ROAD AND STORM DRAIN CONSTRUCTION PLANS
JUNE FLOWERS WAY
EMERSON TOWNHOMES

SECTION 2, PHASE 6A, LOTS 92-124
A RESUBDIVISION OF PARCEL 'B-1'
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SHEET INDEX

25. SCENTLESS ROSE WAY FROM CURB TO CURB WILL BE CONSTRUCTED UNDER F-06-142. THE STORMDRAIN IN THE RIGHT-OF-WAY WILL BE CONSTRUCTED UNDER THIS CONTRACT. THE STREET TREES, LIGHTS AND SIGNS WILL REMAIN IN THIS CONTRACT.

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
3. THE CONTRACTOR SHALL NOTIFY "MISS UTIL Y" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DC
4. TRAFFIC CONTROL DEVICES, MARKINGS AND GNING SH IN ACCORDANCE WITH THE LATEST EDITIC OF THE MANUAL ON UNIF TRAFFIC RO DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL B N PLACE FOR TC THE PLACEMENT OF ANY ASPHALT.
5. STREET L GHT PLACEMENT AND THE TYPE OF FIXTURE SHALL BE IN ACCORDANCE WITH OWARD COUNTY DESIGN MANUAL, VOLUME III (1993) A MODIFIED BY "GUIDELINES FOR STREET AND REGULATORY SIGNS LIGHTS IN RESIDENTIAL DEVE ENTS (JUNE 1993)."
6. A UM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
   THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD SURVEY WITH 2 OOT CONTOUR INTERVALS COMPLETED BY christopher consultants, ltd. ON DECEMBER 2004.
7. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONT OL WHICH IS BASED UPON THE MARYLAND STATE PLAN COORDINATE SYSTEM MONUMENT NOS 47D, 47G2, AND 47E4 WERE USED FOR THIS PROJ (NAD 1983/91).
   WA IS TO BE PUBLIC (CONTRACT # 14-4318-D).
   SE IS TO BE PUBLIC (CONTRACT # 14-4318-D).
   BLIC STORMWATER MANAGEMENT FOR THIS SITE WILL BE PROVIDED BY PRIVATE WET P S PREVIOU BUILT UNDER F-01-145 & F-02-178.
11. UTILITIES ARE ASED ON FIELD RUN TOPOGRAPHY BY christopher consultants, ltd. ON DECE ER 2 4 AND SUPPLEMENTED WITH HOWARD COUNTY R
12. THERE IS NO FLOODPLAIN ON THIS SITE.
13. THERE IS NO WETLANDS ON THIS SITE.
14. THE TRAFFIC STUDY FOR THIS SITE WAS PREPARED BY WELLS & ASSOCIATES, DATED FEBRUARY 2000, HAS BEEN APPROVED WITH S-99-12.
15. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
16. 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. DESCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER AND IN ADVANCE OF CONSTRUCTION START.
17. ANY DAMAGE CAUSED BY THE CONTRACTOR TO EXISTING PUBLIC RIGHT-OF-WAY, EXISTING PAVING, EXISTING CURB AND GUTTER, EXISTING UTILITIES, ETC. SHALL BE REPAIRED AT THE CONTRACTORS XPENSE
18. ALL FILL AREA SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MA IMUM DRY DENSITY AS DETERMINED AND VERIFIED IN ACCORDANCE WITH AASHTO T-180—STANDARD.
19. CONTRACTOR SHALL MAINTAIN AL MENT CONTROL DEVICE WITHIN THE LIMITS OF THE TE DURING CONSTRUCTION OF THE IMPROVEMENTS. CONTRACTOR SHALL PROVIDE A TIONAL ERO ION AND SEDIMENTATION CONTROL MEASURES AS MAY BE NECESSARY DUR G CONSTR TION AND BY VERNING AGENCIES.
20. THERE ARE NO ETE OR BURIAL GROUNDS ON THIS SITE. HOWEVER, UPON DISCOVERY OF Y EVIDENCE OF BURIAL OR GRAVES, THE DEVELOPER SHALL BE SUBJECT TO SECTION 16.1305 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
   THE SUBJECT PROPERTY IS ZONED MXD-3 ' OTHER RESIDENTIAL" PER THE 2/2/04 COMPREHENSIVE ZONING PLAN & ZB-979M.
22. THE CONTRACTOR SHALL TEST PIT ALL EXISTING UTILITIES AT LEAST FIVE (5) DAYS PRIOR TO STARTING ANY WORK SHOWN ON THESE DRAWINGS.
23. OPERATION EXISTING VALVES, SWITCHES, SERVICES OR START UP OF NEW SERVICES SHALL BE COORDINATED WITH THE OWNERS REPRESENTATIVE.
24. FOREST & SERVATION OBLIGATIONS AND OPEN SPACE REQUIREMENTS FOR THIS PHASE OF EMERSON MXD PROJECT WERE ADDRESSED UNDER F-04-68.

LEGEND

PROPOSED BUILDING

EXISTING BUILDING

EXISTING SIDEWALK

EXISTING CURB & GUTTER

EXISTING STORM DRAIN — EX. 18" HDPE

EXISTING WATER — EX. 8" W

EXISTING SEWER — EX. 8" S

EXISTING CONTOUR — 302

PROPOSED CONTOUR — 302

PROPOSED LOT LINE

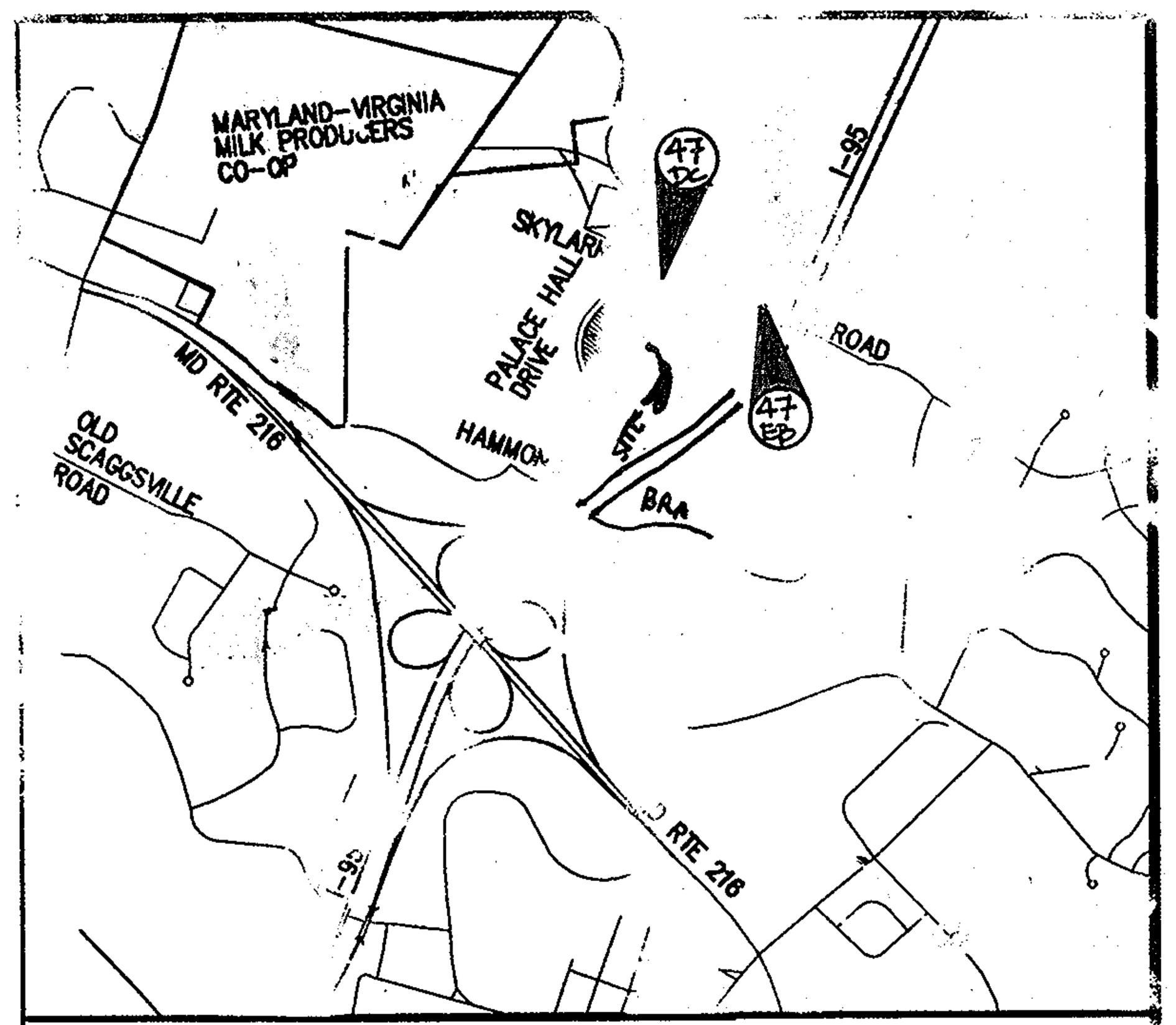
PROPERTY LINE

EXISTING TREELINE

SUPER SILT FENCE — S F

LIMIT OF DISTURBANCE — LOD

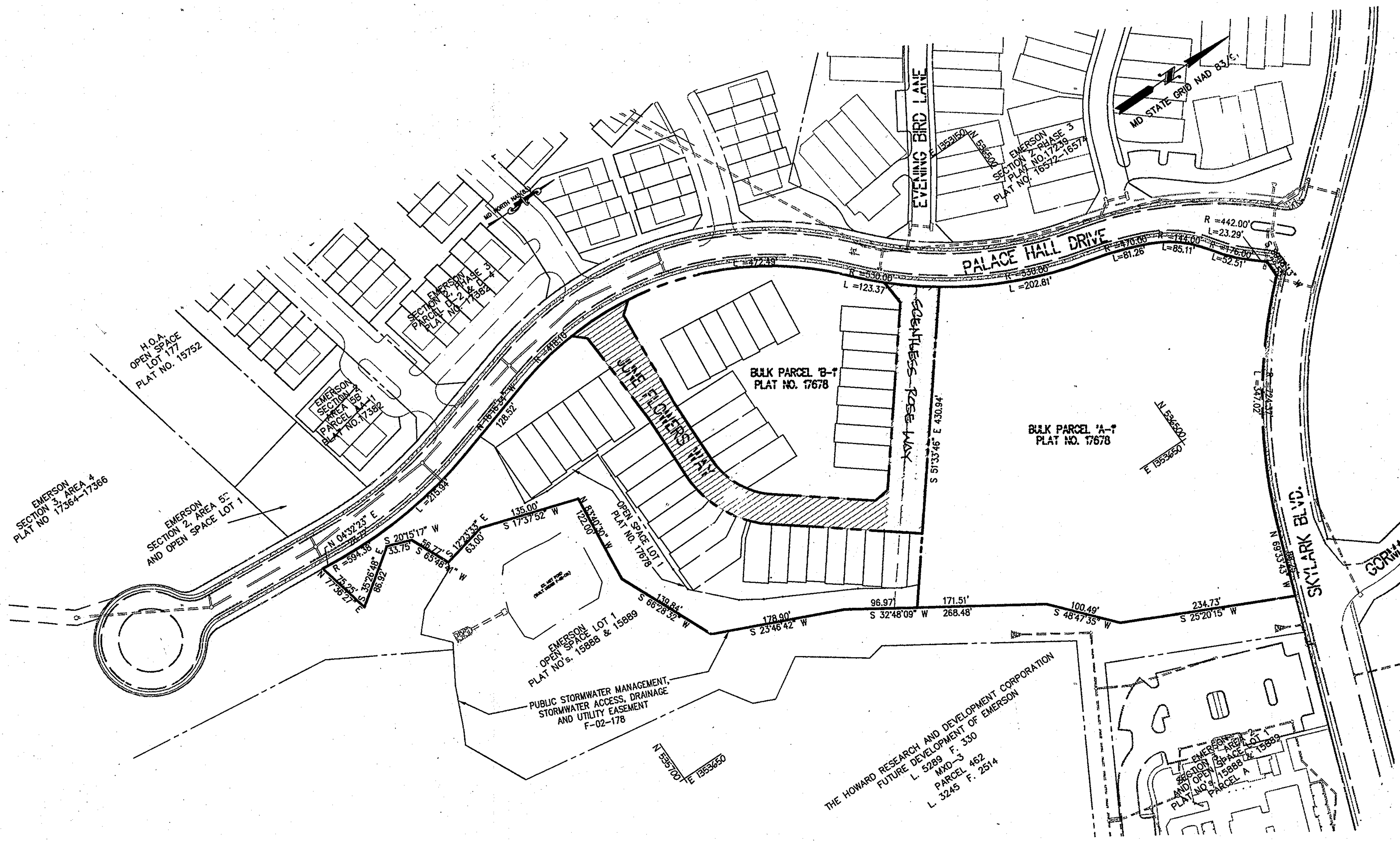
STABILIZE CONSTRUCTION ENTRANCE — SCE



VICINITY MAP
SCALE 1"=2000'
HOWARD COUNTY, MAP 19 GRID H-7

BENCHMARK

Horizontal Datum: Maryland State Coordinates, NAD 83/91
Vertical Datum: NAD 83/91
Howard County Monument 47DC
N 536618.02 E 1353679.09 ELV= 343.18
Howard County Monument 47EB
N 536212.74 E 1354933.54 ELV= 354.23
Howard County Monument 47E4
N535846.14, E1355431.19, Elev. 338.6



OVERALL VIEW
SCALE: 1"=100'

AS-BUILT CERTIFICATION
THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET.
PAUL L. COON
PROPERTY LINE SURVEYOR
MD REG. #562
9-12-12
DATE

STATE OF MARYLAND
PAUL LEROY COON
No. 562
REGISTERED
PROPERTY LINE SURVEYOR

STATE OF MARYLAND
PROFESSIONAL ENGINEER
12/2/10 ONLY

9-18-06
DATE
STATE OF MARYLAND
BRIAN A. MASTERVICH
No. 32 —
PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PUBLIC WORKS	
Chief, Bureau of Highways	Date 9-28-06
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
Chief, Division of Land Development	10/10/06
Chief, Development Engineering Division	Date 10/6/06

Date	No.	Revision Description
		LOT NUMBERS ARE BEING REVISED TO REFLECT
		CHANGES MADE TO F-10-024
10/10	1	REMOVE SCENTLESS ROSE WAY FROM CONTRACT

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

OWNER / DEVELOPER
SK HOMES @ EMERSON II
10705 CHARTER DRIVE, SUITE 320
COLUMBIA, MD 21044
TEL: (410) 997-7400 FAX: (410) 997-6305

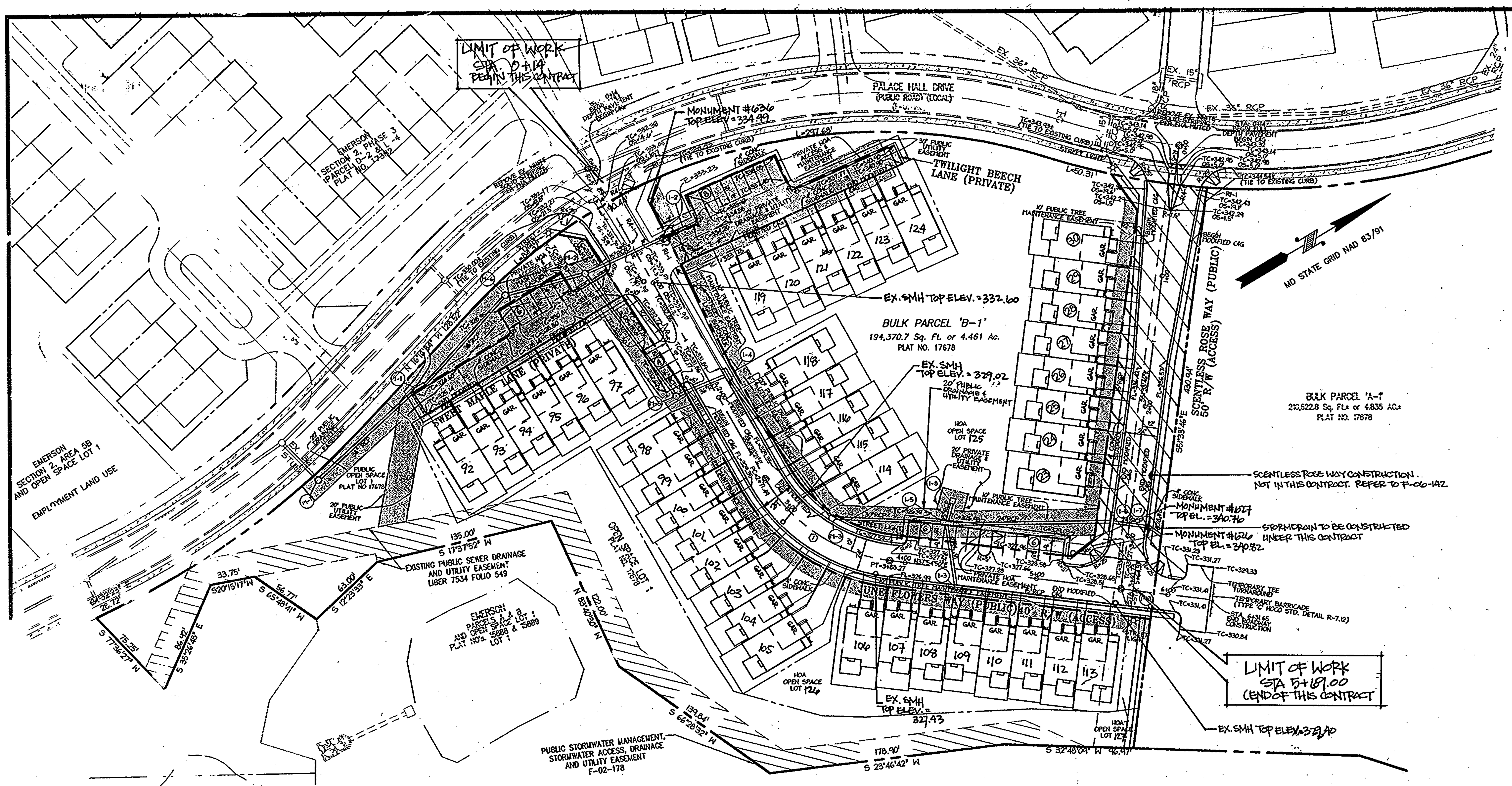
christopher consultants
engineering · surveying · land planning
christopher consultants, ltd
7172 columbia gateway drive (suite 100) · columbia, md 21046 2990
410.872.8690 · metro 301 881.0148 · fax 410 872 8693

JUNE FLOWERS WAY
EMERSON
SECTION 2, PHASE 6A
BUILDABLE LOTS 92 THRU 124, HOA OPEN SPACE LOTS 125-127
A RESUBDIVISION OF BULK PARCEL B-1 AND A REVISION OF OPEN SPACE 1
PLAT NO. 17678

TITLE: AS-BUILT
COVER SHEET

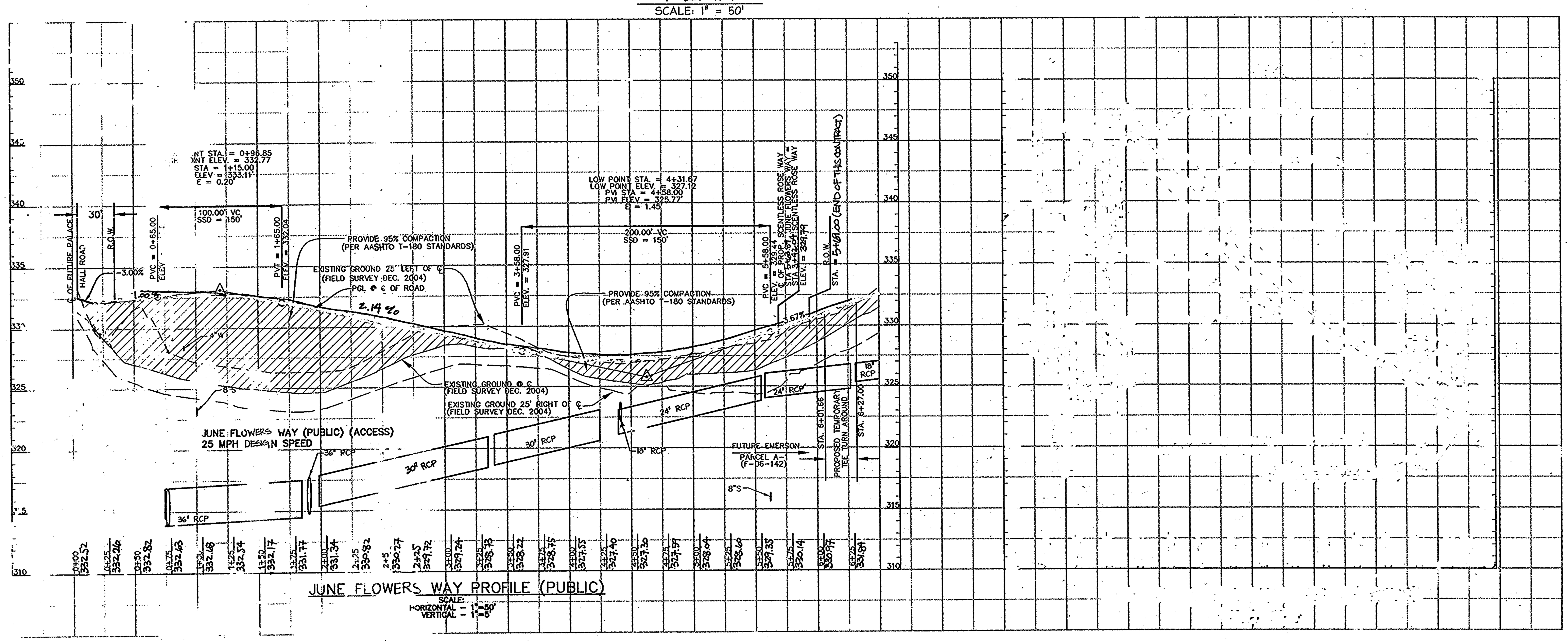
DESIGN: XDF	SCALE: AS SHOWN	PROJECT: 049101.00
DRAWN: ADL	DATE: 9-18-06	1 OF 9
CHECKED: SAM	APPROVED:	

F-06-143



PLAN

SCALE: 1" = 50'



JUNE FLOWERS WAY PROFILE (PUBLIC)

SCALE:
HORIZONTAL - 1"=50'
VERTICAL - 1"=5'

CURVE DATA TABLE

NUMBER	ROAD NAME	STA. TO STA.	RADIUS	LENGTH	DELTA	TANGENT	CHORD
1	JUNE FLOWERS WAY	2+71.49 TO 3+88.27	125.00'	116.78'	53°31'49"	63.05'	N64°20'44"W 112.58'

ROADWAY INFORMATION CHART

ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	℄ STATION LIMITS	PAVING SECTION
JUNE FLOWERS WAY	PUBLIC ACCESS	25 M.P.H.	MXD-3	0+00 TO 6+31.65	P-2

STREET LIGHT TABLE = NO STREET LIGHTS INSTALLED

ROAD NAME	STATION	OFFSET	TYPE
JUNE FLOWERS WAY	0+28	50.1 R	*
JUNE FLOWERS WAY	1+19	28.7 L	**
JUNE FLOWERS WAY	1+80	20.4 R	**
JUNE FLOWERS WAY	3+93	20.1 L	**
JUNE FLOWERS WAY	5+76	22.6 R	**

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
JUNE FLOWERS WAY	0+20.66	0+21.99L	STOP	R1-1
JUNE FLOWERS WAY	1+32.70	14.89R	SPEED LIMIT 25	R2-1
JUNE FLOWERS WAY	0+60.77	4.68R	KEEP RIGHT	R4-1
JUNE FLOWERS WAY (FACING TWILIGHT BEECH LANE)	0+71.49	19.41L	STOP	R1-1
JUNE FLOWERS WAY (FACING SWEET MAPLE LANE)	1+07.64	17.98R	STOP	R1-1

AS-BUILT CERTIFICATION

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.

PAUL L. COON
PROPERTY LINE SURVEYOR
MD REG. # 562

9.12.12
DATE

STATE OF MARYLAND · PAUL LEROY COON · No. 562 · REGISTERED · PROPERTY LINE SURVEYOR

APPROVED: DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Highways — Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 10/10/06

Chief, Development Engineering Division — Date 10/6/06

Date	No.	Revision Description
9/14/07	1	REVISE THE RADIUS AT JUNE FLOWERS WAY AND PALACE HALL DRIVE AND CONCRETE ISLAND BETWEEN STA. 0+20 AND 0+70
10/10	2	REMOVE SCENTLESS ROSE WAY FROM CONTRACT LOT NUMBERS ARE BEING REVISED TO REFLECT CHANGES MADE TO F-10-024

PERTINENT INFO:

TAX MAP NO. 47 — GRID NO. 8 & 9.

ELECTION DISTRICT: 6 — HOWARD COUNTY, MARYLAND

OWNER / DEVELOPER

SK HOMES @ EMERSON II
10705 CHARTER DRIVE, SUITE 320
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christopher consultants
engineering · surveying · land planning

9-18-06
DATE

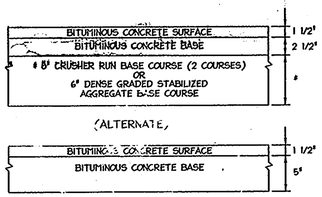
JUNE FLOWERS WAY
EMERSON
SECTION 2, PHASE 6A
BUILDABLE LOTS 92 THRU 124, HOA OPEN SPACE LOTS 125-127
A RESUBDIVISION OF BULK PARCEL B-1 AND A REVISION OF OPEN SPACE LOT 1
PLAT NO. 17676

TITLE: AS-BUILT
ROAD PLAN & PROFILES

DESIGN: ADF	SCALE: 1"=50' H, 1"=5' V	PROJECT: 049101.00
DRAWN: ADL	DATE: 9-18-06	2 OF 9
CHECKED: BAH		

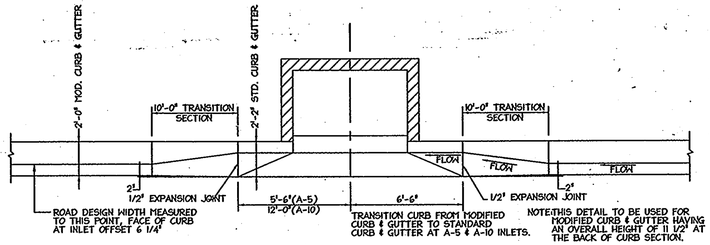
MDC-309

F-06-143

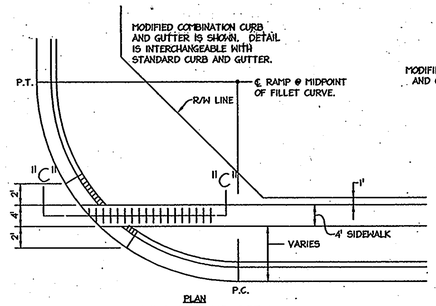


HOWARD COUNTY DESIGN MANUAL VOLUME IV- STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

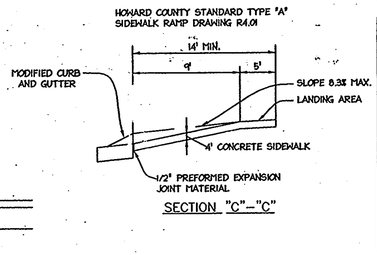
P-2 PAVING
NOT TO SCALE



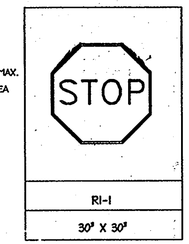
MODIFIED COMBINATION CURB AND GUTTER
TRANSITION CURB SECTION AT "A" TYPE INLETS
NOT TO SCALE



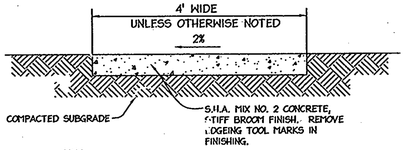
PLAN
HANDICAP RAMP DETAIL
NOT TO SCALE



SECTION "C"-"C"

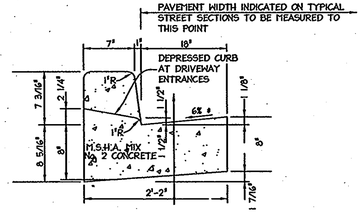


SIGN DETAIL
N.T.S.



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

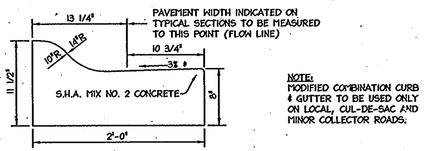
SIDEWALK DETAIL
NOT TO SCALE



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

* 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.

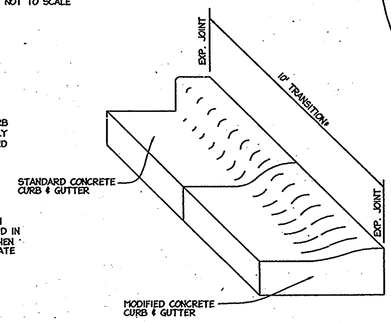
STANDARD 7" COMBINATION CURB AND GUTTER
NOT TO SCALE



NOTE:
MODIFIED COMBINATION CURB & GUTTER TO BE USED ONLY ON LOCAL, CUL-DE-SAC AND MINOR COLLECTOR ROADS.

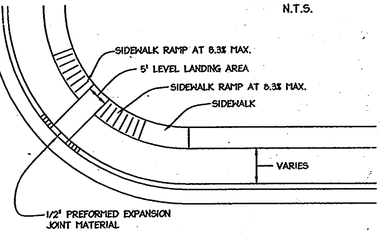
MODIFIED COMBINATION CURB AND GUTTER

* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR 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.

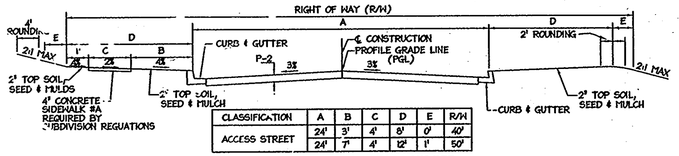


CONCRETE CURB AND GUTTER TRANSITION
NOT TO SCALE

* TYPICAL FOR ALL TRANSITIONS, UNLESS NOTED OTHERWISE

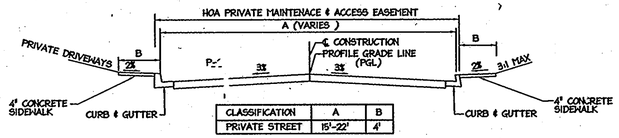


HANDICAP RAMP DETAIL
NOT TO SCALE



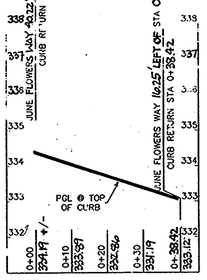
CLASSIFICATION	A	B	C	D	E	R/W
ACCESS STREET	24'	3'	4'	8'	0'	40'
	24'	7'	4'	12'	1'	50'

TYPICAL SECTION ACCESS STREET
NOT TO SCALE

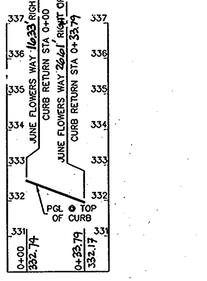


CLASSIFICATION	A	B
PRIVATE STREET	15'-22'	4'

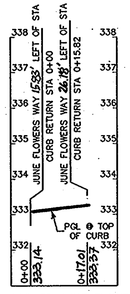
TYPICAL SECTION PRIVATE STREET
NOT TO SCALE



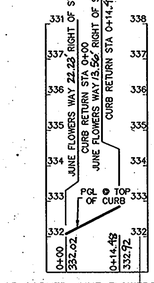
NE CORNER JUNE FLOWERS WAY & EX. PALACE HALL DRIVE INTERSECTION
SCALE: 1"= 20' H, 1"= 2' V



SW CORNER JUNE FLOWERS WAY & SWEET MAPLE LANE INTERSECTION
SCALE: 1"= 20' H, 1"= 2' V

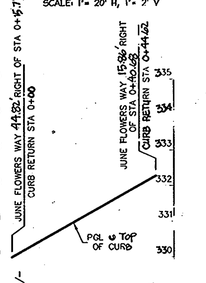


NW CORNER JUNE FLOWERS WAY & TWILIGHT BEECH LANE INTERSECTION
SCALE: 1"= 20' H, 1"= 2' V

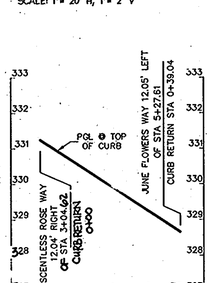


SE CORNER JUNE FLOWERS WAY & SWEET MAPLE LANE INTERSECTION
SCALE: 1"= 20' H, 1"= 2' V

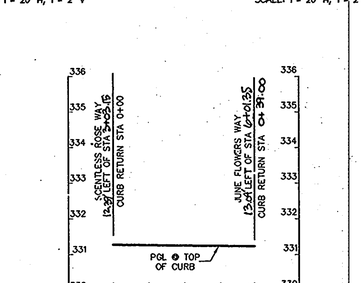
NE CORNER JUNE FLOWERS WAY & TWILIGHT BEECH LANE INTERSECTION
SCALE: 1"= 20' H, 1"= 2' V



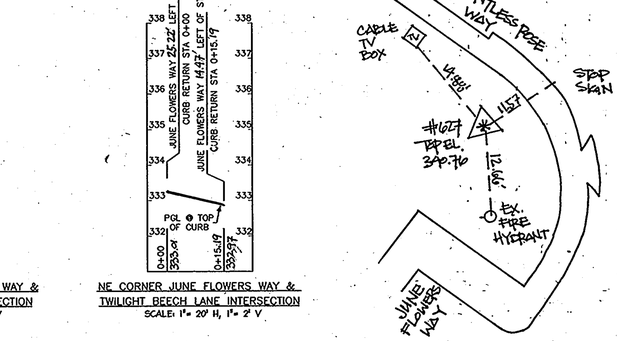
SE CORNER JUNE FLOWERS WAY & EX. PALACE HALL DRIVE INTERSECTION
SCALE: 1"= 20' H, 1"= 2' V

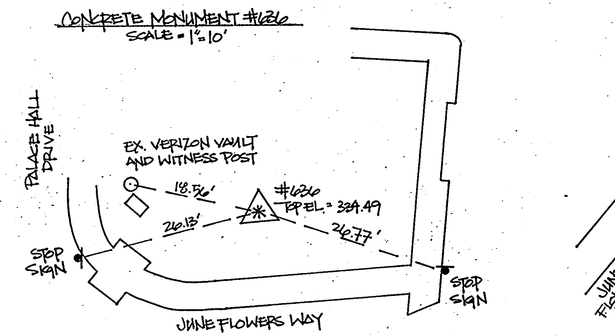


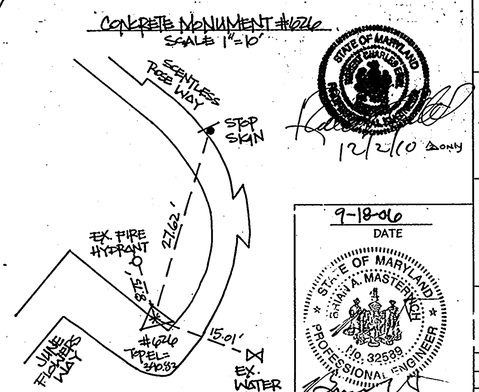
SW CORNER SCENTLESS ROSE WAY & JUNE FLOWERS WAY INTERSECTION
SCALE: 1"= 20' H, 1"= 2' V



NW CORNER SCENTLESS ROSE WAY & JUNE FLOWERS WAY INTERSECTION
SCALE: 1"= 20' H, 1"= 2' V







AS-BUILT CERTIFICATION

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

STATE OF MARYLAND PAUL LEROY COON No. 662 REGISTERED PROPERTY LINE SURVEYOR

PAUL L. COON
PROPERTY LINE SURVEYOR
MD REG.# 662

2.12.12
DATE

9-18-06
DATE

STATE OF MARYLAND SHAWN A. MASTERSON No. 32529 PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Highways — Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 10/10/06

Chief, Development Engineering Division — Date 10/26/06

Date	No.	Revision Description
9/14/07	1	REVISE THE RADIUS AT JULIE FLOWERS WAY AND PALACE HALL
		PAVE AND CONCRETE ISLAND BETWEEN STA. 0+20 AND 0+70
10/10	2.	REMOVE SCENTLESS ROSE WAY FROM CONTROL
		LOT NUMBERS REVISED TO REFLECT CHANGES
		MADE TO F-10-024

PERTINENT INFO:

TAX MAP NO. 47 — GRID NO. 8 & 9.

ELECTION DISTRICT: 6 — HOWARD COUNTY, MARYLAND

OWNER / DEVELOPER

SK HOMES @ EMERSON II
10705 CHARTER DRIVE, SUITE 320
COLUMBIA, MD 21044
TEL: (410) 997-7400 FAX: (410) 997-6305

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410.872.8550 · metro 301.621.0145 · fax 410.872.8553

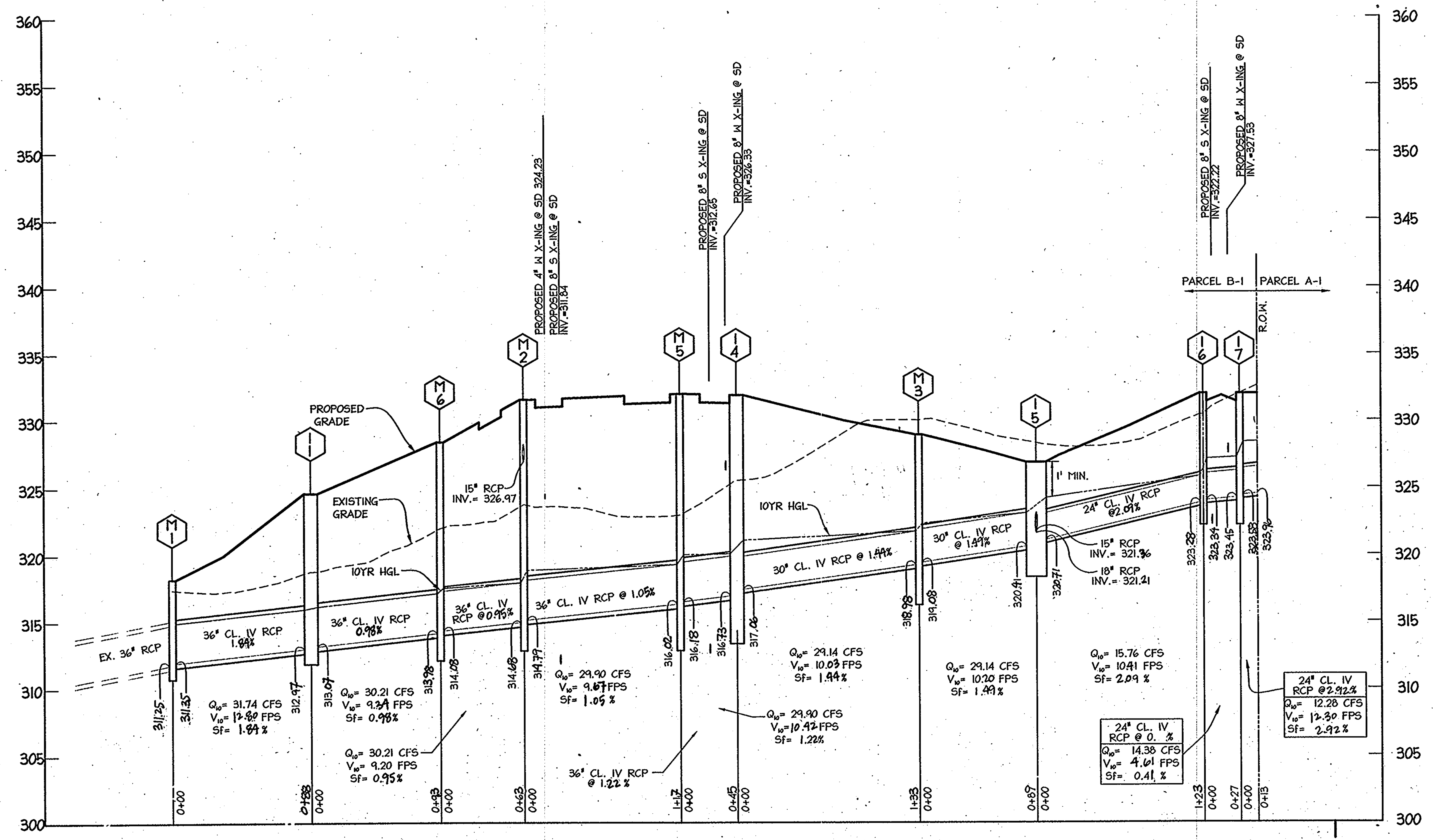
JUNE FLOWERS WAY
EMERSON
SECTION 2, PHASE 6A
BUILDABLE LOTS 92 THRU 124 HOA OPEN SPACE LOTS 125-127
A RESUBDIVISION OF BULK PARCEL B-1 AND A REVISION OF OPEN SPACE LOT 1
PLAT NO. 17678

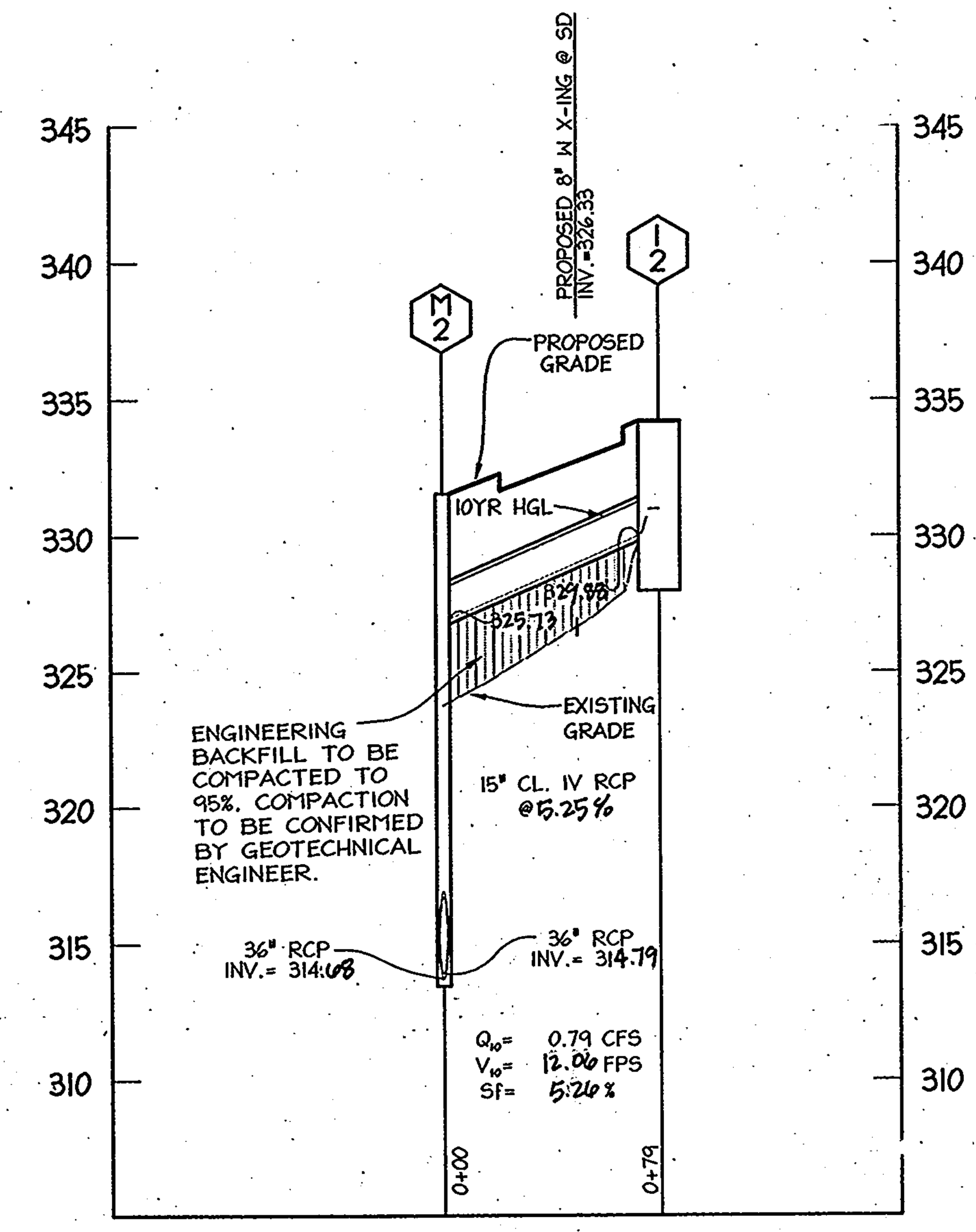
TITLE: AS-BUILT
TYPICAL ROAD SECTIONS AND DETAILS

DESIGN: XDF	SCALE: AS SHOWN	PROJECT: 04101.00
DRAWN: ADL	DATE: 9-18-06	3 OF 9
CHECKED: E.A.M	APPROVED:	

F-06-143

HDC-309





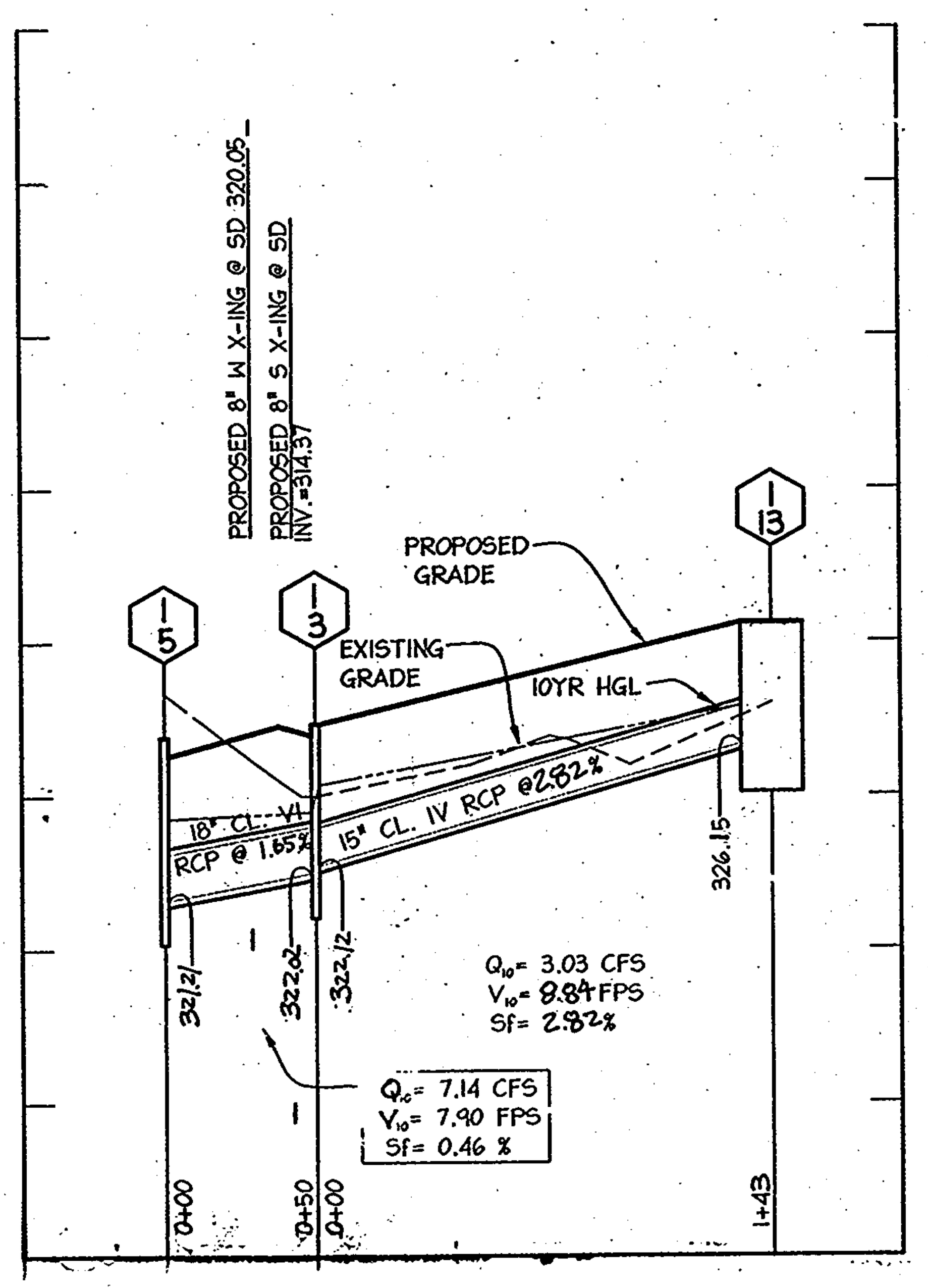
AS-BUILT CERTIFICATION

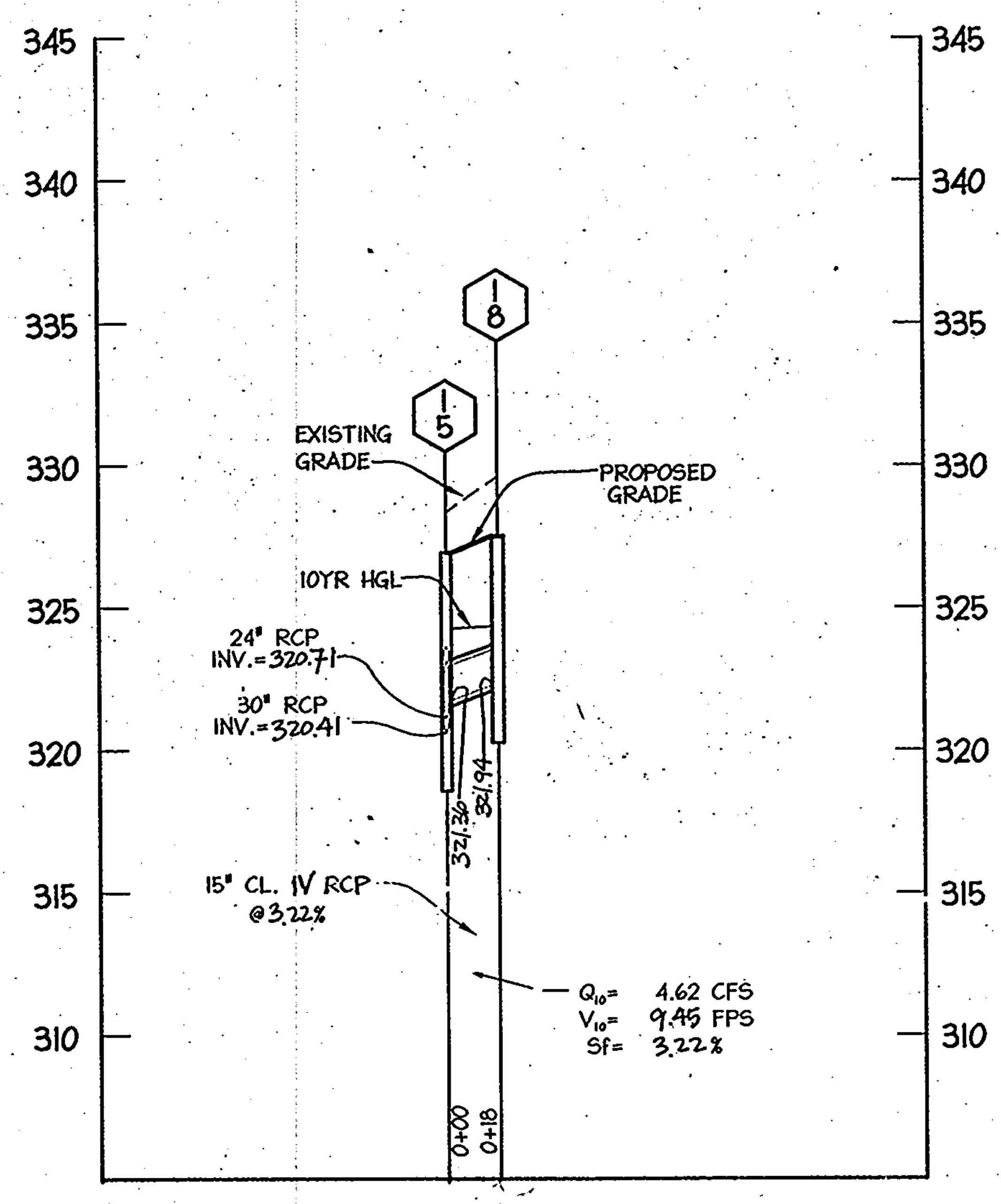
I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS BUILT" PLAN MEET THE APPROVED PLANS AND SPECIFICATIONS.

PAUL L. COON
PROPERTY LINE SURVEYOR
MD REG. #562

9.12.12
DATE

STATE OF MARYLAND · PAUL LEROY COON · No. 562 · REGISTERED PROPERTY LINE SURVEYOR





STRUCTURE SCHEDULE

STRUCTURE	TYPE	LOCATION	INV. IN	INV. OUT	TOP	REMARKS
I-1	A-10 4' WIDE	193.13 RT OF ℄ 0+84.65 JUNE FLOWERS WAY	313.07(36")	312.97(36")	325.32	MODIFIED HOCO STD. DETAIL SD-4.41
I-2	A-10 4.0' WIDE	37.62 LT OF ℄ 0+76.35 JUNE FLOWERS WAY	-	329.88(15")	333.73	MODIFIED HOCO STD. DETAIL SD-4.41
I-3	A-10 2.5' WIDE	12.00 RT OF ℄ 4+40.02 JUNE FLOWERS WAY	322.12 (15")	322.02(18")	327.33	HOCO STD. DETAIL SD-4.41
I-4	A-10 4.0' WIDE	12.00 LT OF ℄ 1+88.02 JUNE FLOWERS WAY	317.06(30")	316.73(36")	331.88	MODIFIED HOCO STD. DETAIL SD-4.41
I-5	A-10 4.0' WIDE	32.00 LT OF ℄ 4+27.88 JUNE FLOWERS WAY	320.71(24") 321.36(15") 321.21(18")	320.41(30")	326.82	MODIFIED HOCO STD. DETAIL SD-4.41
I-6	SHA COG 4.0' WIDE	12.00 RT OF ℄ 2+91.02 SCENTLESS ROSE WAY	323.34(24")	323.28 (24")	331.46	SHA 15' COG INLET DETAIL MD 374.51
I-7	SHA COG 4.0' WIDE	12.00 LT OF ℄ 2+91.02 SCENTLESS ROSE WAY	323.58 (24")	323.45(24")	331.44	SHA 15' COG INLET DETAIL MD 374.51
I-8	TYPE "D" INLET	N 536064.53 E 1353404.03	-	321.94 (15")	327.09	HOCO STD DETAIL SD-4.39 (4 THROATS OPEN)
I-13	SHA COG 4.0' WIDE	12.00 RT OF ℄ 5+88.29 JUNE FLOWERS WAY	-	326.15 (15")	330.60	SHA 20' COG INLET DETAIL MD 374.51
M-1	5' MANHOLE	N 535662.46 E 1353144.45	311.35 (36")	311.25 (EX. 36")	318.80	HOCO STD DETAIL G-5.13
M-2	5' DROP MANHOLE	N 535915.84 E 1353113.22	314.79(36") 325.73(15")	314.68 (36")	331.66	SHA STD DROP MANHOLE DETAIL MD 383.11
M-3	5' MANHOLE	N 535979.80 E 1353368.62	319.08(30")	318.98(30")	328.81	HOCO STD DETAIL G-5.13
M-5	5' MANHOLE	N 535926.91 E 1353228.34	316.18 (36")	316.02 (36")	332.42	HOCO STD DETAIL G-5.13
M-6	5' MANHOLE	N 535855.69 E 1353096.42	314.08(36")	313.98(36")	328.53	HOCO STD DETAIL G-5.13

NOTES:
1. LOCATION OF TYPE "D" INLET AND MANHOLES ARE AT THE CENTER OF TOP COVER FOR "A" INLETS LOCATION GIVEN FOR CENTER OF OPENING AT FACE OF CURB.
2. SEE SHEET 6 FOR MODIFIED HOCO PRECAST STANDARD TYPE A-10 INLET (SD-4.41).

PIPE SCHEDULE

SIZE	PIPE LENGTH	TYPE
15"	240'	CL. IV RCP
18"	49'	CL. IV RCP
24"	163'	CL. IV RCP
30"	222'	CL. IV RCP
36"	406'	CL. IV RCP

APPROVED: DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Highways — Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 10/19/06

Chief, Development Engineering Division — Date 10/10/06

Date	No.	Revision Description
		LOT NUMBERS REVISED TO REFLECT CHANGES MADE TO F-10-024
10/10	1	REMOVE SCENTLESS ROSE WAY FROM CONTRACT

PERTINENT INFO:

TAX MAP NO. 47 — GRID NO. 8 & 9.

ELECTION DISTRICT: 6 — HOWARD COUNTY, MARYLAND

OWNER / DEVELOPER

SK HOMES @ EMERSON II
10705 CHARTER DRIVE, SUITE 320
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STATE OF MARYLAND · ROBERT CHARLES EITEL · PROFESSIONAL ENGINEER

12/2/10 ΔONLY

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7172 columbia gateway drive (suite 100) · columbia, md 21046 2990
410 872 8690 · metro 301 881 0148 · fax 410 872 8693

9-18-06
DATE

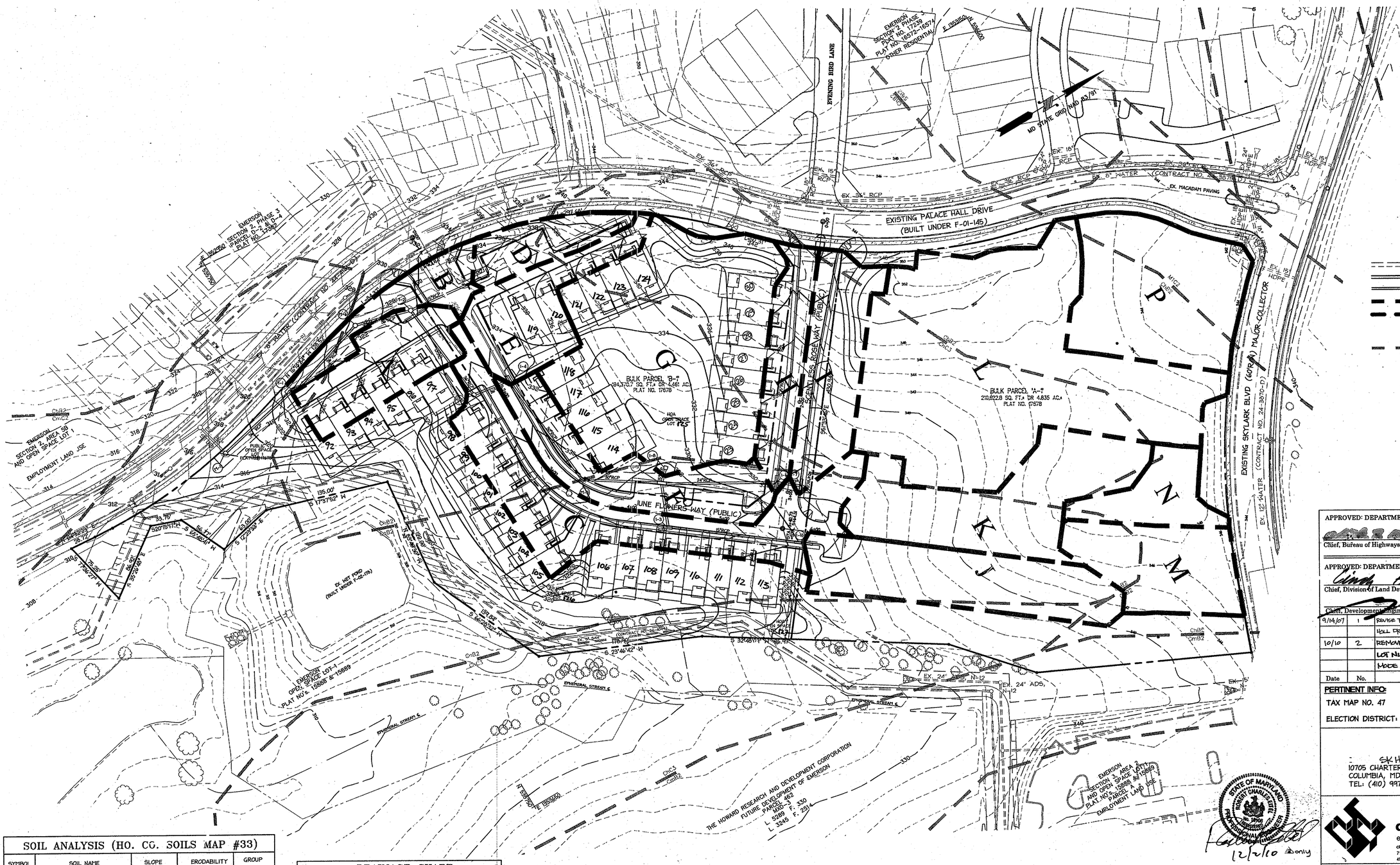
STATE OF MARYLAND · BRIAN A. MASTERICH · No. 32589 · PROFESSIONAL ENGINEER

JUNE FLOWERS WAY
EMERSON
SECTION 2 , PHASE 6A
BUILDABLE LOTS 92 THRU 124, HOA OPEN SPACE LOTS 125-127
A RESUBDIVISION OF BULK PARCEL B-1 AND A REVISION OF OPEN SPACE LOT1
PLAT NO. 17673

TITLE: AS-BUILT
STORMDRAIN PROFILES

DESIGN: XF	SCALE: 1"=50' H 1"=5' V	PROJECT: 049101.00
DRAWN: ADL	DATE: 9-18-06	4 OF 9
CHECKED: BAM	APPROVED:	

MDC-309



LEGEND

═ ═ ═	EXISTING CONTOURS
══════	PROPOSED CONTOURS
══▭══	PROPOSED STORM DRAIN
▬ ▬ ▬	OFF-SITE DRAINAGE AREA DIVIDE
▬ ▬ ▬	PROPOSED DRAINAGE AREA DIVIDE PARCEL 'B-1'
☼	STREET LIGHT
GnB2 ▨ ChB2	SOIL BOUNDARY

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

SYMBOL	SOIL NAME	SLOPE	ERODABILITY	GROUP
Ba	BAILE SILT LOAM	0% TO 3%	MODERATELY	D
BeB2	BELTSVILLE FINE SANDY LOAM	2% TO 5%	MODERATELY	C
ChB2	CHESTER SILT LOAM	3% TO 8%	MODERATELY	B
ChC3	CHESTER SILT LOAM	8% TO 15%	SEVERLEY	B
CmB2	CHILLUM SILT LOAM	1% TO 5%	MODERATELY	B
CmC2	CHILLUM SILT LOAM	5% TO 10%	MODERATELY	B
CnB2	CHILLUM-FAIRFAX LOAMS	1% TO 5%	MODERATELY	B
GnB2	GLENVILLE SILT LOAM	3% TO 8%	MODERATELY	C
MIC2	MANOR LOAM	8% TO 15%	MODERATELY	B
SfB2	SASSAFRAS GRAVELLY SANDY LOAM	1% TO 5%	MODERATELY	B

DRAINAGE CHART

INLET #	D.A.* DESIGNATION	D.A. (ACRES)	'C' FACTOR	PERCENT IMPERVIOUS (%)
I-1	A	0.30	0.73	80
I-2	D	0.17	0.54	53
I-3	C	0.70	0.62	64
I-4	E	0.32	0.55	53
I-5	F	0.39	0.59	56
I-6	H	0.24	0.73	79
I-7	I	0.36	0.73	81
OFF-SITE	B	0.19	0.40	16
I-8	G	1.24	0.44	31
I-13	J	0.49	0.73	80

* D.A. = DRAINAGE AREA

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

Paul L Coon 9.12.12
PAUL L. COON
PROPERTY LINE SURVEYOR
MD REG. #562
DATE

PAUL LEROY COON No. 562

12/2/10 ② only

9-18-06
DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS

[redacted]
Chief, Bureau of Highways
[redacted]
Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Cindy Hamm
Chief, Division of Land Development
10/10/06
Date

Chief, Development Engineering Division
Date

Date	No.	Revision Description
9/14/07	1	REVISE THE RADIUS AT JUNE FLOWERS WAY AND PALACE
		HALL DRIVE AND CONCRETE ISLAND BETWEEN STA 0+20 AND 0+70
10/10	2	REMOVE SCENTLESS ROSE WAY FROM CONTRACT
		LOT NUMBERS REVISED TO REFLECT CHANGES
		MADE TO F-10-024

PERTINENT INFO:

TAX MAP NO. 47 GRID NO. 8 & 9.

ELECTION DISTRICT: 6 HOWARD COUNTY, MARYLAND

OWNER / DEVELOPER

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410.872.8690 · metro 301 881 0148 · fax 410 872 3693

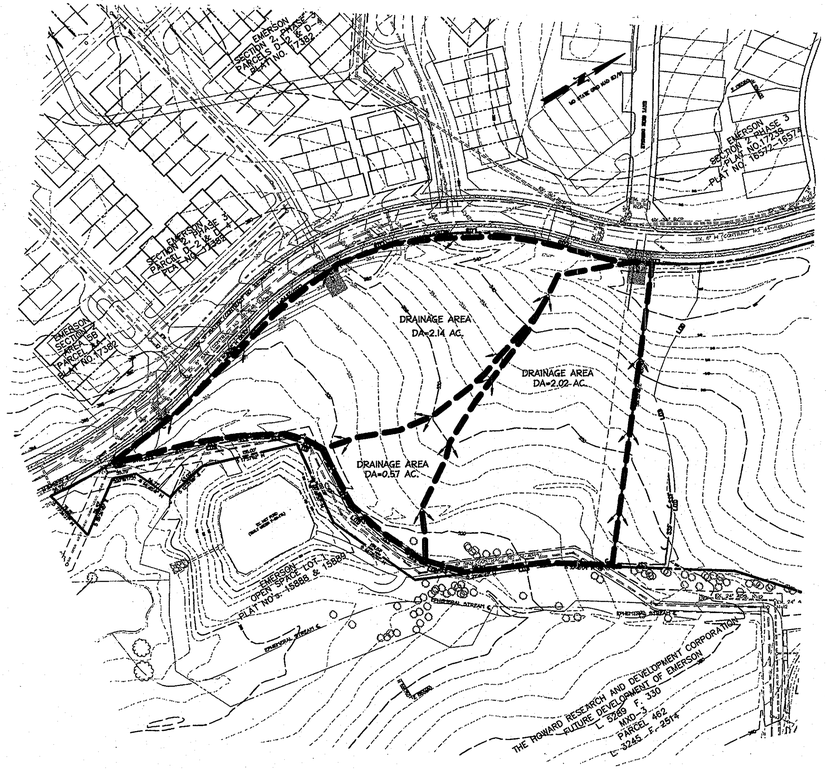
JUNE FLOWERS WAY
EMERSON
SECTION 2 , PHASE 6A
BUILDABLE LOTS 92 THRU 124 HOA OPEN SPACE LOTS 125-127 &
A RESUBDIVISION OF BULK PARCEL B-1 AND A REVISION OF OPEN SPACE LOT1
PLAT NO. 17678

TITLE: AS-BUILT
STORM DRAINAGE AREA MAP

DESIGN: XDF	SCALE: 1"=50'	PROJECT: 049101.00
DRAWN: ADL	DATE: 9-18-06	5 OF 9
CHECKED: BAM	APPROVED:	

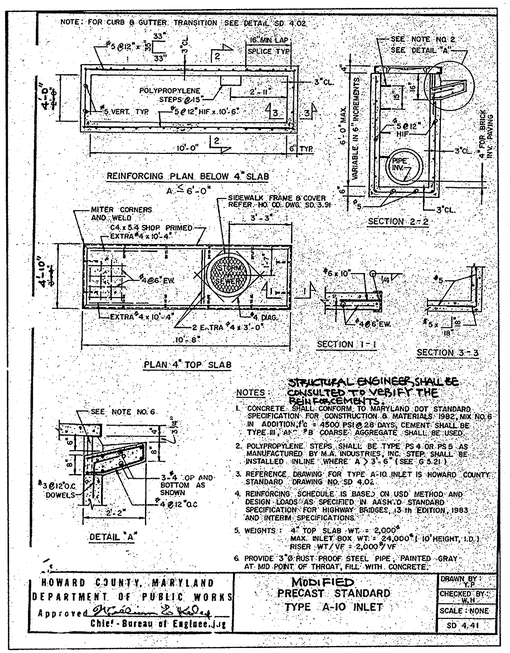
F-06-143

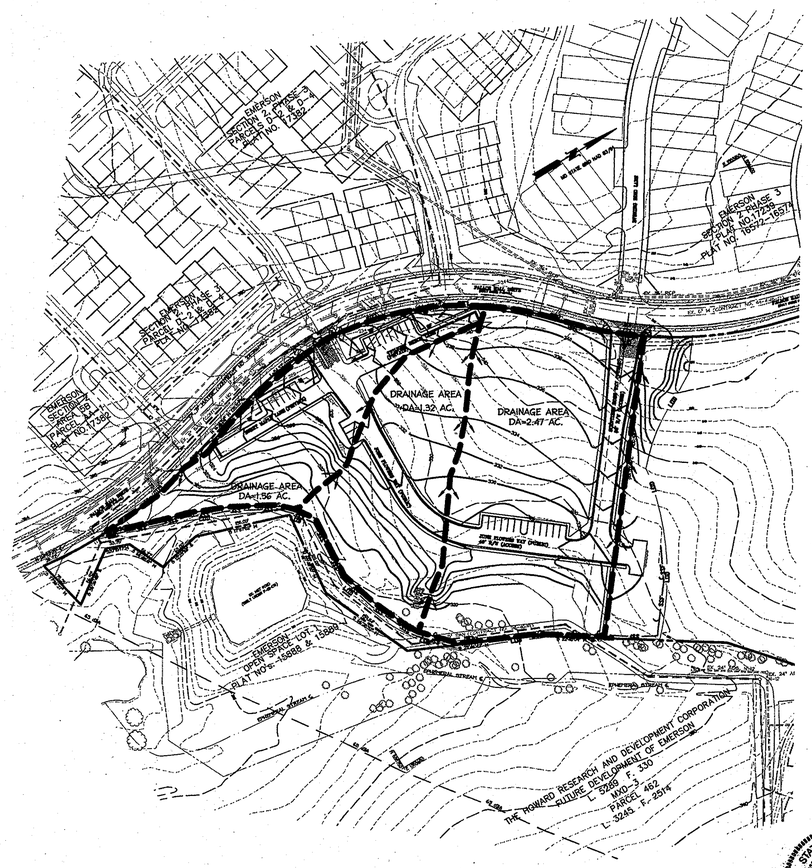
MDC-309



E&S PRE DEVELOPMENT DRAINAGE AREA MAP

SCALE: 1" = 100'





E&S POST DEVELOPMENT DRAINAGE AREA MAP

SCALE: 1" = 100'

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

Paul L. Coon 9.18.12
PAUL L. COON DATE
PROPERTY LINE SURVEYOR
MD REG. #762

STATE OF MARYLAND
PAUL LEROY COON
No. 762
REGISTERED
PROPERTY LINE SURVEYOR

12/2/10 Sony

9-18-06
DATE

STATE OF MARYLAND
BRIAN A. MASTERVICH
No. 32589
PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Highways — Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 10/11/06

Chief, Development Engineering Division — Date 11/28/06 A.S.

Date	No.	Revision Description
9/14/07	1	REVISE THE RADIUS AT JUNE FLOWERS WAY AND PALACE HALL DRIVE AND CONCRETE ISLAND BETWEEN STA. 0+20 AND 0+70
10/10	2.	REMOVE SCENTLESS ROSE WAY FROM CONTRACT

PERTINENT INFO:

TAX MAP NO. 47 — GRID NO. 8 & 9.

ELECTION DISTRICT: 6 — HOWARD COUNTY, MARYLAND

OWNER / DEVELOPER

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410.872.6930 · metro 301.881.6148 · fax 410.872.6935

JUNE FLOWERS WAY
EMERSON
SECTION 2, PHASE 6A
BUILDABLE LOTS 92 THRU 124 HOA OPEN SPACE LOTS 125-127
A RESUBDIVISION OF BULK PARCEL B-1 AND A REVISION OF OPEN SPACE LOT 1
PLAT NO. 17678

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

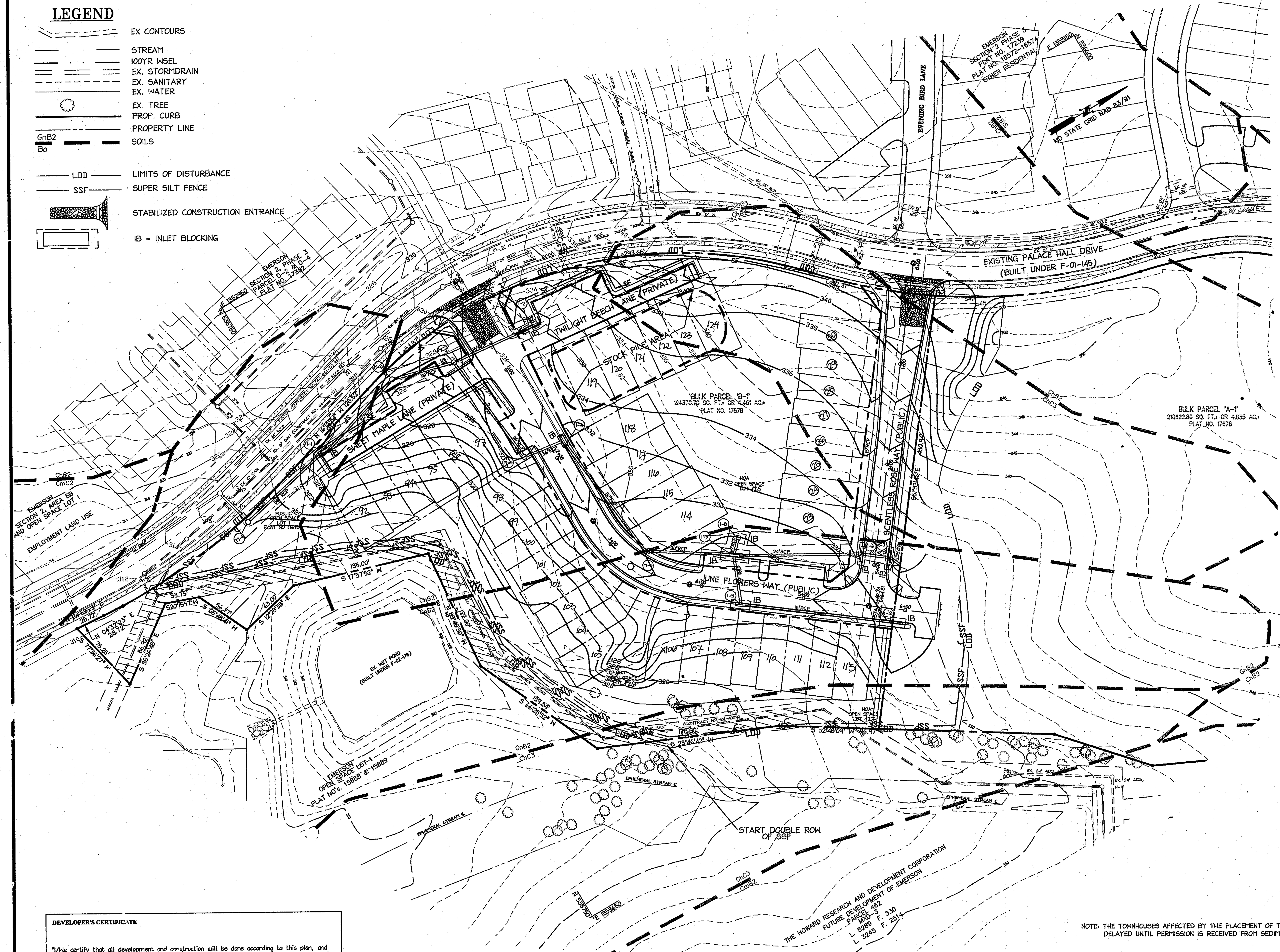
DESIGN: XDF	SCALE: 1"=100'	PROJECT: 049101.00
DRAWN: ADL	DATE: 9-18-06	6 OF 9
CHECKED: BAM	APPROVED:	

MDC-309

F-06-143

LEGEND

- EX CONTOURS
- STREAM
- 100YR WSEL
- EX. STORMDRAIN
- EX. SANITARY
- EX. WATER
- EX. TREE
- PROP. CURB
- PROPERTY LINE
- GnB2 / Bo — SOILS
- LOD — LIMITS OF DISTURBANCE
- SSF — SUPER SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- IB = INLET BLOCKING



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

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

PAUL L. COON
PROPERTY LINE SURVEYOR
MD REG. #862

9.12.12
DATE

DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

Signature of Developer — Date: 9.19.06

M. STEVEN APPLER
Print name below signature

ENGINEER'S CERTIFICATE

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

Signature of Engineer — Date: 9-18-06

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

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

USDA-Natural Resources, Conservation Service — Date: 9/25/06

This development plan is approved for soil erosion and sediment control by The HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — Date: 9/25/06

12/2/10 ONLY

9-18-06
DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Highways — Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date: 10/10/06

Chief, Development Engineering Division — Date

Date	No.	Revision Description
9/14/07	1	REVISE THE RADIUS AT JUNE FLOWERS WAY AND PALACE HALL
		DRIVE AND CONCRETE ISLAND BETWEEN STA. 0+20 AND 0+70.
10/2010	2	REMOVE SCENTLESS ROSE WAY FROM CONTRACT
		LOT NUMBERS REVISED TO REFLECT CHANGES
		MADE TO F-10-024

PERTINENT INFO:

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

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JUNE FLOWERS WAY
EMERSON
SECTION 2 , PHASE 6A
BUILDABLE LOTS 92 THRU 124 HOA OPEN SPACE LOTS 125-127
A RESUBDIVISION OF BULK PARCEL B-1 AND A REVISION OF OPEN SPACE LOT1
PLAT No. 17678

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

DESIGN: XDF	SCALE: 1"=50'	PROJECT: 049101.00
DRAWN: ADL	DATE: 9-18-06	7 OF 9
CHECKED: BAM	APPROVED:	

F-06-143

MDC-309

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 surrounding 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:

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

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

3. Reverse benches shall be provided whenever the vertical interval (height) of any 2:1slopes 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.

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

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

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

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

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

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

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

5. Cut slopes occurring in 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 or the cut slope. The nominal slope line s 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 and better slope stabilization. Over land flow shall be diverted from the top of all serrated cut slopes and carried to a suitable outlet.

6. Surface drainage shall be provided where necessary to intercept seepage that would otherwise adversely affect slope stability or create excessively wet site conditions.

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

8. Fill material shall be free of brush, rubish, 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 mechanical tampers over eight (8) inches in diameter where compacted by rollers or other equipment. Frozen material shall not be placed in the fill nor shall the fill material be placed on a frozen foundation.

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

All disturbed areas shall be stabilized structurally or vegetatively in compliance with 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. Soild of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies

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

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

   b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.

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

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

For the purpose of these Standards and Specification, areas having slopes steeper that 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper that 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

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

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

   i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall bot be a mixture of contrastinf textured suosoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials large than 1 ? ? in diameter.

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

   iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread to the rate of 4-8 tons/acre (200-400 pounds per 1,000square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked in to the soil in conjunction with tillage operations as described in the following procedures.

For sites having disturbed areas under 5 acres:

Place topsoil (if required) and apply soil amendments as specified in 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.

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

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

   c. Topsoil having soluble salt content grater then 500 parts per million shall not be used.

   d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 day min.) to permit dissipation of phyto-toxic materials.

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

Place topsoil (if required) and apply soil amendments as specified on 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 uniformy 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 place 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 like and commercial fertilizer, composted sludge and amendments mat be applied as specified below:

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

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

   b. Composted sludge shall contain as 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.

   c. 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 Extention Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

30.0 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 wher in and off-site damage is likely without treatment.

Specifications

Temporary Methods

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

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

3. Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12" apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.

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

5. Barriers - Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar materials can be used to control air currents and soil blowing. Barriers placed at right angles to trevailing currents at intervals of about 10 times their height are effective in controlling soil blowing.

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

Permanent Methods

1. Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.

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

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

References

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

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

PERMANENT SEEDING NOTES

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

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:
1. Preferred--Apply 2 tons/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 600 lbs/acre 10-10-10
   fertilizer (14 lbs/1000 sq. ft.) before seeding. 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.)
2. Acceptable--Apply 2 tons/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 1000 lbs/acre 10-10-10
   fertilizer (23 lbs/1000 sq. ft.) before seeding. 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 16 -- February 28, protect site by:
   Option 1 - Two tons per acre of well anchored straw mulch and seed as soon as possible in the spring.
   Option 2 - Use sod. Option 3 -- Seed with 60 lbs/acre Kentucky 30 Tall Fescue and mulch with
   2 tons/acre well anchored straw.

Mulching -- Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq. ft.) for anchoring.

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

TEMPORARY SEEDING NOTES.

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

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 28 protect the site by applying 2 tons/acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: -- Apply 1-1/2 to 2 tons/acre (70 to 90 lbs/1000 sq. ft.) of unrotted weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 ft. or higher, use 348 gal. per acre (8 gal/1000 sq. ft.)for anchoring.

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

DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan, and that 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 — 9-19-06 Date

M. STEVEN APPLER
Print name below signature

ENGINEER'S CERTIFICATE

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

Signature of Engineer — 9/18/06 Date

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

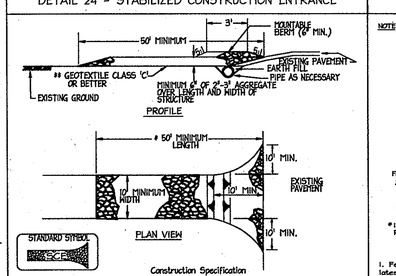
REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

USDA-Natural Resources Conservation Service — 9/25/06 Date

This development plan is approved for soil erosion and sediment control by The HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — 9/25/06 Date

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE

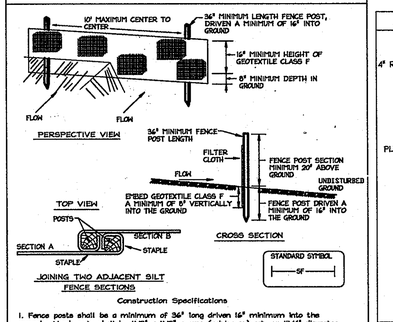


Construction Specification

1. Length - minimum of 50' (*30' for single residence lot).
2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.
4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

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

DETAIL 22 - SILT FENCE



Construction Specifications

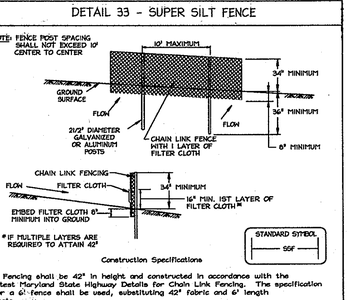
1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.
2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft ²/minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
4. Silt Fence shall be inspected after each rainfall event and maintained when

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

DETAIL 33 - SUPER SILT FENCE



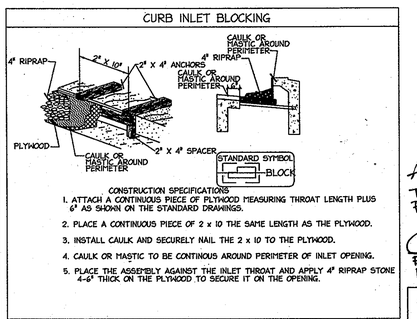
Construction Specifications

1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
4. Filter cloth shall be embedded a minimum of 8" into the ground.
5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height.
7. Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft ²/minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 25 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

CURB INLET BLOCKING



CONSTRUCTION SPECIFICATIONS
1. ATTACH A CONTINUOUS PIECE OF PLYWOOD MEASURING THROAT LENGTH PLUS 6" AS SHOWN ON THE STANDARD DRAWINGS.
2. PLACE A CONTINUOUS PIECE OF 2 x 10 THE SAME LENGTH AS THE PLYWOOD.
3. INSTALL CAULK AND SECURELY NAIL THE 2 x 10 TO THE PLYWOOD.
4. CAULK OR MASTIC TO BE CONTINOUS AROUND PERIMETER OF INLET OPENING.
5. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND APPLY 4" RIPRAP STONE 4-6" THICK ON THE PLYWOOD TO SECURE IT ON THE OPENING.

SEQUENCE OF CONSTRUCTION

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

HOWARD COUNTY SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

1. A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (313-1855).
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
3. 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.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol 1, Chapter 12 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. All disturbed areas must be stabilized within the time period 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.
6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained by the Howard County Sediment Control Inspector.
7. Site Analysis:
   Total Area of Site 5.51 Acres
   Area Disturbed 4.97 Acres
   Area to be roofed or paved 0.89 Acres
   Area to be vegetatively stabilized 4.08 Acres
   Total Cut 6,754 Cu. Yds.
   Total Fill 18,510 Cu. Yds.
   Offsite waste/borrow area location: N/A
8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9. Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
10. On all site with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of instillation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
11. Trenches 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.

STATE OF MARYLAND — ROBERT CHARLES STEE — No. 16106 — REGISTERED PROFESSIONAL ENGINEER
12/2/10 only

9-18-06
DATE

STATE OF MARYLAND — BRIAN A. MASTERVICH — No. 32589 — PROFESSIONAL ENGINEER

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

Paul A. Coon
PAUL LEROY COON PROPERTY LINE SURVEYOR
MD REG. # 562
9.12.12
DATE

STATE OF MARYLAND — PAUL LEROY COON — No. 562 — REGISTERED PROPERTY LINE SURVEYOR

APPROVED: DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Highways — Date 9-27-06

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 10/10/06

Chief, Development Engineering Division — Date 9-25-06

Date	No.	Revision Description
10/2010	1	REMOVE SCENTLESS ROSE WAY FROM CONTRACT

PERTINENT INFO:

TAX MAP NO. 47 — GRID NO. 8 & 9.

ELECTION DISTRICT: 6 — HOWARD COUNTY, MARYLAND

OWNER / DEVELOPER

SK HOMES @ EMERSON II
10705 CHARTER DRIVE, SUITE 320
COLUMBIA, MD 21044
TEL: (410) 997-7400 FAX: (410) 997-6305

christopher consultants
engineering surveying · land planning
christopher consultants, ltd.
7172 columbia gateway drive (suite 100) · columbia, md 21046 2990
410.872.6800 · metro 301.881.0148 · fax 410.872.6833

JUNE FLOWERS WAY
EMERSON
SECTION 2, PHASE 6A
BUILDABLE LOTS 92 THRU 124 HOA OPEN SPACE LOTS 125-127
A RESUBDIVISION OF BULK PARCEL B-1 AND A REVISION OF OPEN SPACE LOT1 PLAT NO. 17678

TITLE:
EROSION & SEDIMENT CONTROL DETAIL SHEET

DESIGN: XDF	SCALE: AS SHOWN	PROJECT: 049101.00
DRAWN: ADL	DATE: 9-19-06	8 OF 9
CHECKED: BAM	APPROVED:	

MDC-309

F-06-143

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 LCAMA.
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 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 MAINTENTANCE 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 at approved on-site staging area using approved on-site existing soil. Mix minimum quantities of 20 cubic yards or sufficient mix for entire job if less than 20 cubic yards is required.
    b. Thoroughly mixed in the following proportions for tree and shrub planting mix:
       .5 cy existing soil
       .2 cy sharp sand
       .3 cy wood residuals
       4.5 lbs treble superphosphate
       5 lbs dolmonite limestone (eliminate for acid loving plants)
    c. For bed planting, shrubs and groundcover spaces 24 inches or closer, incorporate the following ingredients per 20 sf and incorporate into top 6 inches of existing soils by rototilling or similar method of incorporation.
       .2 cy sharp sand
       .3 cy organic material
       4.5 lbs treble superphosphate
       5 lbs dolmonite limestone (eliminate for acid loving plants)
12. ALL INTERNAL AND PERIMETER LANDSCAPING REQUIREMENTS FOR THIS PROJECT ARE TO BE ADDRESSED AND PROVIDED UNDER SDP-06-90.

LEGEND

- EX CONTOURS
- STREAM
- 100YR WSEL
- EX. STORMDRAIN
- EX. SANITARY
- EX. WATER
- EX. TREE
- PROP. CURB
- PROPERTY LINE
- PROP. STREET LIGHT
- PROP. STREET TREE (39 - ZS)
- PROP. STREET TREE (25 - PS)
- EX. STREET TREE PALACE HALL DRIVE (PER F-01-145)

STATE OF MARYLAND — PAUL LEROY COON — No. 865 — REGISTERED PROPERTY LINE SURVEYOR

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

Paul L. Coon — 9.12.12
PAUL L. COON — DATE
PROPERTY LINE SURVEYOR
MD REG. #662

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 — 9.19.06 DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
Chief, Bureau of Highways — 9-28-06 Date

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

Date	No.	Revision Description
9/14/07	1	REVISE THE RADIUS AT JUNE FLOWERS WAY AND PALACE HALL DRIVE, AND CONCRETE BLAND BETWEEN STA. 0+20 AND 0+70
10/2/10	2.	REMOVE SCENTLESS ROSE WAY FROM CONTRACT
		LOT NUMBERS REVISED TO REFLECT CHANGES
		MADE TO F-10-024

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

OWNER / DEVELOPER
SK HOMES@ EMERSON II
10705 CHARTER DRIVE, SUITE 320
COLUMBIA, MD 21044
TEL: (410) 997-7400 FAX: (410) 997-6305

christopher consultants
engineering · surveying · land planning
christopher consultants, ltd.
7172 columbia gateway drive (suite 100) · columbia, md. 21046-2990
410.872.8550 · metro 301.881.0146 · fax 410.872.8553

JUNE FLOWERS WAY
EMERSON
SECTION 2 , PHASE 6A
BUILDABLE LOTS 92 THRU 124, HOA OPEN SPACE LOTS 125-127
A RESUBDIVISION OF BULK PARCEL B-1 AND A REVISION OF OPEN SPACE LOT 1
PLAT NO. 17678

TITLE: AS-BUILT
STREET TREE AND LIGHTING PLAN

DESIGN:	SCALE: 1" = 50'	PROJECT: 04910L.00
DRAWN:	DATE: 9-18-06	9 OF 9
CHECKED:	APPROVED:	

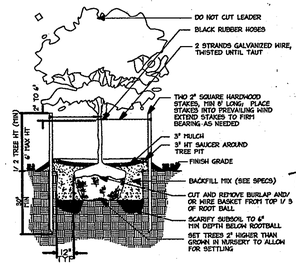
MDC-309

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	1045 L.F.	26	29
SCENTLESS ROSE WAY	580 L.F.	14	15
SWEET MAPLE LANE	3'0 L.F.	10	10
TWILIGHT BEECH LANE	370 L.F.	10	10

PLANT LIST:

SYMBOL	LATIN NAME	COMMON NAME	QUANTITY	SIZE	REMARKS
ZS	Zelkova Serrata 'Green Vase'	'Green Vase' Japanese Zelkova	39	2½" - 3"caliper	B&B
PS	Prunus Sargentii 'Columnaris'	'Columnaris' Sargent Cherry	25	8' - 10' Hgt.	B&B



A Tree Planting Detail
Not To Scale

STATE OF MARYLAND — ROBERT CHARLES STEE — No. 19126 — REGISTERED LANDSCAPE ARCHITECT — 12/1/10 ONLY

LANDSCAPE ARCHITECT — LICENSE No. 3249 — 12.1.2010 — LEWANDA N. GIBBS — STATE OF MARYLAND

9-18-2006
DATE

STATE OF MARYLAND — ANNA MARIA COLLINS — No. 9171 — REGISTERED LANDSCAPE ARCHITECT

F-06-143