOAM	1% TO 5%	MODERATELY	B
CmC2	CHILLUM SILT LOAM	5% TO 10%	MODERATELY	B
ChB2	CHILLUM-FAIRFAX LOAMS	1% TO 5%	MODERATELY	A
GnB2	GLENVILLE SILT LOAM	3% TO 8%	MODERATELY	C
MIC2	MANOR LOAM	8% TO 15%	MODERATELY	B
SfB2	SAGSFRAS GRAVELLY SANDY LOAM	1% TO 5%	MODERATELY	B

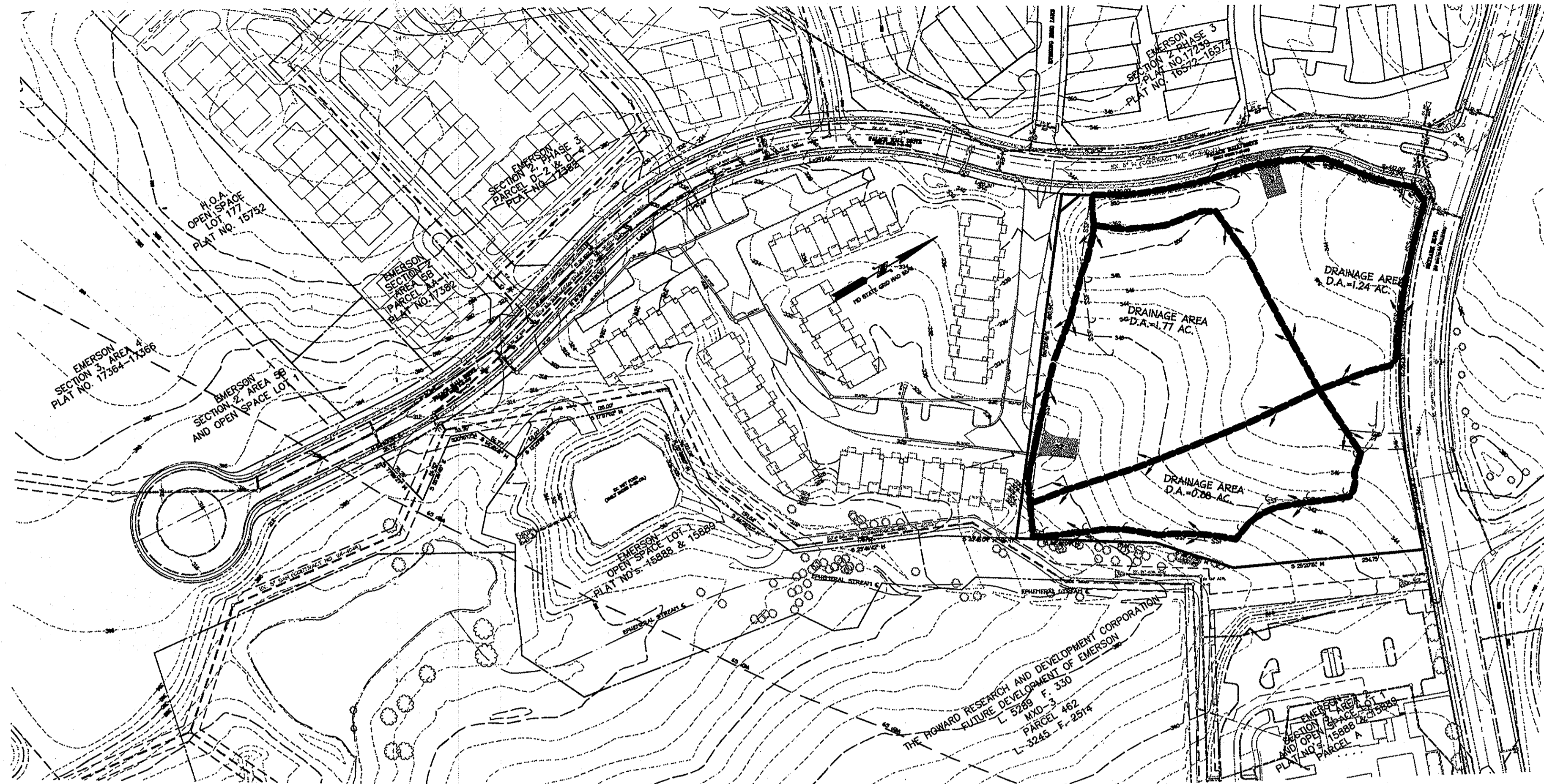
NOTE:
 THERE IS NO "AS-BUILT"
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 THIS SHEET.



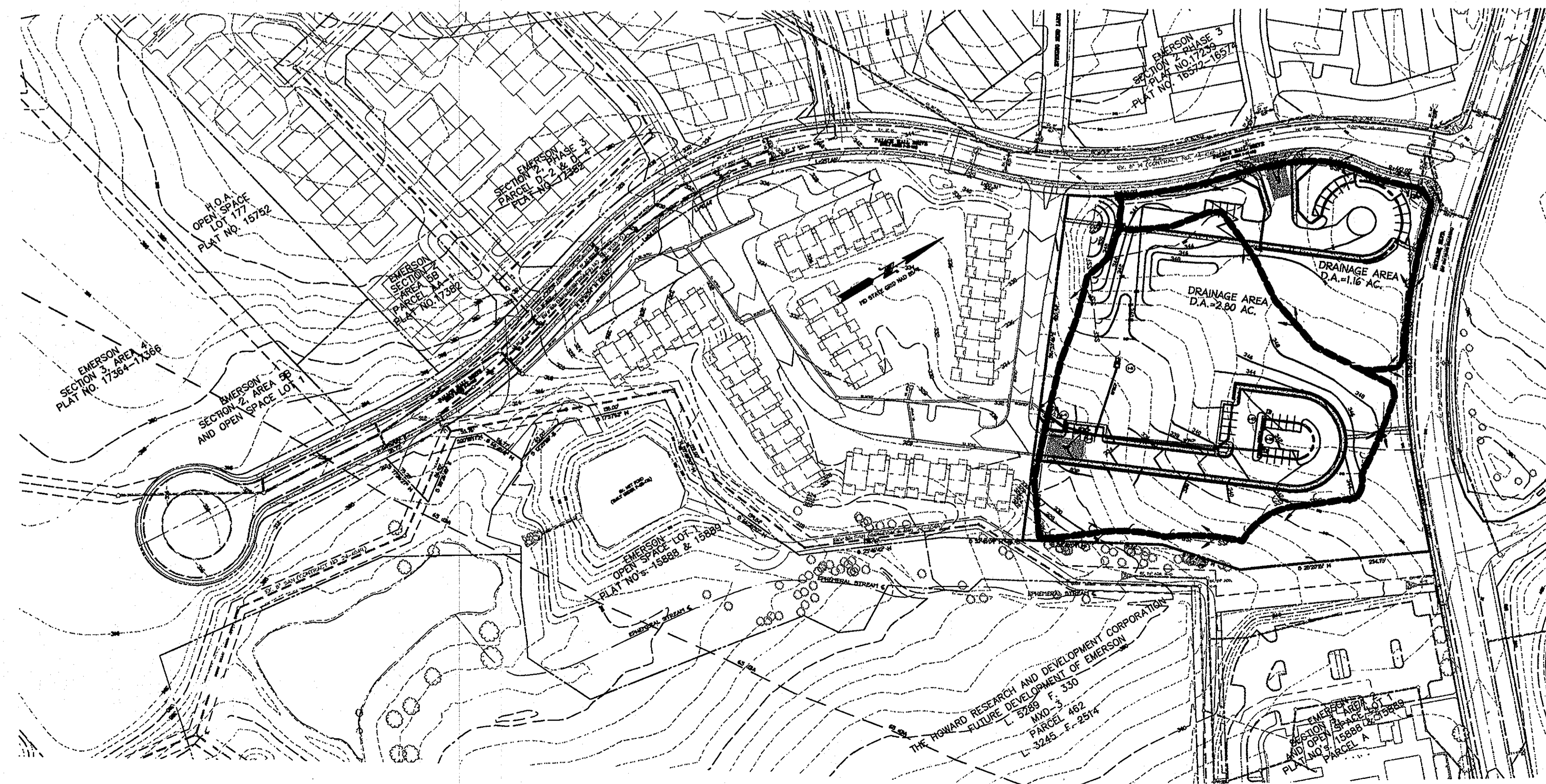
Robert C. Eitel
 ROBERT C. EITEL, P.E.
 PE #16108

09/27/07
 DATE



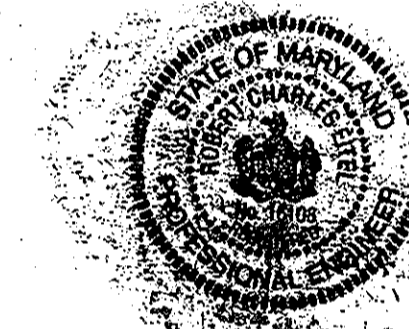


E&S PRE DEVELOPMENT DRAINAGE AREA MAP
SCALE: 1" = 100'



E&S POST DEVELOPMENT DRAINAGE AREA MAP
SCALE: 1" = 100'

NOTE:
THERE IS NO "AS-BUILT" INFORMATION
PROVIDED ON THIS SHEET.



Robert C. Eitel
ROBERT C. EITEL, PE
PE #16108

6/2/11
DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
William F. Winkler 10-6-06
Chief, Bureau of Highways MS Date

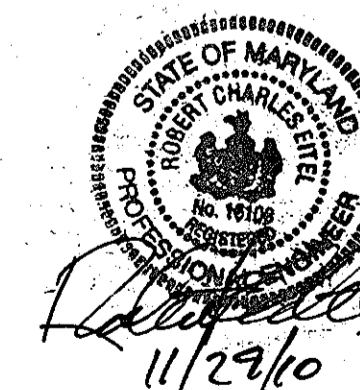
APPROVED: DEPARTMENT OF PLANNING AND ZONING
Christy Hanck 10/2/06
Chief, Division of Land Development Date

John D. ... 12/2/06
Chief, Development Engineering Division 4 Date

Date	No.	Revision Description
10/10	1	ADD SCENTLESS ROSE WAY TO CONTRACT

PERTINENT INFO:
TAX MAP NO. 47 GRID NO. 8 & 9.
ELECTION DISTRICT: 6 HOWARD COUNTY, MARYLAND

OWNER / DEVELOPER
THE WILLIAMSBURG GROUP
5485 HARPER'S FARM ROAD
COLUMBIA, MD 21044 TEL: (410) 997-8800
P.O. BOX 1018 FAX: (410) 997-4358



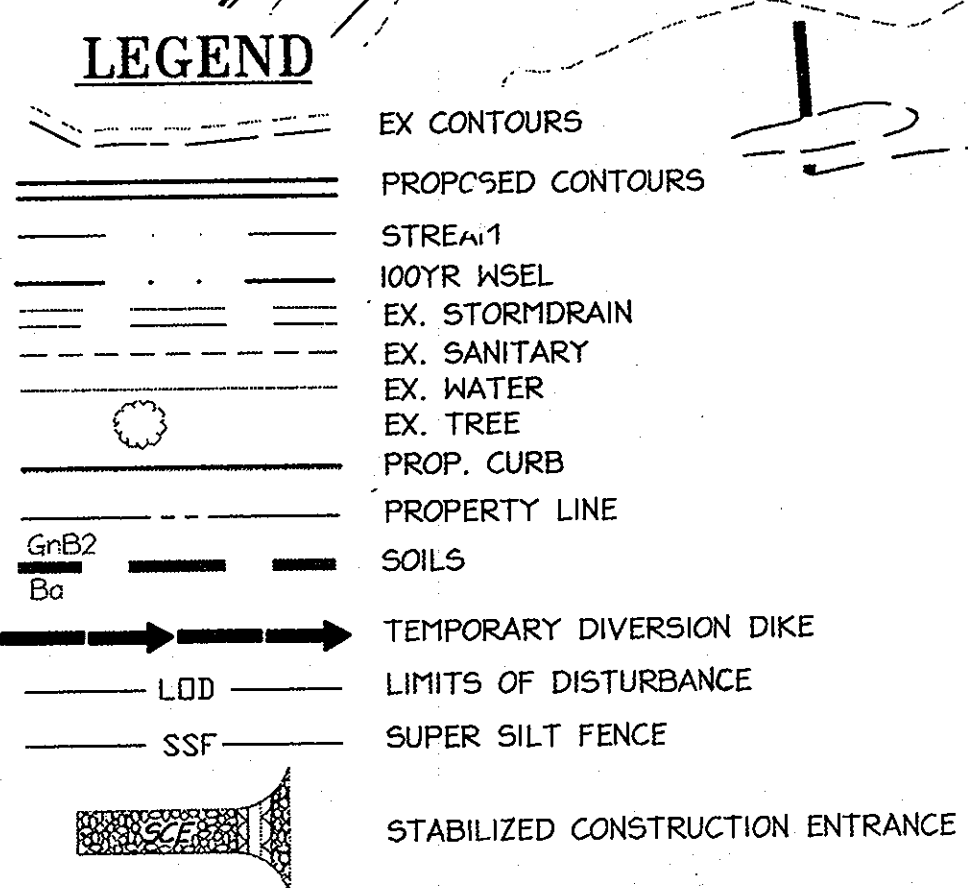
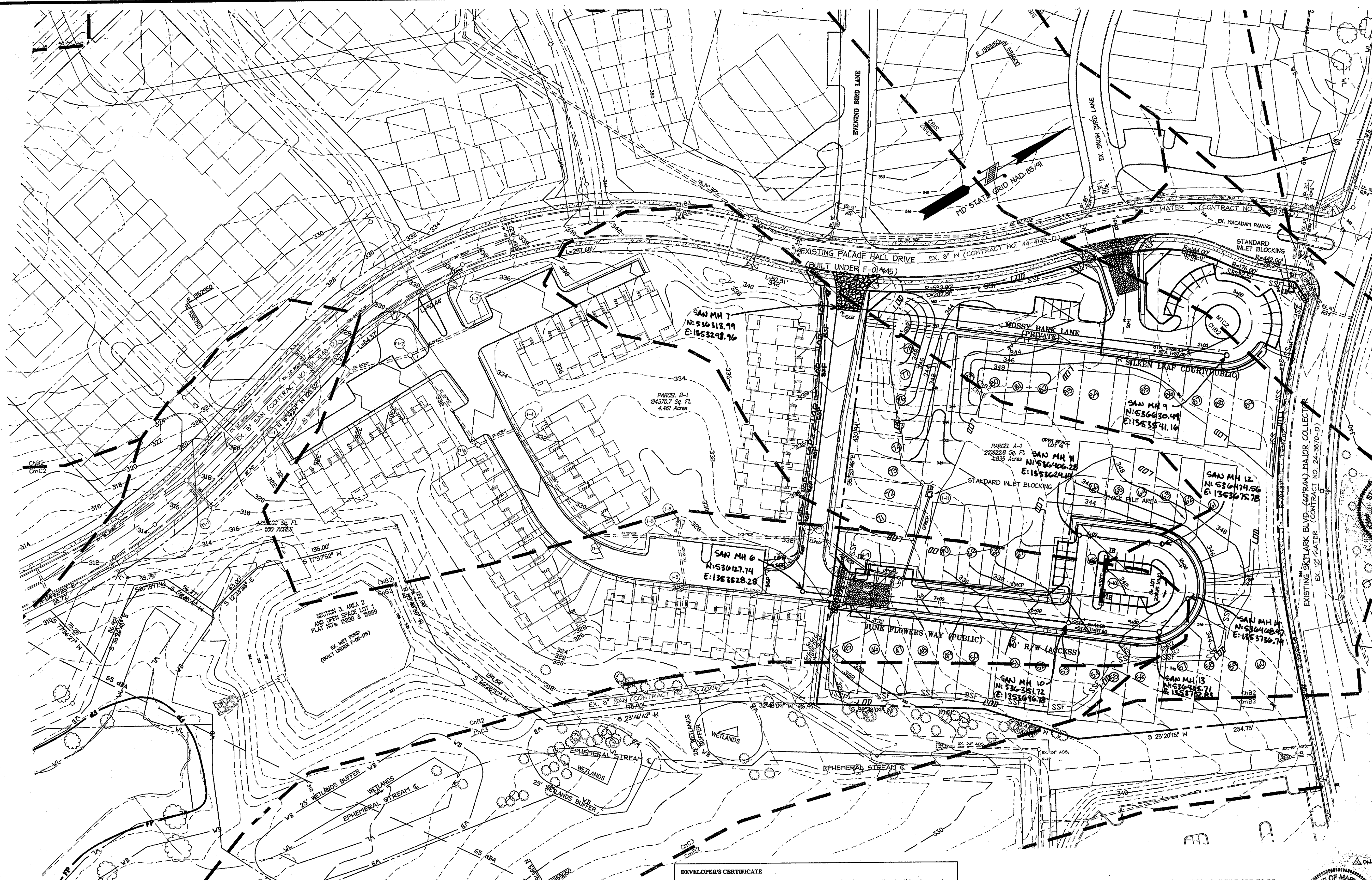
Brian A. Masterson
11/29/10
9-18-06
DATE
STATE OF MARYLAND
BRIAN A. MASTERSON
No. 32589
PROFESSIONAL ENGINEER

christopher consultants
engineering - surveying - land planning
christopher consultants, inc.
410.922.8800 - fax: 410.922.8800

SCENTLESS ROSE WAY,
JUNE FLOWERS WAY & SILKEN LEAF COURT
EMERSON
SECTION 2 PHASE 6A LOTS 45-89,
OPEN SPACE LOTS 90 & 91,
A RESUBDIVISION OF PARCEL 'A-1'

TITLE: AS-BUILT
EROSION & SEDIMENT CONTROL
DRAINAGE AREA MAPS

DESIGN:	SCALE: 1"=100'	PROJECT: 049103.00
DRAWN:	DATE: 09-18-06	
CHECKED:	APPROVED: BAM	7 OF 10



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]
 Signature of Developer
 Robert Cooper Williamsburg Group, LLC
 Print name below signature

9-19-06
 Date

I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

[Signature]
 Signature of Engineer
 BRIAN A. MASTERVICH, P.E.
 Print name below signature

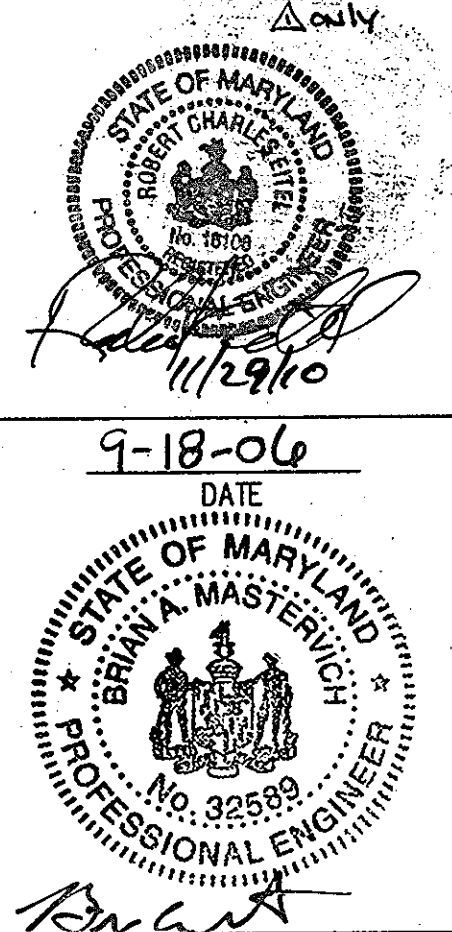
9-18-06
 Date

NOTE: THE TOWNHOUSES AFFECTED BY THE PLACEMENT OF THE STOCKPILE ARE TO BE DELAYED UNTIL PERMISSION IS RECEIVED FROM SEDIMENT CONTROL INSPECTOR.

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

[Signature] 9/25/06
 Date

[Signature] 9/25/06
 Date



I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS BUILT" PLAN MEET THE APPROVED PLANS AND SPECIFICATIONS.

[Signature] 9/21/06
 DATE

ROBERT C. EITEL, PE
 PE # 16108

APPROVED: DEPARTMENT OF PUBLIC WORKS

[Signature] 10-6-06
 Chief, Bureau of Highways Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 10/13/06
 Chief, Division of Land Development Date

[Signature] 10/12/06
 Chief, Development Engineering Division Date

10/10 1 ADD SCENTLESS ROSE WAY TO CONTRACT
 Date No. Revision Description

PERTINENT INFO:

TAX MAP NO. 47 GRID NO. 8 & 9
 ELECTION DISTRICT: 6 HOWARD COUNTY, MARYLAND

OWNER / DEVELOPER

THE WILLIAMSBURG GROUP
 5485 HARPER'S FARM ROAD
 COLUMBIA, MD 21044
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christopher consultants
 engineering · surveying · land planning
 christopher consultants, inc.
 7172 columbia gateway drive (suite 100) columbia, md 21046 2990
 410.572.8899 · fax: 410.881.0145 · fax: 410.872.8828

SCENTLESS ROSE WAY,
 JUNE FLOWERS WAY & SILKEN LEAF COURT

EMERSON
 SECTION 2 PHASE 6A LOTS 45-89,
 OPEN SPACE LOTS 90 & 91,
 A RESUBDIVISION OF PARCEL 'A-1'

TITLE: **AS-BUILT
 FINAL GRADING AND
 SEDIMENT EROSION CONTROL PLAN**

DESIGN: SCALE: 1"=50' PROJECT: 049103.00
 DRAWN: DATE: 09-18-06
 CHECKED: APPROVED: BAM 8' of 10

MDC-353

19.0 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 surroundings to avoid extreme grade modifications. Information submitted must provide sufficient topographic surveys and soil investigations to determine limitations that must be imposed on the grading operation related to slope stability, effect on adjacent properties and drainage patterns, measured for drainage and water removal and vegetative treatment, etc.

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. The plan must show existing and proposed contours of the area(s) to be graded. The plan shall also include practices for erosion control, slope stabilization, safe disposal of runoff water and drainage, such as waterways, lined ditches, reverse slope benches (including grade and cross-section), grade stabilization structures, retaining walls, and surface and subsurface drains. The plan shall also include phasing of these practices. The following shall be incorporated into the plan:

- 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.
- 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.
- Reverse benches shall be provided whenever the vertical interval (height) of any 2-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. Soils, seeps, rock outcrops, etc., shall also be taken into consideration when designing benches.
 - Benches shall be a minimum of six-feet wide to provide ease of maintenance.
 - Benches shall be designed with a reverse slope of 6:1 of flatter to the top 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.
 - The flow length within a bench shall not exceed 800' unless accompanied by appropriate design and computations. For flow channel stabilization see temporary swales.
- 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 into a stable outlet, except where:
 - 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.
 - The face of the slope shall not be subjected to any concentrated flows of surface water such as from natural drainways, graded swales, ditches, etc.
 - The face of the slope will be protected by approved erosion control materials, to include, but not limited to, approved vegetative stabilization practices (see section G), rip-rap or other approved stabilization methods.
- Cut slopes occurring in ripable 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. These steps will vary depending on the slope ratio and the cut slope. The nominal slope line is 1:1. These steps will weather and act to hold moisture, lime, fertilizer and seed thus producing a much quicker and longer lived vegetative cover or better slope stabilization. Over land flow shall be diverted from the top of all serrated cut slopes and carried to a suitable outlet.
- Surface drainage shall be provided where necessary to intercept seepage that would otherwise adversely affect slope stability or create excessively wet site conditions.
- 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.
- Fill material shall be free of brush, rubbish, rocks, logs, stumps, building debris, and other objectionable material. It should be free of stones over two (2) inches in diameter where compacted by hand or rollers or other equipment. Frozen material shall not be placed in the fill nor shall the fill material be placed on a frozen foundation.
- 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 20.0 Standards and Specifications for Vegetative Stabilization.

21.0 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:

- The texture of the exposed subsoil/parent material in not adequate to produce vegetative growth.
- The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
- The original soil to be vegetated contains materials toxic to plant growth.
- The soil is so acidic that treatment with limestone is not feasible.

20.0 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 off-site damage is likely without treatment.

Specifications
Temporary Methods

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

21.0 Standard and Specifications For Topsoil

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

Specifications
Temporary Methods

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

For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes equal to or flatter than 2:1 shall require the appropriate stabilization shown on the plans.

Construction and Material Specifications
Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.

- Topsoil Specifications** - Soil to be used as topsoil must meet the following:
- Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of clinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 7/8" in diameter.
 - Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or other as specified.
 - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be applied to the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked 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 20.0 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:

- pH for topsoil shall be between 6.0 and 7.5. If tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise pH to 6.5 or higher.
- Organic content of topsoil shall be not less than 1.5 percent by weight.
- Topsoil having soluble salt content greater than 500 parts per million shall not be used.
- No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 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 in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

Topsoil Application
When topsoiling, maintain needed erosion and sediment control practiced 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. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.

Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil id excessively wet in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

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:

- 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.
- Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
- Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.

Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

References: Guideline Specifications, Soil Preparation and Sodding, MD-VA, Pub #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes, Revised 1975.

- Vegetative Cover - See standards for temporary vegetative cover.
- Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12' apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.
- Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.
- 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.
- Calcium Chloride - Apply at rates that will keep surface moist. May need retreatment.

- Permanent Methods**
- Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.
 - Topsoil - Covering with less erosive materials. See Standards for topsoiling.
 - Stone - Cover surface with crushed stone or coarse gravel.
- References**
- Agriculture Handbook 346. Wind Erosion Forces in the United States and Their Use in Predicting Soil Loss.
 - 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.

Seedbed Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:

- Preferred--Apply 2 tons/acre dolomitic limestone (42 lbs/1000 sq. ft.) and 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding apply 400 lbs/acre 30-0-0 urea form fertilizer (9 lbs/1000 sq. ft.).
- Acceptable--Apply 2 tons/acre dolomitic limestone (42 lbs/1000 sq. ft.) and 1000 lbs/acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.

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 15 -- February 29, protect site by:

- Two tons per acre of well anchored straw mulch and seed as soon as possible in the spring.
- Option 2 -- Use 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 untreated 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 5 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 reseedsings.

TEMPORARY SEEDING NOTES.

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

Seedbed preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Soil Amendments: -- Apply 600 lbs/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 29 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 untreated 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 5 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 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.

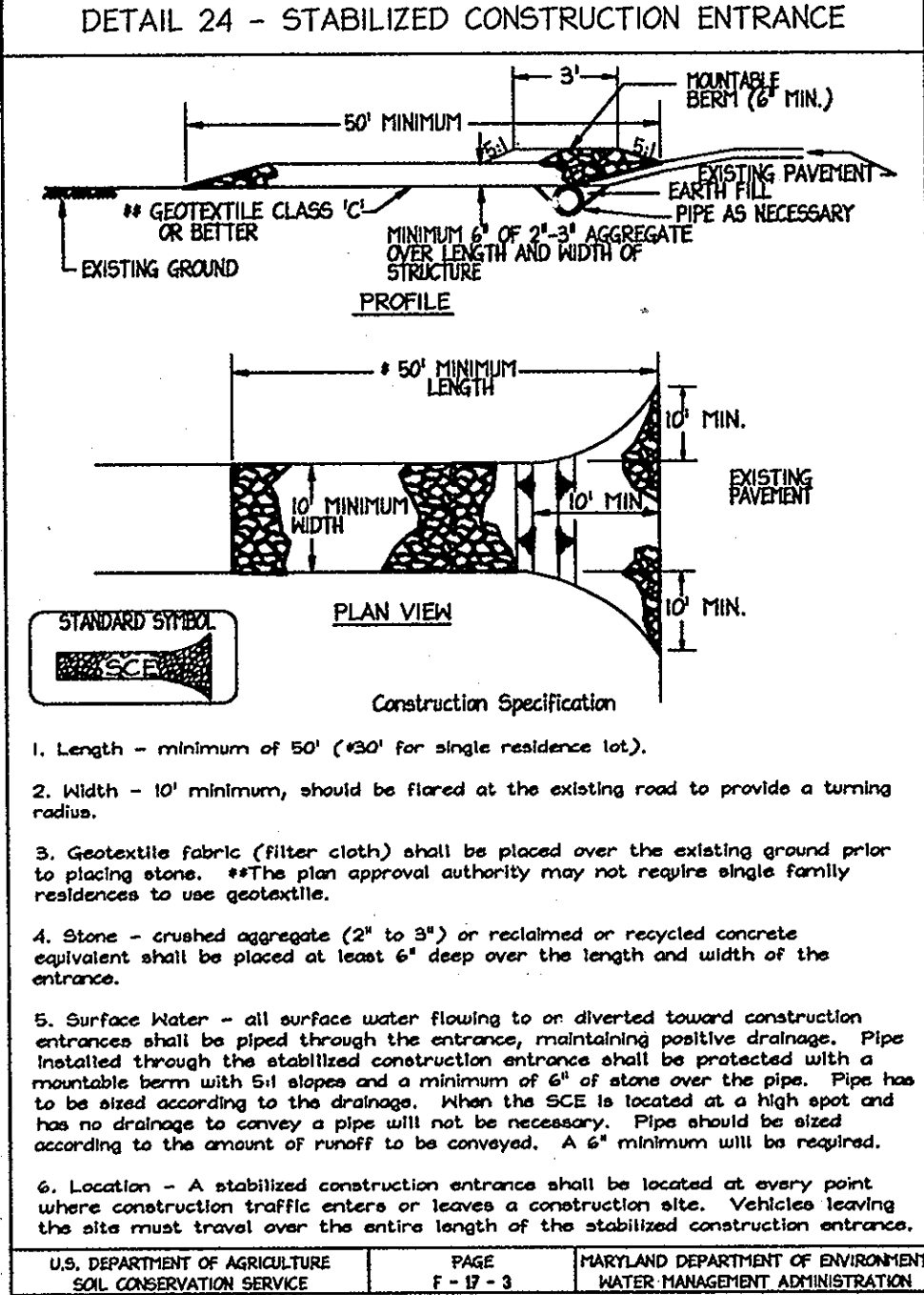
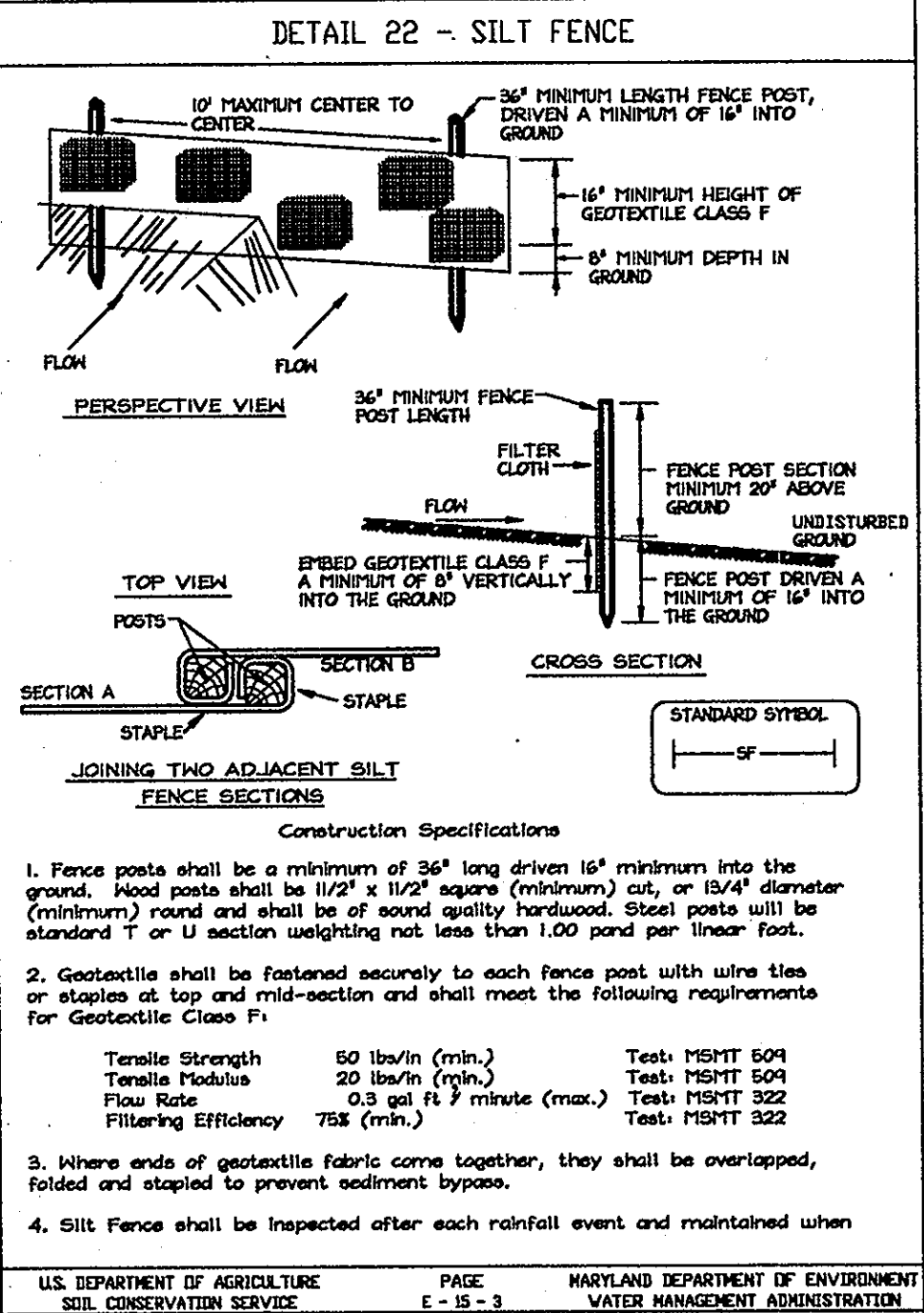
Signature of Developer: *Bob Corbett Williamsburg Group LLC* Date: 9-19-06

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, P.E.* Date: 9-18-06

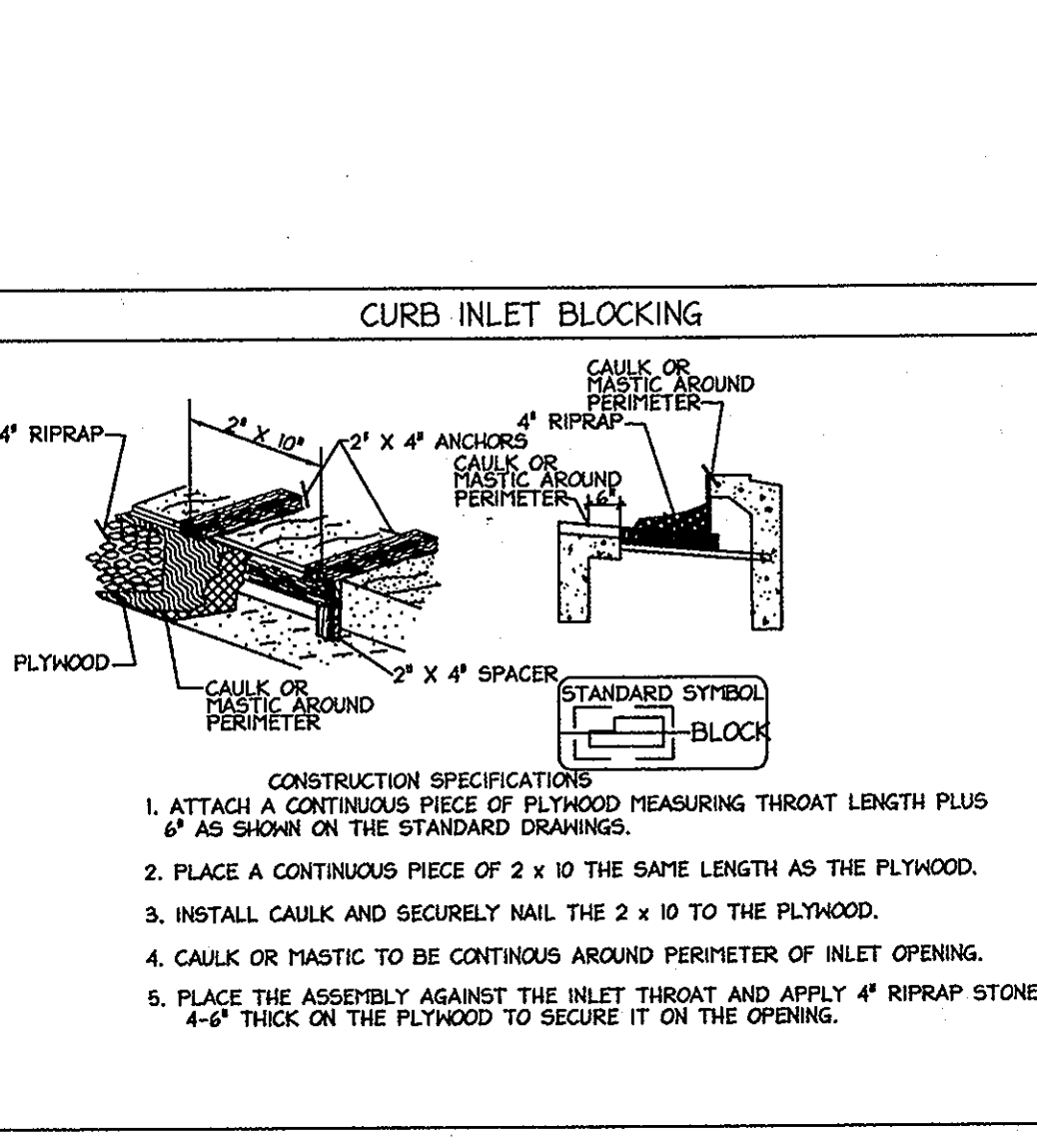
REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.
USDA-Natural Resources Conservation Service Date: 9/25/06

The development plan is approved for soil erosion and sediment control by The HOWARD SOIL CONSERVATION DISTRICT. Date: 9/25/06



HOWARD COUNTY SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (313-1855).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
- Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol 1, Chapter 12 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specific above in accordance with the 1995 MARYLAND STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Section 52). Temporary stabilization with mulch along can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained by the Howard County Sediment Control Inspector.
- Site Analysis:
Total Area of Site: 4.78 Acres
Area Disturbed: 3.75 Acres
Area to be roofed or paved: 1.04 Acres
Area to be vegetatively stabilized: 2.71 Acres
Total Cut: 5,440 Cu. Yds.
Total Fill: 940 Cu. Yds.
Offsite waste/borrow area location: N/A
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- On all site with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Any practices for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized any construction as shown on these plans by the end of each work day, whichever is shorter.



NOTE:
THERE IS NO 'AS-BUILT' INFORMATION PROVIDED ON THIS SHEET.
Robert C. Eitel, P.E. DATE
PE # 16108



SEQUENCE OF CONSTRUCTION

- OBTAIN THE GRADING PERMIT FROM HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS DIVISION. (1 DAY)
- ARRANGE AN ON-SITE PRE-CONSTRUCTION MEETING WITH COUNTY INSPECTORS, THE CONTRACTOR, AND ENGINEER PRIOR TO THE START OF CONSTRUCTION OF THIS PLAN. (1 DAY)
- CONTACT A PRIVATE UTILITY LOCATING COMPANY TO ADEQUATELY MARK ALL KNOWN EXISTING UTILITIES. (2 DAYS)
- INSTALL THE STABILIZED CONSTRUCTION ENTRANCES PER THE PLAN. (1 DAY)
- CLEAR AND GRUB FOR PERIMETER CONTROL. INSTALL SUPER SILT FENCE PER PLAN SPECIFICATIONS. (7 DAYS)
- ONCE ALL SEDIMENT CONTROL DEVICES ARE IN-PLACE, OBTAIN INSPECTOR'S APPROVAL PRIOR TO GRADING. (2 DAYS)
- ONCE INSPECTOR'S APPROVAL IS OBTAINED, BEGIN ON-SITE GRADING + INSTALLING STORM DRAIN SYSTEM, BLOCK ALL INLETS. (35 DAYS)
- BEGIN ROAD CONSTRUCTION. (45 DAYS)
- IMMEDIATELY UPON COMPLETION OF GRADING, PROVIDE STABILIZATION PER THE SEEDING TABLES PROVIDED ON THE PLANS. (7 DAYS)
- ONCE ALL GRADING, PAVEMENT, CURBS AND GUTTER ARE COMPLETED AND SITE IS STABILIZED, OBTAIN INSPECTOR'S APPROVAL PRIOR TO REMOVAL OF ANY SEDIMENT CONTROL DEVICE. (2 DAYS)
- REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES EXCEPT INLET BLOCKINGS. (3 DAYS)
- STABILIZE ANY REMAINING DISTURBED AREAS ON-SITE. (4 DAYS)
- ONCE ALL SEDIMENT CONTROL DEVICES EXCEPT INLET BLOCKINGS ARE REMOVED AND SITE IS STABILIZED, OBTAIN FINAL APPROVED FROM THE INSPECTOR. (2 DAYS)

APPROVED: DEPARTMENT OF PUBLIC WORKS
William J. Madala 10-6-06
Chief, Bureau of Highways Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Leslie Roberts 10/3/06
Chief, Division of Land Development Date

William J. Madala 10/3/06
Chief, Development Engineering Division Date

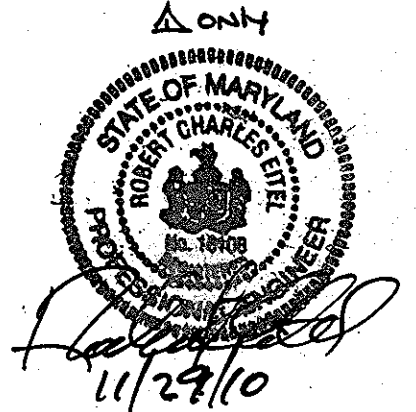
Date	No.	Revision Description
10/10	1	ADD SCENTLESS ROSE WAY TO CONTRACT

PERTINENT INFO:
TAX MAP NO. 47 GRID NO. 8 & 9.
ELECTION DISTRICT: 6 HOWARD COUNTY, MARYLAND
OWNER / DEVELOPER
THE WILLIAMSBURG GROUP
5485 HARPER'S FARM ROAD
COLUMBIA, MD 21044 TEL: (410) 997-8800
P.O. BOX 1016 FAX: (410) 997-4358

christopher consultants
engineering · surveying · land planning
christopher consultants, ltd
7172 columbus gateway drive (suite 100) columbia, md 21046 2990
410.872.8889 · fax: 301.881.9148 · fax: 410.872.8888

SCENTLESS ROSE WAY, JUNE FLOWERS WAY & SILKEN LEAF COURT
EMERSON
SECTION 2 PHASE 6A LOTS 45-39,
OPEN SPACE LOTS 90 & 91,
A RESUBDIVISION OF PARCEL 'A-1'
TITLE: AS-BUILT
EROSION & SEDIMENT CONTROL
DETAIL SHEET

DESIGN:	SCALE: AS SHOWN	PROJECT: 04103.00
DRAWN:	DATE: 09-18-06	
CHECKED:	APPROVED: BAM	9 OF 10



MDC-35

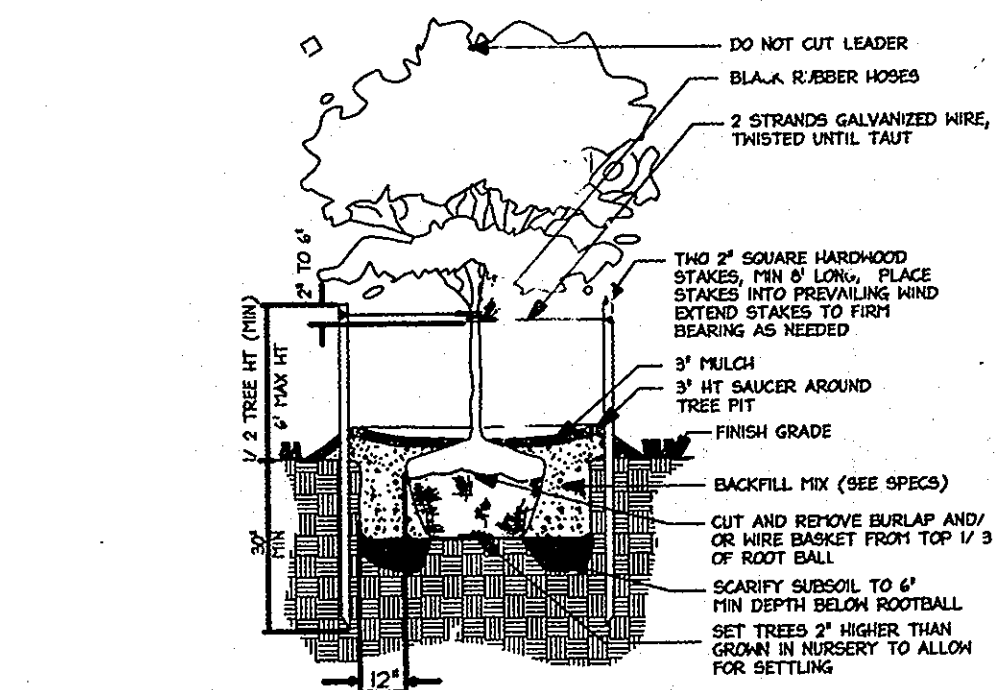
GENERAL PLANTING NOTES:

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 LCAMH.
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. SOD 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 BERMS, 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 of open on-site staging area using approved on-site existing topsoil. The 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 sq ft and incorporate into top 8 inches of existing soils by rototilling or similar method of incorporation.
 - 2 cy sharp sand
 - 3 cy organic matter
 - 4.5 lbs treble superphosphate
 - 5 lbs dolomite limestone (eliminate for acid loving plants)
12. ALL INTERNAL AND PERIMETER LANDSCAPING REQUIREMENTS FOR THIS PROJECT ARE TO BE ADDRESSED AND PROVIDED UNDER SDP-06-04.

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.

NAME: [Signature] DATE: 9-19-06



Tree Planting Detail
Not To Scale

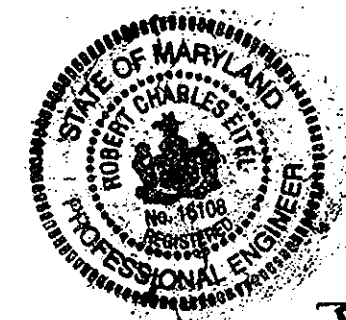
STREET TREE SCHEDULE

ROAD NAME	LENGTH OF ROAD (BOTH SIDES)	REQ. NO. OF TREES (1 TREE/40 L.F.)	NO. OF TREES PROVIDED
JUNE FLOWERS WAY	88? L.F.	22	28
SILKEN LEAF COURT	490 L.F.	12	12
MOSSY BARK LANE	300 L.F.	8	8

PLANT LIST:

SYMBOL	LATIN NAME	COMMON NAME	QUANTITY	SIZE	REMARKS
ZS	Zelkova Serrata 'Green Vase'	'Green Vase' Japanese Zelkova	31	2 1/2" - 3" caliper	B&B
PS	Prunus Sargentii 'Columnaris'	'Columnaris' Sargent Cherry	17	8" - 10" Hgt.	B&B

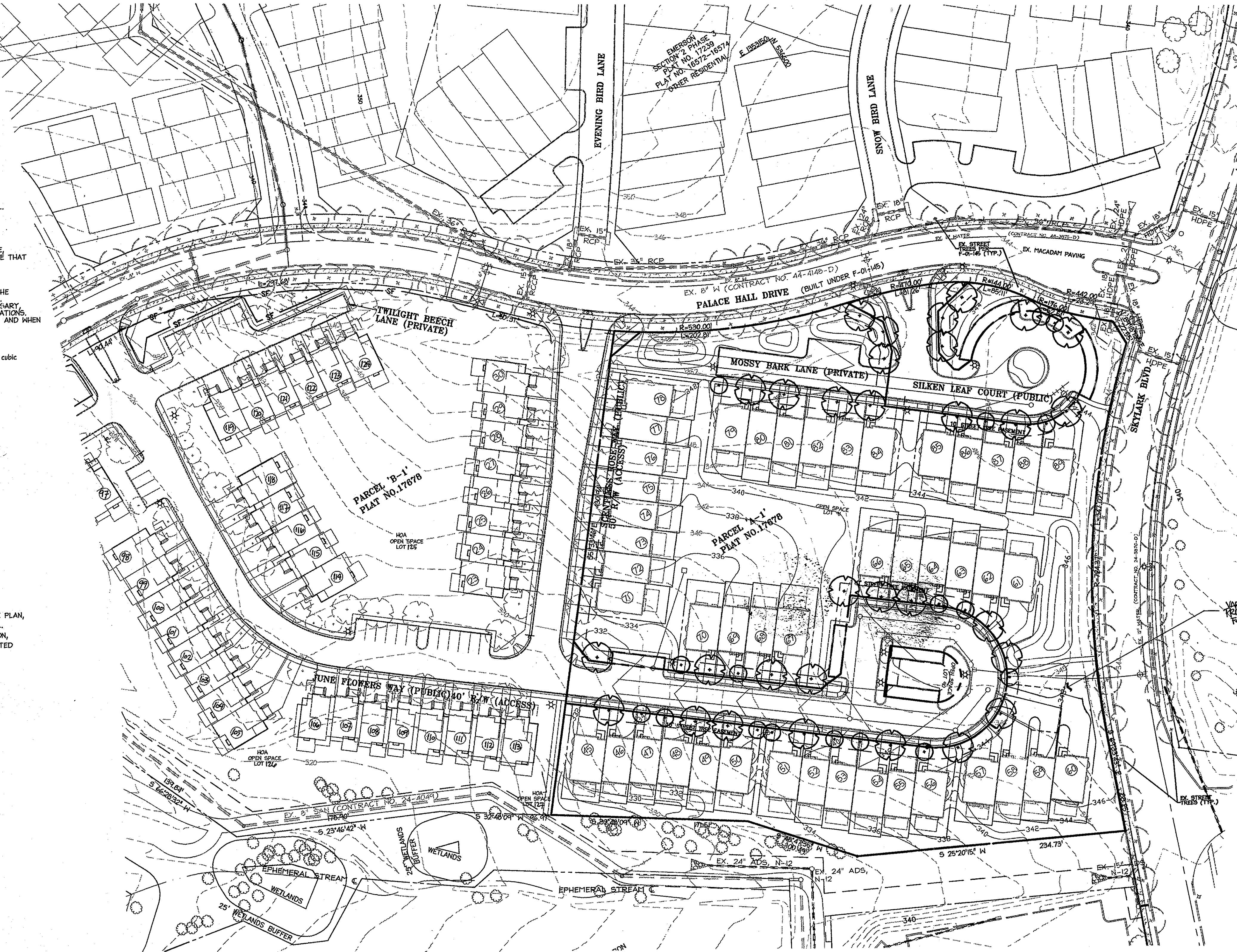
NOTE: THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.



Signature: [Signature] DATE: 9/21/06
ROBERT C. EITEL, P.E.
PE # W-108

LEGEND

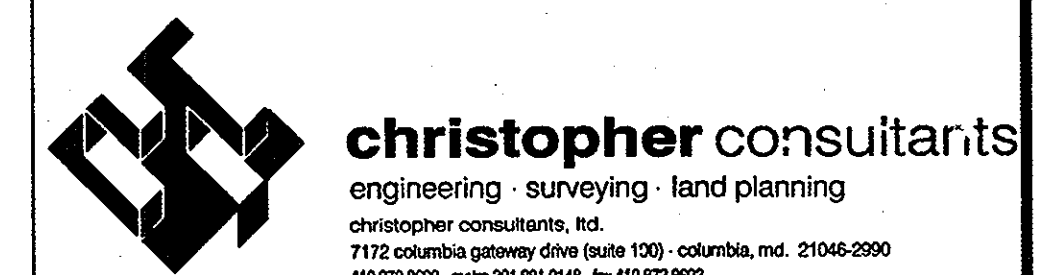
- EX CONTOURS
- STREAM
- STREAM BUFFER
- EX. STORMDRAIN
- EX. SANITARY
- EX. WATER
- EX. TREE
- PROP. CURB
- PROPERTY LINE
- PROP. STREET LIGHT
- PROP. STREET TREES (PART OF DEVELOPMENT OF BULK PARCEL B)
- PROP. STREET TREE (31 - ZS)
- PROP. STREET TREE (17 - PS)
- EX. STREET TREE PALACE HALL DRIVE (PER F-01-145) AND SKYLARK BLVD.



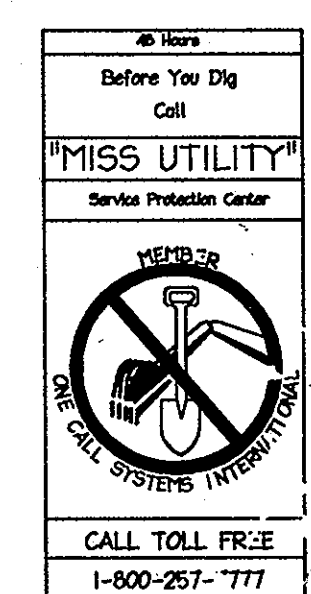
APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] Chief, Bureau of Highways 10-6-06
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] Chief, Division of Land Development 10/19/06
 [Signature] Chief, Development Engineering Division 10/12/06

Date	No.	Revision Description
10/10	2	REVISE DRIVEWAY AND ADD ACCESS EASEMENT FOR LOTS 80-82 ADD SCENTLESS ROSE WAY TO CONTRACT

PERTINENT INFO:
 TAX MAP NO. 47 GRID NO. 8 & 9.
 ELECTION DISTRICT: 6 HOWARD COUNTY, MARYLAND
OWNER / DEVELOPER
 THE WILLIAMSBURG GROUP
 5485 HARPER'S FARM ROAD
 COLUMBIA, MD 21044 TEL: (410) 997-8800
 P.O. BOX 1018 FAX: (410) 997-4358



SCENTLESS ROSE WAY & SILKEN LEAF COURT
 SECTION 2 PHASE 6A LOTS 45-89, OPEN SPACE LOTS 90 & 91, A RESUBDIVISION OF PARCEL 'A-1'
 TITLE: AS-BUILT STREET TREE AND LIGHTING PLAN
 DESIGN: LNG SCALE: 1" = 50' PROJECT: 04-103.00
 DRAWN: LNG DATE: 09-18-06
 CHECKED: BKC APPROVED: BAM 10 of 10



DATE: 9-19-2006
 [Signature]

MDC-353