

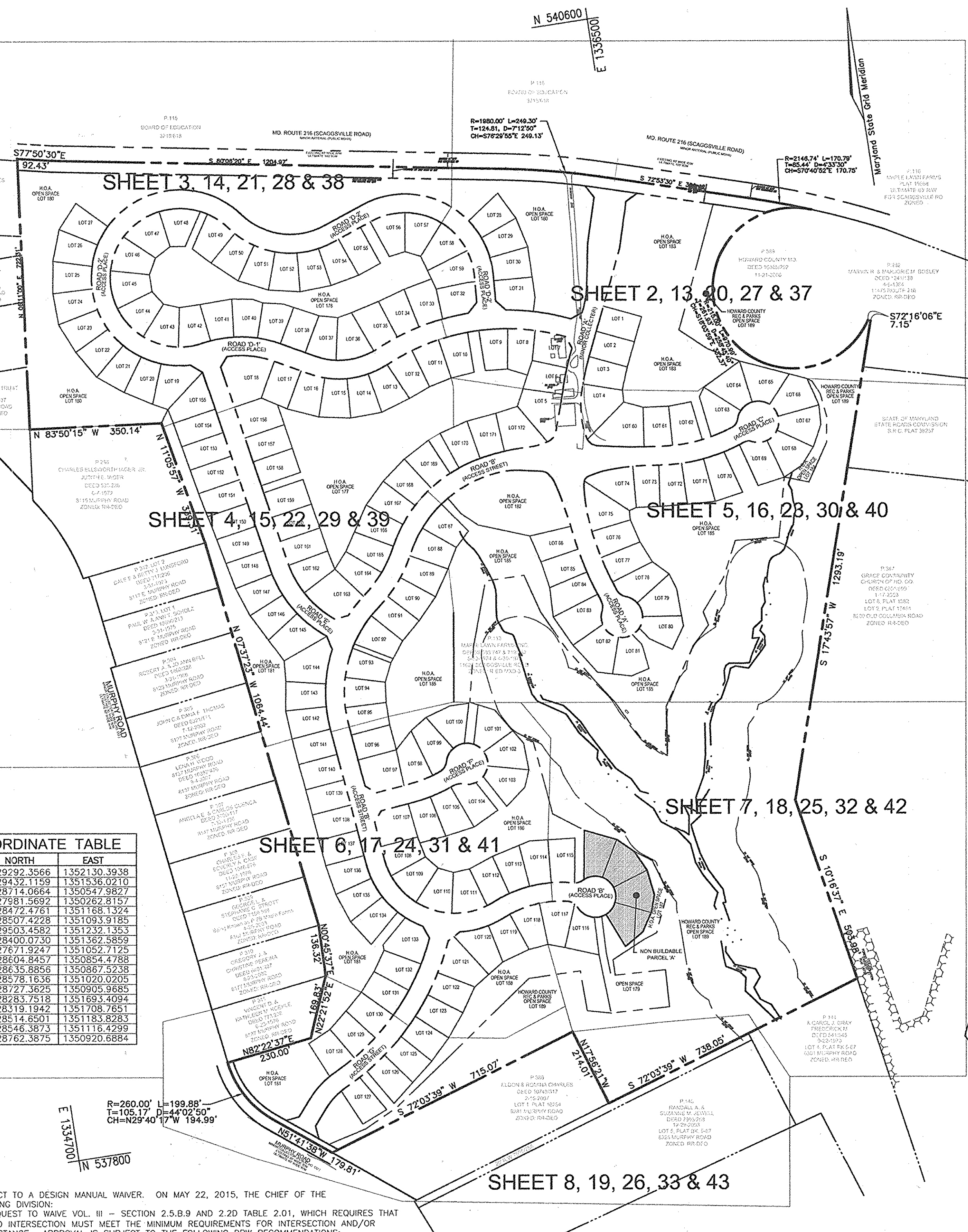
GENERAL NOTES

- 1. PROJECT BACKGROUND:
SUBDIVISION NAME: MAPLE LAWN SOUTH - DENSITY TABULATION
TAX MAP 46 GRID 2
SECTION/AREA: N/A
LOT/FARCE: P. 113
ZONING: R-ED-MXD-3
28/BA REFERENCE: N/A
ELECTION DISTRICT: WITH
TOTAL TRACT AREA: 91.31 ACRES
SECTION/AREA: N/A
NUMBER OF PROPOSED LOTS: 176 SFD / 13 O.S. LOTS
NET AREA OF PROJECT: 90.17 ACRES
2. THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.

PRELIMINARY EQUIVALENT SKETCH PLAN
MAPLE LAWN SOUTH
SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
(FUTURE LOTS 173-176)
AND OPEN SPACE LOTS 177-189
HOWARD COUNTY, MARYLAND

MAPLE LAWN SOUTH - DENSITY TABULATION
Table with columns: TOTAL SUBDIVISION AREA (GROSS AREA), FLOODPLAIN, STEEP SLOPES, NET AREA, UNITS PERMITTED BY NET, UNITS PROPOSED

MAPLE LAWN SOUTH APPO PHASING
Table with columns: PHASE, ALLOCATION, TOTAL NO. OF ALLOCATIONS

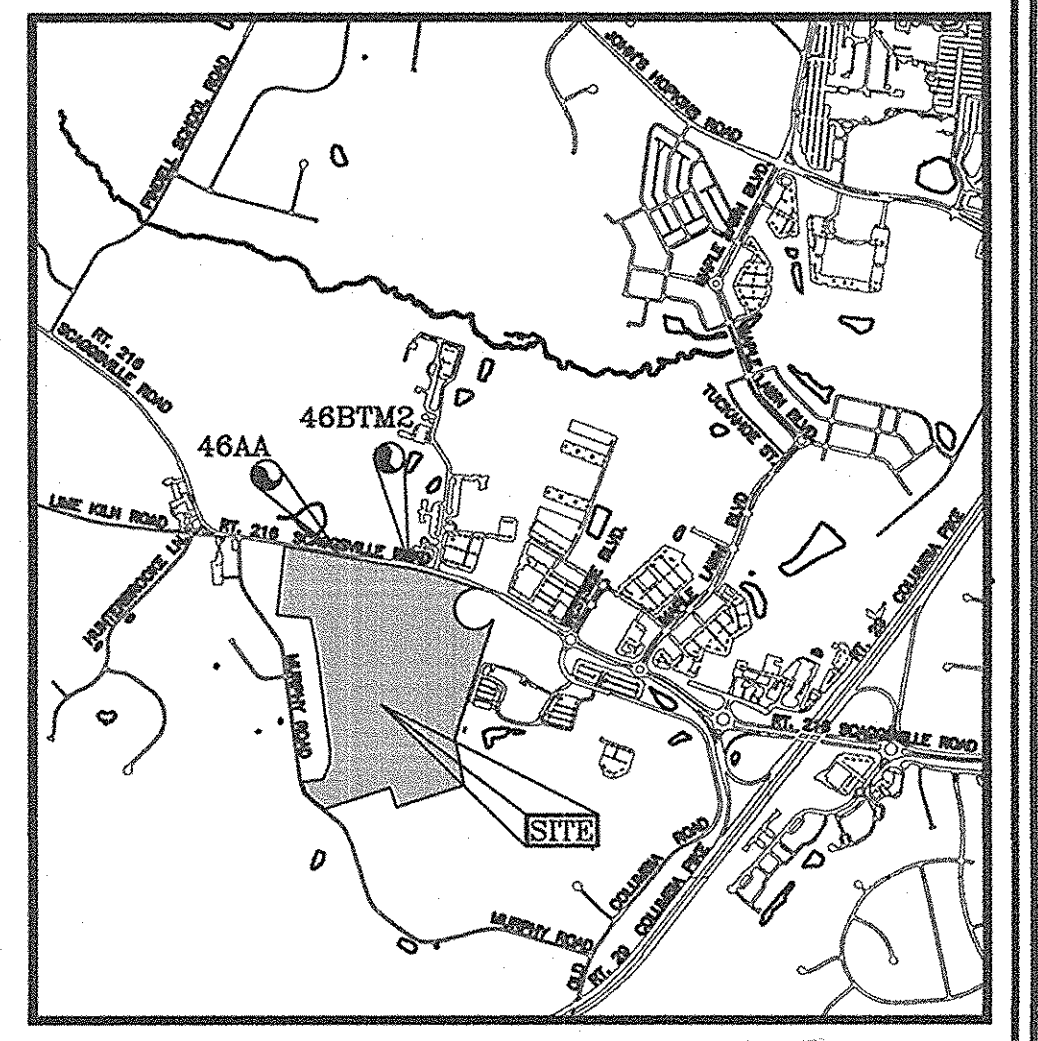
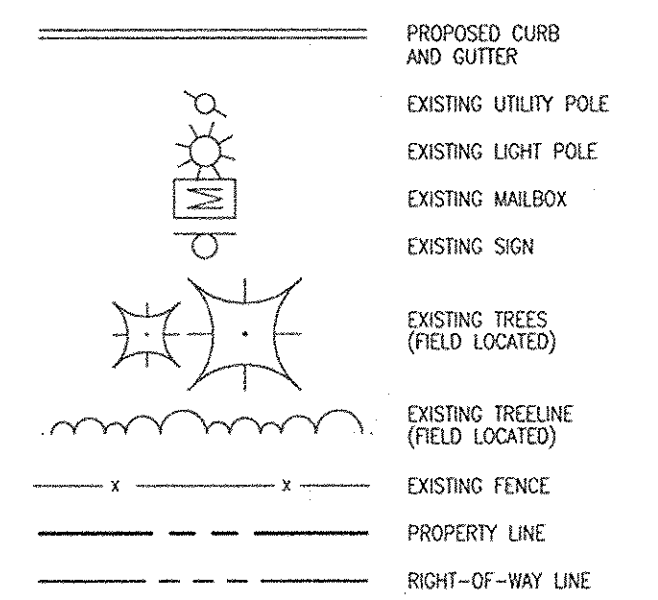


COORDINATE TABLE
Table with columns: NO., NORTH, EAST

BENCHMARKS

HOWARD COUNTY BENCHMARK 46AA
N 540,396.42 E 1,333,505.31 ELEV.: 447.01 FT.
RT. 216, 33.2' WEST OF BG & E POLE#315163

LEGEND:



VICINITY MAP
SCALE: 1"=2000'
ADC MAP COORDINATES: 18 H 5, 6 J 5, 6

OPEN SPACE TABULATION:

IN ACCORDANCE WITH SECTION 16.121(A)(2) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS
THE OPEN SPACE REQUIREMENTS FOR THIS R-ED-MXD-3 PROJECT IS 50% OF GROSS AREA (91.31 AC. GROSS AREA x 50% = 45.66 AC.)

SHEET INDEX
Table with columns: DESCRIPTION, SHEET NO.

PARKING TABULATION:

TOTAL NUMBER OF DWELLING UNITS PROPOSED: 176
OFF-STREET PARKING SPACES REQUIRED: 2 SPACES PER UNIT = 352 SPACES

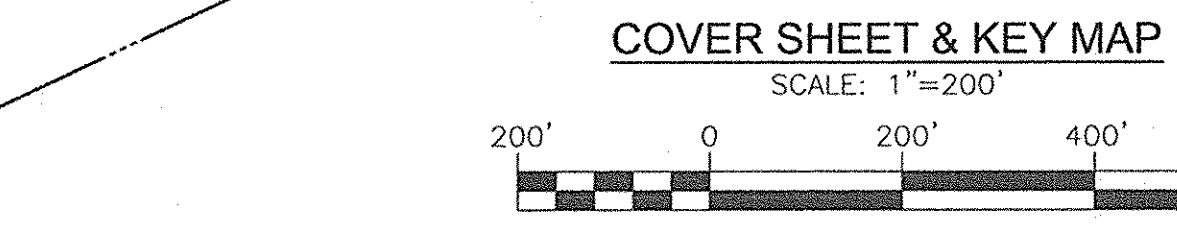
SITE ANALYSIS DATA CHART

Table with columns: A. TOTAL PROJECT AREA, B. AREA OF PLAN SUBMISSION, C. AREA OF WETLANDS AND BUFFERS, D. AREA OF FLOODPLAIN, E. AREA OF FOREST, F. AREA OF STEEP SLOPES (15% & GREATER), G. ERODIBLE SOILS, H. LIMIT OF DISTURBED AREA, I. PROPOSED USES FOR SITE AND STRUCTURES, J. GREEN OPEN AREA, K. PROPOSED INTERFEROUS AREA, L. PRESENT ZONING DESIGNATION, M. OPEN SPACE REQUIRED, N. TOTAL NUMBER OF UNITS ALLOWED, O. TOTAL NUMBER OF UNITS PROPOSED, P. DPZ FILE REFERENCES

OWNER: MAPLE LAWN FARMS, INC.
DEVELOPER: MAPLE LAWN PARTNERS, LLC

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY
APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE: 9-19-15

- 33. TRAFFIC CONTROL DEVICES:
A. THE R1-(STOP) SIGNS AND STREET NAME SIGN (SNS) ASSEMBLIES FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETE.
34. STREET LIGHTING IS REQUIRED FOR THIS SITE IN ACCORDANCE WITH SECTION 16.135 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.



PRELIMINARY EQUIVALENT SKETCH PLAN
COVER SHEET & KEY MAP
MAPLE LAWN SOUTH
SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
AND OPEN SPACE LOT 177-189

TAX MAP 46 - GRID 2 - PARCEL 113
ZONED: R-ED-MXD-3
HOWARD COUNTY, MARYLAND
DPZ REF: ECP-14-093, WP-15-136, PB#415

ROBERT H. VOGEL ENGINEERS & SURVEYORS - PLANNERS
PROFESSIONAL CERTIFICATE
DESIGN BY: RHV/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHY
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34
1 SHEET OF 45

LEGEND:

- ===== EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- ⊙ EXISTING UTILITY POLE
- ⊙ EXISTING LIGHT POLE
- ⊙ EXISTING MAILBOX
- ⊙ EXISTING SIGN
- ⊙ EXISTING SANITARY MANHOLE
- ⊙ EXISTING SANITARY LINE
- ⊙ EXISTING CLEANOUT
- ⊙ EXISTING FIRE HYDRANT
- ⊙ EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- ⊙ EXISTING TREES
- EXISTING TREELINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- PROPOSED SIDEWALK
- PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
- ⊙ PROPOSED STREET LIGHT
- ▨ BQE GREEN ZONE
- ▨ BQE YELLOW ZONE
- ▨ NON-CREDITED OPEN SPACE

MATCH LINE - SEE SHEET 3



OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

**PRELIMINARY EQUIVALENT SKETCH PLAN
 PRELIMINARY SITE LAYOUT**

MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
 (FUTURE LOTS 173-176)
 AND OPEN SPACE LOT 177-189

TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
 5TH ELECTION DISTRICT DPZ REF: ECP-14-093, WP-15-136, PB#415 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET ELLICOTT CITY, MD 21043
 TEL: 410.461.7666 FAX: 410.461.8961



PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2016

DESIGN BY: RHW/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHW
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.D. NO.: 11-34

STREET LIGHT LOCATIONS

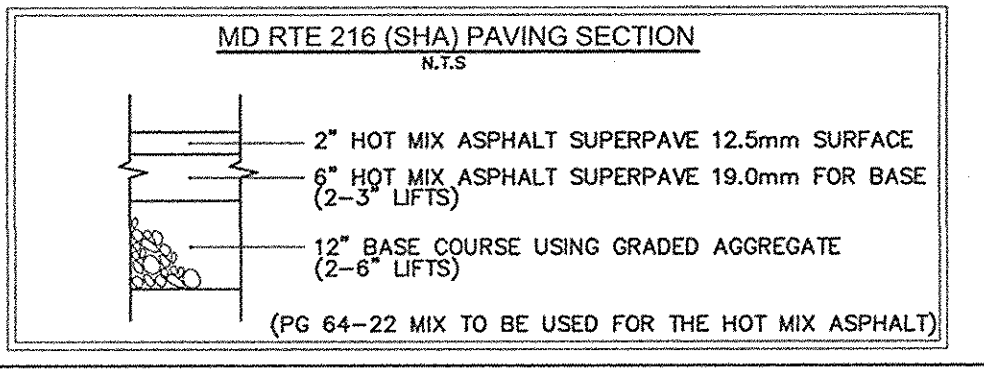
ROAD NAME	STATION	OFFSET	FIXTURE/POLE TYPE
ROAD 'A'	0+64.74	40.00' R	LED-100 WATT COLONIAL FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
ROAD 'A'	1+61.25	40.35' L	
ROAD 'A'	3+00.00	29.92' R	
ROAD 'A'	4+13.53	27.20' R	
ROAD 'A'	5+43.72	22.38' R	
ROAD 'D'	2+42.91	23.34' R	
ROAD 'D'	25+78.77	21.45' L	

CURVE TABLE

ROAD	CURVE	LENGTH	RADIUS*	DELTA ANGLE	TANGENT	CHORD DIRECTION	CHORD LENGTH
ROAD 'A'	C1	80.60	600.00	7°41'49"	40.36	S20°32'14"W	80.54
ROAD 'D-1'	C3	515.30	600.00	49°12'27"	274.75	S89°59'26"W	499.61

SIGNAGE LOCATION CHART

ROAD NAME	STATION	OFFSET	TYPE
ROAD 'A'	0+46.56	55.55' L	R1-1 STOP SIGN
ROAD 'A'	2+50.00	35.40' R	R2-1 SPEED LIMIT SIGN
ROAD 'A'	3+00.00	26.72' L	R4-7 LANE USE GRAPHIC SIGN
ROAD 'D'	0+46.81	20.10' L	R1-1 STOP SIGN
ROAD 'D'	1+47.06	20.10' R	R2-1 SPEED LIMIT SIGN
ROAD 'D'	28+16.92	20.10' R	R1-1 STOP SIGN



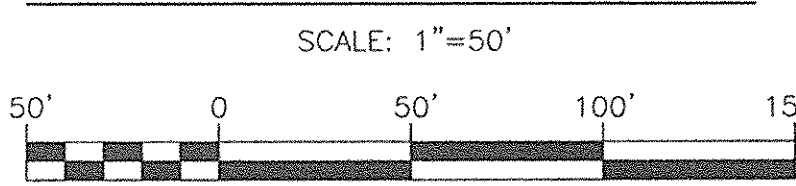
TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

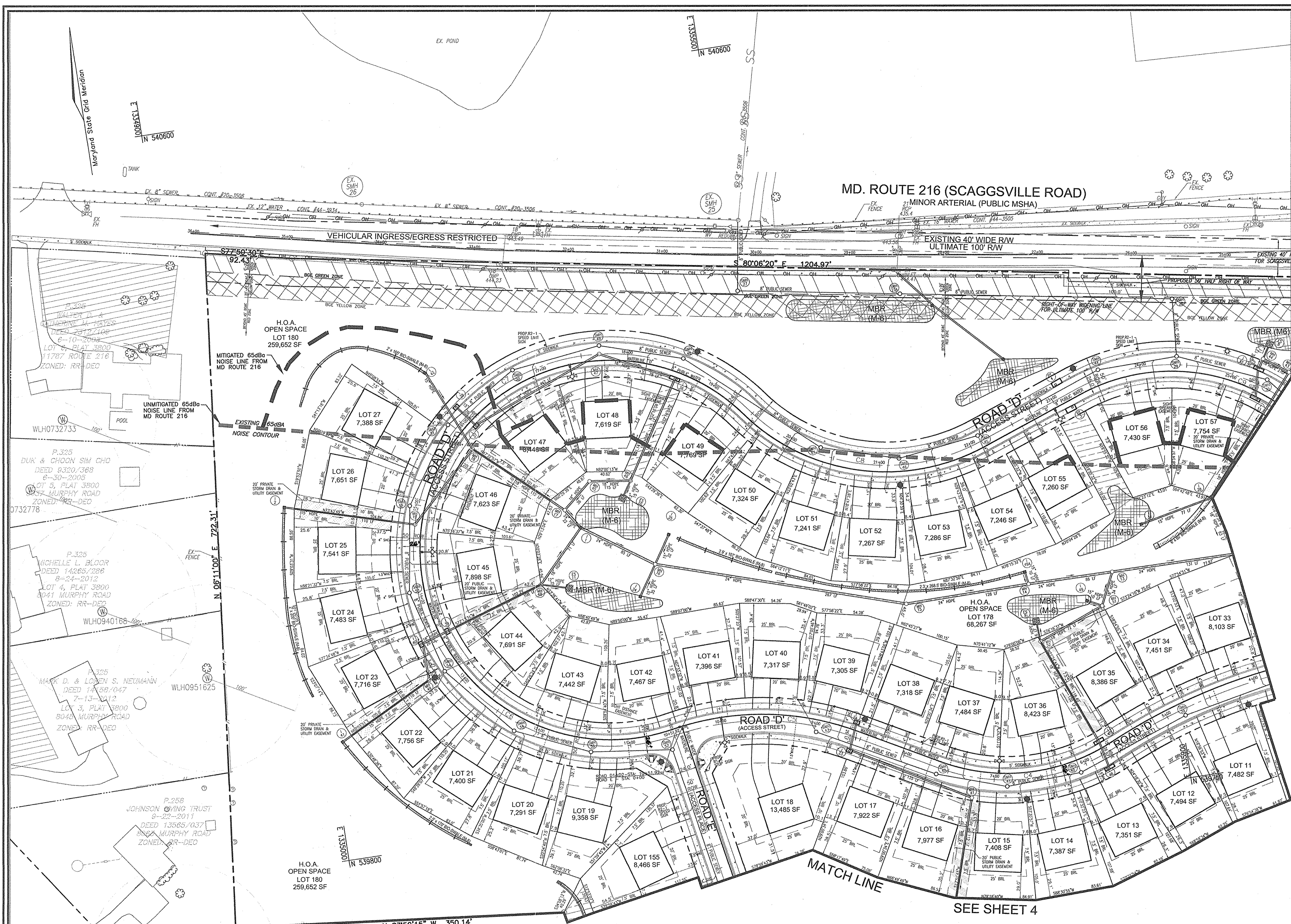
APPROVED
 PLANNING BOARD OF HOWARD COUNTY

DATE: 9-19-15
 DATE: JUNE 30, 2015

MATCH LINE - SEE SHEET 5

PRELIMINARY SITE LAYOUT





MATCH LINE - SEE SHEET 2

LEGEND:

- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREES
- EXISTING TREE LINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- PROPOSED SIDEWALK
- PROPOSED PUBLIC DRAINAGE AND UTILITY EASEMENT
- PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
- PROPOSED STREET LIGHT
- BEE GREEN ZONE
- BEE YELLOW ZONE
- NON-CREDITED OPEN SPACE

STREET LIGHT LOCATIONS

ROAD NAME	STATION	OFFSET	FIXTURE/POLE TYPE
ROAD 'D'	4+13.76	21.76' L	LED-100 WATT COLONIAL FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
ROAD 'D'	6+67.09	21.55' L	
ROAD 'D'	8+52.56	21.81' R	
ROAD 'D'	10+72.49	23.02' L	
ROAD 'D'	13+19.35	21.49' L	
ROAD 'D'	15+91.13	21.60' L	
ROAD 'D'	18+67.83	21.45' L	
ROAD 'D'	21+20.39	21.54' R	
ROAD 'D'	23+34.90	21.23' L	

SIGNAGE LOCATION CHART

ROAD NAME	STATION	OFFSET	TYPE
ROAD 'D'	7+87.28	20.10' R	R2-1 SPEED LIMIT SIGN
ROAD 'D'	17+16.60	20.10' L	R2-1 SPEED LIMIT SIGN
ROAD 'D'	24+00.00	20.10' L	R2-1 SPEED LIMIT SIGN
ROAD 'E'	0+45.75	20.10' L	R1-1 STOP SIGN
ROAD 'E'	0+65.72	20.10' R	R2-1 SPEED LIMIT SIGN

OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

**PRELIMINARY EQUIVALENT SKETCH PLAN
 PRELIMINARY SITE LAYOUT**

MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
 (FUTURE LOTS 173-176)
 AND OPEN SPACE LOT 177-189

TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DPZ REF: ECP-14-093, WP-15-136, PB#415

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410.461.7666
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: RHW/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHW
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 16193 EXPIRATION DATE: 09-27-2018

3 SHEET OF 45

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

APPROVED
 PLANNING BOARD OF HOWARD COUNTY

PB #415
 JUNE 30 2015
 DATE

9-18-25
 DATE

PRELIMINARY SITE LAYOUT

SCALE: 1"=50'

CURVE TABLE

ROAD	CURVE	LENGTH	RADIUS*	DELTA ANGLE	TANGENT	CHORD DIRECTION	CHORD LENGTH
ROAD 'D'-1	C4	196.47	210.00	53°36'13"	106.09	S87°47'33"W	189.38
ROAD 'D'-1	C5	101.80	285.43	39°15'27"	101.80	S80°37'10"W	191.77
ROAD 'D'-2	C6	348.08	210.43	84°58'09"	229.05	S52°45'49"W	309.58
ROAD 'D'-2	C7	544.10	210.00	148°27'06"	743.40	S68°56'48"W	404.18
ROAD 'D'-2	C8	267.92	210.00	73°05'53"	155.67	S73°22'35"W	250.11
ROAD 'D'-2	C9	416.09	210.00	113°31'26"	320.45	S53°09'49"W	351.29

K:\Projects\15ENR\15ENR\PRELIM\15ENR_PRELIM_LAYOUT_PLAN.dwg 8/20/15 11:15 AM

MATCH LINE - SEE SHEET 3
N 83°50'15" W 350.14'

LEGEND:

- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREES
- EXISTING TREELINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- PROPOSED SIDEWALK
- PROPOSED PUBLIC DRAINAGE AND UTILITY EASEMENT
- PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
- PROPOSED STREET LIGHT
- NON-CREDITED OPEN SPACE

STREET LIGHT LOCATIONS

ROAD NAME	STATION	OFFSET	FIXTURE/POLE TYPE
ROAD 'B'	6+18.01	21.30' L	LED-100 WATT COLONIAL FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
ROAD 'B'	8+01.39	23.37' R	
ROAD 'E'	2+51.20	21.49' R	
ROAD 'E'	4+74.31	21.67' L	
ROAD 'E'	6+73.59	21.44' R	

SIGNAGE LOCATION CHART

ROAD NAME	STATION	OFFSET	TYPE
ROAD 'B'	4+80.03	21.74' R	PROP. R7-1 "NO PARKING" SIGN
ROAD 'B'	5+33.34	20.10' L	PROP. R7-1 "NO PARKING" SIGN
ROAD 'B'	5+47.91	20.10' L	R2-1 SPEED LIMIT SIGN
ROAD 'B'	7+52.01	20.10' L	R2-1 SPEED LIMIT SIGN
ROAD 'B'	8+97.37	18.10' R	R2-1 SPEED LIMIT SIGN
ROAD 'E'	3+17.14	20.10' L	R2-1 SPEED LIMIT SIGN
ROAD 'E'	7+76.33	20.10' L	R2-1 SPEED LIMIT SIGN
ROAD 'E'	8+30.40	21.55' R	R1-1 STOP SIGN

OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN

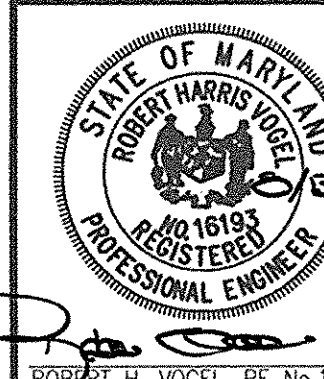
PRELIMINARY SITE LAYOUT

MAPLE LAWN SOUTH

SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
(FUTURE LOTS 173-176)
AND OPEN SPACE LOT 177-189

TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
OPZ REF: ECP-14-093, WP-15-136, PB#415

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410.461.7666
ELLICOTT CITY, MD 21043 FAX: 410.461.8961



PROFESSIONAL CERTIFICATE

DESIGN BY: RHY/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHY
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

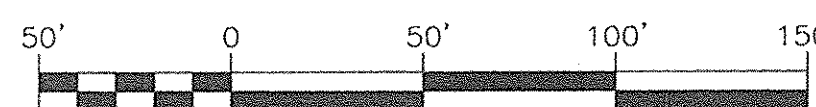
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2016.

CURVE TABLE

ROAD	CURVE	LENGTH	RADIUS	DELTA ANGLE	TANGENT	CHORD DIRECTION	CHORD LENGTH
ROAD 'B'	C13	80.60	600.00	7°41'49"	40.36	S20°32'14"W	80.54
ROAD 'B'	C14	158.34	350.00	25°55'15"	80.55	S39°37'46"W	158.99
ROAD 'E'	C11	238.97	300.00	42°38'24"	126.23	S32°49'29"W	232.70

PRELIMINARY SITE LAYOUT

SCALE: 1"=50'



TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

APPROVED
PLANNING BOARD OF HOWARD COUNTY

PB #415
JUNE 30, 2015
DATE

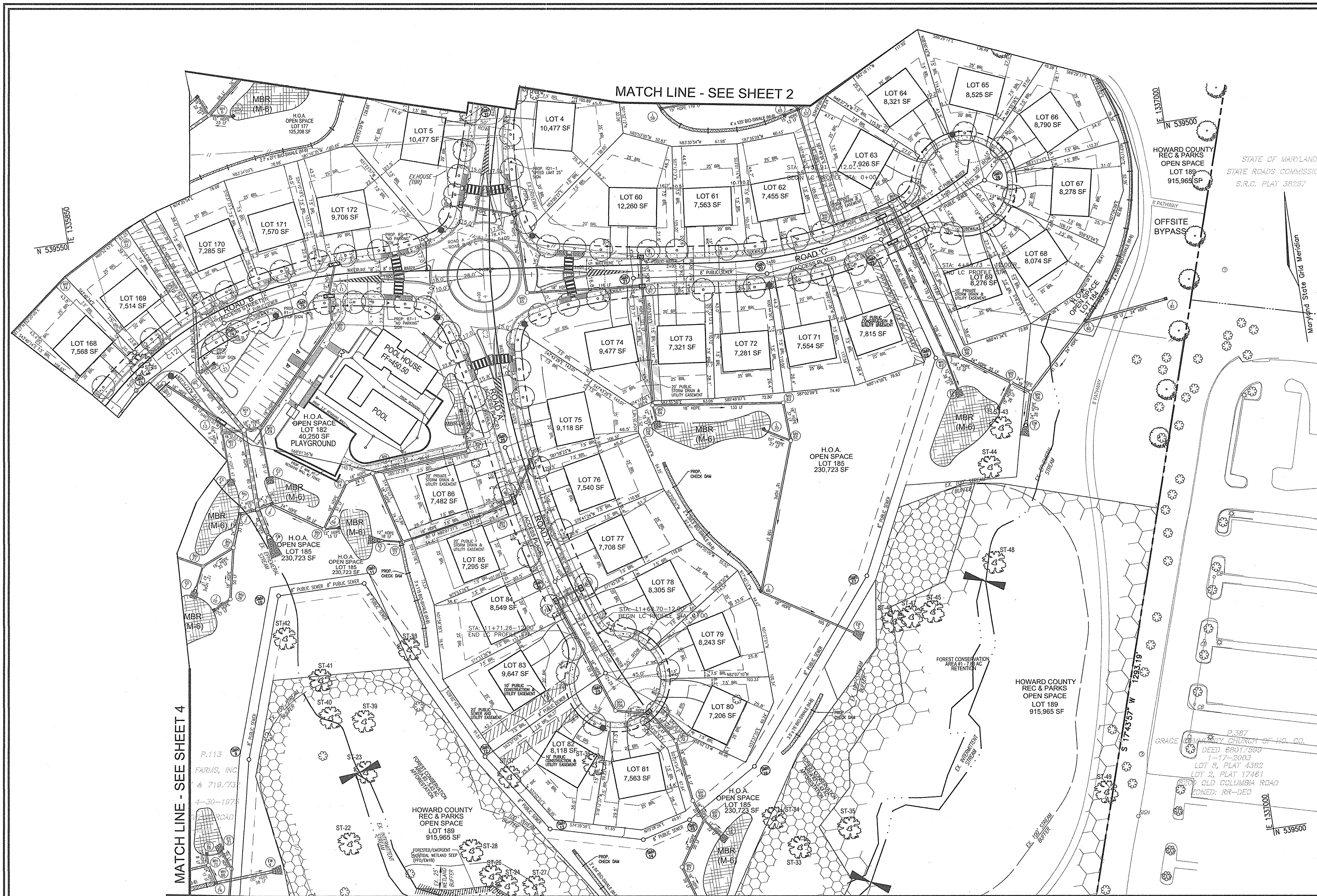
PLANNING DIRECTOR

9-12-15
DATE

MATCH LINE - SEE SHEET 5

MATCH LINE - SEE SHEET 6

K:\Projects\113\ENR\MapleLawn_Prelim_LayOut\PLAN\MapleLawn_SitePlan.dwg, 8/12/2015 4:04:09 PM



LEGEND:

- ===== EXISTING CURB AND GUTTER
- ===== PROPOSED CURB AND GUTTER
- ===== EXISTING UTILITY POLE
- ===== EXISTING LIGHT POLE
- ===== EXISTING MAILBOX
- ===== EXISTING SIGN
- ===== EXISTING SANITARY MANHOLE
- ===== EXISTING SANITARY LINE
- ===== EXISTING CLEANOUT
- ===== EXISTING FIRE HYDRANT
- ===== EXISTING WATER LINE
- ===== PROPOSED STORM DRAIN
- ===== PROPOSED STORM DRAIN INLET
- ===== EXISTING TREES
- ===== EXISTING TREELINE
- ===== EXISTING FENCE
- ===== RIGHT-OF-WAY LINE
- ===== EXISTING WETLAND
- ===== PROPOSED SIDEWALK
- ===== PROPOSED PUBLIC DRAINAGE AND UTILITY EASEMENT
- ===== PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
- ===== PROPOSED FOREST CONSERVATION EASEMENT (RETENTION)
- ===== PROPOSED FOREST CONSERVATION EASEMENT (AFFORESTATION)
- ===== PROPOSED 10' CONSTRUCTION & UTILITY EASEMENT
- ===== PROPOSED STREET LIGHT
- ===== NON-CREDITED OPEN SPACE

STREET LIGHT LOCATIONS

ROAD NAME	STATION	OFFSET	FIXTURE/POLE TYPE
ROAD 'A'	7+30.44	43.22' R	
ROAD 'A'	7+36.94	51.97' L	
ROAD 'A'	8+16.89	51.97' R	LED-100 WATT COLONIAL FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
ROAD 'A'	8+33.64	37.67' L	
ROAD 'A'	* 1+80.27	8.14' L	
ROAD 'B'	2+25.88	21.35' L	
ROAD 'B'	3+61.44	21.48' L	
ROAD 'C'	2+95.66	21.43' R	
ROAD 'C'	* 0+93.09	7.70' L	

* IN CUL-DE-SAC, REFERENCE LINEAR PROFILE STATION

SIGNAGE LOCATION CHART

ROAD NAME	STATION	OFFSET	TYPE
ROAD 'A'	6+56.43	26.86' L	PROP. R21-1 "SPEED LIMIT 25" SIGN
ROAD 'B'	1+00.59	25.78' L	PROP. R7-1 "NO PARKING" SIGN
ROAD 'B'	1+03.75	29.28' R	PROP. R7-1 "NO PARKING" SIGN
ROAD 'B'	1+90.40	27.45' L	PROP. R1-1 STOP SIGN
ROAD 'B'	3+09.42	21.42' R	PROP. R2-1 SPEED LIMIT SIGN
ROAD 'B'	3+19.18	27.53' L	PROP. R1-1 STOP SIGN

OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

**PRELIMINARY EQUIVALENT SKETCH PLAN
 PRELIMINARY SITE LAYOUT**

MAPLE LAWN SOUTH

SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A' (FUTURE LOTS 173-176) AND OPEN SPACE LOT 177-189
 TAX MAP 48 - GRID 2 - PARCEL 113 ZONED: R-ED-MID-3
 5TH ELECTION DISTRICT; WP REF: ECP-14-093, WP-15-136, PB#415 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410.461.7666
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961

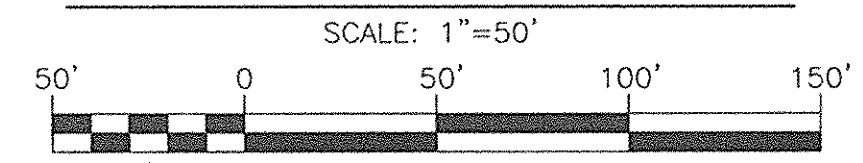
PROFESSIONAL CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. MY LICENSE NO. IS 16183. EXPIRATION DATE: 08-27-2016

DESIGN BY: RHV/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHV
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

5 SHEET OF 45

PRELIMINARY SITE LAYOUT



NOTE:
 HEALTH DEPARTMENT APPROVAL OF THIS PRELIMINARY EQUIVALENT SKETCH PLAN (SP-15-014) DOES NOT ENSURE APPROVAL OF SUBSEQUENT BUILDING PERMIT APPLICATIONS THAT MAY BE ASSOCIATED WITH THIS PLAN. PLANS FOR THE SWIMMING POOL ILLUSTRATED ON THIS SKETCH PLAN WILL REQUIRE REVIEW AND APPROVAL BY THE HEALTH DEPARTMENT.

CURVE TABLE

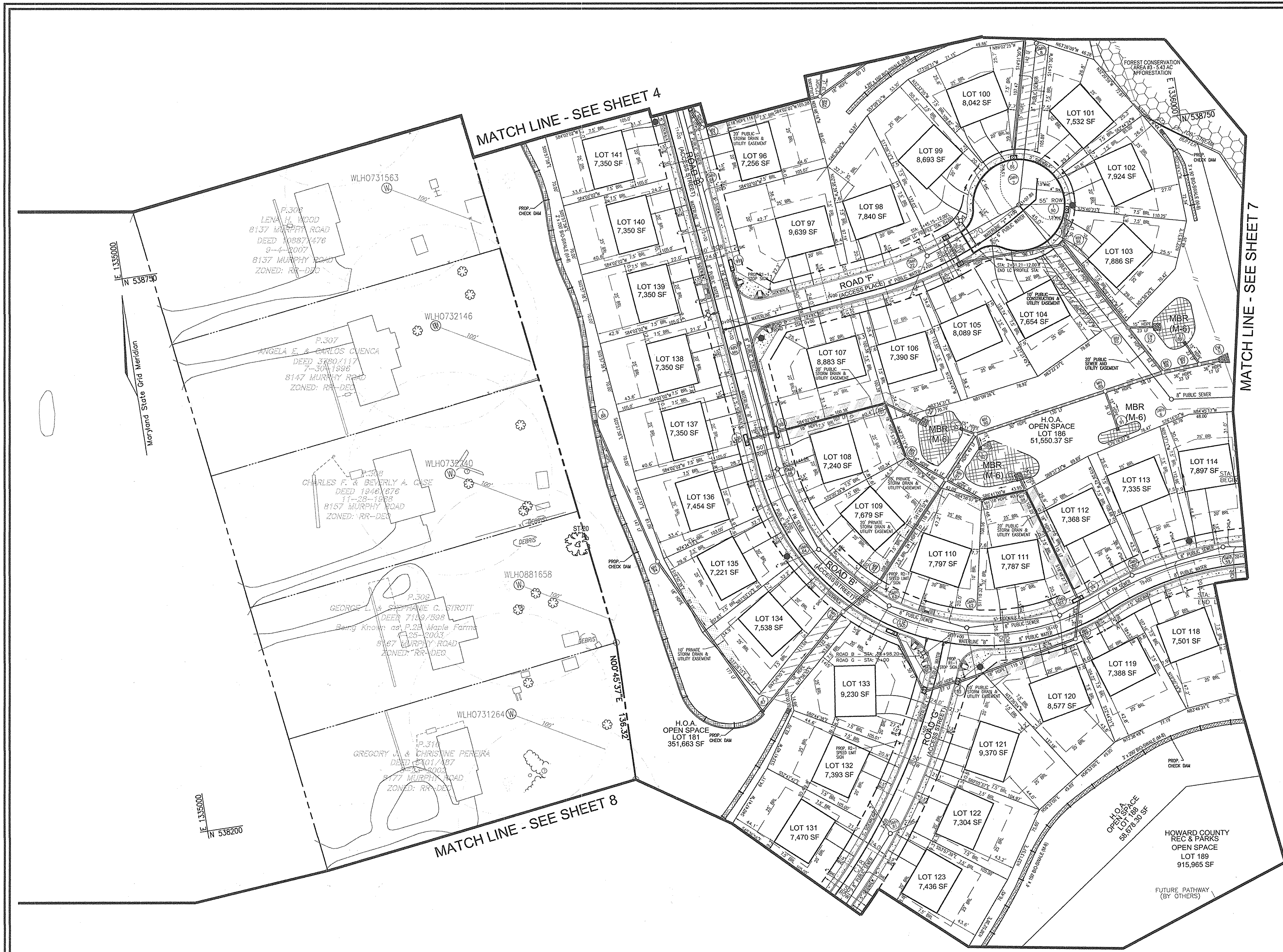
ROAD	CURVE	LENGTH	RADIUS*	DELTA ANGLE	TANGENT	CHORD DIRECTION	CHORD LENGTH
ROAD 'A'	C2	734.11	860.00	48°54'31"	391.10	S00°04'06"W	712.02
ROAD 'B'	C12	430.87	350.00	70°32'04"	247.51	S61°56'11"W	404.17
ROAD 'C'	C17	276.70	450.00	35°13'49"	142.88	S79°35'19"W	272.36

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

PLANNING DIRECTOR

APPROVED
 PLANNING BOARD OF HOWARD COUNTY

PB #415
 JUNE 30, 2015
 DATE



LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREES
- EXISTING TREELINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- PROPOSED SIDEWALK
- PROPOSED PUBLIC DRAINAGE AND UTILITY EASEMENT
- PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
- PROPOSED FOREST CONSERVATION EASEMENT (AFFORESTATION)
- PROPOSED 10' CONSTRUCTION & UTILITY EASEMENT
- PROPOSED STREET LIGHT
- NON-CREDITED OPEN SPACE

STREET LIGHT LOCATIONS

ROAD NAME	STATION	OFFSET	FIXTURE/POLE TYPE
ROAD 'B'	10+83.32	21.92' R	LED-100 WATT COLORIAL FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
ROAD 'B'	13+15.64	24.34' L	
ROAD 'B'	15+23.98	21.80' R	
ROAD 'B'	17+29.06	30.83' R	
ROAD 'B'	19+50.51	21.48' L	
ROAD 'B'	1+72.69	7.71' L	

* IN CUL-DE-SAC, REFERENCE LINEAR PROFILE STATION

SIGNAGE LOCATION CHART

ROAD NAME	STATION	OFFSET	TYPE
ROAD 'B'	16+18.09	20.10' L	R2-1 SPEED LIMIT SIGN
ROAD 'F'	0+44.30	20.10' L	R1-1 STOP SIGN
ROAD 'G'	0+39.00	20.10' L	R1-1 STOP SIGN
ROAD 'G'	1+20.70	20.10' R	R2-1 SPEED LIMIT SIGN

OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
 PRELIMINARY SITE LAYOUT
MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-177, NON-BUILDABLE PARCEL 'A'
 (FUTURE LOTS 173-176)
 AND OPEN SPACE LOT 177-189
 TAX MAP 48 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DPZ REF: ECP-14-093, WP-15-136, PB#115

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 08-27-2016.

DESIGN BY: RHV/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHV
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

STATE OF MARYLAND
 ROBERT H. VOGEL
 PROFESSIONAL ENGINEER
 LICENSE NO. 16193

6 SHEET OF 45

PRELIMINARY SITE LAYOUT
 SCALE: 1"=50'

CURVE TABLE

ROAD	CURVE	LENGTH	RADIUS	DELTA ANGLE	TANGENT	CHORD DIRECTION	CHORD LENGTH
ROAD 'B'	C15	409.33	218.00	107°34'53"	297.76	S59°45'24"W	351.79
ROAD 'B'	C16	267.14	310.00	48°22'25"	142.50	S88°51'38"W	258.95
ROAD 'F'	C20	238.97	300.00	45°38'24"	128.23	S32°49'29"W	232.70
ROAD 'G'	C18	167.83	367.00	26°12'08"	85.41	S70°55'59"W	166.37

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

APPROVED
 PLANNING BOARD OF HOWARD COUNTY

Pg #415
 JUNE 30, 2015
 DATE

9-18-15
 DATE

PLANNING DIRECTOR

MATCH LINE - SEE SHEET 5

MATCH LINE - SEE SHEET 6

MATCH LINE - SEE SHEET 8

LEGEND:

- ===== EXISTING CURB AND GUTTER
- ===== PROPOSED CURB AND GUTTER
- ⊙ EXISTING UTILITY POLE
- ⊙ EXISTING LIGHT POLE
- ⊙ EXISTING MAILBOX
- ⊙ EXISTING SIGN
- ⊙ EXISTING SANITARY MANHOLE
- S — EXISTING SANITARY LINE
- C — EXISTING CLEANOUT
- FH — EXISTING FIRE HYDRANT
- W — EXISTING WATER LINE
- SD — PROPOSED STORM DRAIN
- SDI — PROPOSED STORM DRAIN INLET
- ⊙ EXISTING TREES
- EXISTING TREELINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ▨ EXISTING WETLAND
- ▨ PROPOSED SIDEWALK
- ▨ PROPOSED FOREST CONSERVATION EASEMENT (RETENTION)
- ▨ PROPOSED FOREST CONSERVATION EASEMENT (AFFORESTATION)
- ▨ PROPOSED 10' CONSTRUCTION & UTILITY EASEMENT
- ⊙ PROPOSED STREET LIGHT
- NON-CREDITED OPEN SPACE

PRELIMINARY SITE LAYOUT

SCALE: 1"=50'



STREET LIGHT LOCATIONS

ROAD NAME	STATION	OFFSET	FIXTURE/POLE TYPE
ROAD 'B'	1+15.45	7.66' L	LED-100 WATT COLUMNAR FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE

* IN CUL-DE-SAC, REFERENCE LINEAR PROFILE STATION

CURVE TABLE

ROAD	CURVE	LENGTH	RADIUS	DELTA ANGLE	TANGENT	CHORD DIRECTION	CHORD LENGTH
ROAD 'B'	C16	287.14	310.00	49°22'25"	142.50	S88°51'38"W	258.95

OWNER

MAPLE LAWN FARMS, INC.
11788 SCAGGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER

MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN

PRELIMINARY SITE LAYOUT

MAPLE LAWN SOUTH

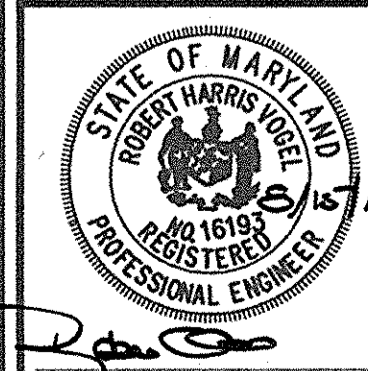
SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'

(FUTURE LOTS 173-178)

AND OPEN SPACE LOT 177-189

TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DPZ REF: ECP-14-023, WP-15-136, PB#415

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET ELICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961



PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2016.

DESIGN BY: RHV/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHV
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

7 SHEET OF 45

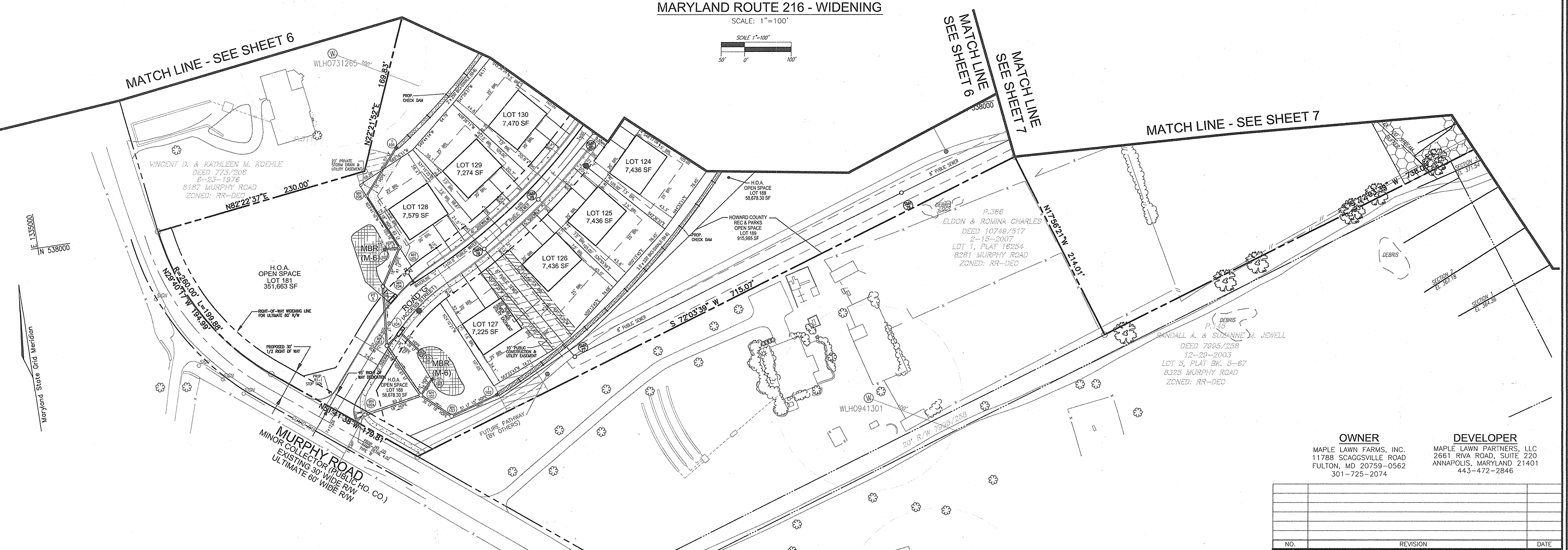
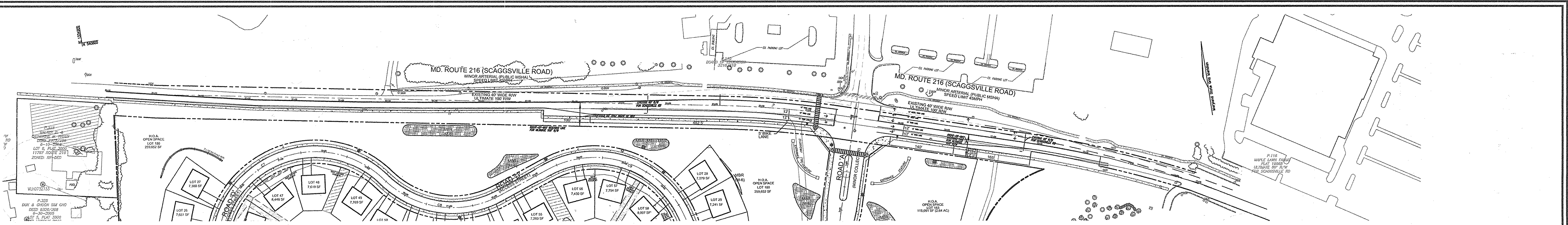
TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

APPROVED
PLANNING BOARD OF HOWARD COUNTY

AGN
PLANNING DIRECTOR

9-18-15
DATE

PB #415
JUNE 30, 2015
DATE



STREET LIGHT LOCATIONS

ROAD NAME	STATION	OFFSET	FIXTURE/POLE TYPE
ROAD 'G'	3+21.03	21.61' L	LED-100 WATT COLUMBIA FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
ROAD 'G'	5+51.50	21.47' L	

SIGNAGE LOCATION CHART

ROAD NAME	STATION	OFFSET	TYPE
ROAD 'G'	6+85	16.90' R	R1-1 STOP SIGN

CURVE TABLE

ROAD	CURVE	LENGTH	RADIUS	DELTA ANGLE	TANGENT	CHORD DIRECTION	CHORD LENGTH
ROAD 'G'	C19	108.72	215.00	28°58'26"	55.55	S54°14'34"W	107.57

PRELIMINARY SITE LAYOUT
SCALE: 1"=50'

LEGEND:

	EXISTING CURB AND GUTTER		EXISTING FENCE
	PROPOSED CURB AND GUTTER		PROPERTY LINE
	EXISTING UTILITY POLE		RIGHT-OF-WAY LINE
	EXISTING LIGHT POLE		PROPOSED SIDEWALK
	EXISTING MAILBOX		PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
	EXISTING SIGN		PROPOSED FOREST CONSERVATION EASEMENT (RETENTION)
	EXISTING SANITARY MANHOLE		PROPOSED 10' CONSTRUCTION & UTILITY EASEMENT
	EXISTING SANITARY LINE		PROPOSED STREET LIGHT
	EXISTING CLEANOUT		NON-CREDITED OPEN SPACE
	EXISTING FIRE HYDRANT		
	EXISTING WATER LINE		
	PROPOSED STORM DRAIN		
	PROPOSED STORM DRAIN INLET		
	EXISTING TREES		
	EXISTING TREELINE		

OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY SITE LAYOUT AND ROAD WIDENING PLAN
MAPLE LAWN SOUTH
SFD RESIDENTIAL LOTS 1-177, NON-BUILDABLE PARCEL 'A'
(FUTURE LOTS 173-176)
AND OPEN SPACE LOT 177-189
TAX MAP 46 - GRID 2 - PARCEL 113
6TH ELECTION DISTRICT
DPZ REF: ECP-14-093, WP-15-136, PB#415
ZONED: R-ED-MXD-3
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2016.

DESIGN BY: RHY/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHY
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

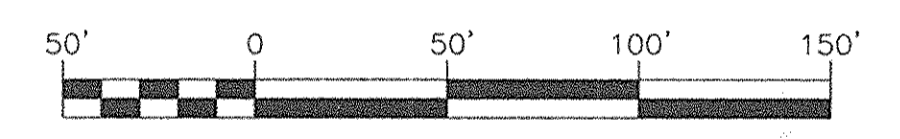
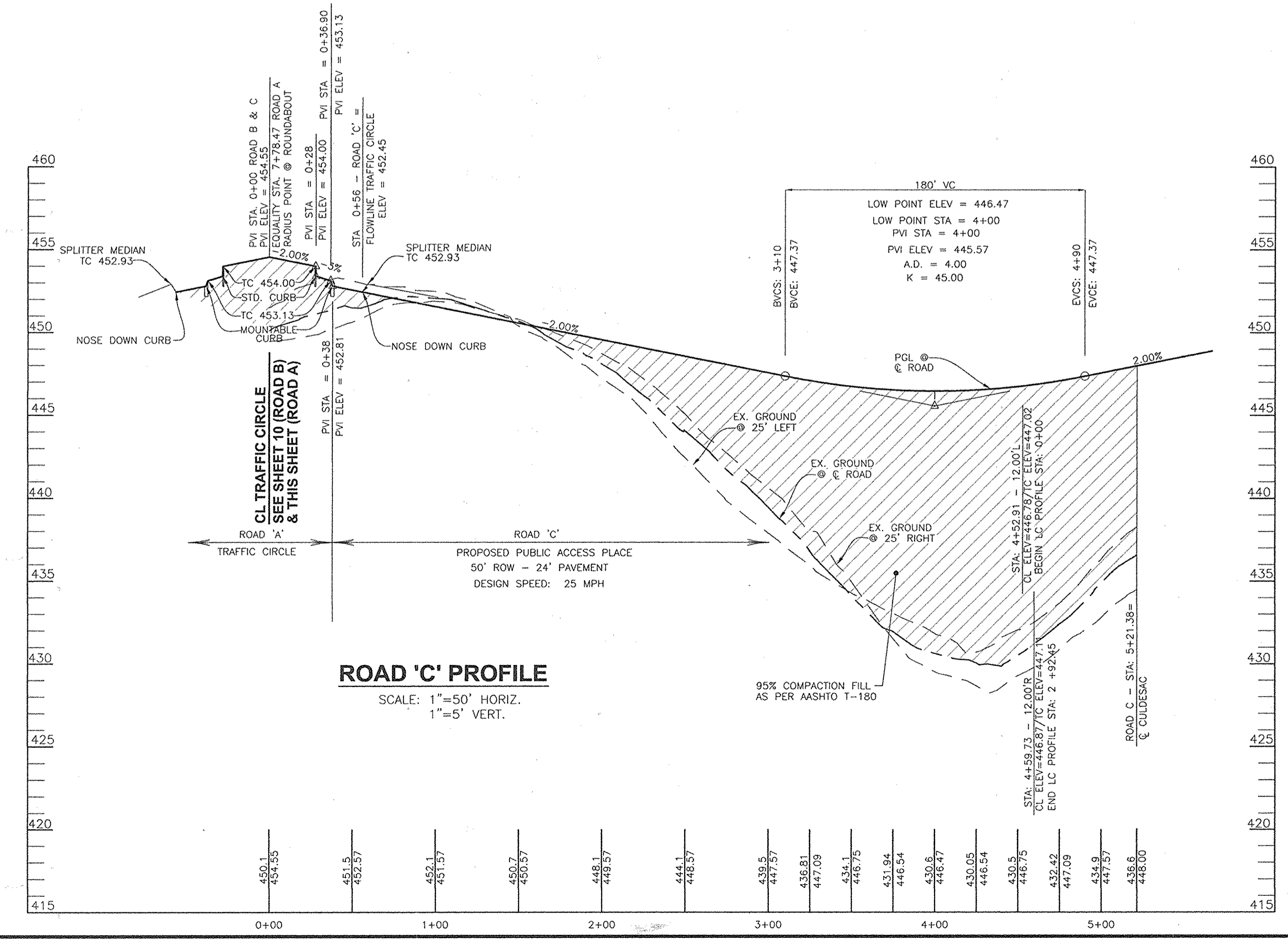
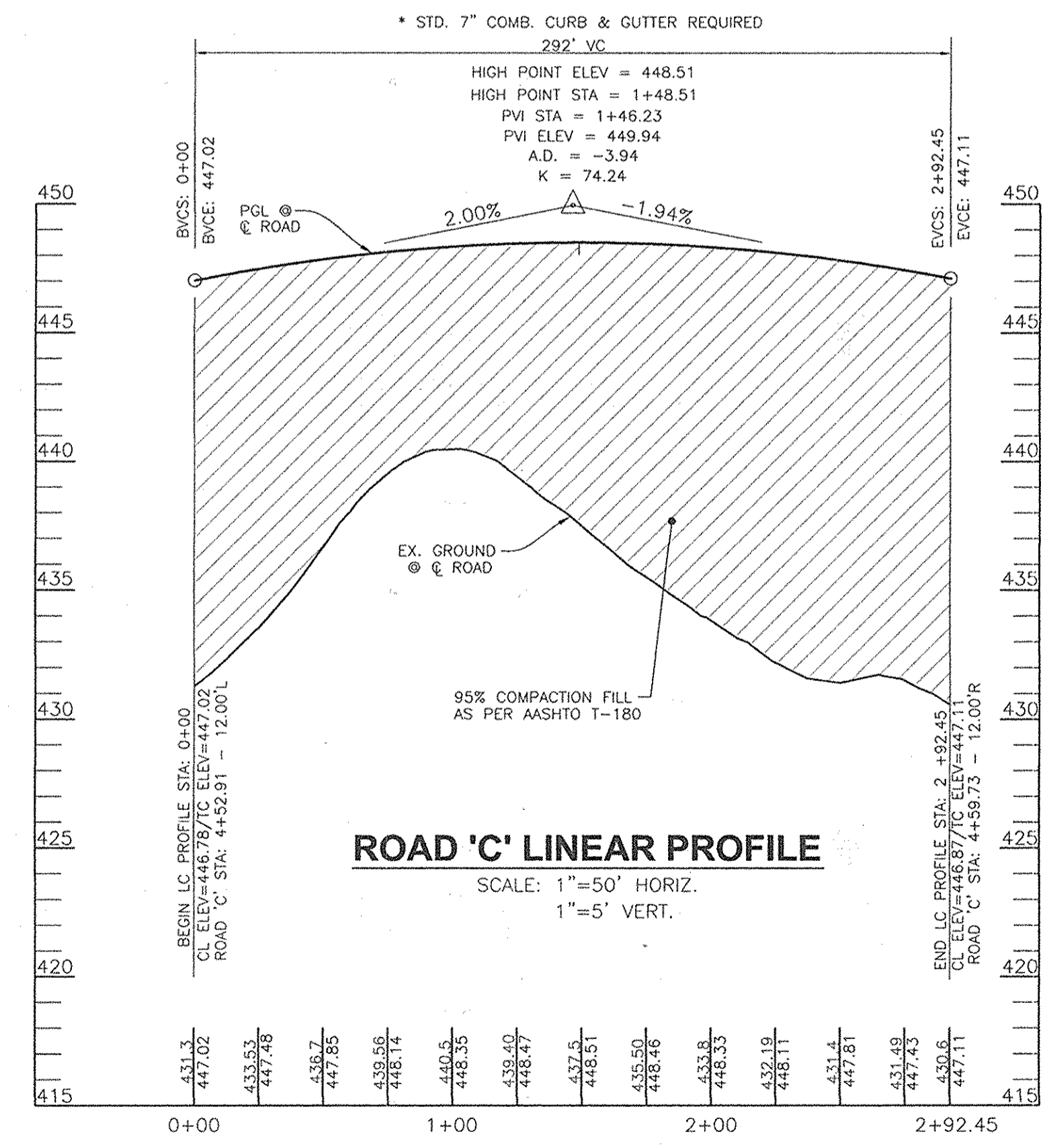
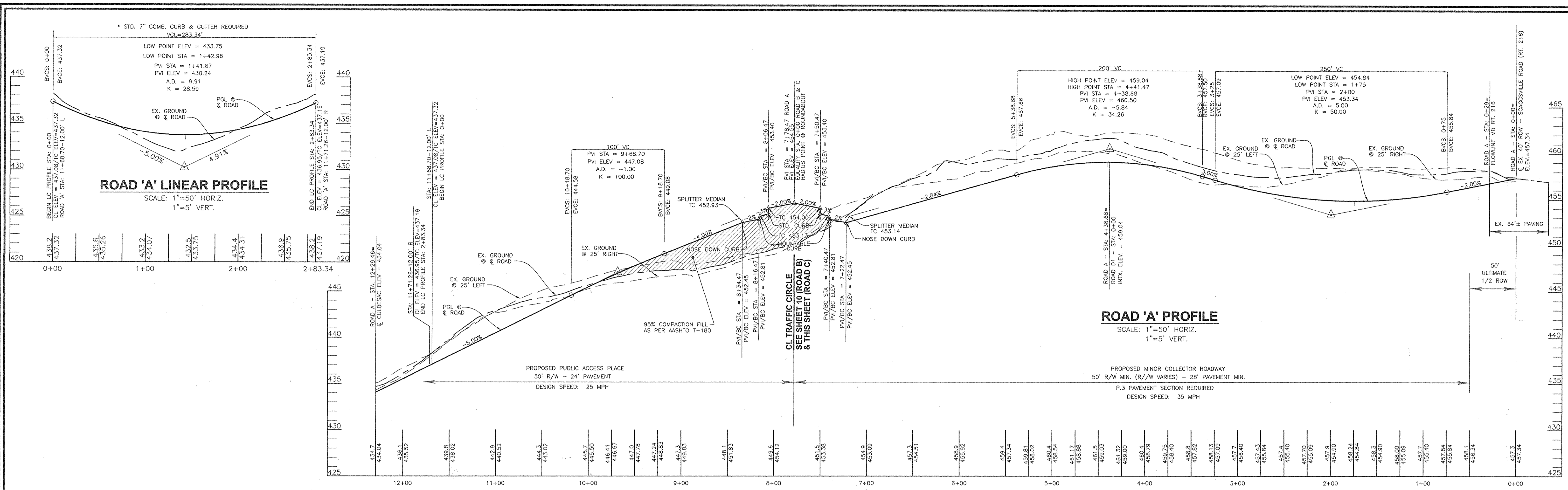
8 SHEET OF 45

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

APPROVED
PLANNING BOARD OF HOWARD COUNTY

PB #415
JUNE 30, 2015
DATE

9-18-15
DATE



OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY ROAD "A" & "C" PROFILES
MAPLE LAWN SOUTH
SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
(FUTURE LOTS 173-176)
AND OPEN SPACE LOT 177-189
TAX MAP 46 - GRID 2 - PARCEL 113
5TH ELECTION DISTRICT
DPZ REF: ECP-14-083, WP-15-136, PB#415
ZONED: R-ED-MXD-3
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLCOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2016.

DESIGN BY: RHY/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHY
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

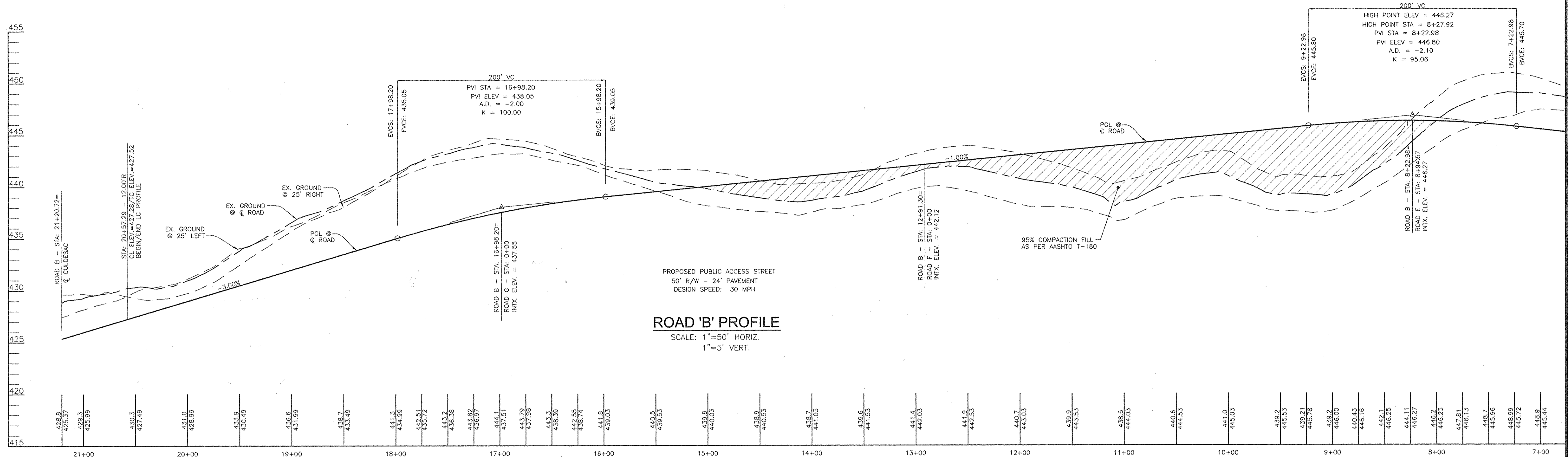
9 SHEET OF 45

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

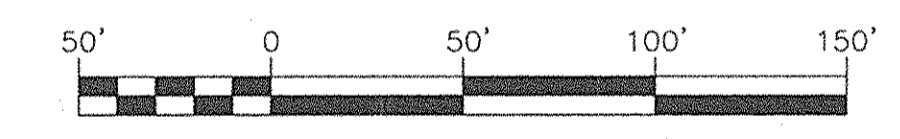
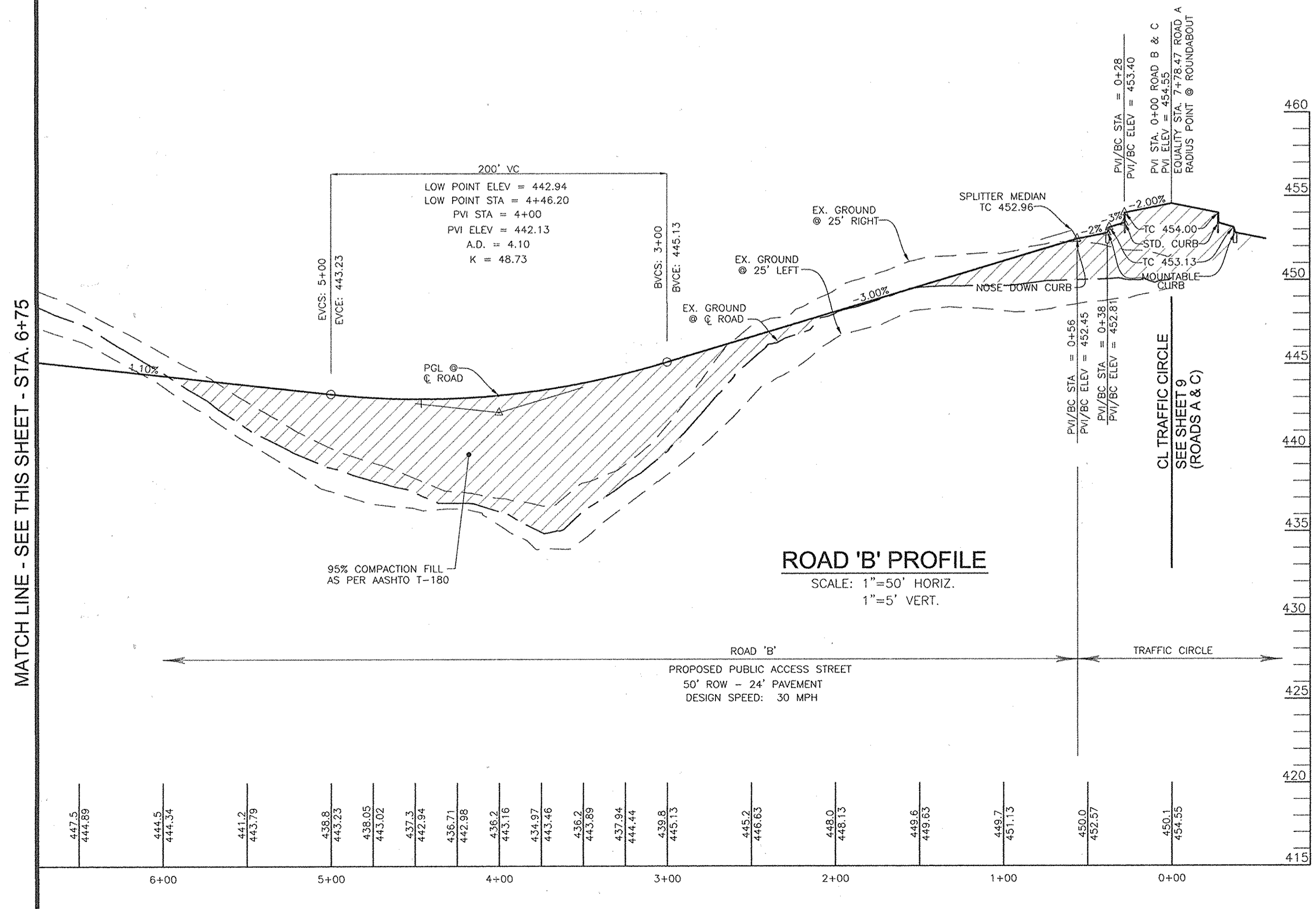
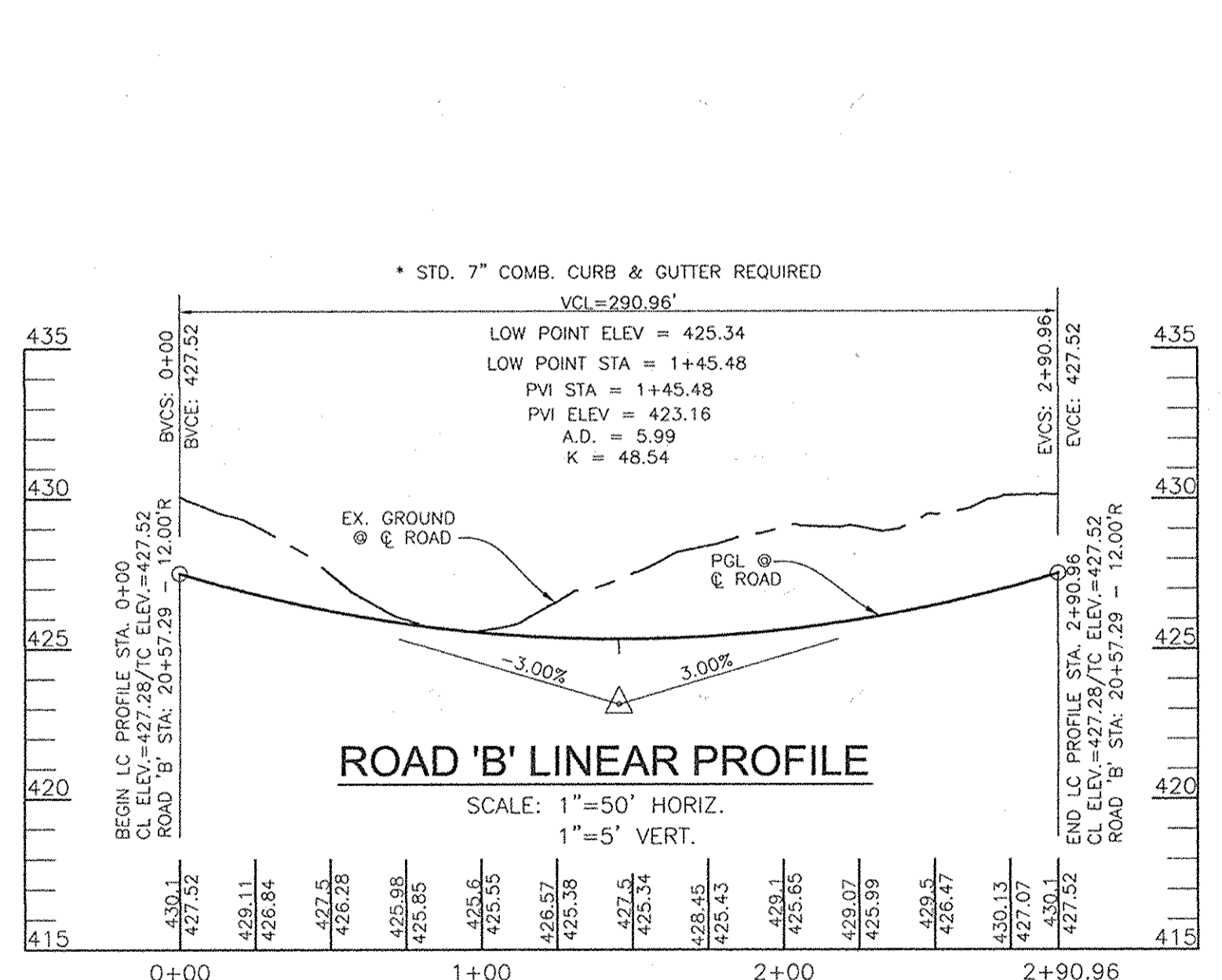
9-13-15
DATE

APPROVED
PLANNING BOARD OF HOWARD COUNTY

PB #415
JUNE 30, 2015
DATE



MATCH LINE - SEE THIS SHEET - STA. 6+75



OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY
ROAD "B" PROFILES
MAPLE LAWN SOUTH
SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
(FUTURE LOTS 173-176)
AND OPEN SPACE LOT 177-189
TAX MAP 46 - GRID 2 - PARCEL 113
5TH ELECTION DISTRICT
DPZ REF: ECP-14-093, WP-15-136, PB#415
ZONED: R-ED-MXD-3
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

DESIGN BY: RHW/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHW
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS
WERE PREPARED OR APPROVED BY ME, AND
THAT I AM A DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF THE STATE
OF MARYLAND, LICENSE NO. 16193
EXPIRATION DATE: 08-27-2018

10 SHEET OF 45

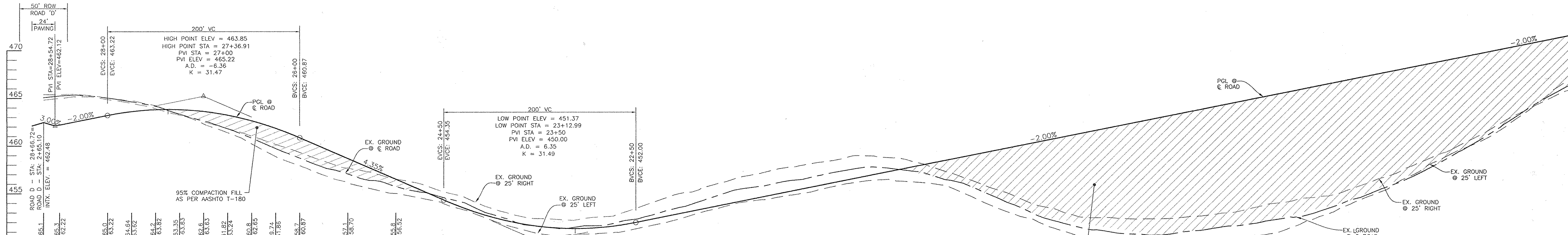
TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

APPROVED
PLANNING BOARD OF HOWARD COUNTY

PB #415
JUNE 30, 2015
DATE

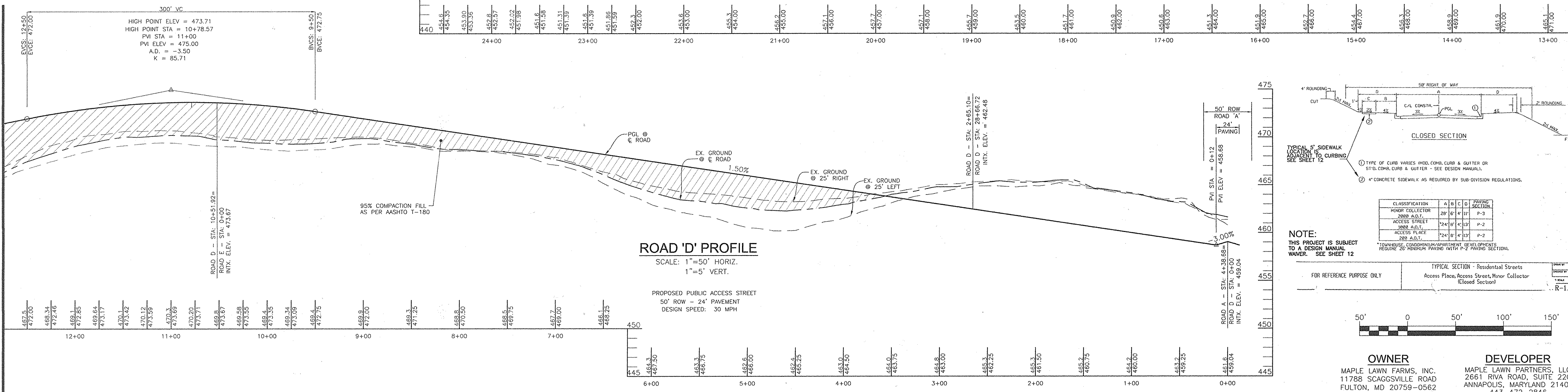
9-12-15
DATE

PLANNING DIRECTOR



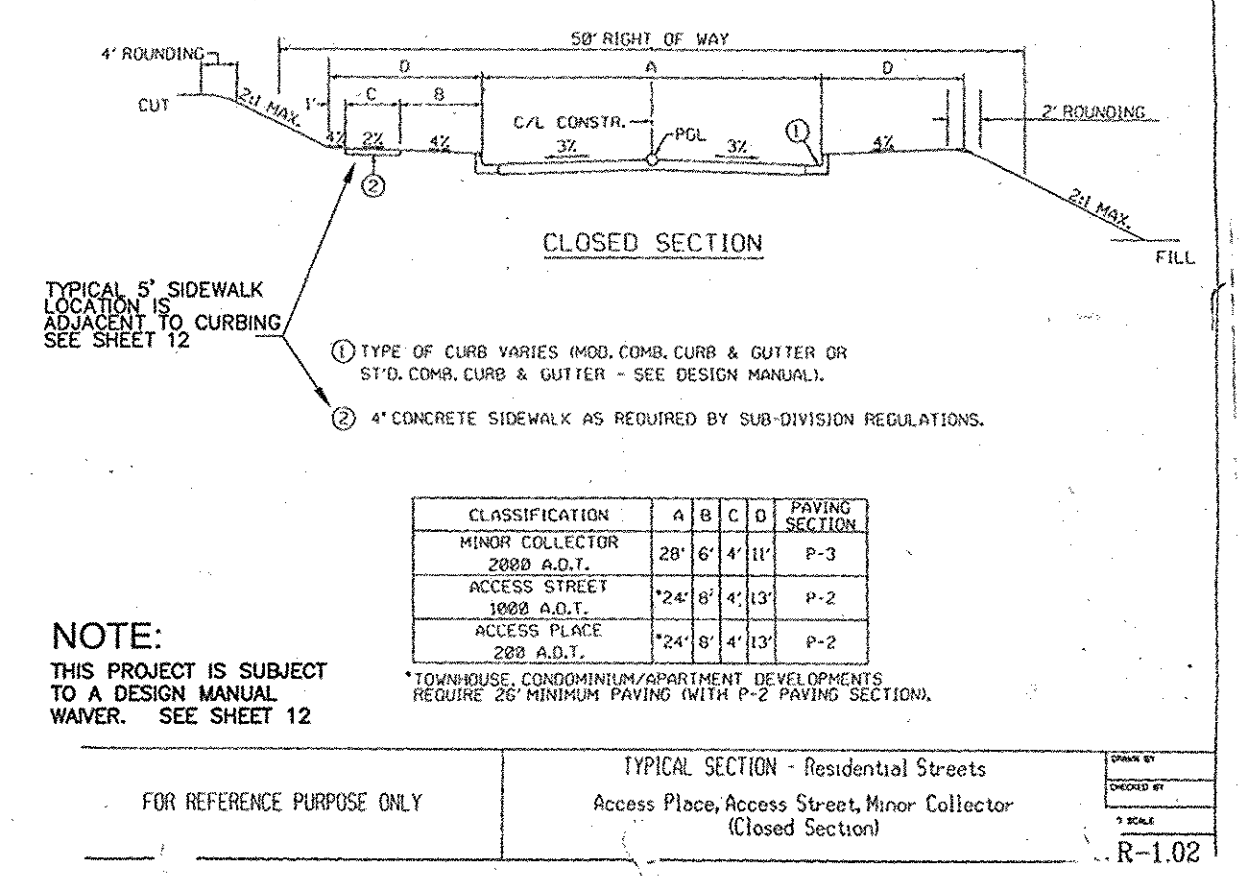
ROAD 'D' PROFILE

SCALE: 1"=50' HORIZ.
1"=5' VERT.
PROPOSED PUBLIC ACCESS STREET
50' ROW = 24' PAVEMENT
DESIGN SPEED: 30 MPH



ROAD 'D' PROFILE

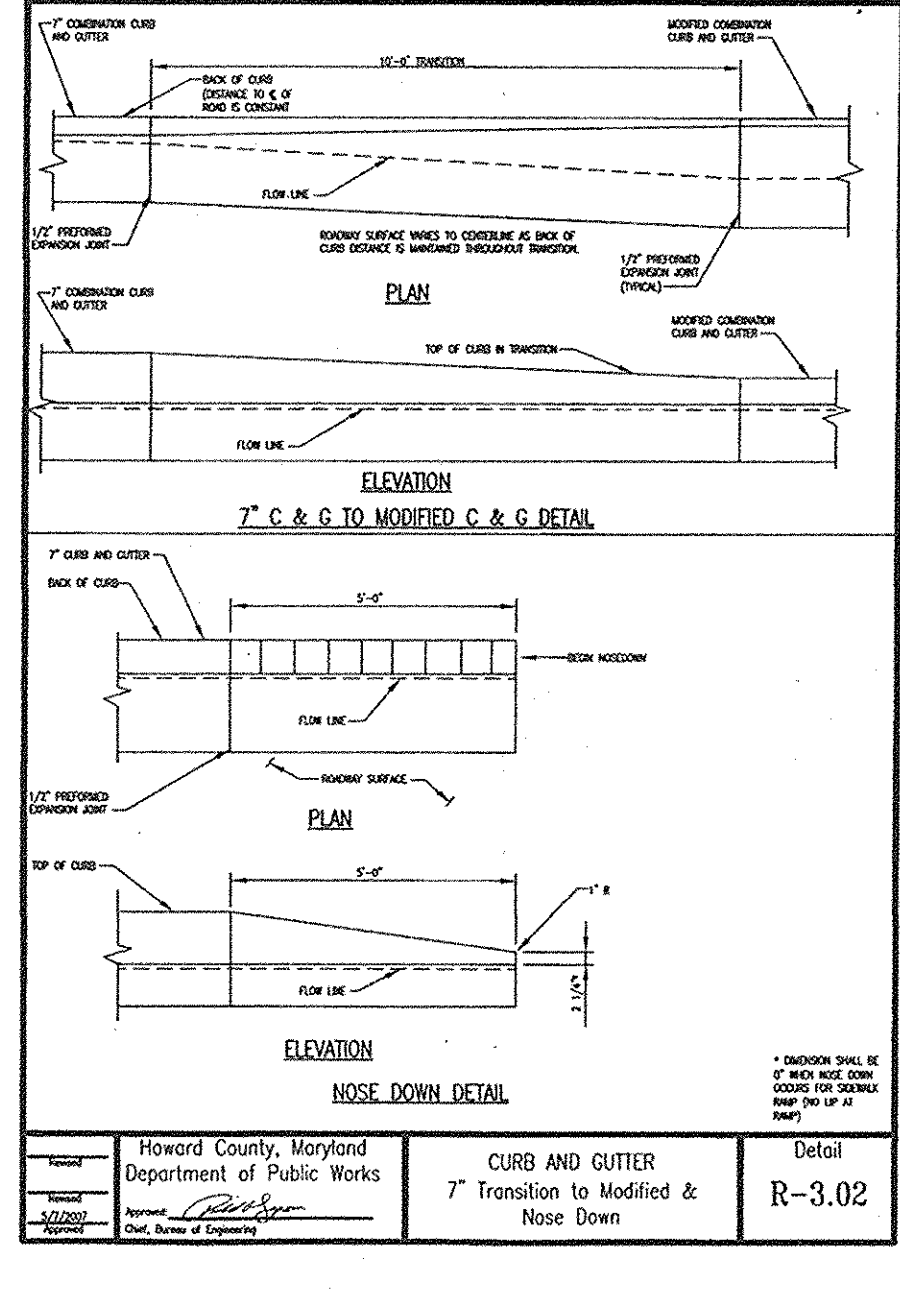
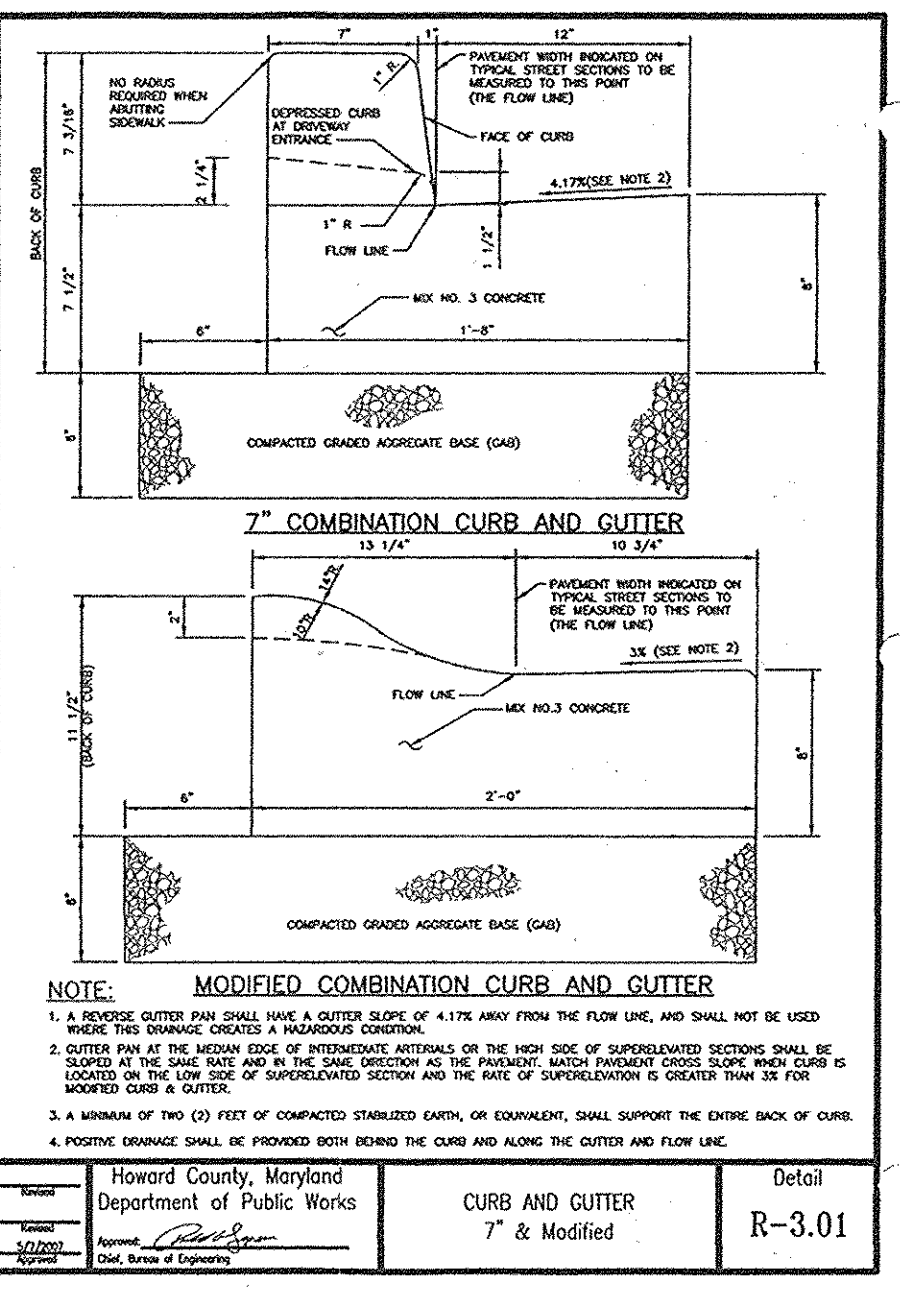
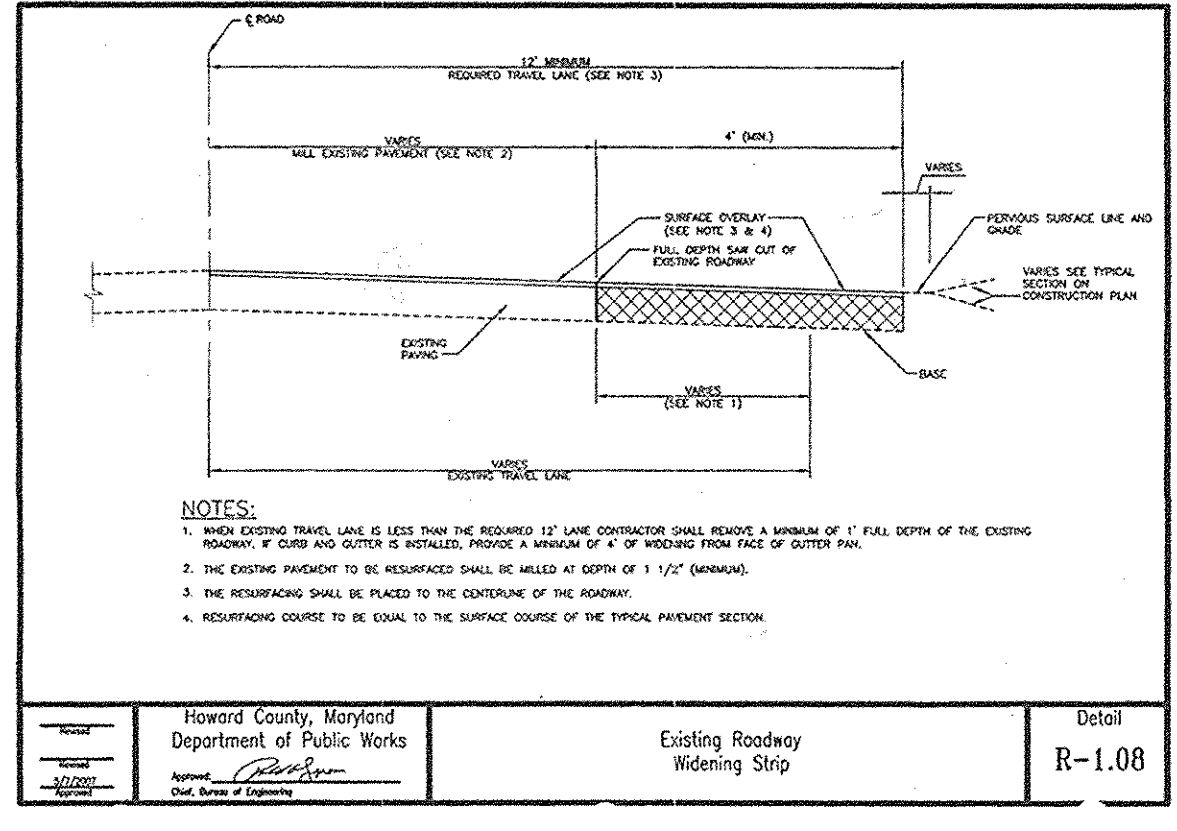
SCALE: 1"=50' HORIZ.
1"=5' VERT.
PROPOSED PUBLIC ACCESS STREET
50' ROW = 24' PAVEMENT
DESIGN SPEED: 30 MPH



OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)	3 TO 4.5	4.5 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 15	15 TO 20	20 TO 30	30 TO 40	40 TO 50	50 TO 60	60 TO 70	70 TO 80	80 TO 90	90 TO 100
P-1	PAVING SECTION NON-RESIDENTIAL PAVING SECTION NON-RESIDENTIAL WITH NO SIDE PAVING SECTION NON-RESIDENTIAL WITH NO SIDE	100	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
P-2	PAVING SECTION NON-RESIDENTIAL WITH NO SIDE PAVING SECTION NON-RESIDENTIAL WITH NO SIDE PAVING SECTION NON-RESIDENTIAL WITH NO SIDE	100	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
P-3	PAVING SECTION NON-RESIDENTIAL WITH NO SIDE PAVING SECTION NON-RESIDENTIAL WITH NO SIDE PAVING SECTION NON-RESIDENTIAL WITH NO SIDE	100	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
P-4	PAVING SECTION NON-RESIDENTIAL WITH NO SIDE PAVING SECTION NON-RESIDENTIAL WITH NO SIDE PAVING SECTION NON-RESIDENTIAL WITH NO SIDE	100	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR

9-13-15
DATE

APPROVED
PLANNING BOARD OF HOWARD COUNTY

PB #415
JUNE 20, 2015
DATE

Howard County, Maryland
Department of Public Works
CURB AND GUTTER
7' & Modified
R-3.01

Howard County, Maryland
Department of Public Works
CURB AND GUTTER
7' Transition to Modified &
Noise Down
R-3.02

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY
ROAD "D" PROFILES
MAPLE LAWN SOUTH
SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL "A"
(FUTURE LOTS 173-176)
AND OPEN SPACE LOT 177-189

TAX MAP 46 - GRID 2 - PARCEL 113
5TH ELECTION DISTRICT
DPZ REF: ECP-14-093, WP-15-136, PB#415

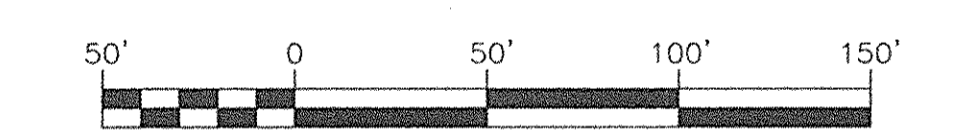
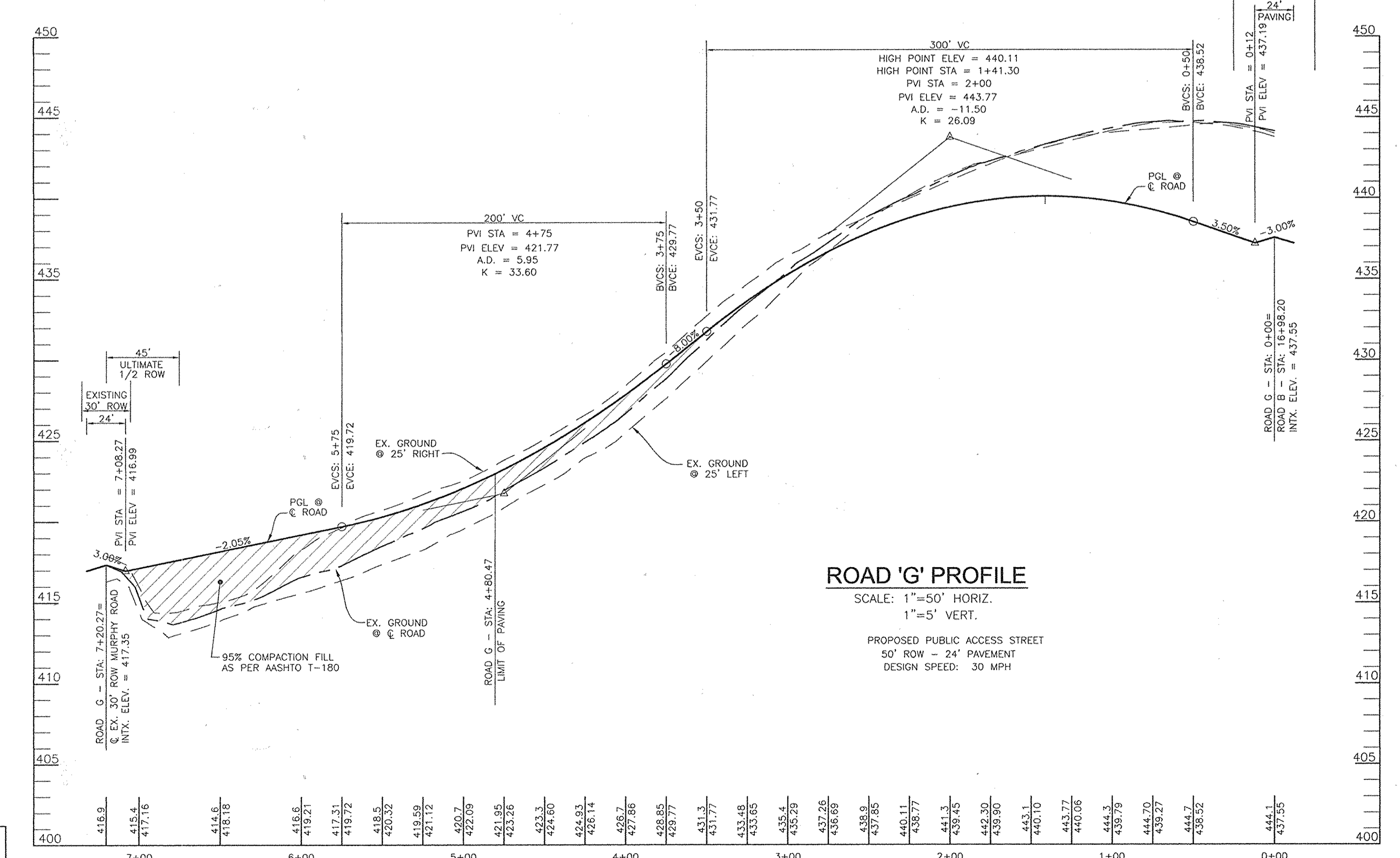
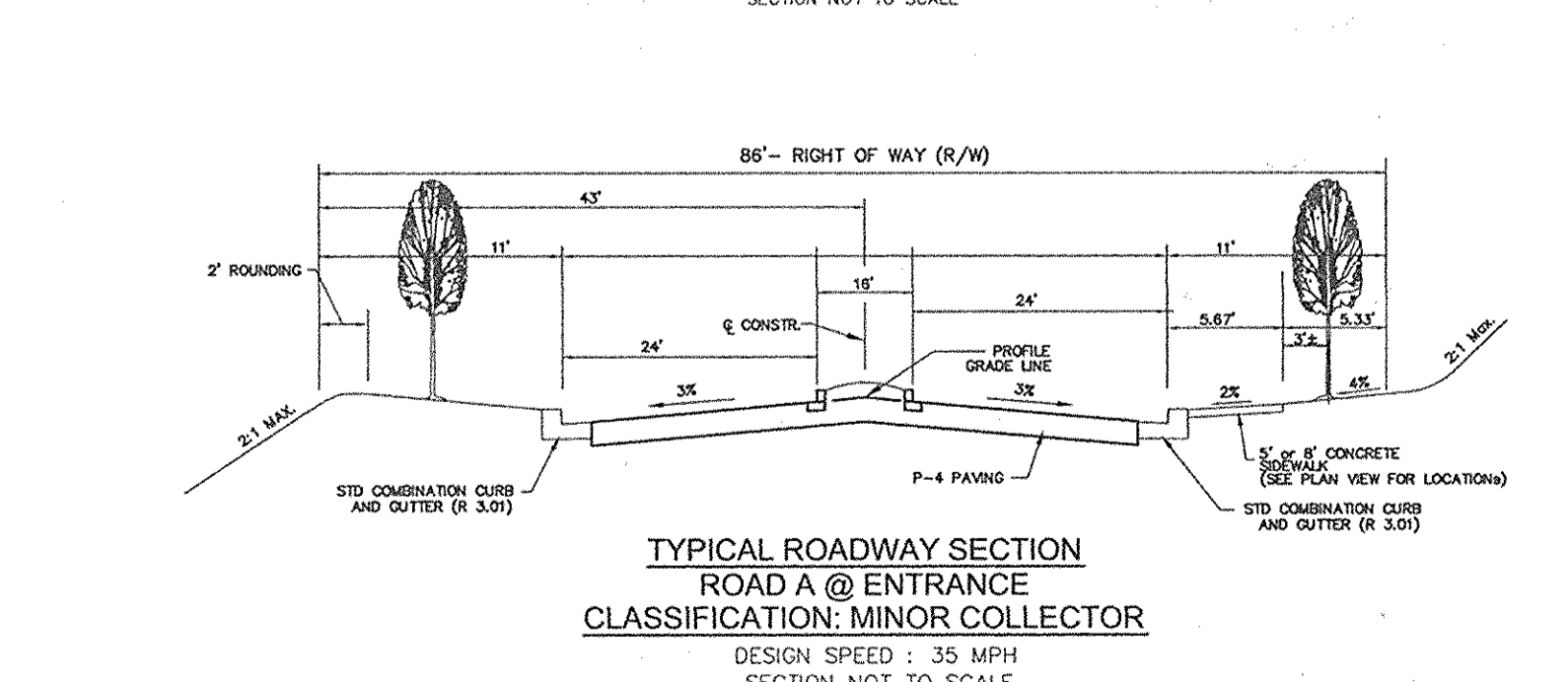
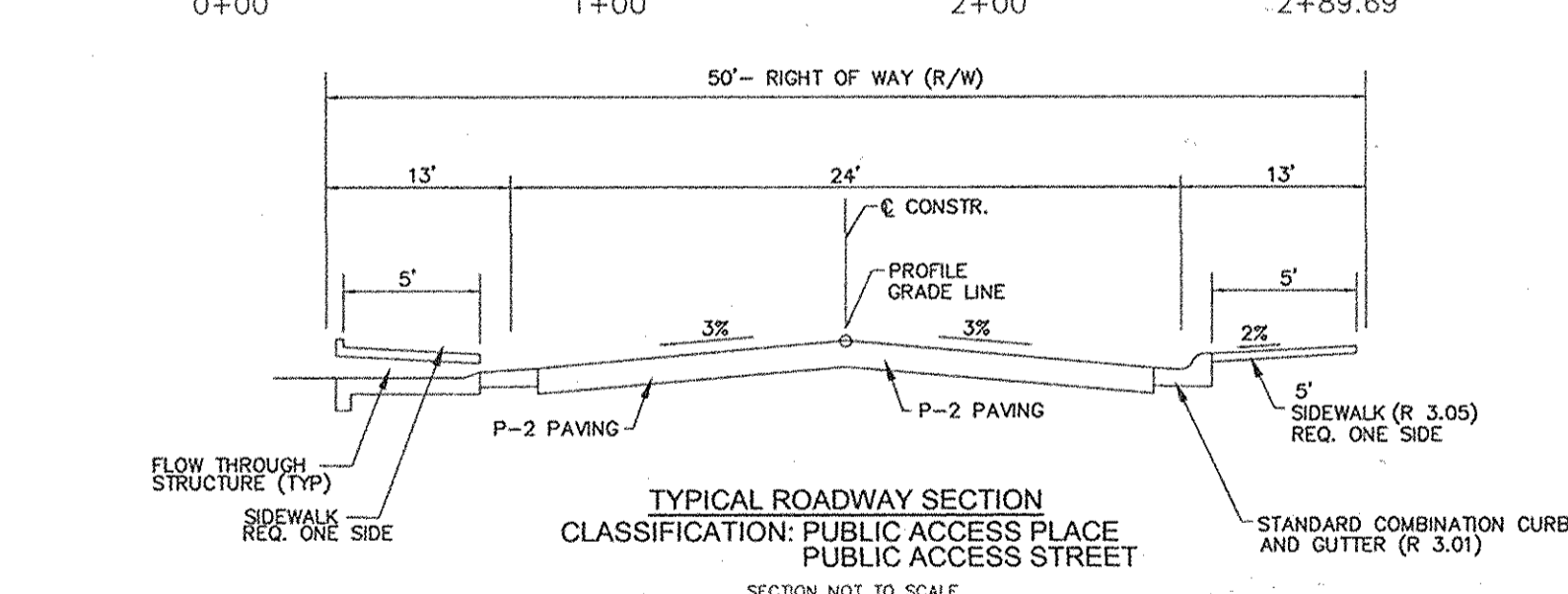
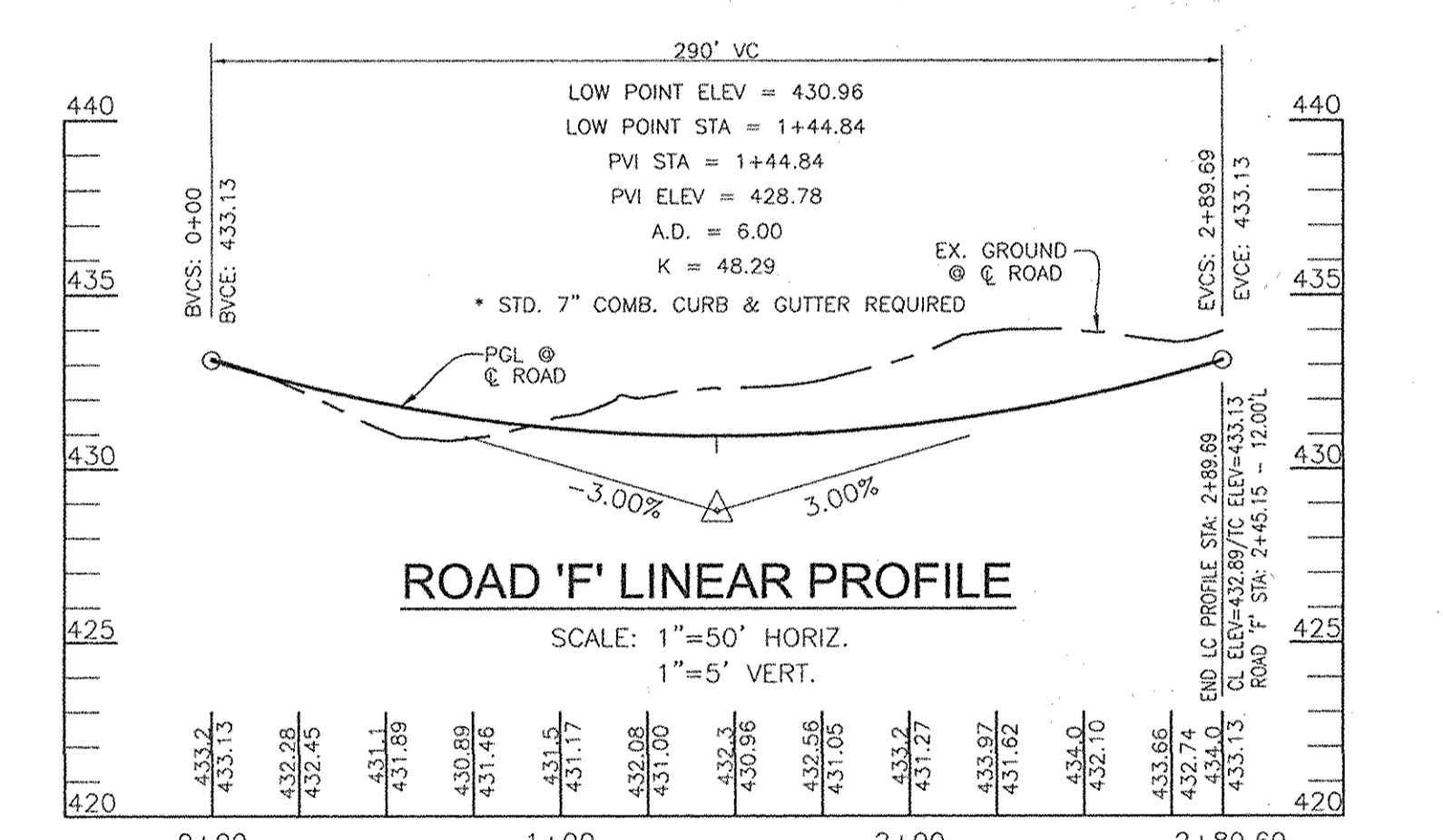
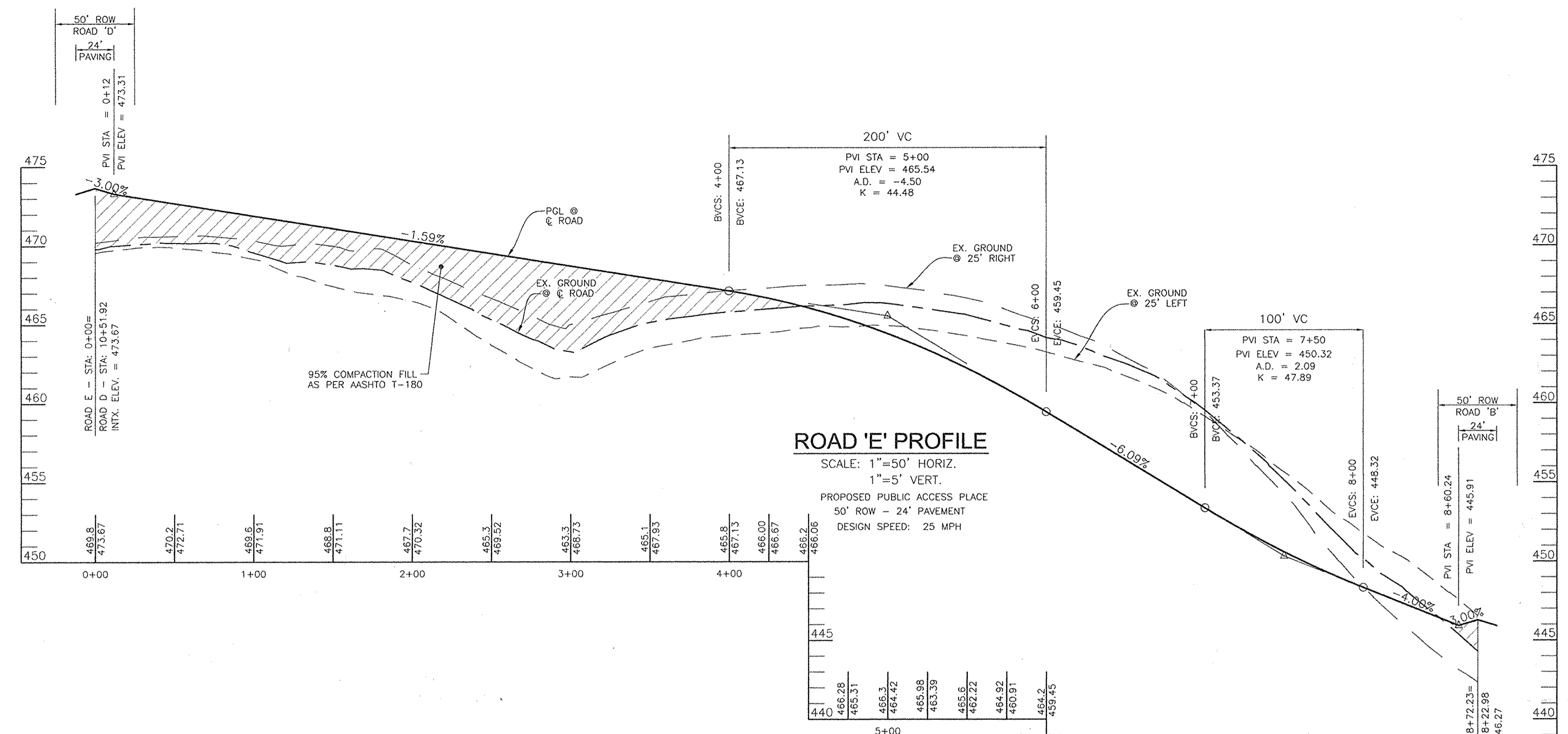
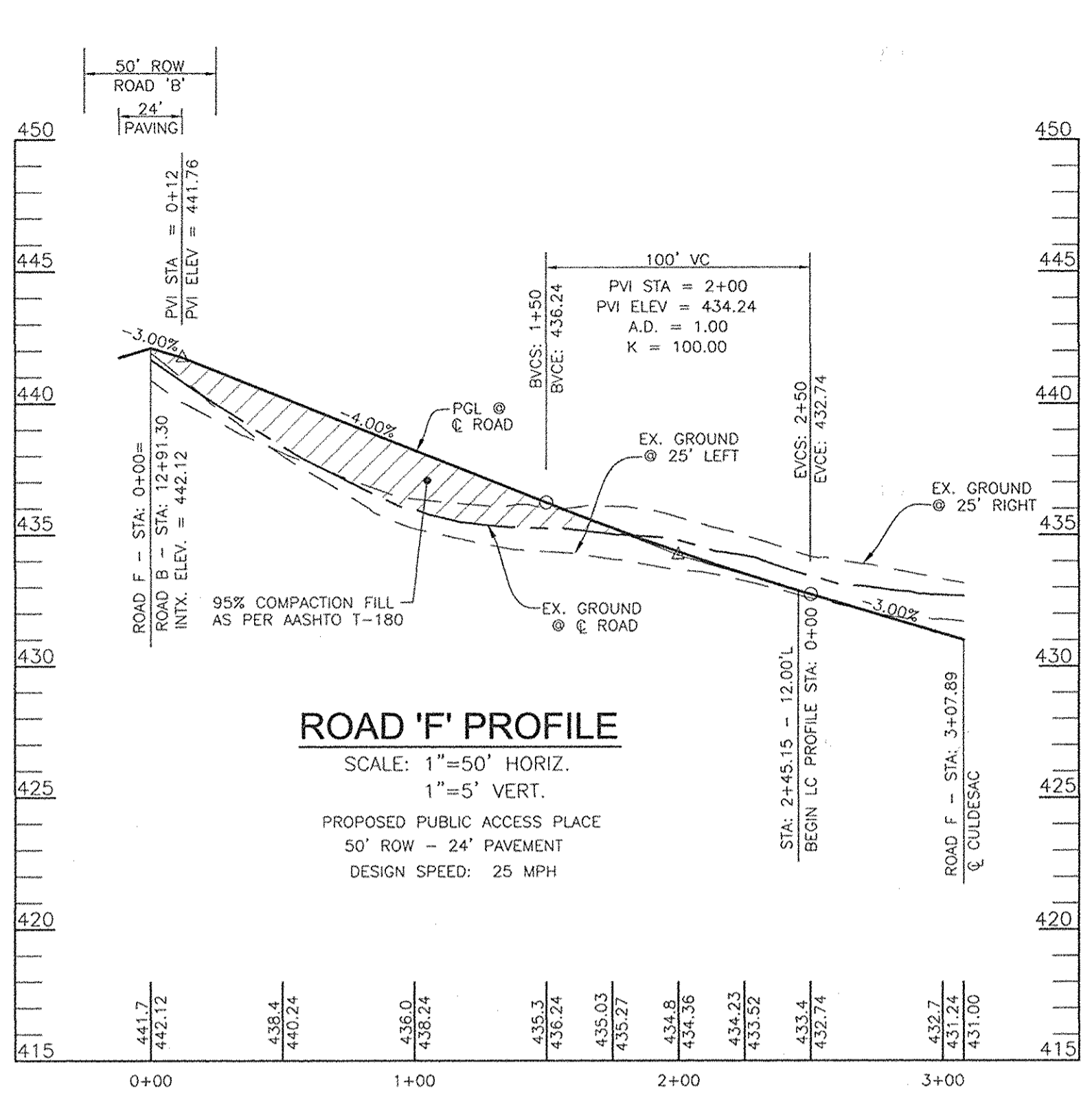
ZONED: R-ED-MXD-3
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERS, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELIGOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.9961

DESIGN BY: RHW/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHW
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRES DATE: 09-27-2018.

11 SHEET OF 45



OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY ROAD "E", "F" & "G" PROFILES
MAPLE LAWN SOUTH
SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
(FUTURE LOTS 173-176)
AND OPEN SPACE LOT 177-189
TAX MAP 46 - GRID 2 - PARCEL 113
5TH ELECTION DISTRICT
DPZ REF: ECP-14-093, WP-15-136, PB#415
ZONED: R-ED-MXD-3
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2018.

DESIGN BY: RHY/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHY
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

12 SHEET OF 45

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

APPROVED
PLANNING BOARD OF HOWARD COUNTY

PB #415
JUNE 30, 2015
DATE

9-13-15
DATE

PLANNING DIRECTOR

LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREES
- EXISTING TREELINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- M1B2 M1D3 SOILS BOUNDARY
- PROPOSED SIDEWALK
- PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
- PROPOSED STREET LIGHT
- LOD LIMIT OF DISTURBANCE

MATCH LINE - SEE SHEET 14

MATCH LINE - SEE SHEET 16



OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY GRADING PLAN
MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
 (FUTURE LOTS 173-176)
 AND OPEN SPACE LOT 177-189
 TAX MAP 46 - GRID 2 - PARCEL 113
 5TH ELECTION DISTRICT
 02Z REF: ECP-14-093, WP-15-136, PB#415
 ZONED: R-ED-MXD-3
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

DESIGN BY: RHV/CAH
DRAWN BY: KG/CAH
CHECKED BY: RHV
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 08-27-2018.

13 SHEET OF 45

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL NAME / DESCRIPTION	GROUP	HYDRIC	PERCENT SAND	K FACTOR	PERCENT CLAY	PERCENT SILT
BsA BAILE SALT LOAM, 0 TO 3 PERCENT SLOPES	D	YES	0.32	NO	NO	NO
GaA GLENLEIGH LOAM, 0 TO 3 PERCENT SLOPES	B	NO	0.20	YES	NO	NO
GaB GLENLEIGH LOAM, 3 TO 8 PERCENT SLOPES	B	NO	0.20	YES	NO	NO
GmB GLENVILLE SALT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	0.37	YES	YES	YES
GmC GLENVILLE SALT LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	0.37	NO	PARTIAL	PARTIAL
MdC MAJOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	0.24	YES	NO	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY
 NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT
 *BAILE COMPONENT OF GmB, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC

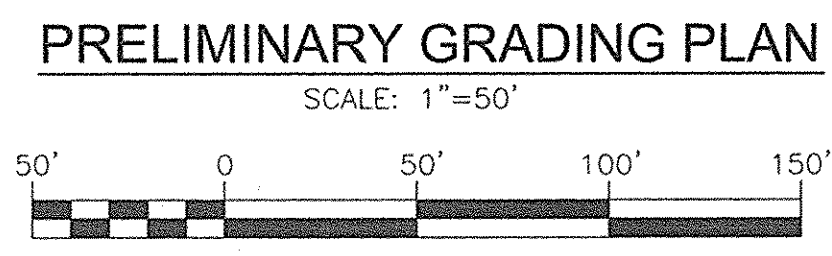
TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

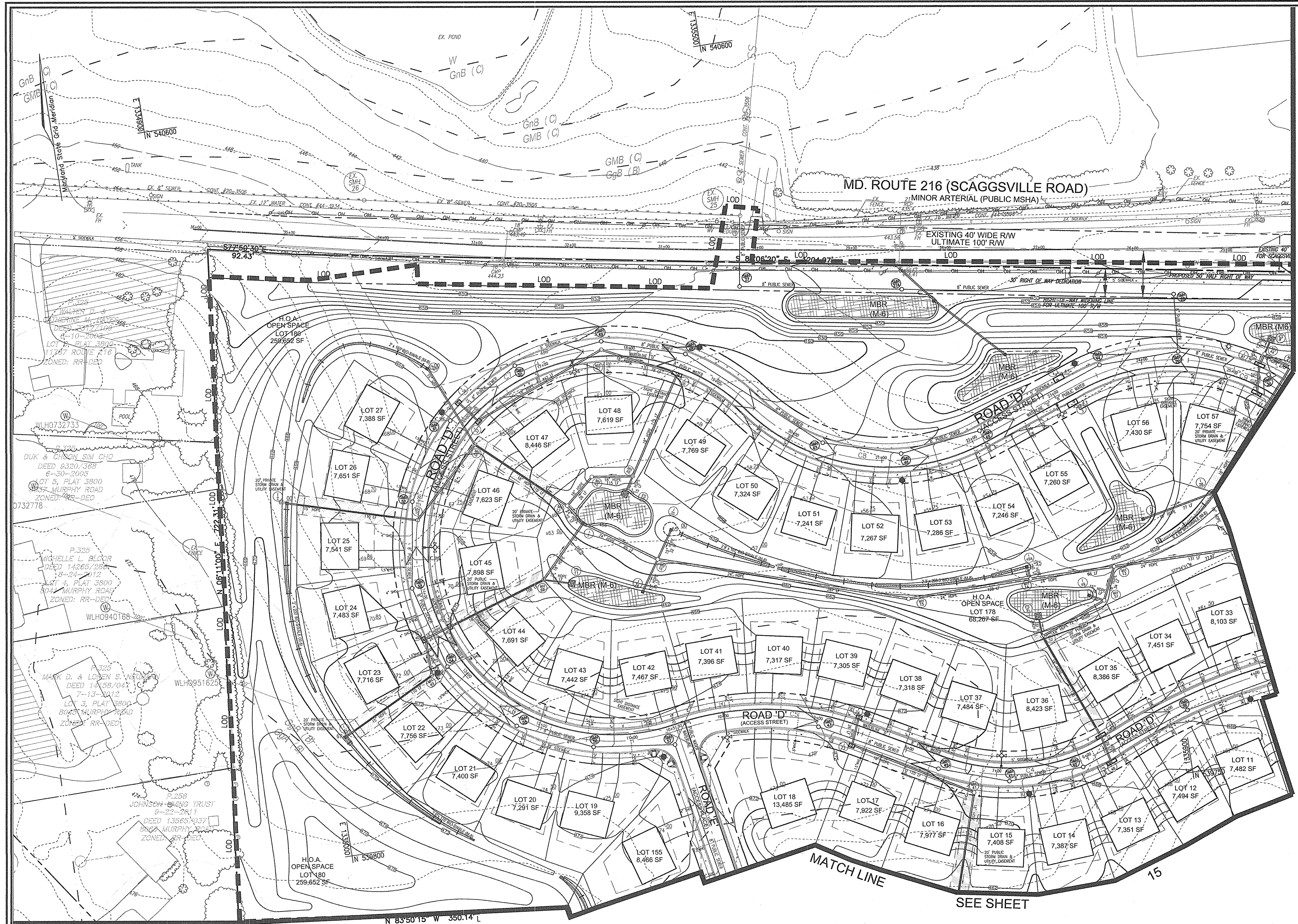
APPROVED
 PLANNING BOARD OF HOWARD COUNTY

PB #415
 JUNE 30, 2015
 DATE

7-12-15
 DATE

PLANNING DIRECTOR





MATCH LINE - SEE SHEET 13

LEGEND:

	EXISTING CONTOUR
	PROPOSED CONTOUR
	EXISTING SPOT ELEVATION
	PROPOSED SPOT ELEVATION
	EXISTING CURB AND GUTTER
	PROPOSED CURB AND GUTTER
	EXISTING UTILITY POLE
	PROPOSED UTILITY POLE
	EXISTING MAILBOX
	PROPOSED MAILBOX
	EXISTING SIGN
	PROPOSED SIGN
	EXISTING SANITARY MANHOLE
	PROPOSED SANITARY MANHOLE
	EXISTING SANITARY LINE
	PROPOSED SANITARY LINE
	EXISTING CLEANOUT
	PROPOSED CLEANOUT
	EXISTING FIRE HYDRANT
	PROPOSED FIRE HYDRANT
	EXISTING WATER LINE
	PROPOSED WATER LINE
	EXISTING STORM DRAIN
	PROPOSED STORM DRAIN
	EXISTING STORM DRAIN INLET
	PROPOSED STORM DRAIN INLET
	EXISTING TREES
	PROPOSED TREES
	EXISTING FENCE
	PROPOSED FENCE
	EXISTING PROPERTY LINE
	PROPOSED PROPERTY LINE
	EXISTING RIGHT-OF-WAY LINE
	PROPOSED RIGHT-OF-WAY LINE
	EXISTING SOILS BOUNDARY
	PROPOSED SOILS BOUNDARY
	EXISTING SIDEWALK
	PROPOSED SIDEWALK
	EXISTING PUBLIC DRAINAGE AND UTILITY EASEMENT
	PROPOSED PUBLIC DRAINAGE AND UTILITY EASEMENT
	EXISTING PRIVATE DRAINAGE AND UTILITY EASEMENT
	PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
	EXISTING STREET LIGHT
	PROPOSED STREET LIGHT
	EXISTING LIMIT OF DISTURBANCE
	PROPOSED LIMIT OF DISTURBANCE

OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
 PRELIMINARY GRADING PLAN
MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
 (FUTURE LOTS 173-176)
 AND OPEN SPACE LOT 177-189
 ZONED: R-ED-MXD-3
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2016.

DESIGN BY: RHV/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHV
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

14 SHEET OF 45

MATCH LINE SEE SHEET 15

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

APPROVED
 PLANNING BOARD OF HOWARD COUNTY

DATE: 7-13-15

DATE: JUNE 30, 2015

PRELIMINARY GRADING PLAN
 SCALE: 1"=50'

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL	NAME / DESCRIPTION	GROUP	HYDRIC	WATER	PERCENT	K FACTOR	PERCENT	ERODIBILITY	PERCENT
BaA	BRAE SCL LOAM, 0 TO 3 PERCENT SLOPES	D	YES	YES	0.32	NO	YES	NO	NO
BaB	BRAE SCL LOAM, 0 TO 3 PERCENT SLOPES	B	NO	NO	0.20	YES	NO	NO	NO
GaB	GLENGLE LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.20	YES	NO	NO	NO
GmB	GLENGLE SCL LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.37	YES	NO	NO	NO
GmC	GLENGLE-SCL SCL LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	PARTIALLY	0.37	NO	PARTIAL	NO	NO
MmC	MAJOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO	NO	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY NOTE:
 HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT
 *BALE COMPONENT OF GmB, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC



LEGEND:

---	EXISTING CONTOUR
---	PROPOSED CONTOUR
+	PROPOSED SPOT ELEVATION
+	EXISTING SPOT ELEVATION
---	EXISTING CURB AND GUTTER
---	PROPOSED CURB AND GUTTER
---	EXISTING UTILITY POLE
---	PROPOSED UTILITY POLE
---	EXISTING LIGHT POLE
---	EXISTING MAILBOX
---	EXISTING SIGN
---	EXISTING SANITARY MANHOLE
---	EXISTING SANITARY LINE
---	EXISTING CLEANOUT
---	EXISTING FIRE HYDRANT
---	EXISTING WATER LINE
---	PROPOSED STORM DRAIN
---	PROPOSED STORM DRAIN INLET
---	EXISTING TREES (FIELD LOCATED)
---	EXISTING TREELINE (FIELD LOCATED)
---	SOILS BOUNDARY
---	EXISTING FENCE
---	PROPERTY LINE
---	RIGHT-OF-WAY LINE
---	PROPOSED PUBLIC DRAINAGE AND UTILITY EASEMENT
---	PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
---	PROPOSED STREET LIGHT
---	PROPOSED SIDEWALK
---	LIMIT OF DISTURBANCE

OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
 PRELIMINARY GRADING PLAN
MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
 (FUTURE LOTS 173-176)
 AND OPEN SPACE LOT 177-189

TAX MAP 46 - GRID 2 - PARCEL 113
 5TH ELECTION DISTRICT
 DPZ REF: ECP-14-093, WP-15-136, PB#415

ZONED: R-ED-MXD-3
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELICOTT CITY, MD 21043
 TEL: 410.461.2665
 FAX: 410.461.2661

PROFESSIONAL CERTIFICATE

DESIGN BY: RHW/GAH
 DRAWN BY: KCG/GAH
 CHECKED BY: RHW
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A SOLE LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2016

15 SHEET OF 45

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL	NAME / DESCRIPTION	GROUP	HYDRIC	PERCENT SAND	K FACTOR	PERCENT SILT	PERCENT CLAY
BaA	BALE SILT LOAM, 0 TO 3 PERCENT SLOPES	D	YES	YES	0.32	NO	YES
CaA	GLENCLE LOAM, 0 TO 3 PERCENT SLOPES	D	NO	NO	0.20	YES	NO
GcB	GLENCLE LOAM, 3 TO 8 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
GmB	GLENCLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.37	YES	YES
GcB	GLENCLE SILT LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	PARTIALLY*	0.37	NO	PARTIAL
MgC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO

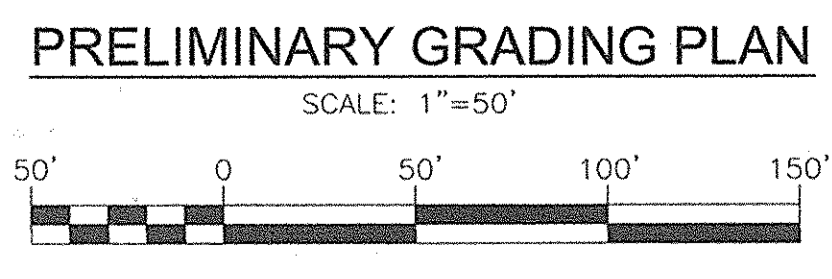
TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY
 NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT
 *BALE COMPONENT OF GcB, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

APPROVED
 PLANNING BOARD OF HOWARD COUNTY

PB #415
 JUNE 30, 2015
 DATE

9-19-15
 DATE



K:\PROJ\11-34\ENGINEERING\PRELIMS_P\PRELIM_GROUNDING_PLAN.dwg, 8/11/2015 9:02:28 AM



LEGEND:

- EXISTING CONTOUR
- - - PROPOSED CONTOUR
- + 40.28 PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREES (FIELD LOCATED)
- EXISTING FREELINE (FIELD LOCATED)
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- MIB2 SOILS BOUNDARY
- MIB3
- MODERATE SLOPES (10% - 24.99%)
- STEEP SLOPE (>25%)
- PROPOSED PUBLIC DRAINAGE AND UTILITY EASEMENT
- PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
- PROPOSED FOREST CONSERVATION EASEMENT (RETENTION)
- PROPOSED FOREST CONSERVATION EASEMENT (AFFORESTATION)
- PROPOSED 10' CONSTRUCTION & UTILITY EASEMENT
- EXISTING WETLAND
- PROPOSED STREET LIGHT
- LOD LIMIT OF DISTURBANCE

OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

PRELIMINARY GRADING PLAN



MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL NAME / DESCRIPTION	GROUP	HYDRIC	HYDRIC INDICATORS	K FACTOR	PERM. FARM/ROAD	CRITICAL SLOPE	WY. PROSP.
BaA BALE Silt LOAM, 0 TO 3 PERCENT SLOPES	D	YES	0.32	NO	YES	NO	NO
G9A GLENLEIGH LOAM, 0 TO 3 PERCENT SLOPES	B	NO	0.20	NO	YES	NO	NO
G9B GLENLEIGH LOAM, 3 TO 8 PERCENT SLOPES	B	NO	0.20	NO	YES	NO	NO
G9C GLENLEIGH Silt LOAM, 3 TO 8 PERCENT SLOPES	C	NO	0.37	NO	YES	YES	YES
G9B GLENLEIGH-BALE Silt LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	0.37	NO	PARTIAL	NO	PARTIAL
M9C MAJOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	0.24	NO	YES	NO	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY
 NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT
 *BALE COMPONENT OF G9B, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

APPROVED
 PLANNING BOARD OF HOWARD COUNTY

PB #415
 JUNE 30, 2015
 DATE

9-12-15
 DATE

PLANNING DIRECTOR

PRELIMINARY EQUIVALENT SKETCH PLAN
 PRELIMINARY GRADING PLAN
MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
 (FUTURE LOTS 173-176)
 AND OPEN SPACE LOT 177-189

TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
 5TH ELECTION DISTRICT
 DPZ REF: ECP-14-093, WP-15-136, PB#415 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410.461.7666
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961

DESIGN BY: RHV/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHV
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.D. NO.: 11-34

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. MY LICENSE NO. IS 16192 AND MY EXPIRATION DATE IS 09-27-2016

16 SHEET OF 45



LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREES (FIELD LOCATED)
- EXISTING TREELINE (FIELD LOCATED)
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SOILS BOUNDARY
- MODERATE SLOPES (10% - 24.99%)
- STEEP SLOPE (>25%)
- PROPOSED PUBLIC DRAINAGE AND UTILITY EASEMENT
- PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
- PROPOSED FOREST CONSERVATION EASEMENT (AFFORESTATION)
- PROPOSED 10' CONSTRUCTION & UTILITY EASEMENT
- PROPOSED STREET LIGHT
- LIMIT OF DISTURBANCE

OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
 PRELIMINARY GRADING PLAN
MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
 (FUTURE LOTS 173-176)
 AND OPEN SPACE LOT 177-189
 TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DPZ REF: ECP-14-023, WP-15-136, PB#415

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410.461.7666
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961

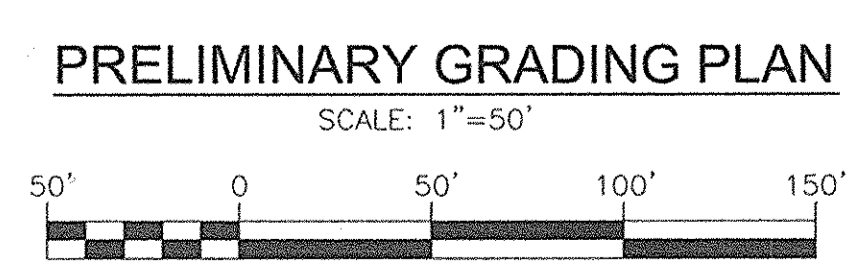
DESIGN BY: RHW/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHW
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 07-27-2018

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL	NAME / DESCRIPTION	GROUP	HYDRIC	PERCENT HUMIDITY	K FACTOR	PERCENT IRONMAN	PERCENT POTASSIUM
BaA	BALE SILT LOAM, 0 TO 3 PERCENT SLOPES	D	YES	YES	0.32	NO	YES
GaA	GLENELE LOAM, 0 TO 3 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
GaB	GLENELE LOAM, 3 TO 8 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
GaB	GLENELE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.37	YES	YES
GaB	GLENELE-SILT LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	PARTIALLY*	0.37	NO	PARTIAL
MaC	MAJOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY
 NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT
 *BALE COMPONENT OF GaB, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC



TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

PLANNING DIRECTOR

APPROVED
 PLANNING BOARD OF HOWARD COUNTY

PB #415
 JUNE 30, 2015
 DATE

9-18-15
 DATE

MATCH LINE - SEE SHEET 16

LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- PROPOSED UTILITY POLE
- EXISTING LIGHT POLE
- PROPOSED LIGHT POLE
- EXISTING MAILBOX
- PROPOSED MAILBOX
- EXISTING SIGN
- PROPOSED SIGN
- EXISTING SANITARY MANHOLE
- PROPOSED SANITARY MANHOLE
- EXISTING SANITARY LINE
- PROPOSED SANITARY LINE
- EXISTING CLEANOUT
- PROPOSED CLEANOUT
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREES
- PROPOSED TREES
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING FENCE
- PROPOSED FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SOILS BOUNDARY
- EXISTING WETLAND
- PROPOSED WETLAND
- MODERATE SLOPES (1% - 24.99%)
- STEEP SLOPE (>25%)
- PROPOSED FOREST CONSERVATION EASEMENT (RETENTION)
- PROPOSED FOREST CONSERVATION EASEMENT (AFForestation)
- PROPOSED 10' CONSTRUCTION & UTILITY EASEMENT
- PROPOSED STREET LIGHT
- LIMIT OF DISTURBANCE

MATCH LINE - SEE SHEET 17

PROPOSED FOREST CONSERVATION EASEMENT
5.43 AC. (AFForestation)

PROPOSED FOREST CONSERVATION EASEMENT
7.88 AC. (RETENTION)

NON-BUILDABLE
PARCEL 'A'

MATCH LINE - SEE SHEET 19

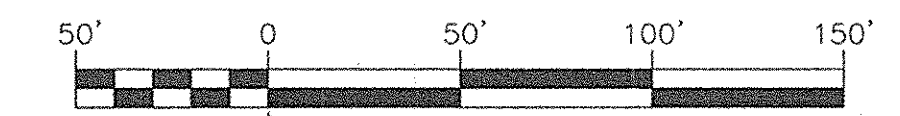
PRELIMINARY GRADING PLAN

SCALE: 1"=50'

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL NAME / DESCRIPTION	GROUP	HYDRIC	MOISTURE REGIMES	K FACTOR	PERCENT SAND	PERCENT SILT	PERCENT CLAY
BsA BAILE SILT LOAM, 0 TO 3 PERCENT SLOPES	B	NO	YES	0.32	NO	NO	NO
GsA GLENHIG LOAM, 0 TO 3 PERCENT SLOPES	B	NO	NO	0.20	YES	NO	NO
GsB GLENHIG LOAM, 3 TO 8 PERCENT SLOPES	B	NO	NO	0.30	YES	NO	NO
GsC GLENHIG SILT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.37	YES	YES	NO
GsD GLENHIG SHALE SILT LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	PARTIALLY*	0.37	NO	PARTIAL	PARTIAL
MsC MAJOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY
 NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT
 *BAILE COMPONENT OF GsB, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC



OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

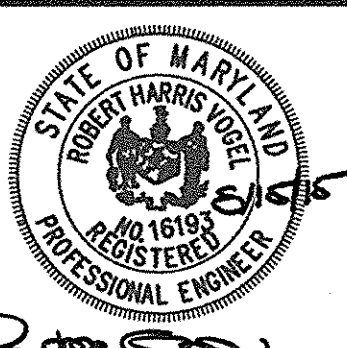
PRELIMINARY EQUIVALENT SKETCH PLAN
 PRELIMINARY GRADING PLAN

MAPLE LAWN SOUTH

SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A' (FUTURE LOTS 173-176) AND OPEN SPACE LOT 177-189
 ZONED: R-ED-MXD-3 HOWARD COUNTY, MARYLAND

TAX MAP 46 - GRID 2 - PARCEL 113
 5TH ELECTION DISTRICT
 DPZ REF: ECP-14-093, WP-15-136, P6#415

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961



DESIGN BY: RHW/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHW
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 08-27-2018.

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

APPROVED
 PLANNING BOARD OF HOWARD COUNTY

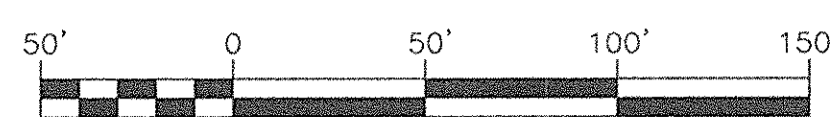
PB #415
 JUNE 30, 2015
 DATE

9-18-15
 DATE

PLANNING DIRECTOR

PRELIMINARY GRADING PLAN

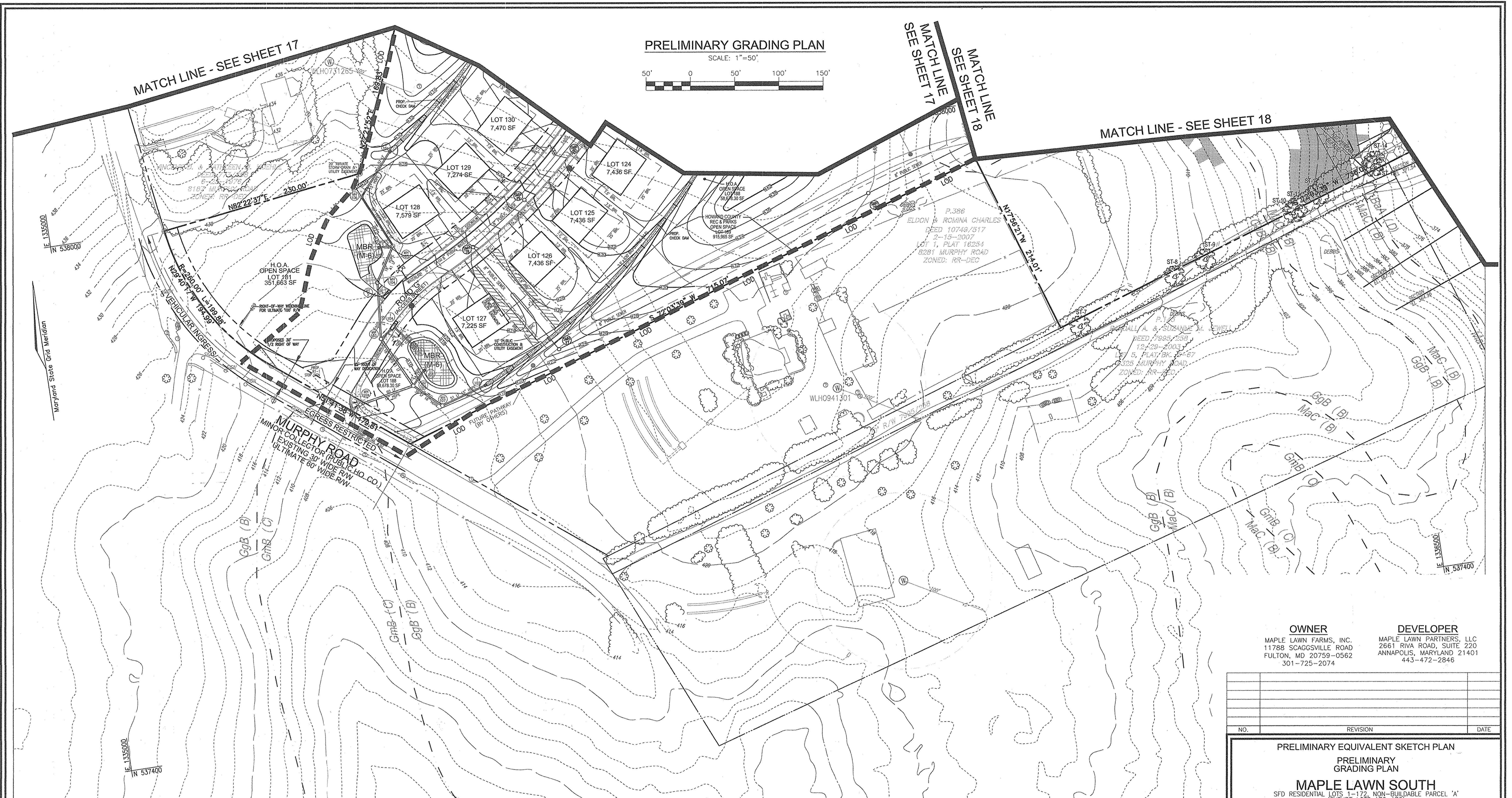
SCALE: 1"=50'



MATCH LINE - SEE SHEET 17

MATCH LINE
SEE SHEET 17
MATCH LINE
SEE SHEET 18

MATCH LINE - SEE SHEET 18



OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY GRADING PLAN

MAPLE LAWN SOUTH
SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
(FUTURE LOTS 173-176)
AND OPEN SPACE LOT 177-189

TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DPZ REF: ECP-14-093, WP-15-136, PB#415

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410.461.7666
ELLCOTT CITY, MD 21043 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: RHV/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHV
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2016

19 SHEET OF 45

LEGEND:

	EXISTING CONTOUR		EXISTING VEGETATION (APPROXIMATE LOCATION)
	PROPOSED CONTOUR		EXISTING FENCE
	PROPOSED SPOT ELEVATION		EXISTING FENCE PROPERTY LINE
	EXISTING SPOT ELEVATION		EXISTING FENCE RIGHT-OF-WAY LINE
	EXISTING CURB AND GUTTER		SOILS BOUNDARY
	PROPOSED CURB AND GUTTER		PROPOSED SIDEWALK
	EXISTING UTILITY POLE		PROPOSED STREET LIGHT
	EXISTING LIGHT POLE		EXISTING TREE LINE (FIELD LOCATED)
	EXISTING MAILBOX		LIMIT OF DISTURBANCE
	EXISTING SIGN		MODERATE SLOPES (15% - 24.99%)
	EXISTING SANITARY MANHOLE		STEEP SLOPE (>25%)
	EXISTING SANITARY LINE		EXISTING WETLAND
	EXISTING CLEANOUT		PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
	EXISTING FIRE HYDRANT		PROPOSED FOREST CONSERVATION EASEMENT (RETENTION)
	EXISTING WATER LINE		
	PROPOSED STORM DRAIN		
	PROPOSED STORM DRAIN INLET		
	EXISTING TREES (FIELD LOCATED)		

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL / NAME / DESCRIPTION	GROUP	HYDRIC	MOISTURE REGIMES	K FACTOR	PERCENT SAND	PERCENT SILT/CLAY
BsA BAILE SILT LOAM, 0 TO 3 PERCENT SLOPES	D	YES	YES	0.32	NO	YES
GaA GLENLEIGH LOAM, 0 TO 3 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
GbF GLENLEIGH LOAM, 3 TO 8 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
GmB GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.37	YES	YES
GmB GLENVILLE-BAILE SILT LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	PARTIALLY*	0.37	NO	PARTIAL
MacC MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO

TAKEN FROM USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY
NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT
*BAILE COMPONENT OF GmB, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

APPROVED
PLANNING BOARD OF HOWARD COUNTY

PB #415
JUNE 30, 2015
DATE

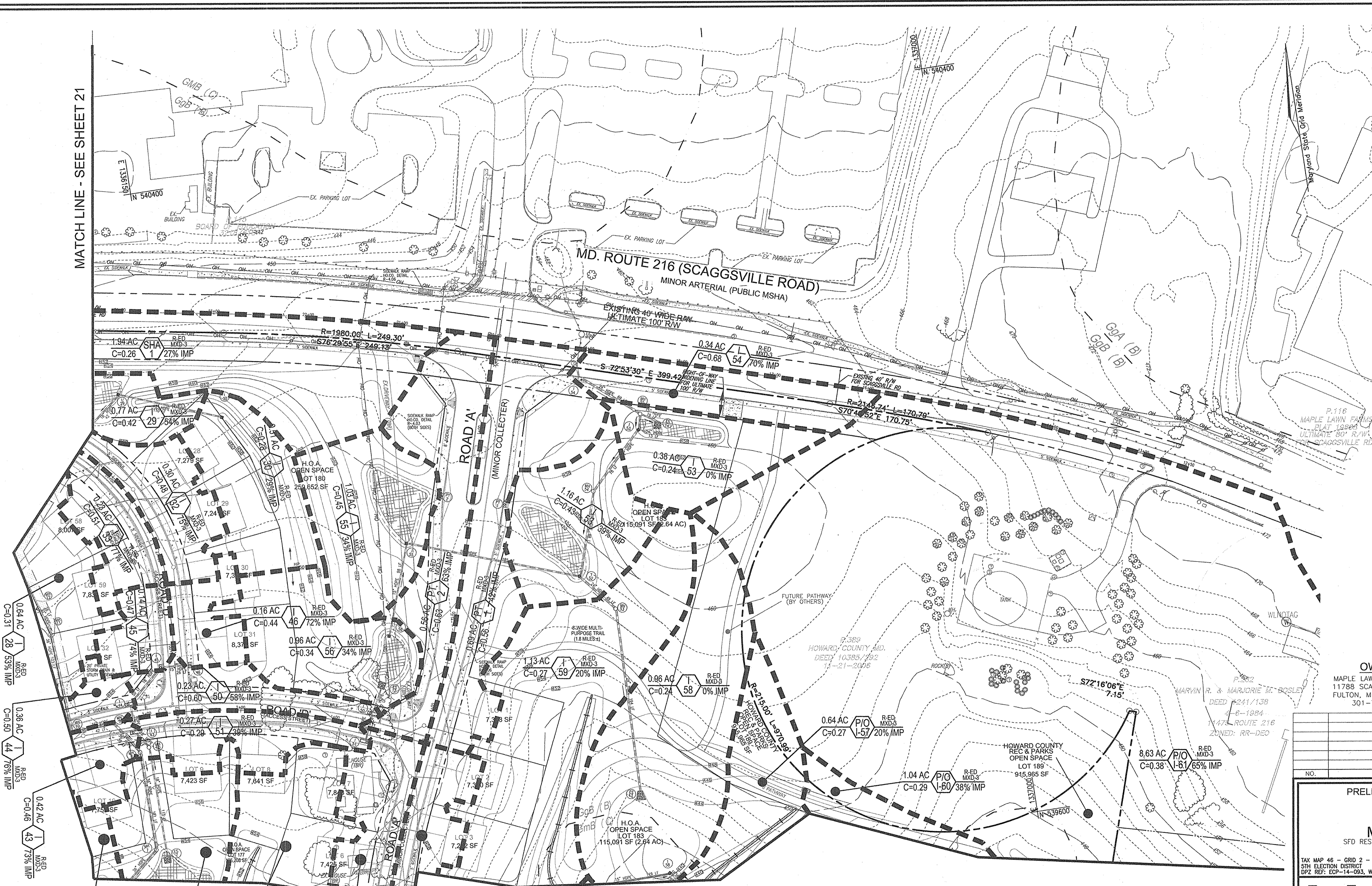
PLANNING DIRECTOR
DATE 9-18-15

LEGEND:

- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREELINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- PROPOSED SIDEWALK
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- DRAINAGE AREA #
- 'C' FACTOR
- ZONING #
- % IMPERVIOUS
- DRAINAGE AREA DIVIDE
- PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
- PROPOSED STREET LIGHT

MATCH LINE - SEE SHEET 21

MATCH LINE - SEE SHEET 23



OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY STORM DRAIN DRAINAGE AREA MAP
MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
 (FUTURE LOTS 173-176)
 AND OPEN SPACE LOT 177-189

TAX MAP 46 - GRID 2 - PARCEL 113
 5TH ELECTION DISTRICT
 DPZ REF: ECP-14-093, WP-15-136, PB#415

ZONED: R-ED-MXD-3
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELUGGETT CITY, MD 21043 TEL: 410.461.7666
 FAX: 410.461.8966



PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2016.

DESIGN BY: RHW/GAH
 DRAWN BY: KGS/GAH
 CHECKED BY: RHW
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL NAME / DESCRIPTION	GROUP	HYDRIC	MOISTURE	K	FACTOR	PERCENT	PERCENT
BaA	B	NO	YES	0.32	NO	YES	NO
GaA	B	NO	NO	0.20	YES	NO	NO
GaB	B	NO	NO	0.20	YES	NO	NO
GmB	C	NO	NO	0.37	YES	YES	NO
GmC	C	PARTIALLY	PARTIALLY	0.37	NO	PARTIAL	PARTIAL
MgC	B	NO	NO	0.24	YES	NO	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY
 NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 3 PERCENT
 *BALE COMPONENT OF GmB, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC

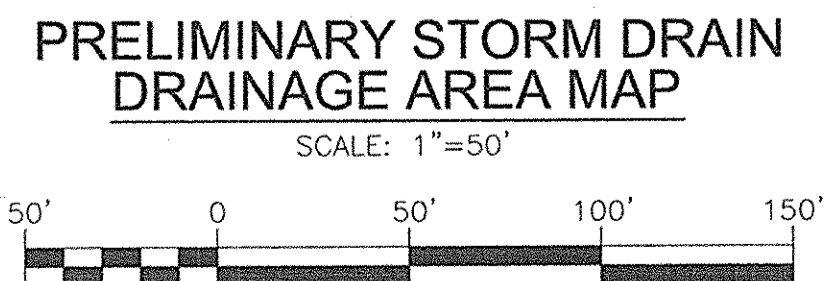
TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

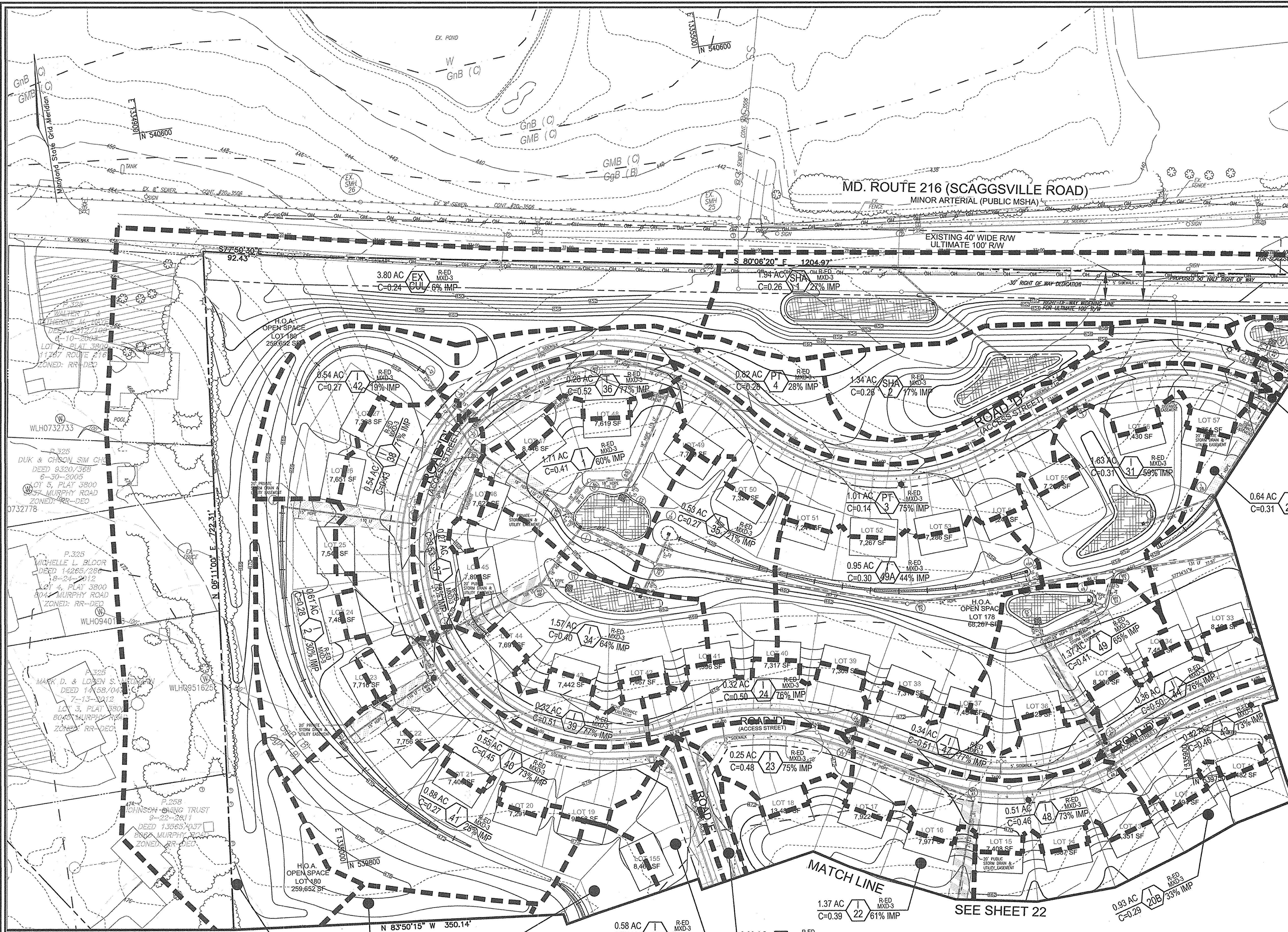
APPROVED
 PLANNING BOARD OF HOWARD COUNTY

PB #415
 JUNE 30, 2015
 DATE

9-12-15
 DATE

PLANNING DIRECTOR





MATCH LINE - SEE SHEET 20

LEGEND:

	EXISTING CONTOUR
	EXISTING SPOT ELEVATION
	EXISTING CURB AND GUTTER
	PROPOSED CURB AND GUTTER
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING MAILBOX
	EXISTING SIGN
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY LINE
	EXISTING CLEANOUT
	EXISTING FIRE HYDRANT
	EXISTING WATER LINE
	PROPOSED STORM DRAIN
	PROPOSED STORM DRAIN INLET
	EXISTING TREELINE
	EXISTING FENCE
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	PROPOSED SIDEWALK
	PROPOSED 10' CONTOUR
	PROPOSED 2' CONTOUR
	DRAINAGE AREA
	INLET #
	ZONING % IMPERVIOUS
	DRAINAGE AREA DIVIDE
	PROPOSED PUBLIC DRAINAGE AND UTILITY EASEMENT
	PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
	PROPOSED STREET LIGHT

OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
 PRELIMINARY STORM DRAIN DRAINAGE AREA MAP
MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
 (FUTURE LOTS 173-178)
 AND OPEN SPACE LOT 177-189
 TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DPZ REF: ECP-14-093, WP-15-136, PB#415

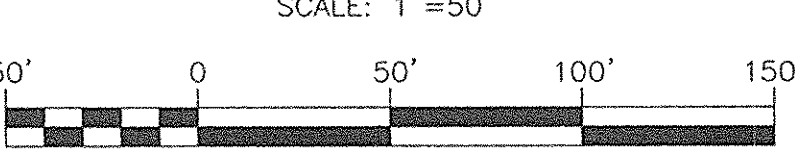
ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410.461.7666
 ELLICOTT CITY, MD 21043 FAX: 410.461.8966

PROFESSIONAL CERTIFICATE
 DESIGN BY: RHV/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHV
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 09-27-2016.

21 SHEET OF 45

PRELIMINARY STORM DRAIN DRAINAGE AREA MAP



MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL NAME / DESCRIPTION	GROUP	HYDRIC	PERCENT	K FACTOR	PERCENT	PERCENT
BaA	B	YES	0.32	NO	NO	NO
BaB	B	NO	0.20	YES	NO	NO
BaC	B	NO	0.20	YES	NO	NO
BaD	B	NO	0.37	YES	YES	NO
BaE	B	PARTIALLY	0.24	NO	PARTIAL	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY

NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT

*BALE COMPONENT OF GmB, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

APPROVED
 PLANNING BOARD OF HOWARD COUNTY

DATE: JUNE 30, 2015

PLANNING DIRECTOR



LEGEND:

- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREELINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- PROPOSED SIDEWALK
- PROPOSED 1' CONTOUR
- PROPOSED 2' CONTOUR

DRAINAGE AREA

C FACTOR

INLET #

ZONING % IMPERVIOUS

- DRAINAGE AREA DIVIDE
- PROPOSED PUBLIC DRAINAGE AND UTILITY EASEMENT
- PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
- PROPOSED STREET LIGHT

OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY STORM DRAIN DRAINAGE AREA MAP
MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A' (FUTURE LOTS 173-178) AND OPEN SPACE LOT 177-189
 TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DPZ REF: ECP-14-093, WP-15-136, P#415

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410.461.7666
 ELICOTT CITY, MD 21043 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2018.

DESIGN BY: RHW/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHW
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

22 SHEET OF 45

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL	NAME / DESCRIPTION	GROUP	HYDRIC	HYDRIC INDICATORS	K FACTOR	PERCENT PAVEMENT	CRS SLOPE
B/A	BALD Silt loam, 0 to 3 percent slopes	D	YES	YES	0.32	NO	YES
C/A	GLENGLE loam, 0 to 3 percent slopes	B	NO	NO	0.29	YES	NO
C/B	GLENGLE loam, 3 to 8 percent slopes	B	NO	NO	0.29	YES	NO
G/B	GLENGLE silt loam, 3 to 8 percent slopes	C	NO	NO	0.37	YES	YES
G/C	GLENGLE silt loam, 0 to 8 percent slopes	C	PARTIALLY	PARTIALLY	0.37	NO	PARTIAL
M/C	MANOR loam, 8 to 15 percent slopes	B	NO	NO	0.24	YES	NO

NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K FACTOR GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT

*BALE COMPONENT OF G/B, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

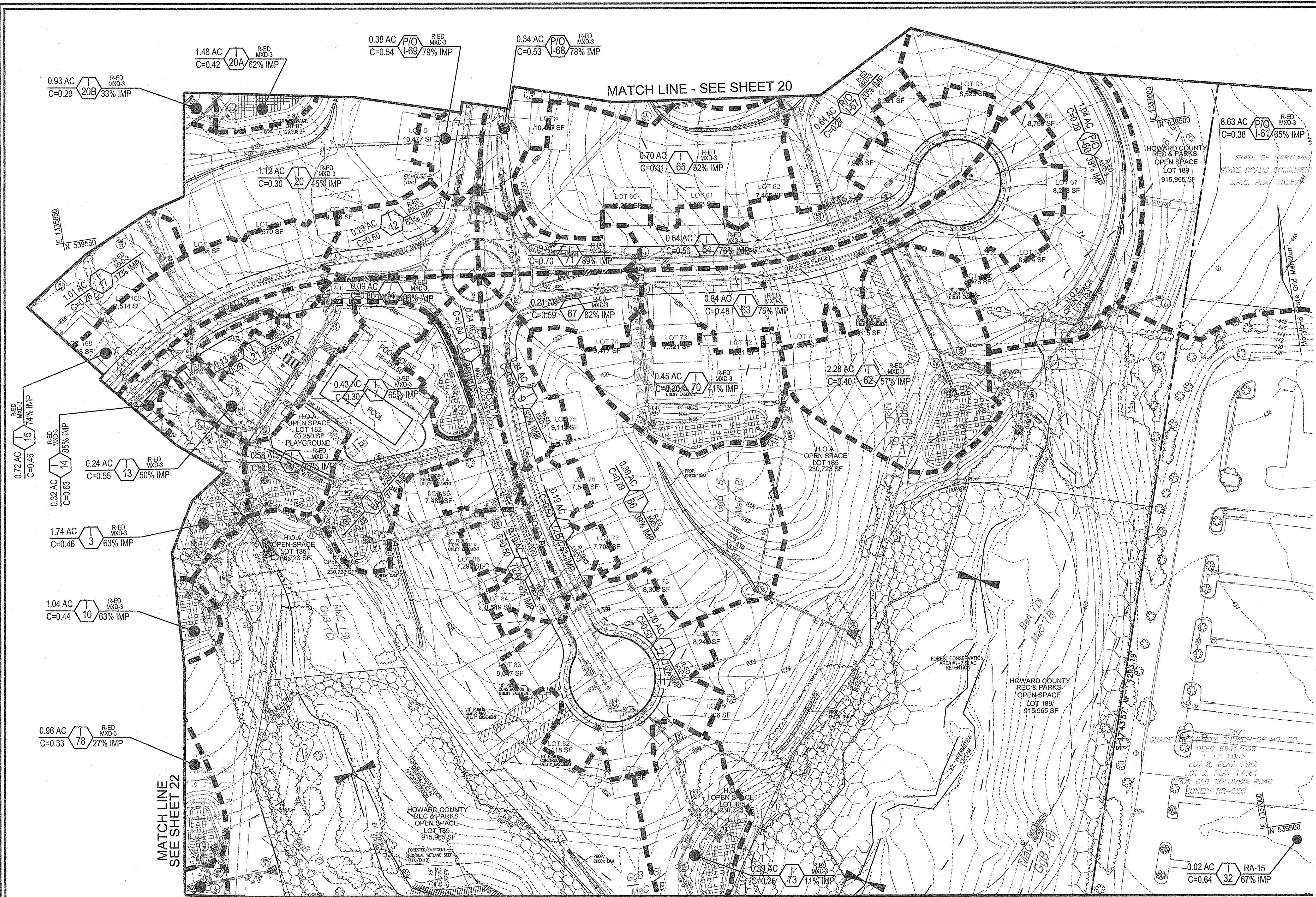
APPROVED
 PLANNING BOARD OF HOWARD COUNTY

SCALE: 1"=50'

DATE: 9-18-15

PB #415
 JUNE 30, 2015
 DATE

PLANNING DIRECTOR



LEGEND:

- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANDOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREE LINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- PROPOSED SIDEWALK
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR

DRAINAGE AREA
C FACTOR

INLET
#

ZONING
% IMPERVIOUS

- DRAINAGE AREA DIVIDE
- PROPOSED PUBLIC DRAINAGE AND UTILITY EASEMENT
- PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
- PROPOSED FOREST CONSERVATION EASEMENT (RETENTION)
- PROPOSED FOREST CONSERVATION EASEMENT (AFFORESTATION)
- PROPOSED STREET LIGHT

OWNER
MAPLE LAWN PARTNERS, INC.
11788 SCAGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY STORM DRAIN
DRAINAGE AREA MAP
MAPLE LAWN SOUTH
SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
(FUTURE LOTS 173-176)
AND OPEN SPACE LOT 177-189
TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
5TH ELECTION DISTRICT DPZ REF: ECP-14-093, WP-15-136, PB#415 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410-461-7666
FAX: 410-461-8961

PROFESSIONAL CERTIFICATE
DESIGN BY: RHV/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHV
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2018

23 SHEET OF 45

PRELIMINARY STORM DRAIN DRAINAGE AREA MAP
SCALE: 1"=50'

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL	NAME / DESCRIPTION	GROUP	HYDRIC	PERCENT ERODIBLE	K FACTOR	PERCENT IMPERVIOUS	PERCENT WOOD	PERCENT ROCK
BaA	BALE SILT LOAM, 0 TO 3 PERCENT SLOPES	D	YES	0.32	NO	NO	NO	NO
GaA	GLENNLEIGH LOAM, 0 TO 3 PERCENT SLOPES	B	NO	0.20	YES	NO	NO	NO
GaB	GLENNLEIGH LOAM, 3 TO 8 PERCENT SLOPES	B	NO	0.20	YES	NO	NO	NO
GaC	GLENNLEIGH SILT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	0.37	YES	YES	NO	NO
GaD	GLENNLEIGH-BALE SILT LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY*	0.37	NO	PARTIAL	NO	NO
MaC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	0.24	NO	YES	NO	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY
NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT
*BALE COMPONENT OF GaB, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC

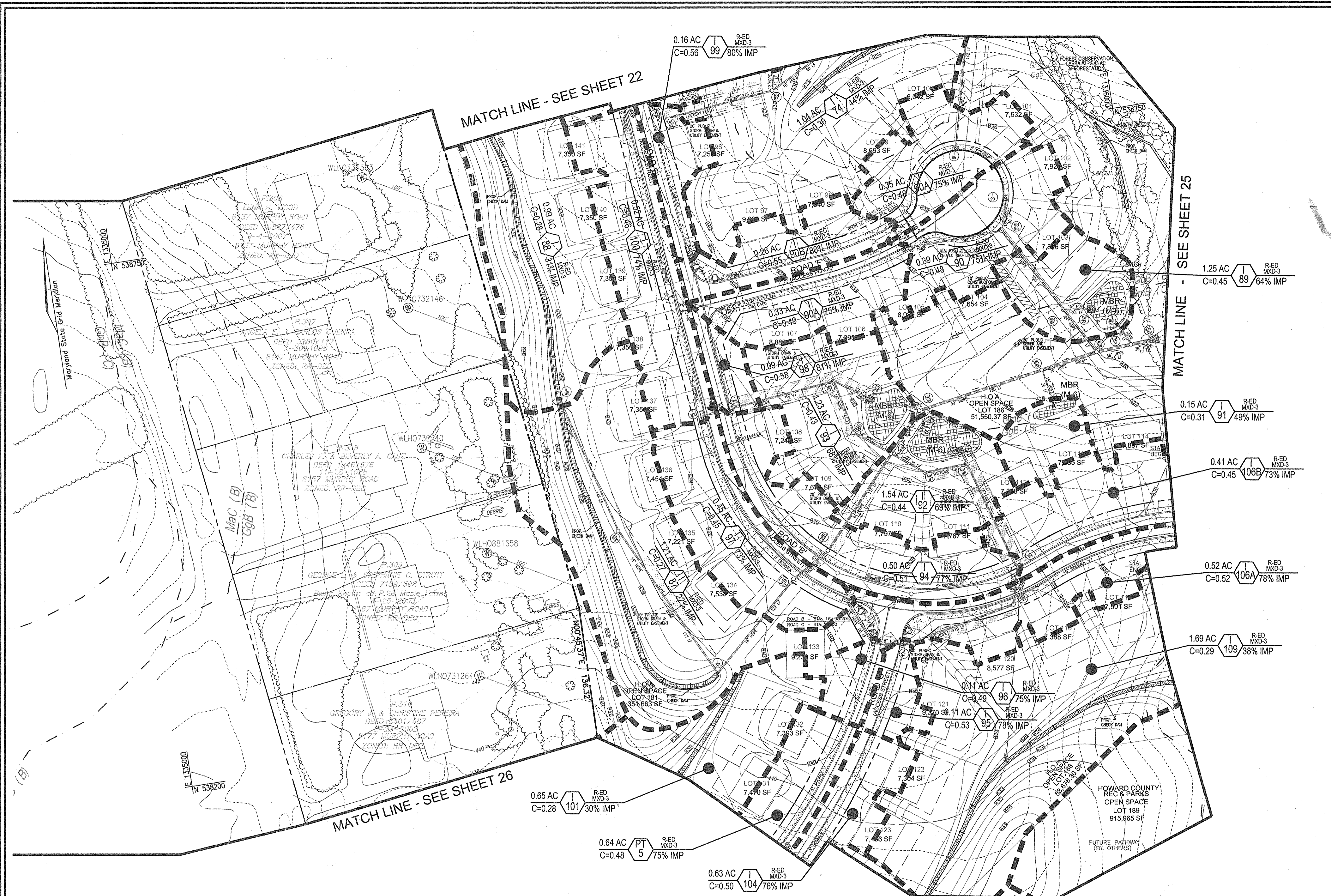
TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR

APPROVED
PLANNING BOARD OF HOWARD COUNTY

PB #415
JUNE 30, 2015
DATE

9-12-15
DATE



LEGEND:

- EXISTING CONTOUR
 - EXISTING SPOT ELEVATION
 - EXISTING CURB AND GUTTER
 - PROPOSED CURB AND GUTTER
 - EXISTING UTILITY POLE
 - EXISTING LIGHT POLE
 - EXISTING MAILBOX
 - EXISTING SIGN
 - EXISTING SANITARY MANHOLE
 - EXISTING SANITARY LINE
 - EXISTING CLEANOUT
 - EXISTING FIRE HYDRANT
 - EXISTING WATER LINE
 - PROPOSED STORM DRAIN
 - PROPOSED STORM DRAIN INLET
 - EXISTING TREELINE
 - EXISTING FENCE
 - PROPERTY LINE
 - RIGHT-OF-WAY LINE
 - PROPOSED SIDEWALK
 - PROPOSED 10' CONTOUR
 - PROPOSED 2' CONTOUR
- DRAINAGE AREA** **INLET** **ZONING**
'C' FACTOR **#** **% IMPERVIOUS**
- DRAINAGE AREA DIVIDE
 - PROPOSED PUBLIC DRAINAGE AND UTILITY EASEMENT
 - PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
 - PROPOSED FOREST CONSERVATION EASEMENT (AFFORESTATION)
 - PROPOSED STREET LIGHT

OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

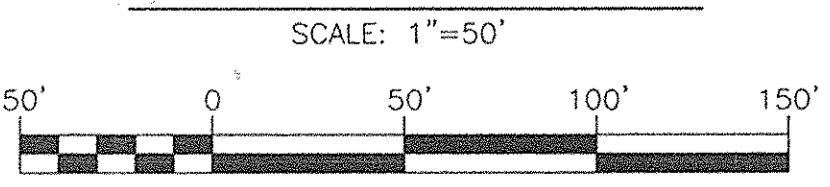
PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY STORM DRAIN DRAINAGE AREA MAP
MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
 (FUTURE LOTS 173-176)
 AND OPEN SPACE LOT 177-189
 TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DPZ REF: ECP-14-093, WP-15-136, PB#415

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410.461.7666
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2016

DESIGN BY: RHY/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHY
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

PRELIMINARY STORM DRAIN DRAINAGE AREA MAP



MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL NAME / DESCRIPTION	GROUP	HYDRIC	MOISTURE REGIMEN	K FACTOR	PERCENT SAND	PERCENT SILT	PERCENT CLAY
Bsa	B	YES	U	0.32	NO	YES	NO
Gsa	B	NO	NO	0.20	NO	YES	NO
Gsb	B	NO	NO	0.20	YES	NO	NO
Gsb	C	NO	NO	0.37	YES	YES	NO
Gsb	C	PARTIALLY	PARTIALLY*	0.37	NO	PARTIAL	NO
Msc	B	NO	NO	0.24	YES	NO	NO

NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT

*BALE COMPONENT OF Gsb, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

PLANNING DIRECTOR

APPROVED
 PLANNING BOARD OF HOWARD COUNTY

PB #415
 JUNE 30, 2015
 DATE

9-18-15
 DATE

MATCH LINE - SEE SHEET 23

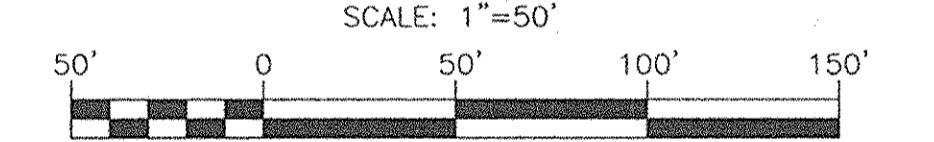
LEGEND:

- - - - - EXISTING CONTOUR
 - EXISTING SPOT ELEVATION
 - ==== EXISTING CURB AND GUTTER
 - ==== PROPOSED CURB AND GUTTER
 - ⊙ EXISTING UTILITY POLE
 - ⊙ EXISTING LIGHT POLE
 - ⊙ EXISTING MAILBOX
 - ⊙ EXISTING SIGN
 - ⊙ EXISTING SANITARY MAN-HOLE
 - - - - - EXISTING SANITARY LINE
 - ⊙ EXISTING CLEANDOUT
 - ⊙ EXISTING FIRE HYDRANT
 - - - - - EXISTING WATER LINE
 - ==== PROPOSED STORM DRAIN
 - ==== PROPOSED STORM DRAIN INLET
 - - - - - EXISTING TREELINE
 - - - - - EXISTING FENCE
 - - - - - PROPERTY LINE
 - - - - - RIGHT-OF-WAY LINE
 - ==== PROPOSED SIDEWALK
 - ==== PROPOSED 10' CONTOUR
 - ==== PROPOSED 2' CONTOUR
- DRAINAGE AREA** **INLET** **ZONING**
C' FACTOR # % IMPERVIOUS
- ==== DRAINAGE AREA DIVIDE
 - ==== PROPOSED PUBLIC DRAINAGE AND UTILITY EASEMENT
 - ==== PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
 - ==== PROPOSED FOREST CONSERVATION EASEMENT (RETENTION)
 - ==== PROPOSED FOREST CONSERVATION EASEMENT (AFFORESTATION)
 - ⊙ PROPOSED STREET LIGHT

MATCH LINE - SEE SHEET 24

MATCH LINE - SEE SHEET 26

PRELIMINARY STORM DRAIN DRAINAGE AREA MAP



OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY STORM DRAIN DRAINAGE AREA MAP

MAPLE LAWN SOUTH
SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
(FUTURE LOTS 173-176)
AND OPEN SPACE LOT 177-189

TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DPZ REF: ECP-14-093, WP-15-136, PB#415

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410.461.7666
ELICOTT CITY, MD 21043 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: RHV/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHV
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 14193, EXPIRATION DATE: 08-27-2018.

25 SHEET OF 45

ROBERT H. VOGEL, PE No. 16193

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL	NAME / DESCRIPTION	GROUP	HYDRIC	PERCENT CLAY	K FACTOR	PERCENT ORGANIC MATTER	PERCENT SAND	PERCENT SILT	PERCENT CLAY
B5a	BALE SILT LOAM, 0 TO 3 PERCENT SLOPES	D	YES	YES	0.32	NO	YES	NO	NO
G5a	GLENELO LOAM, 0 TO 3 PERCENT SLOPES	B	NO	NO	0.20	YES	NO	NO	NO
G5F	GLENELO LOAM, 3 TO 8 PERCENT SLOPES	B	NO	NO	0.20	YES	NO	NO	NO
G5B	GLENELO SILT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.37	YES	YES	YES	YES
G5C	GLENELO-SILT SLOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	PARTIALLY	0.37	NO	PARTIAL	NO	PARTIAL
M5C	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO	NO	NO

TAKEN FROM: USDA, SCS-WEIL SOIL SURVEY, HOWARD COUNTY NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT
*BALE COMPONENT OF G5B, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC

0.41 AC R-ED MXD-3
C=0.45 106B 73% IMP

0.52 AC R-ED MXD-3
C=0.52 106A 78% IMP

1.69 AC R-ED MXD-3
C=0.29 109 38% IMP

3.08 AC R-ED MXD-3
C=0.37 108 40% IMP

0.34 AC R-ED MXD-3
C=0.66 107 44% IMP

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: 9-18-15

DATE: JUNE 30, 2015

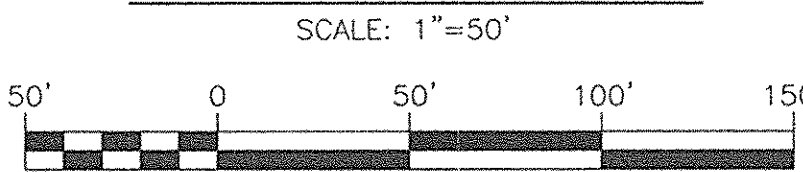
DATE: 9-18-15

DATE: JUNE 30, 2015

DATE: 9-18-15

DATE: JUNE 30, 2015

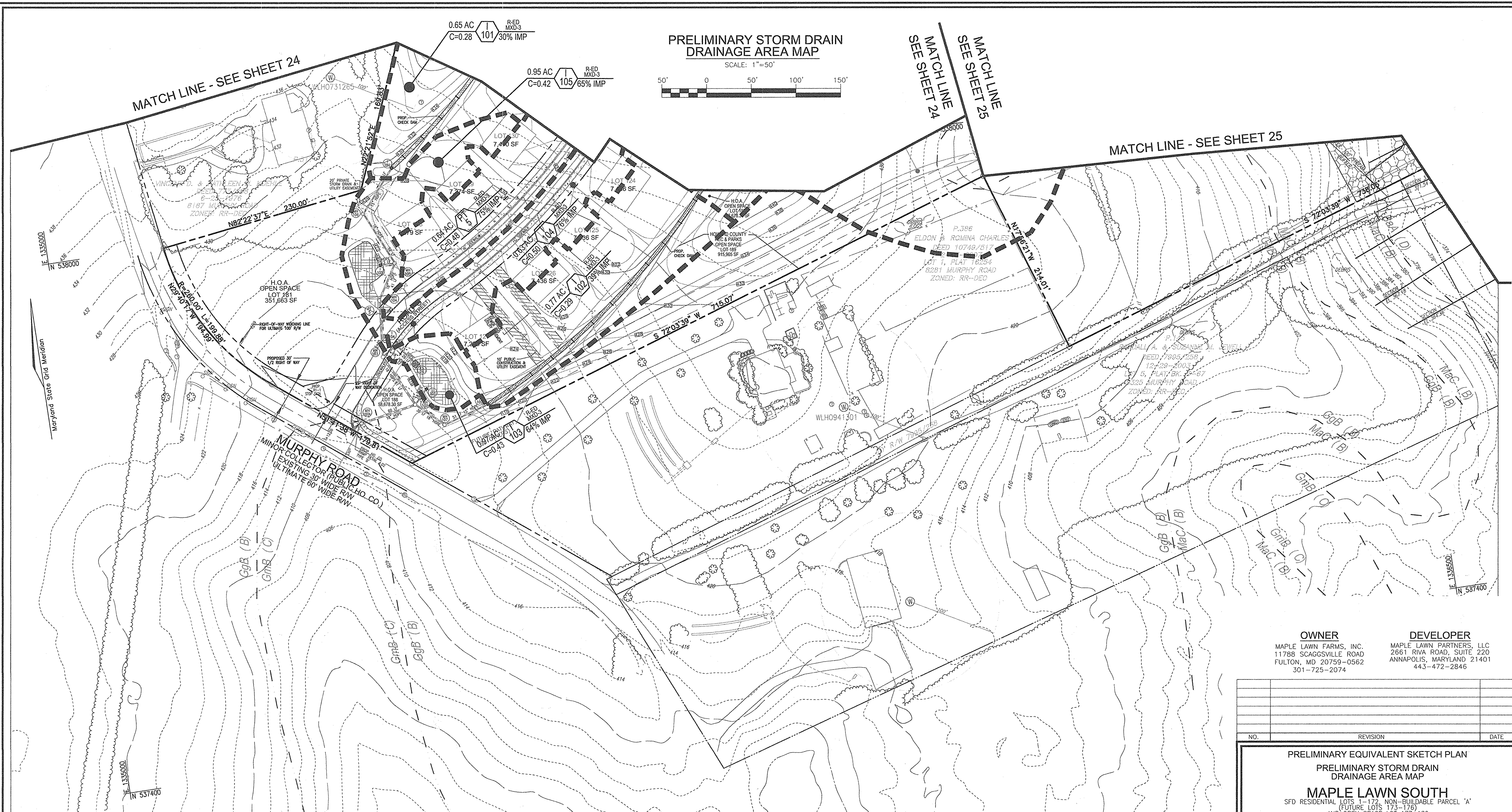
PRELIMINARY STORM DRAIN DRAINAGE AREA MAP



MATCH LINE - SEE SHEET 24

MATCH LINE SEE SHEET 24
MATCH LINE SEE SHEET 25

MATCH LINE - SEE SHEET 25



OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY STORM DRAIN DRAINAGE AREA MAP

MAPLE LAWN SOUTH
SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
(FUTURE LOTS 173-176)
AND OPEN SPACE LOT 177-189

TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
5TH ELECTION DISTRICT DPZ REF: ECP-14-093, WP-15-136, PB#415 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961



PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2016

DESIGN BY: RHV/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHV
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL	NAME / DESCRIPTION	GROUP	HYDRC	PERCENT INCLUSIONS	K FACTOR	PERCENT FARMROAD	PERCENT POTENTIAL
B3A	BLE SILT LOAM, 0 TO 3 PERCENT SLOPES	D	NO	NO	0.32	NO	YES
GgA	GLENNG SILT LOAM, 0 TO 3 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
GgB	GLENNG SILT LOAM, 3 TO 8 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
GgC	GLENNG SILT LOAM, 8 TO 15 PERCENT SLOPES	C	NO	NO	0.37	YES	YES
GgB	GLENNG-SALE SILT LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	PARTIALLY	0.37	NO	PARTIAL
Mac	MAJOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO

NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT

*BALE COMPONENT OF GgB, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRC

LEGEND:

- 3/8" --- EXISTING CONTOUR
- 102.88' EXISTING SPOT ELEVATION
- EXISTING CURB AND CUTTER
- PROPOSED CURB AND CUTTER
- EXISTING UTILITY POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREELINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- PROPOSED SIDEWALK
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- DRAINAGE AREA
- INLET
- ZONING
- C FACTOR
- % IMPERVIOUS
- DRAINAGE AREA DIVIDE
- PROPOSED STREET LIGHT

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

APPROVED
PLANNING BOARD OF HOWARD COUNTY

PLANNING DIRECTOR
DATE: 9-13-15

PB #415
DATE: JUNE 30, 2015

LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANDUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- EXISTING OVER HEAD LINE
- PROPOSED STORM DRAIN INLET
- EXISTING TREE LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SOILS BOUNDARY
- PERIMETER LANDSCAPING
- PROPOSED STREET TREE
- BGE GREEN ZONE
- BGE YELLOW ZONE
- PROPOSED STREET LIGHT

DPZ'S POLICIES GOVERNING THE PLACEMENT OF LANDSCAPING AND STREET TREES IN PROXIMITY TO BGE'S POWER LINES OR TRANSMISSION RIGHT-OF-WAY ARE BASED ON BGE'S PUBLISHED "PLANTING ZONE CONCEPT" WHICH STIPULATES THE MAXIMUM ALLOWABLE SIZE OF PLANT MATERIALS FOR THREE DEFINED ZONES. AS THE DISTANCE FROM BGE EQUIPMENT INCREASES, SO DOES THE SIZE OF THE ALLOWABLE PLANT MATERIALS. THESE THREE ZONES ARE DEFINED AS FOLLOWS:

ZONE	DISTANCE FROM THE BGE POWER LINE OR TRANSMISSION RIGHT-OF-WAY	MAXIMUM HEIGHT OF VEGETATION
GREEN	UP TO 20 FEET	25 FEET
YELLOW	BETWEEN 20 FEET AND 45 FEET	40 FEET
RED	BEYOND 45 FEET	ABOVE 40 FEET

- B & E NOTES:**
- BGE RESERVES THE RIGHT TO TRIM, TOP OR CUT DOWN ANY TREE IN PROXIMITY TO THE LINE THAT IN THE OPINION OF BGE SHALL BE DEEMED A HAZARD TO THE SAFE AND RELIABLE DELIVERY OF ELECTRICITY.
 - THE DEPARTMENT OF PLANNING AND ZONING MAY AUTHORIZE THE TRIMMING OR REMOVAL OF TREES OR VEGETATION IMMEDIATELY ADJACENT TO THE BGE R/W OR EASEMENT, IF BGE DETERMINES THE TREES ARE COMPROMISING THE SAFETY OF A TRANSMISSION LINE LOCATED WITHIN THEIR UTILITY R/W OR EASEMENT. IF BGE INTENDS TO TRIM OR REMOVE TREES WITHIN A FOREST CONSERVATION EASEMENT, A LETTER SPECIFYING THE LOCATION AND SCOPE OF WORK, NEEDS TO BE SENT TO DPZ AT LEAST 30 DAYS IN ADVANCE OF UNDERTAKING THE WORK. DPZ UNDERSTANDS CONSERVATION ENERGY'S NEED TO PROTECT ITS TRANSMISSION LINES AND WILL NOT UNWARRANTABLY WITHHOLD PERMISSION.
 - CALL MISS UTILITY TO MARK UP THE LOCATION OF EXISTING GAS LINE BEFORE PLANTING STREET TREES ALONG HANDOVER ROAD & PLANT STREET TREES 10' AWAY FROM EXISTING GASLINE AS REQUIRED.

OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

**PRELIMINARY EQUIVALENT SKETCH PLAN
 PRELIMINARY LANDSCAPE AND
 FOREST CONSERVATION PLAN**

MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
 (FUTURE LOTS 173-176)
 AND OPEN SPACE LOT 177-189

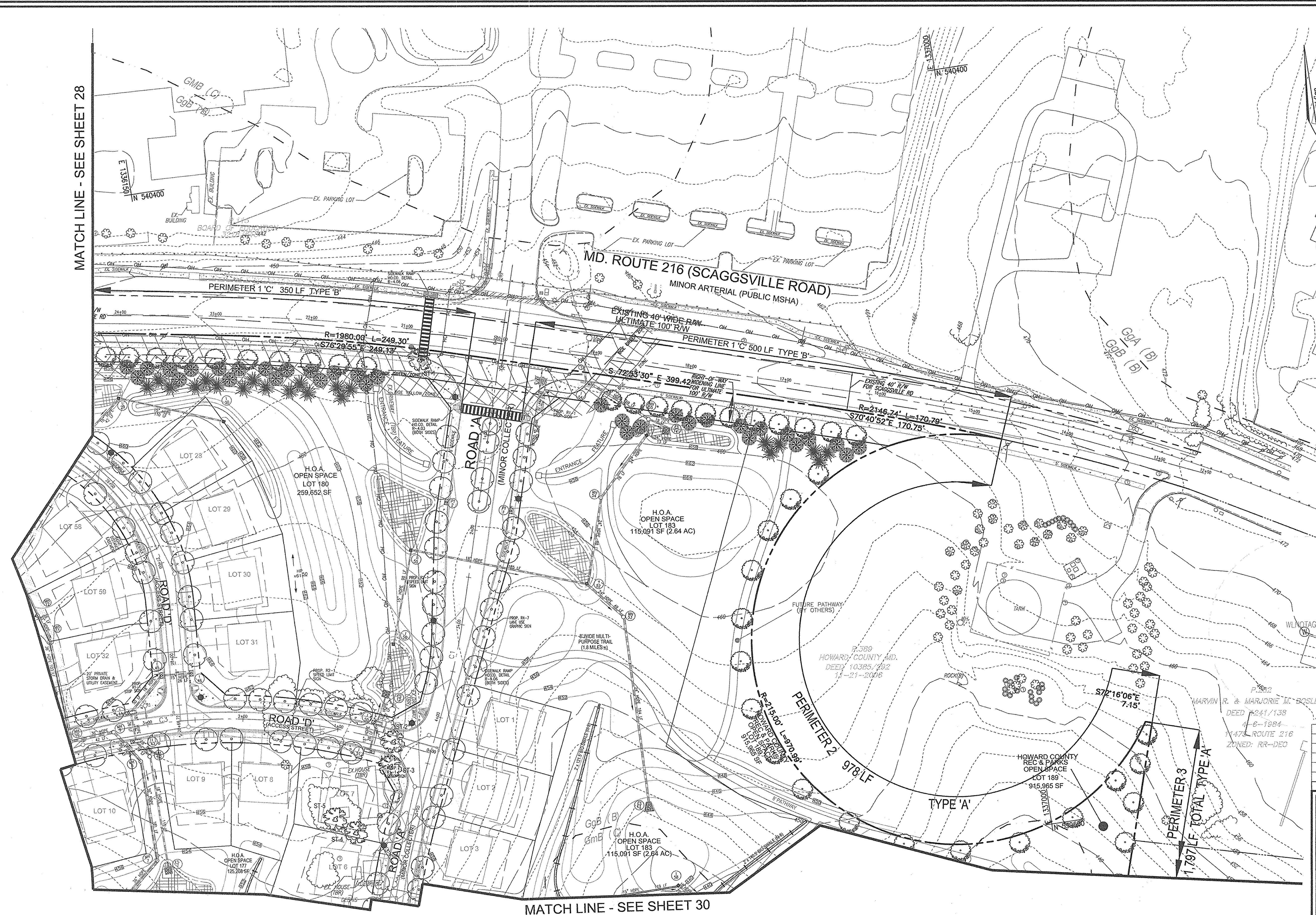
TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DPZ REF: ECP-14-093, WP-15-136, PB#415

**ROBERT H. VOGEL
 ENGINEERING, INC.**
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410.461.7666
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961



PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2016

DESIGN BY: RHV/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHV
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

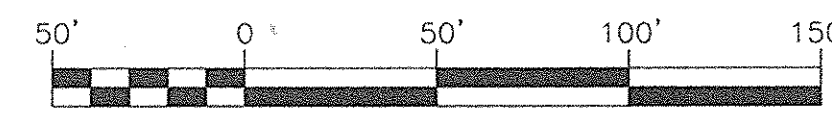


MATCH LINE - SEE SHEET 28

MATCH LINE - SEE SHEET 30

**PRELIMINARY LANDSCAPE AND
 FOREST CONSERVATION PLAN**

SCALE: 1"=50'



MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL NAME / DESCRIPTION	GROUP	HYDRIC	HYDRIC INCLUSIONS	K FACTOR	PERCENT ENHANCED POTENTIAL	STEEPER SLOPE POTENTIAL
Bsa BAILE SILT LOAM, 0 TO 3 PERCENT SLOPES	D	YES	NO	0.32	NO	YES
Gsa GLENELG LOAM, 0 TO 3 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
Gpb GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
Gmb GLENMILE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.37	YES	YES
Gnb GLENMILE-BAILE SILT LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	PARTIALLY*	0.37	NO	PARTIAL
Moc MAJOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY
 NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT
 *BAILE COMPONENT OF Gnb, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC

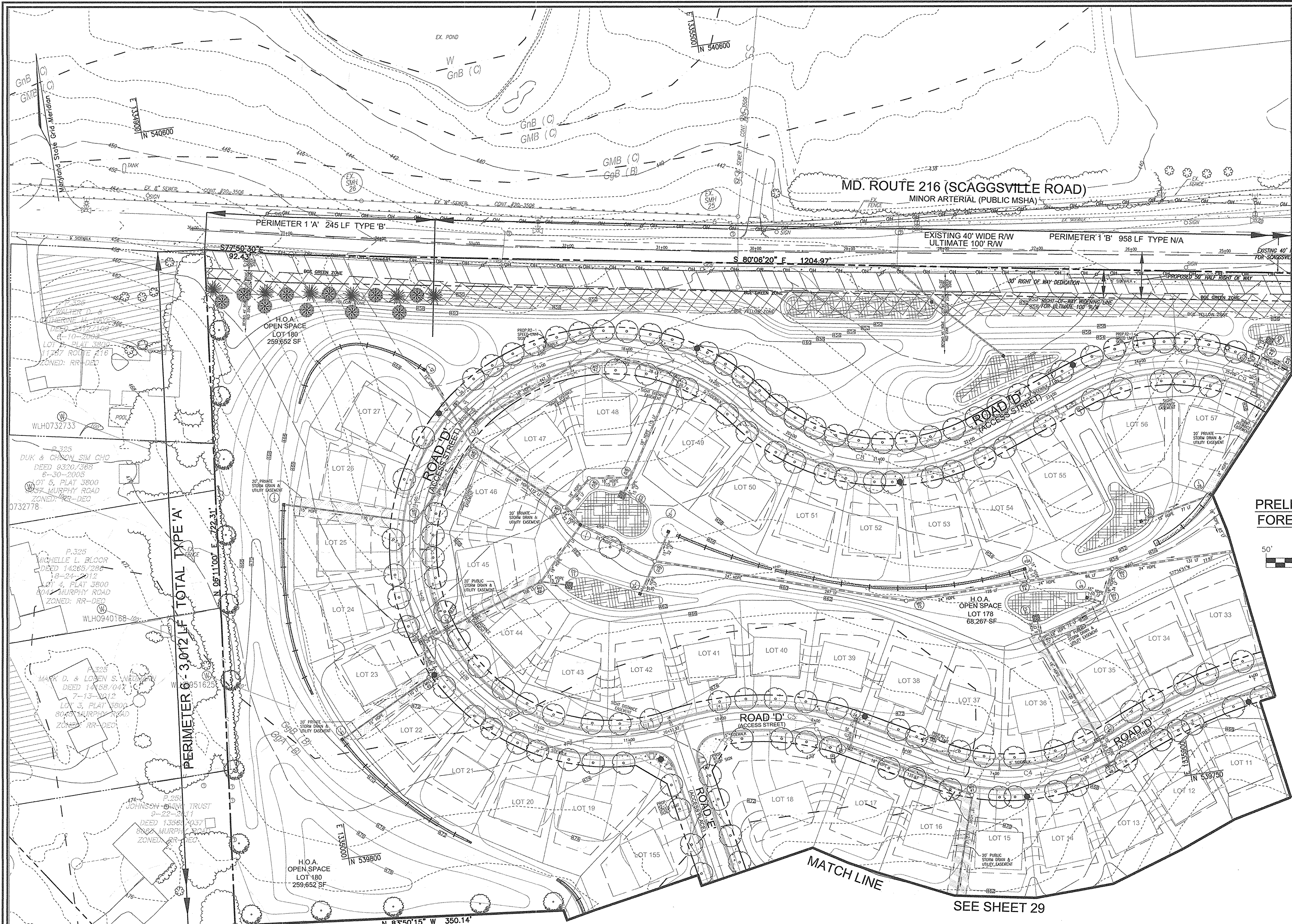
NOTE:
 NO FOREST CONSERVATION EASEMENT OR PORTIONS THEREOF ARE PROPOSED ON THIS SHEET

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

APPROVED
 PLANNING BOARD OF HOWARD COUNTY

PLANNING DIRECTOR
 DATE: 9-18-15

DATE: JUNE 30, 2015



MATCH LINE - SEE SHEET 27

LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING OVER HEAD LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREES
- EXISTING TREELINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SOILS BOUNDARY
- PERIMETER LANDSCAPING
- PROPOSED STREET TREE
- BGE GREEN ZONE
- BGE YELLOW ZONE
- PROPOSED STREET LIGHT

PRELIMINARY LANDSCAPE AND FOREST CONSERVATION PLAN

SCALE: 1"=50'

NOTE:
NO FOREST CONSERVATION EASEMENT OR PORTIONS THEREOF ARE PROPOSED ON THIS SHEET

OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

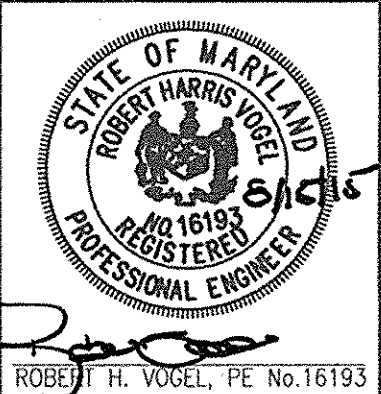
NO.	REVISION	DATE

**PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY LANDSCAPE AND FOREST CONSERVATION PLAN**

MAPLE LAWN SOUTH

SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
(FUTURE LOTS 173-176)
AND OPEN SPACE LOT 177-189
TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DPZ REF: ECP-14-023, WP-15-136, PBF415

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961



PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-22-2019.

DESIGN BY: RHW/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHW
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

MATCH LINE SEE SHEET 29

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

APPROVED
PLANNING BOARD OF HOWARD COUNTY

PB #415
JUNE 30, 2015
DATE

9-18-15
DATE

PLANNING DIRECTOR

DPZ'S POLICIES GOVERNING THE PLACEMENT OF LANDSCAPING AND STREET TREES IN PROXIMITY TO BGE'S POWER LINES OR TRANSMISSION RIGHT-OF-WAY ARE BASED ON BGE'S PUBLISHED "PLANTING ZONE CONCEPT" WHICH STIPULATES THE MAXIMUM ALLOWABLE SIZE OF PLANT MATERIALS FOR THREE DEFINED ZONES. AS THE DISTANCE FROM BGE EQUIPMENT INCREASES, SO DOES THE SIZE OF THE ALLOWABLE PLANT MATERIALS. THESE THREE ZONES ARE DEFINED AS FOLLOWS:

ZONE	DISTANCE FROM THE BGE POWER LINE OR TRANSMISSION RIGHT-OF-WAY	MAXIMUM HEIGHT OF VEGETATION
GREEN	UP TO 20 FEET	25 FEET
YELLOW	BETWEEN 20 FEET AND 45 FEET	40 FEET
RED	BETWEEN 45 FEET	ABOVE 40 FEET

- B & G E NOTES:**
- BGE RESERVES THE RIGHT TO TRIM, TOP OR CUT DOWN ANY TREE IN PROXIMITY TO THE LINE THAT IN THE OPINION OF BGE SHALL BE DEEMED A HAZARD TO THE SAFE AND RELIABLE DELIVERY OF ELECTRICITY.
 - THE DEPARTMENT OF PLANNING AND ZONING MAY AUTHORIZE THE TRIMMING OR REMOVAL OF TREES OR VEGETATION IMMEDIATELY ADJACENT TO THE BGE R/W OR EASEMENT, IF BGE DETERMINES THE TREES ARE COMPROMISING THE SAFETY OF A TRANSMISSION LINE LOCATED WITHIN THEIR UTILITY R/W OR EASEMENT. IF BGE INTENDS TO TRIM OR REMOVE TREES WITHIN A FOREST CONSERVATION EASEMENT, A LETTER SPECIFYING THE LOCATION AND SCOPE OF WORK NEEDS TO BE SENT TO DPZ AT LEAST 30 DAYS IN ADVANCE OF UNDERTAKING THE WORK. DPZ UNDERSTANDS CONSERVATION ENERGY'S NEED TO PROTECT ITS TRANSMISSION LINES AND WILL NOT UNREASONABLY WITHHOLD PERMISSION.
 - CALL MISS UTILITY TO MARK UP THE LOCATION OF EXISTING GAS LINE BEFORE PLANTING STREET TREES ALONG HANOVER ROAD & PLANT STREET TREES 10' AWAY FROM EXISTING GASLINE AS REQUIRED.

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL NAME / DESCRIPTION	GROUP	HYDRIC	MOIST INCLUSIONS	K FACTOR	ROCK FORWARD	CLAY SLOPE
Bsa	B	NO	NO	0.32	NO	YES
Bsb	B	NO	NO	0.20	YES	NO
Csb	B	NO	NO	0.20	NO	NO
Gmb	C	NO	NO	0.37	YES	YES
Gmb	C	NO	NO	0.37	NO	NO
Mbc	M	NO	NO	0.24	YES	NO

TAKEN FROM: USDA, SCS-WE8 SOIL SURVEY, HOWARD COUNTY

NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT

*BALE COMPONENT OF Gmb, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC



- LEGEND:**
- EXISTING CONTOUR
 - PROPOSED CONTOUR
 - PROPOSED SPOT ELEVATION
 - EXISTING SPOT ELEVATION
 - EXISTING CURB AND GUTTER
 - PROPOSED CURB AND GUTTER
 - EXISTING UTILITY POLE
 - EXISTING LIGHT POLE
 - EXISTING MAILBOX
 - EXISTING SIGN
 - EXISTING SANITARY MANHOLE
 - EXISTING SANITARY LINE
 - EXISTING CLEANOUT
 - EXISTING FIRE HYDRANT
 - EXISTING WATER LINE
 - PROPOSED STORM DRAIN
 - PROPOSED STORM DRAIN INLET
 - EXISTING TREES
 - EXISTING TREE LINE
 - EXISTING FENCE
 - PROPERTY LINE
 - RIGHT-OF-WAY LINE
 - SOILS BOUNDARY
 - PROPOSED SIDEWALK
 - PERIMETER LANDSCAPING
 - PROPOSED STREET TREE
 - PROPOSED STREET LIGHT

MATCH LINE - SEE SHEET 28
N 83°50'15" W 350.14'

MATCH LINE - SEE SHEET 30

MATCH LINE - SEE SHEET 31

OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY LANDSCAPE AND FOREST CONSERVATION PLAN
MAPLE LAWN SOUTH
SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
(FUTURE LOTS 173-176)
AND OPEN SPACE LOT 177-189
TAX MAP 48 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DPZ, REF: ECP-14-093, WP-15-136, PB#415

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961

DESIGN BY: RHW/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHW
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 10-27-2018

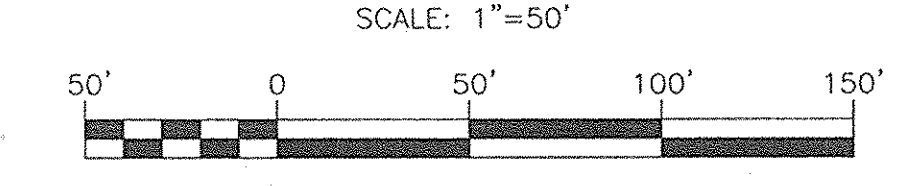
29 SHEET OF 45

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL NAME / DESCRIPTION	GROUP	HYDRIC	ERODIBLE	K FACTOR	FAIRLY	VERY
BaA BALE SILT LOAM, 0 TO 3 PERCENT SLOPES	D	YES	YES	0.32	NO	YES
GaA CLENELO LOAM, 0 TO 3 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
GaB CLENELO LOAM, 3 TO 8 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
GmB CLENELO SILT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.37	YES	YES
GmB CLENELO-SILT LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY*	PARTIALLY*	0.37	NO	PARTIAL
MaC MAJOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY
NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT
*BALE COMPONENT OF GmB, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC

PRELIMINARY LANDSCAPE AND FOREST CONSERVATION PLAN



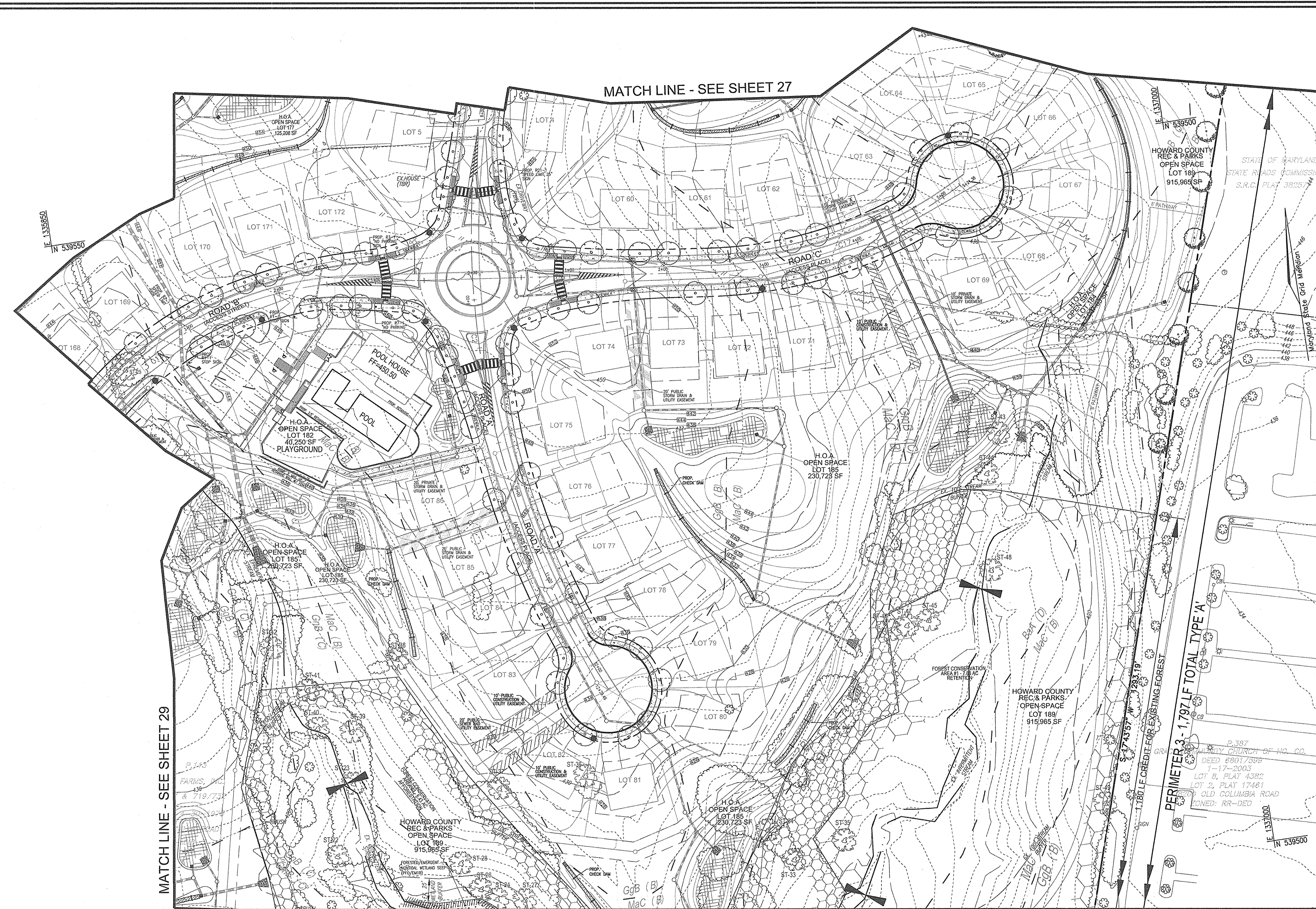
TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

APPROVED
PLANNING BOARD OF HOWARD COUNTY

PR #415
JUNE 30, 2015
DATE

9-13-15
DATE

PLANNING DIRECTOR



LEGEND:

- - - - - EXISTING CONTOUR
- - - - - PROPOSED CONTOUR
- + 402.88 PROPOSED SPOT ELEVATION
- + 402.68 EXISTING SPOT ELEVATION
- ==== EXISTING CURB AND GUTTER
- ==== PROPOSED CURB AND GUTTER
- ⊙ EXISTING UTILITY POLE
- ⊙ EXISTING LIGHT POLE
- ⊙ EXISTING MAILBOX
- ⊙ EXISTING SIGN
- ⊙ EXISTING SANITARY MANHOLE
- S EXISTING SANITARY LINE
- ⊙ EXISTING CLEANOUT
- ⊙ EXISTING FIRE HYDRANT
- W EXISTING WATER LINE
- OH EXISTING OVER HEAD LINE
- ==== PROPOSED STORM DRAIN
- ==== PROPOSED STORM DRAIN INLET
- ⊙ EXISTING TREES
- ==== EXISTING TREELINE
- ==== EXISTING FENCE
- ==== PROPERTY LINE
- ==== RIGHT-OF-WAY LINE
- M1B2 M1D3 SOILS BOUNDARY
- ==== PROPOSED SIDEWALK
- ⊙ PERIMETER LANDSCAPING
- ⊙ PROPOSED STREET TREE
- ⊙ PROPOSED FOREST REFORESTATION/AFFORESTATION EASEMENT
- ⊙ PROPOSED STREET LIGHT

OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
 PRELIMINARY LANDSCAPE AND FOREST CONSERVATION PLAN
MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
 (FUTURE LOTS 173-176)
 AND OPEN SPACE LOT 177-189

TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-IND-3
 11TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DPZ REF: ECP-14-093, WP-15-136, PB#115

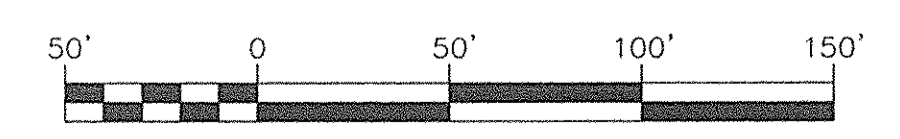
ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410.461.7666
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961

DESIGN BY: RHV/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHV
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2016

30 SHEET OF 45

PRELIMINARY LANDSCAPE AND FOREST CONSERVATION PLAN
 SCALE: 1"=50'



MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL	NAME / DESCRIPTION	GROUP	HYDRC	PERCENT MOISTURE	K FACTOR	ERODIBLE	EROSION POTENTIAL
B/A	BALE SILT LOAM, 0 TO 3 PERCENT SLOPES	D	YES	YES	0.32	NO	YES
G/A	GLENGLE LOAM, 0 TO 3 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
G/B	GLENGLE LOAM, 3 TO 8 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
G/M	GLENGLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.37	YES	YES
G/S	GLENGLE-SILT SILT LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	PARTIALLY	0.37	NO	PARTIAL
M/S	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT
 *BALE COMPONENT OF G/B, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRC

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

9-18-15
 DATE

APPROVED
 PLANNING BOARD OF HOWARD COUNTY

PB #415
 JUNE 30, 2015
 DATE

K:\Projects\115\HOWARD\PRELIM\LANDSCAPE ECP PLAN.dwg, 8/20/15 4:45:57 PM

MATCH LINE - SEE SHEET 29

MATCH LINE - SEE SHEET 32



LEGEND:

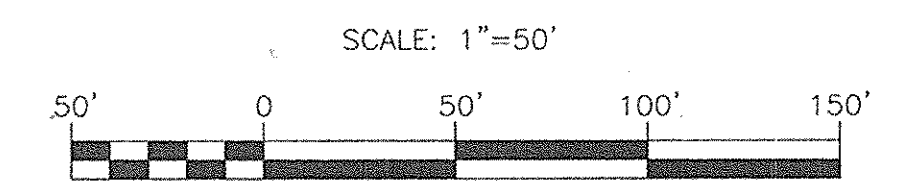
- EXISTING CONTOUR
- - - - - PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING OVER HEAD LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREES
- EXISTING TREELINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- MIB2 MIB3 SOILS BOUNDARY
- PROPOSED SIDEWALK
- PERIMETER LANDSCAPING
- PROPOSED STREET TREE
- PROPOSED FOREST PRESERVATION/AFFORESTATION EASEMENT
- PROPOSED STREET LIGHT

OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

MATCH LINE - SEE SHEET 33

PRELIMINARY LANDSCAPE AND FOREST CONSERVATION PLAN



MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL	NAME / DESCRIPTION	GROUP	HDRIC	HYDRO	K FACTOR	PERM. FRACTION	CLAY CONTENT (%)
GaA	BALF SCL LOAM, 0 TO 3 PERCENT SLOPES	B	NO	YES	0.32	NO	YES
GaB	GLENELG LOAM, 0 TO 3 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
GaC	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
GmB	GLENELLE SCL LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.37	YES	YES
GmC	GLENELLE-BALF SCL LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	PARTIALLY	0.37	NO	PARTIAL
MuC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY
 NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT
 *BALF COMPONENT OF GmB, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HDRIC

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

APPROVED
 PLANNING BOARD OF HOWARD COUNTY

PB #415
 JUNE 30, 2015
 DATE

9-18-15
 DATE

PLANNING DIRECTOR

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY LANDSCAPE AND FOREST CONSERVATION PLAN
MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
 (FUTURE LOTS 173-176)
 AND OPEN SPACE LOT 177-189

TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 OPZ REF: ECP-14-093, WP-15-136, PB#415

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: RHY/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHY
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2016

31 OF 45

MATCH LINE - SEE SHEET 30

MATCH LINE - SEE SHEET 31

MATCH LINE - SEE SHEET 33

PROPOSED FOREST CONSERVATION EASEMENT
5.43 AC. (AFFORESTATION)

PROPOSED FOREST CONSERVATION
CONSERVATION EASEMENT
7.88 AC. (RETENTION)

NON-BUILDABLE
PARCEL 'A'

HOWARD COUNTY
REC & PARKS
OPEN SPACE
LOT 189
915,965 SF

PERIMETER 3 - 1,791 LF TOTAL TYPE 'A'
1,801 LF CREDIT FOR EXISTING FOREST

PERIMETER 4 - 1,667 LF TYPE 'A'
373 LF CREDIT FOR EXISTING FOREST

LEGEND:

- - - - - EXISTING CONTOUR
- - - - - PROPOSED CONTOUR
- + 402.88
+ 402.88
+ 402.88 PROPOSED SPOT ELEVATION
- - - - - EXISTING SPOT ELEVATION
- - - - - EXISTING CURB AND GUTTER
- - - - - PROPOSED CURB AND GUTTER
- - - - - EXISTING UTILITY POLE
- - - - - PROPOSED UTILITY POLE
- - - - - EXISTING LIGHT POLE
- - - - - PROPOSED LIGHT POLE
- - - - - EXISTING MAILBOX
- - - - - PROPOSED MAILBOX
- - - - - EXISTING SIGN
- - - - - PROPOSED SIGN
- - - - - EXISTING SANITARY MANHOLE
- - - - - PROPOSED SANITARY MANHOLE
- - - - - EXISTING SANITARY LINE
- - - - - PROPOSED SANITARY LINE
- - - - - EXISTING CLEANOUT
- - - - - PROPOSED CLEANOUT
- - - - - EXISTING FIRE HYDRANT
- - - - - PROPOSED FIRE HYDRANT
- - - - - EXISTING WATER LINE
- - - - - PROPOSED WATER LINE
- - - - - EXISTING OVER HEAD LINE
- - - - - PROPOSED OVER HEAD LINE
- - - - - PROPOSED STORM DRAIN
- - - - - PROPOSED STORM DRAIN INLET
- - - - - EXISTING TREES
- - - - - PROPOSED TREES
- - - - - EXISTING TREELINE
- - - - - PROPOSED TREELINE
- - - - - EXISTING FENCE
- - - - - PROPOSED FENCE
- - - - - PROPERTY LINE
- - - - - RIGHT-OF-WAY LINE
- - - - - SOILS BOUNDARY
- - - - - PROPOSED SIDEWALK
- - - - - PERIMETER LANDSCAPING
- - - - - PROPOSED STREET TREE
- - - - - EXISTING WETLAND
- - - - - PROPOSED FOREST CONSERVATION EASEMENT (RETENTION)
- - - - - PROPOSED FOREST CONSERVATION EASEMENT (AFFORESTATION)
- - - - - PROPOSED STREET LIGHT

PRELIMINARY LANDSCAPE AND FOREST CONSERVATION PLAN

SCALE: 1"=50'



OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

NO.	REVISION	DATE

**PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY LANDSCAPE AND FOREST CONSERVATION PLAN**

MAPLE LAWN SOUTH
SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
(FUTURE LOTS 173-176)
AND OPEN SPACE LOT 177-189

TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
5TH ELECTION DISTRICT
DPZ REF: ECP-14-093, WP-15-136, PB#415 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: RHV/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHV
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 18183, EXPIRATION DATE: 09-27-2016

32 SHEET OF 45

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL NAME / DESCRIPTION	GROUP	HYDRIC	PERCENT ERODIBLE	K FACTOR	ERODIBLE RISK	CRITICAL SLOPE
B0A BALE SALT LOAM, 0 TO 3 PERCENT SLOPES	D	YES	YES	0.32	NO	YES
C0A GLENLEIGH LOAM, 0 TO 3 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
C0B GLENLEIGH LOAM, 3 TO 8 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
G0B GLENVALE SALT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.37	YES	YES
G0B GLENVALE-SALT SALT LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	PARTIALLY*	0.37	NO	PARTIAL
M0C MAJOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY

NOTE:
HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT

*BALE COMPONENT OF G0B, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

APPROVED
PLANNING BOARD OF HOWARD COUNTY

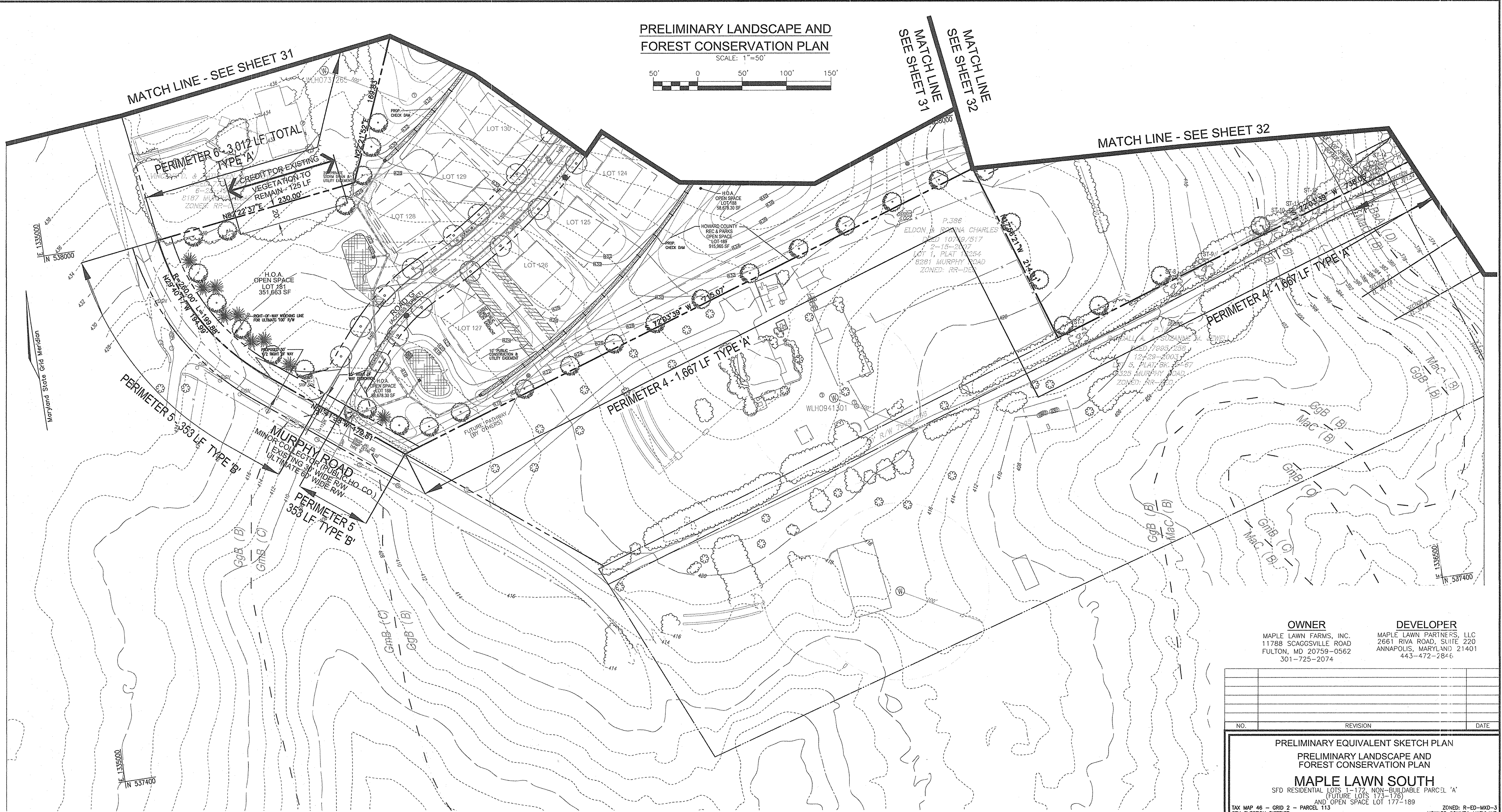
PLANNING DIRECTOR

9-18-15
DATE

PB #415
JUNE 30 2015
DATE

PRELIMINARY LANDSCAPE AND FOREST CONSERVATION PLAN

SCALE: 1"=50'



OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL NAME / DESCRIPTION	GROUP	HYDRIC	PERCENT SLOPES	K FACTOR	ERODIBLE	ERODIBILITY
BsA BALE SILT LOAM, 0 TO 3 PERCENT SLOPES	D	YES	YES	0.32	NO	YES
GhA GLENNVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
GsB GLENNVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
GmB GLENNVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.37	NO	YES
GhB GLENNVILLE-BALE SILT LOAM, 0 TO 3 PERCENT SLOPES	C	PARTIALLY	PARTIALLY*	0.37	NO	PARTIAL
MacC MARSH LOAM, 8 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY

NOTE:
 *BALE COMPONENT OF GhB, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC
 HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT

LEGEND:

- - - - - EXISTING CONTOUR
- - - - - PROPOSED CONTOUR
- + 402.88 EXISTING SPOT ELEVATION
- + 402.88 EXISTING SPOT ELEVATION
- ===== EXISTING CURB AND GUTTER
- ===== PROPOSED CURB AND GUTTER
- |--- EXISTING UTILITY POLE
- |--- EXISTING LIGHT POLE
- |--- EXISTING MAILBOX
- |--- EXISTING SIGN
- |--- EXISTING SANITARY MANHOLE
- |--- EXISTING SANITARY LINE
- o 22 EXISTING CLEANOUT
- |--- EXISTING FIRE HYDRANT
- |--- EXISTING WATER LINE
- |--- EXISTING OVER HEAD LINE
- |--- PROPOSED STORM DRAIN
- |--- PROPOSED STORM DRAIN INLET
- |--- EXISTING TREES
- |--- EXISTING TREELINE
- |--- EXISTING FENCE
- |--- PROPERTY LINE
- |--- RIGHT-OF-WAY LINE
- |--- SOILS BOUNDARY
- |--- PROPOSED SIDEWALK
- |--- PERIMETER LANDSCAPING
- |--- PROPOSED STREET TREE
- |--- PROPOSED FOREST REFORESTATION/AFFORESTATION EASEMENT
- |--- PROPOSED STREET LIGHT

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

PLANNING DIRECTOR

APPROVED
 PLANNING BOARD OF HOWARD COUNTY

PB #415
 JUNE 30, 2015
 DATE

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
 PRELIMINARY LANDSCAPE AND FOREST CONSERVATION PLAN
MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172 (NON-BUILDABLE PARCEL "A"
 (FUTURE LOTS 173-178)
 AND OPEN SPACE LOT 177-189

TAX MAP 46 - GRID 2 - PARCEL 113
 5TH ELECTION DISTRICT
 DPZ REF: ECP-14-093, WP-15-136, PBJ#115

ZONED: R-ED-WD-3
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8487 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: RHV/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHV
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 07-27-2018.

33 SHEET OF 45

GENERAL NOTES

WATERSHED NAME: ROCKY GORGE DAM
 WATERSHED NUMBER: 02131107

A. GROSS SITE AREA: 91.31 AC. +/-
 NET SITE AREA: 89.9 AC.

B. AREA OF 100-YEAR FLOODPLAIN: 34,576 SF NON-CRITICAL (TBD)
 SEE NOTE: 11

C. AREA OF WETLANDS AND BUFFERS(ONSITE): 0.60 AC.*
 AREA OF STREAM AND BUFFERS(ONSITE): 0.79 AC.*

D. AREA OF > 25% STEEP SLOPES: 0.62 AC.

E. EXISTING FOREST: 8.27 AC. (REFER TO FSD)

F. ZONED: R-ED-MXD-3

G. EXISTING USE: FARMLAND

H. PROPOSED USE: RESIDENTIAL

* WETLAND & STREAM BUFFERS OVERLAP, TOTAL ONSITE ENVIRONMENTAL AREAS= 1.41 AC.

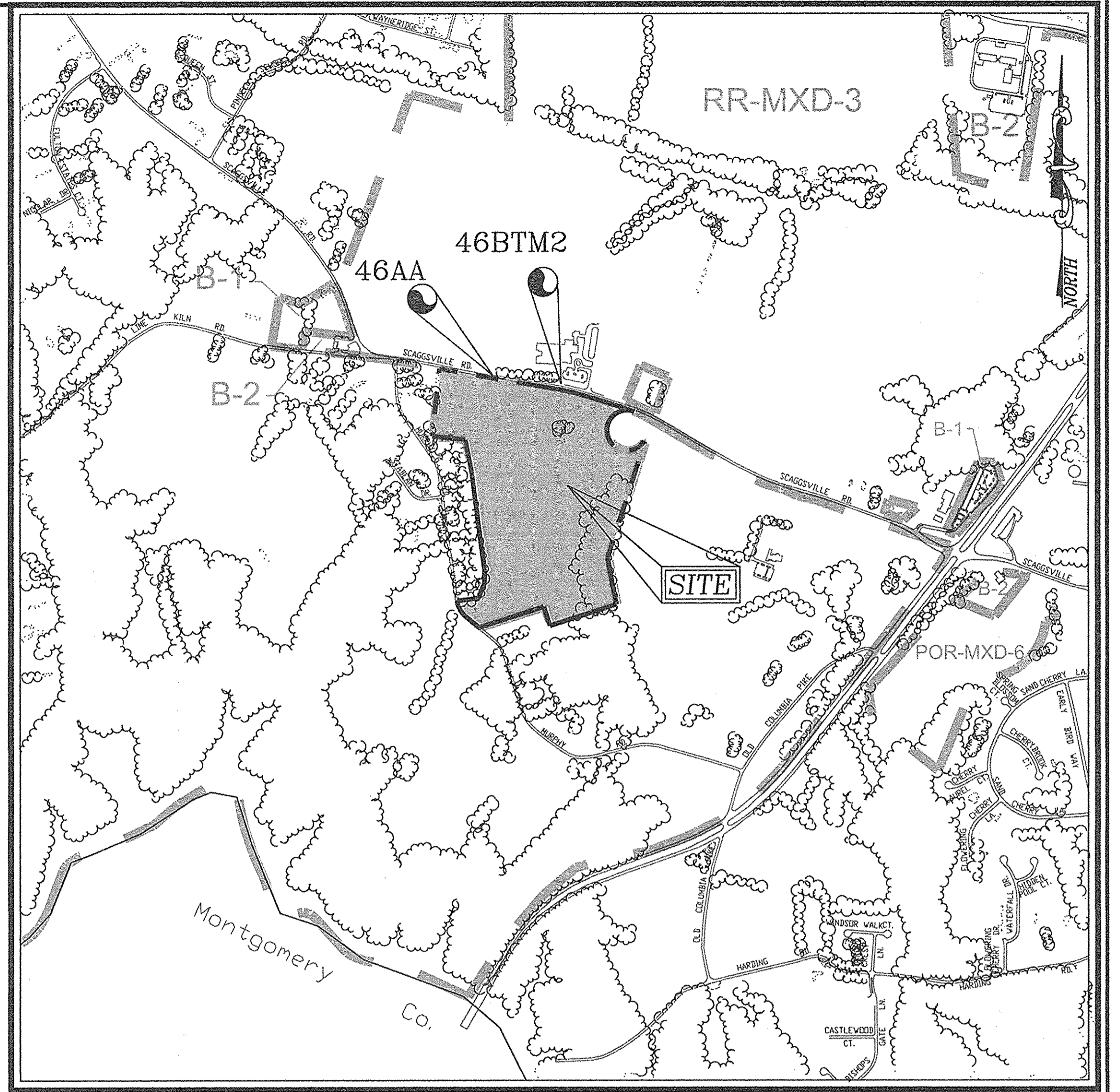
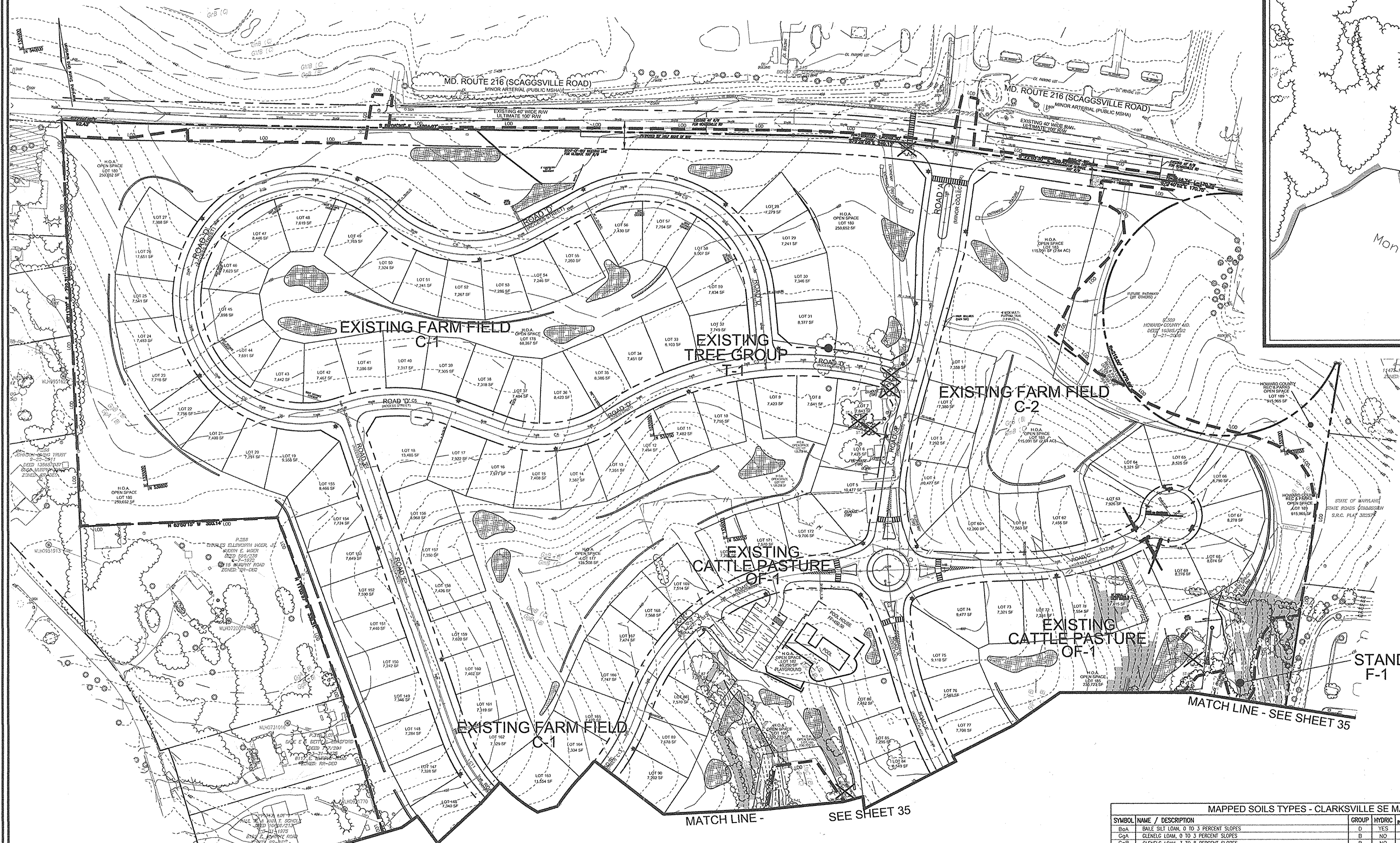
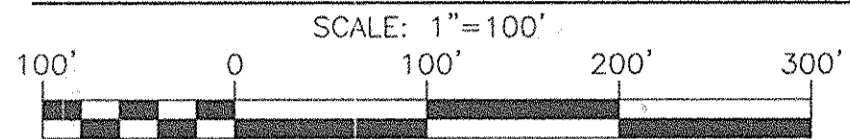
GENERAL NOTES

1. STEEP SLOPES ARE AS SHOWN HEREON
2. IN ACCORDANCE WITH THE WILDLIFE & HERITAGE SERVICE LETTER DATED MAY 16, 2014 "THERE ARE NO STATE OR FEDERAL RECORDS FOR RARE, THREATENED OR ENDANGERED STATE OR FEDERAL RECORDS FOR RARE, THREATENED OR ENDANGERED SPECIES WITHIN THE BOUNDARIES OF THE PROJECT SITE AS DELINEATED." REFERENCE ER#2014.0686.HO
3. FOREST RESOURCES IDENTIFIED IN FOREST STAND DELINEATION BY KLEBASCO ENVIRONMENTAL, LLC. C/O MR. MICHAEL J. KLEBASCO, P.W.S., DATED MAY 2014.
4. FOR SPECIMEN TREE LIST, REFER TO SHEET 35.
5. WETLANDS AND STREAMS SHOWN ONSITE ARE BASED ON THE DELINEATION BY ENVIRONMENTAL SYSTEMS ANALYSIS, INC. (ESA) AUGUST 2013

LEGEND:

	EXISTING CONTOUR		EXISTING FIRE HYDRANT
	EXISTING CURB AND GUTTER		EXISTING WATER LINE
	EXISTING UTILITY POLE		EXISTING OVER HEAD LINE
	EXISTING LIGHT POLE		EXISTING TREELINE
	EXISTING MAILBOX		EXISTING FENCE
	EXISTING SIGN		PROPERTY LINE
	EXISTING SANITARY MANHOLE		RIGHT-OF-WAY LINE
	EXISTING SANITARY LINE		SOILS BOUNDARY
	EXISTING CLEANOUT		LIMIT OF DISTURBANCE
	EXISTING SPECIMEN TREE TO BE REMOVED		PROPOSED STREET LIGHT
			MODERATE SLOPES (10% - 24.99%)
			STEEP SLOPES (>25%)

FOREST CONSERVATION PLAN



VICINITY MAP

SCALE: 1"=1000'
 ADC MAP COORDINATES: 5052-07

BENCHMARKS

HOWARD COUNTY BENCHMARK 41GE
 N 541,559.779 E 1,333,698.385 ELEV.: 465.047 FT.
 HOWARD COUNTY BENCHMARK 46AA
 N 540,396.42 E 1,335,505.32 ELEV.: 447.014 FT.

OWNER

MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER

MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN

FOREST CONSERVATION PLAN

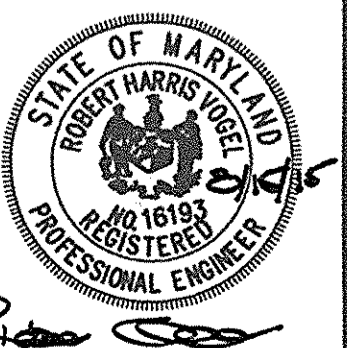
MAPLE LAWN SOUTH

SFD RESIDENTIAL LOTS 1-1779, NON-BUILDABLE PARCEL "A"
 (FUTURE LOTS 173-179)
 AND OPEN SPACE LOT 177-189

TAX MAP 46 - GRID 2 - PARCEL 113
 5TH ELECTION DISTRICT
 DPZ REF: ECP-14-093, WP-15-136, PBF415

ZONED: R-ED-MXD-3
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELICOTT CITY, MD 21043 TEL: 410.461.7666
 FAX: 410.461.8961



PROFESSIONAL CERTIFICATE

DESIGN BY: RHW/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHW
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 16193 EXPIRATION DATE: 09-27-2018

34 SHEET OF 45

NOTE:
 NO FOREST CONSERVATION EASEMENTS ARE PROPOSED ON THIS PORTION OF THE PROJECT]

APPROVED
 PLANNING BOARD OF HOWARD COUNTY

PB #415
 JUNE 30, 2015
 DATE

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

PLANNING DIRECTOR
 DATE: 8-18-15

FOREST STAND DELINEATION PLAN
 PREPARED BY
 MICHAEL J. KLEBASCO
 QUALIFIED PROFESSIONAL
 PER COMAR 08.19.06.01

Klebasco Environmental, LLC
 8373 Piney Orchard Parkway, Suite 207
 Odenton, Maryland 21113
 Phone: (410) 672-5990
 FAX: (410) 672-5993

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL	NAME / DESCRIPTION	GROUP	HYDRIC	ERODIBLE	K FACTOR	POSS. FARMLAND	STEEPSLOPE
B5A	BALE SILT LOAM, 0 TO 3 PERCENT SLOPES	D	YES	YES	0.32	NO	YES
C5A	CLINELO LOAM, 0 TO 3 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
G5B	CLINELO LOAM, 3 TO 8 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
G5B	CLINELO SALT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.37	YES	YES
G5B	CLINELO-SALT SALT LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	PARTIALLY	0.37	NO	PARTIAL
M5C	MAJOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO

TAKEN FROM: USDA, SCS-WEBSOIL SURVEY, HOWARD COUNTY

NOTE:
 HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT

*BALE COMPONENT OF G5B, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC

FOREST STAND DELINEATION PLAN
 PREPARED BY
 MICHAEL KLEBASCO
 QUALIFIED PROFESSIONAL
 PER COMAR 08.19.06.01
 Klebasco Environmental, LLC
 8373 Piney Orchard Parkway, Suite 207
 Odenton, Maryland 21113
 Phone: (410) 672-9990
 FAX: (410) 672-9993

FOREST CONSERVATION
 AREA #3
 AFFORESTATION
 5.43 ACRES

EXISTING
 CATTLE PASTURE
 OF-1

MATCH LINE - SEE SHEET 34



TABLE 2: SPECIMEN TREE TABLE

NO.	COMMON NAME	SCIENTIFIC NAME	DBH (INCHES)	CONDITION RATING	CONDITION / COMMENTS	
1	REMOVE	BLACK WALNUT	JUGLANS NIGRA	44	POOR	POWER LINE PRUNING; LARGE CAVITY IN TRUNK; BROKEN LIMBS
2	REMOVE	BASSWOOD	TILIA AMERICANA	49	POOR	CAVITY IN TRUNK; 3 CO-DOMINANT LEADERS; BROKEN LIMBS; WEAK CROTCH
3	REMOVE	WHITE ASH	FRAXILUS AMERICANA	30	POOR	CAVITY; BROKEN OFF MAIN LEADER
4	REMOVE	SILVER MAPLE	ACER SACCHARINUM	48	POOR	CRITICAL ROOT ZONE DISTURBANCE; BROKEN LIMBS; EPICORMIC BRANCHING
5	REMOVE	CATALPA	CATALPA SPECIOSA	37	POOR	BROKEN LIMBS; VERY HEAVY VINE COVER (ENGLISH IVY)
6	OFFSITE	PIN OAK	QUERCUS PALUSTRIS	35	GOOD	
7	OFFSITE	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	32	GOOD	
8	OFFSITE	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	37	VERY POOR	LARGE CAVITY IN TRUNK
9	OFFSITE	SCARLET OAK	QUERCUS COCCINEA	66	FAIR	TWIN; SPLIT AT 6'; WEAK CROTCH; SOME BROKEN LIMBS
10	OFFSITE	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	40	FAIR	TWIN; SPLIT AT 6'; CO-DOMINANT LEADER
11	REMAIN	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	45	GOOD	
12	REMAIN	SCARLET OAK	QUERCUS COCCINEA	53	POOR	TWIN; SPLIT AT 7'; WEAK CROTCH; POOR STRUCTURE
13	REMAIN	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	37	VERY POOR	LARGE CAVITY AT BASE; BROKEN LIMBS
14	REMAIN	RED MAPLE	ACER RUBRUM	38	FAIR	SLIGHT LEAN; SOME BROKEN LIMBS
15	REMAIN	RED MAPLE	ACER RUBRUM	31	POOR	MULTI-TRUNK WITH WEAK CROTCH; BROKEN LIMBS
16	REMAIN	SOUTHERN RED OAK	QUERCUS FALCATA	36	FAIR	BROKEN LIMBS; VINE COVER (ENGLISH IVY)
17	REMAIN	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	37	POOR	BROKEN LIMBS
18	REMAIN	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	37	GOOD	
19	REMAIN	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	34	POOR	TWIN; SPLIT AT 3'; HEAVY VINE COVER (TRUMPET CREEPER); BROKEN LIMBS
20	OFFSITE	WHITE OAK	QUERCUS ALBA	36	GOOD	
21	REMAIN	RED MAPLE	ACER RUBRUM	49	FAIR	EXPOSED ROOTS ON STEEP SLOPE; POOR FORM
22	REMAIN	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	38	GOOD	
23	REMAIN	SYCAMORE	PLATANUS OCCIDENTALIS	37	POOR	BROKEN LIMBS; CROWN DIE-BACK
24	REMAIN	WHITE OAK	QUERCUS ALBA	44	POOR	CAVITY AT BASE OF TRUNK
25	REMOVE	SYCAMORE	PLATANUS OCCIDENTALIS	38	POOR	BROKEN OFF MAIN LEADER
26	REMAIN	WHITE OAK	QUERCUS ALBA	36	GOOD	
27	REMAIN	WHITE OAK	QUERCUS ALBA	49	GOOD	
28	REMAIN	WHITE OAK	QUERCUS ALBA	31	GOOD	
29	REMAIN	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	31	FAIR	BROKEN LIMBS; EPICORMIC BRANCHING
30	REMAIN	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	35	POOR	CROWN DIE-BACK; BROKEN LIMBS
31	REMAIN	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	36	FAIR	BROKEN LIMBS
32	REMAIN	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	36	VERY POOR	LIGHTNING STRIKE; BROKEN LIMBS
33	REMAIN	SYCAMORE	PLATANUS OCCIDENTALIS	34	GOOD	TWIN TRUNKS; SPLIT AT 9'
34	REMAIN	SYCAMORE	PLATANUS OCCIDENTALIS	30	GOOD	
35	REMAIN	RED MAPLE	ACER RUBRUM	36	FAIR	TWIN TRUNKS; LEANING
36	REMOVE	SYCAMORE	PLATANUS OCCIDENTALIS	32	POOR	BROKEN LIMBS; CROWN DIE-BACK
37	REMOVE	SYCAMORE	PLATANUS OCCIDENTALIS	32	GOOD	
38	REMOVE	SYCAMORE	PLATANUS OCCIDENTALIS	34	POOR	BROKEN LIMBS; STORM DAMAGE; BROKEN OFF TWIN
39	REMAIN	SYCAMORE	PLATANUS OCCIDENTALIS	38	POOR	BROKEN LIMBS; CROWN DIE-BACK
40	REMAIN	SYCAMORE	PLATANUS OCCIDENTALIS	30	FAIR	BROKEN LIMBS
41	REMAIN	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	37	FAIR	TWIN; SPLIT AT 5.5'; POOR STRUCTURE
42	REMOVE	SYCAMORE	PLATANUS OCCIDENTALIS	36	GOOD	
43	REMOVE	PIN OAK	QUERCUS PALUSTRIS	41	GOOD	
44	REMAIN	PIN OAK	QUERCUS PALUSTRIS	35	GOOD	
45	REMAIN	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	31	FAIR	BROKEN LIMBS
46	REMAIN	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	31	POOR	BROKEN OFF MAIN LEADER; LEANING
47	REMAIN	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	32	POOR	CAVITY; SEVERE LEAN
48	REMAIN	RED MAPLE	ACER RUBRUM	35	GOOD	
49	REMAIN	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	33	POOR	HEAVY VINE COVER (POISON IVY); LEANING
50	REMAIN	WHITE OAK	QUERCUS ALBA	53	GOOD	
51	REMAIN	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	34	GOOD	
52	REMAIN	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	41	POOR	LARGE CAVITY; BROKEN LIMBS
53	REMAIN	SCARLET OAK	QUERCUS COCCINEA	30	FAIR	BROKEN LIMBS; WIRE THROUGH TRUNK
54	REMAIN	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	38	FAIR	POOR STRUCTURE

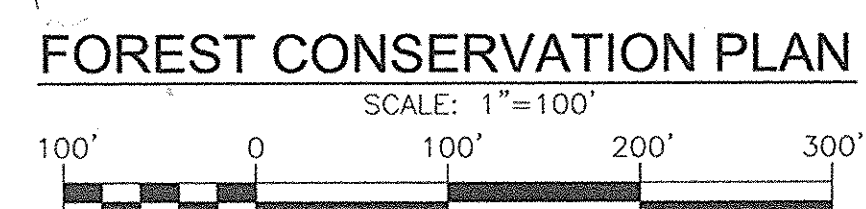
* 11 SPECIMEN TREES DESIGNATED AS "REMOVE", REQUIRE REMOVAL PER PROJECT PROPOSAL TO INCLUDE: PROPOSED ROAD CONSTRUCTION, UTILITY INSTALLATION, GRADING REFER TO GENERAL NOTE 31, SHEET 1, REGARDING WP 15-136.

Min. 11"
 FOREST CONSERVATION AREA
 DO NOT DISTURB
 MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS IS PROHIBITED
 VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE MARYLAND FOREST CONSERVATION ACT OF 1993

Min. 15"
 FOREST RETENTION AREA
 DO NOT DISTURB
 MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS IS PROHIBITED
 VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE MARYLAND FOREST CONSERVATION ACT OF 1993

NOTE:
 1. BOTTOM OF SIGNS TO BE HIGHER THAN TOP OF TREE PROTECTION FENCE.
 2. SIGNS TO BE PLACED APPROXIMATELY 50-100' FEET APART, CONDITIONS ON SITE AFFECTING VISIBILITY MAY WARRANT PLACING SIGNS CLOSER OR FARTHER APART, WHERE SIGNS ARE TO BE PLACED AT THE REAR OF PROPOSED LOTS, SPACING SHALL BE APPROX. 25'-50'+.
 3. ATTACHMENT OF SIGNS TO TREES IS PROHIBITED.
 4. ALL FOREST CONSERVATION SIGNAGE SHALL BE IN PLACE FOR PERPETUITY.
 5. SIGN LOCATION SYMBOL = ●

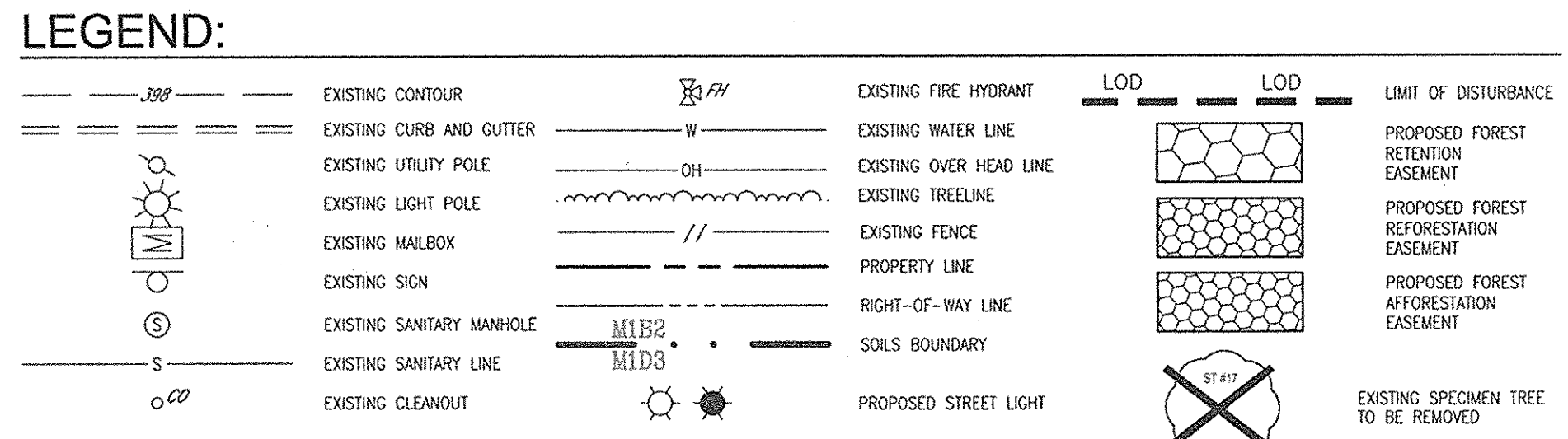
FOREST CONSERVATION AREA SIGNS
 TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY
 APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 PB #415
 JUNE 30, 2015
 DATE
 9-12-15
 DATE
 PLANNING DIRECTOR



MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL	NAME / DESCRIPTION	GROUP	HYDRIC	MOISTURE	K FACTOR	PERCENT SAND	PERCENT SILT	PERCENT CLAY	ERODIBILITY
BaA	BALE SILT LOAM, 0 TO 3 PERCENT SLOPES	D	YES	YES	0.32	NO	YES	NO	NO
GcA	GLENCLE LOAM, 0 TO 3 PERCENT SLOPES	B	NO	NO	0.20	YES	NO	NO	NO
GcB	GLENCLE LOAM, 3 TO 8 PERCENT SLOPES	B	NO	NO	0.20	YES	NO	NO	NO
GcHb	GLENCLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.37	YES	YES	YES	NO
GcHb	GLENCLE-SILT LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	PARTIALLY	0.37	NO	PARTIAL	NO	NO
MbC	MANKER LOAM, 8 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO	NO	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY
 NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT
 *BALE COMPONENT OF GcB, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC



FOREST CONSERVATION AREA #1
 RETENTION
 7.88 ACRES

FOREST CONSERVATION AREA #2
 REAFFORESTATION
 0.79 ACRES

OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

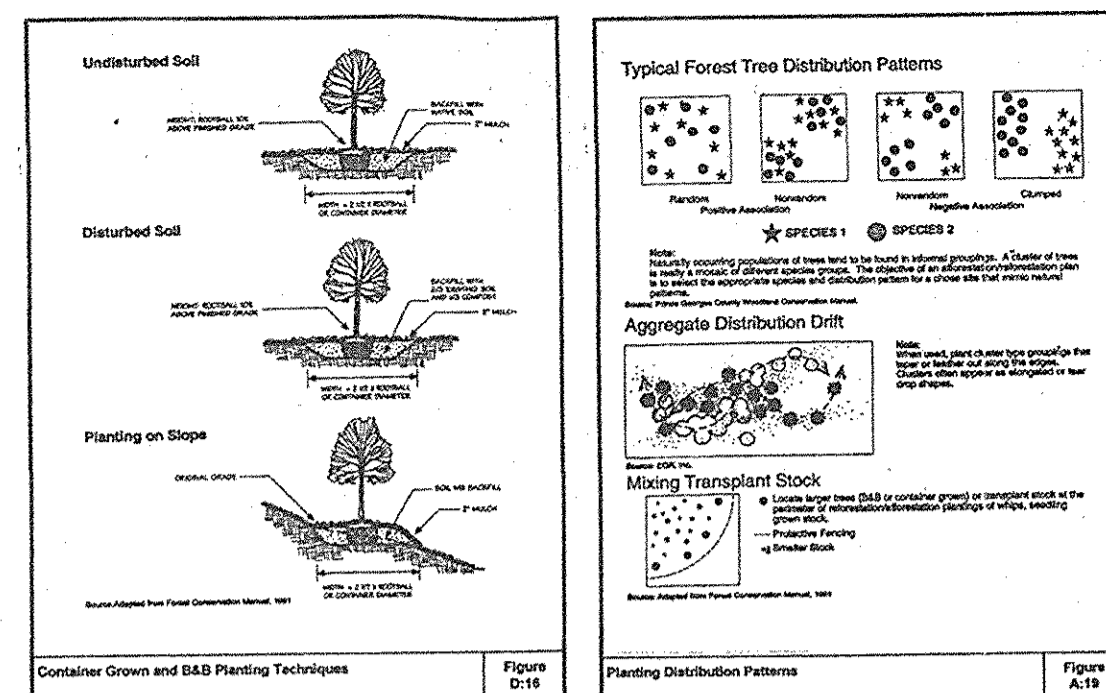
PRELIMINARY EQUIVALENT SKETCH PLAN
 FOREST CONSERVATION PLAN
 MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
 (FUTURE LOTS 173-176)
 AND OPEN SPACE LOT 177-189
 TAX MAP 46 - GRID 2 - PARCEL 113
 5TH ELECTION DISTRICT
 DPZ REF: ECP-14-093, WP-15-136, PB#415
 ZONED: R-ED-MXD-3
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2016

DESIGN BY: RHV/GAH
 DRAWN BY: KC/GAH
 CHECKED BY: RHV
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

35 SHEET OF 45



HOWARD COUNTY FOREST CONSERVATION WORKSHEET. ZONED R-ED-MXD-3. NET TRACT AREA: A. TOTAL TRACT AREA 91.33 AC, B. AREA WITHIN 100 YEAR FLOODPLAIN 0.79 AC, C. NET TRACT AREA 90.52 AC.

FOREST CONSERVATION EASEMENT TABLE. EASEMENT RETENTION REFORESTATION AFFORESTATION TOTAL. FCE#1 7.88 AC 0.00 AC 0.00 AC 7.88 AC, FCE#2 0.00 AC 0.79 AC 0.00 AC 0.79 AC, FCE#3 0.00 AC 0.00 AC 5.43 AC 5.43 AC.

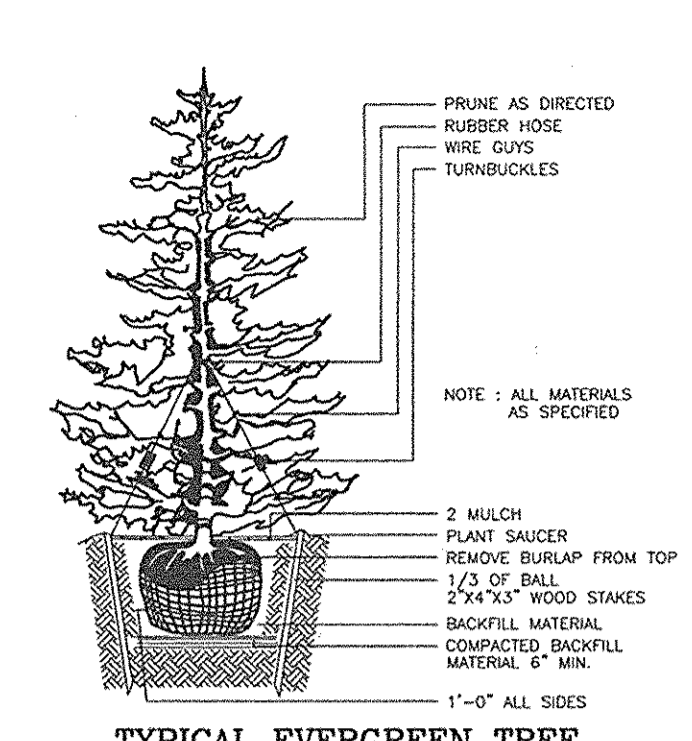
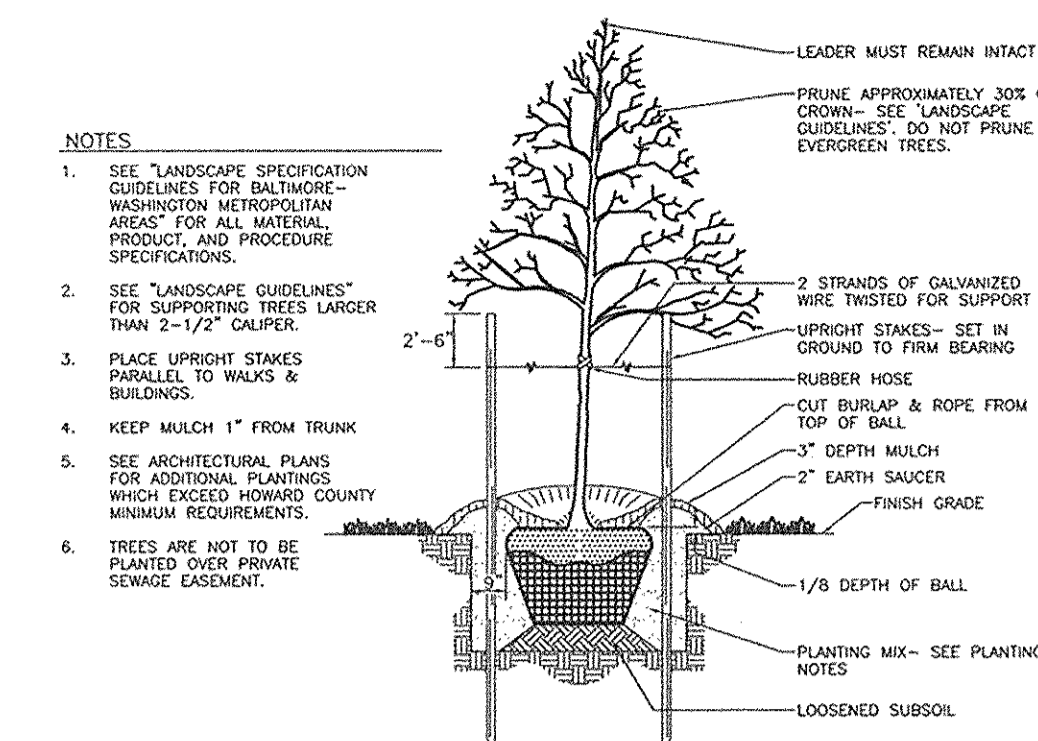
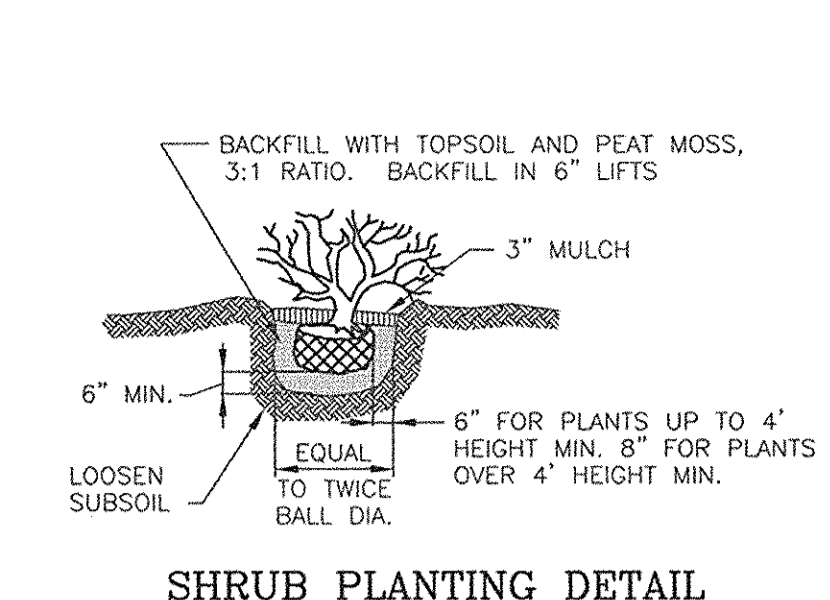
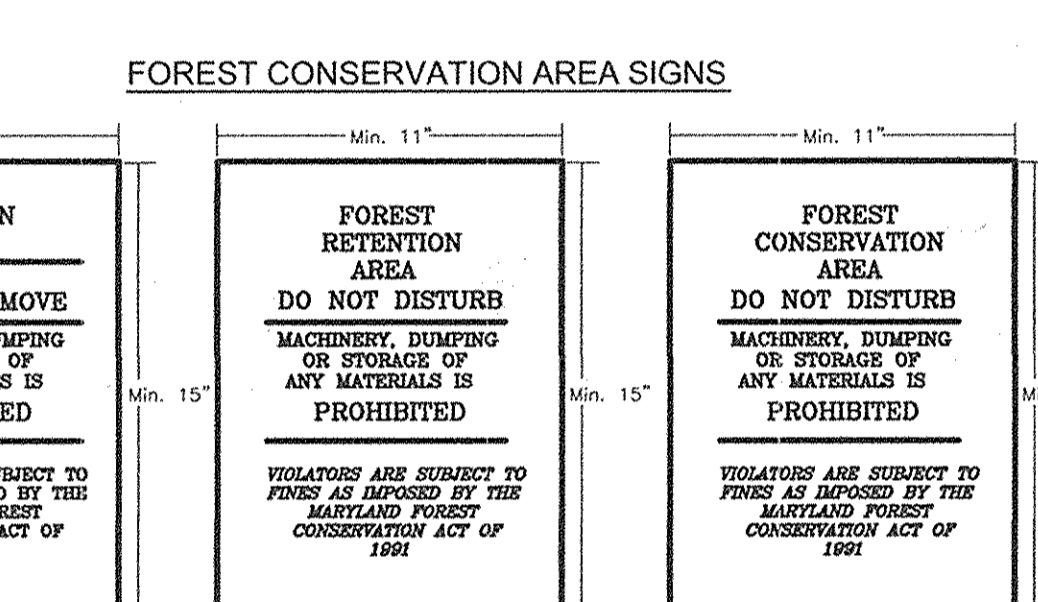


Table with 4 columns: Size, Number Required per acre, Approximate Spacing, and Survivability at the end of the season.

PROPOSED FOREST CLEARING: J. TOTAL AREA OF FOREST TO BE CLEARED 0.39 AC, K. TOTAL AREA OF FOREST TO BE RETAINED 7.88 AC (N FCE).

GENERAL NOTES: 1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.

AFFORESTATION AREA MONITORING NOTES: 1. MONTHLY VISITS DURING THE FIRST GROWING SEASON ARE TO ASSESS THE SUCCESS OF THE PLANTINGS AND TO DETERMINE IF SUPPLEMENTAL WATERING, PEST CONTROL OR OTHER ACTIONS ARE NECESSARY.



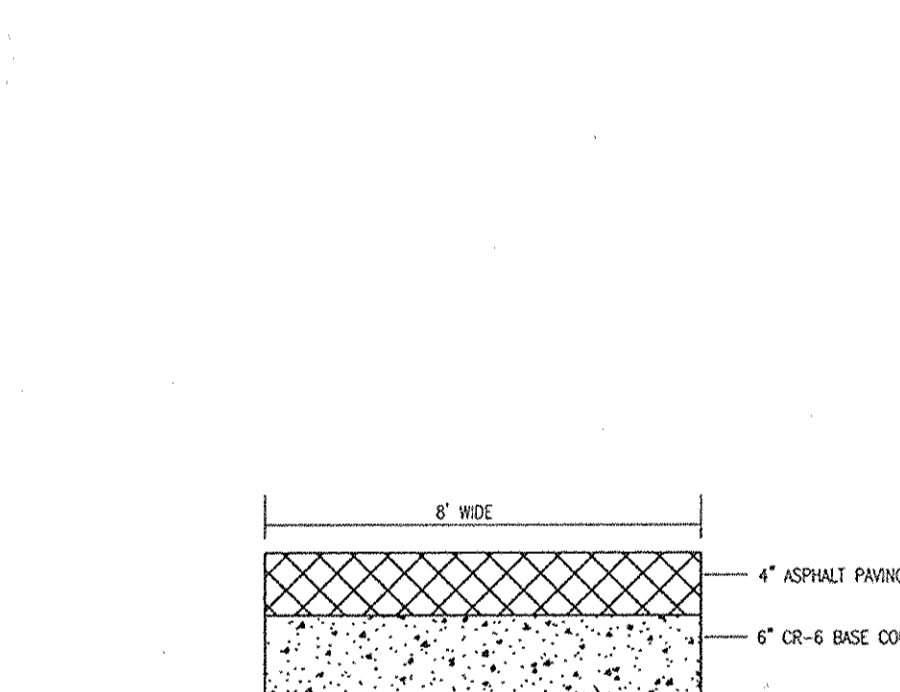
AFFORESTATION PLANTING NOTES: 1. AFFORESTATION AREAS MAY BE PLANTED AS SOON AS REASONABLE TO DO SO. LATE WINTER-EARLY SPRING PLANTINGS ARE PREFERRED.

SEQUENCE OF CONSTRUCTION-FOREST CONSERVATION: 1. PRECONSTRUCTION MEETING /SITE WALK WITH CONTRACTORS AND OTHER RESPONSIBLE PARTIES TO DEFINE PROTECTION MEASURES TO BE UTILIZED AND TO POINT OUT PARTICULAR TREES TO BE SAVED.



CONSTRUCTION PERIOD PROTECTION AND MANAGEMENT NOTES FOR FOREST CONSERVATION: PRE-CONSTRUCTION PHASE: 1. FOR RETENTION AREAS, INSTALL BLAZE ORANGE FENCE AND RETENTION SIGNS BEFORE CONSTRUCTION BEGINS.

FOREST RETENTION AREAS AND NOTES: 1. THE WETLANDS AND WETLAND BUFFERS ARE LOCATED ON AN OPEN SPACE LOT 189. 2. NO BARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED ON THIS SITE.



STREET TREE CALCULATIONS table with columns: STREET NAME, LINEAR FEET, NO. REQUIRED, NO. PROVIDED. ROAD 'A' 2460/40 62 62, ROAD 'B' 4240/40 106 106, ROAD 'C' 1042/40 26 26, ROAD 'D' 5686/40 142 142, ROAD 'E' 1744/40 42 42, ROAD 'F' 616/40 15 15, ROAD 'G' 1150/40 29 29, SCAGGSVILLE ROAD 1226/40 31 31, TOTAL 453 453.

OWNER: MAPLE LAWN FARMS, INC. 11788 SCAGGSVILLE ROAD, FULTON, MD 20759-0562. DEVELOPER: MAPLE LAWN PARTNERS, LLC 2661 RIVA ROAD, SUITE 220 ANNAPOLIS, MARYLAND 21401 443-472-2846.

TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY. PLANNING DIRECTOR: [Signature]. DATE: 9-13-15.

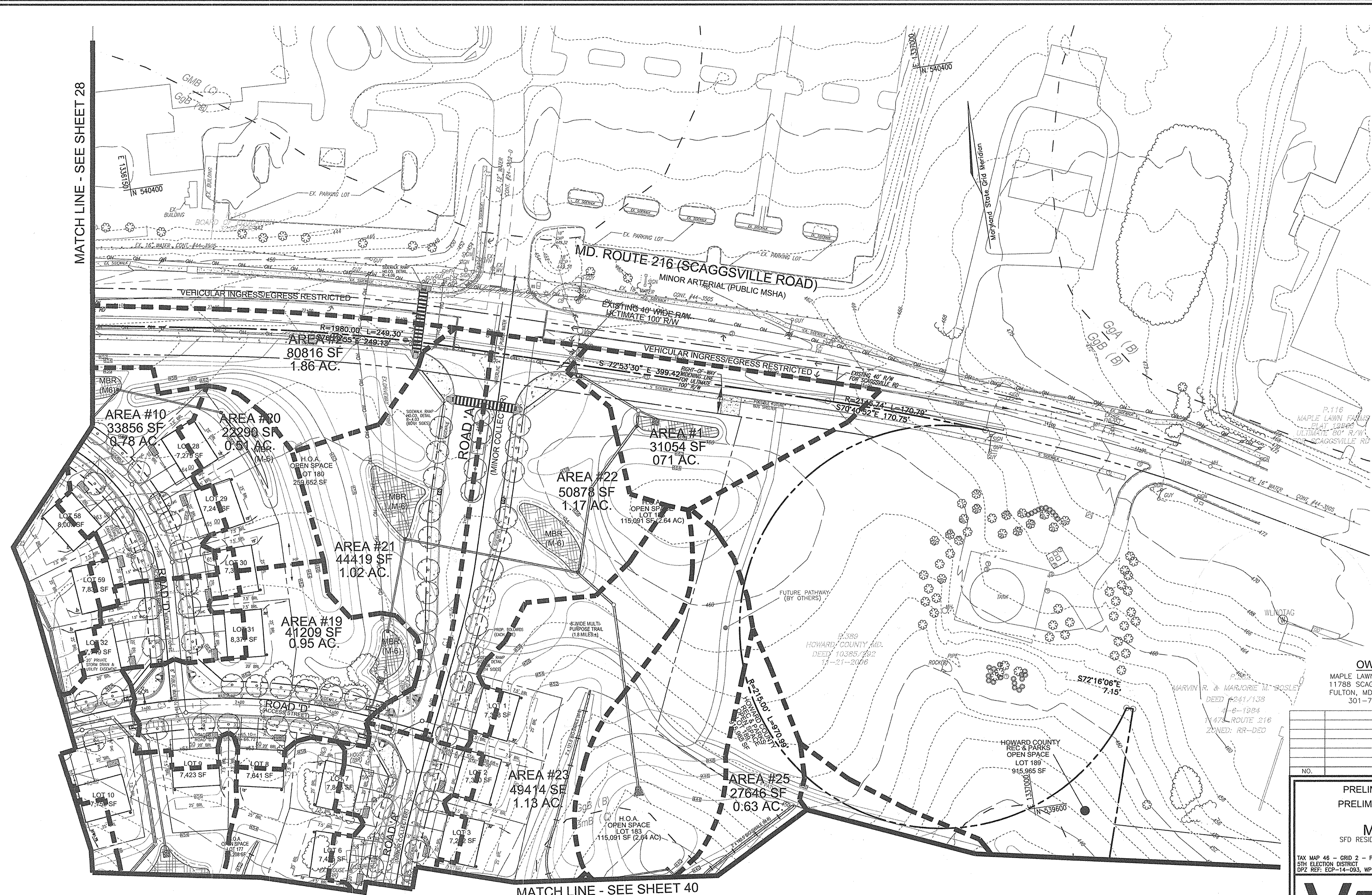
APPROVED PLANNING BOARD OF HOWARD COUNTY. DATE: JUNE 29, 2015.

BLAZE ORANGE PLASTIC MESH TYPICAL TREE PROTECTION FENCE DETAIL. 1. FOREST PROTECTION DEVICE ONLY. 2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.

DPZ'S POLICIES GOVERNING THE PLACEMENT OF LANDSCAPING AND STREET TREES IN PROXIMITY TO BGE'S POWER LINES OR TRANSMISSION RIGHT-OF-WAY ARE BASED ON BGE'S PUBLISHED 'PLANTING ZONE CONCEPT' WHICH STIPULATES THE MAXIMUM ALLOWABLE SIZE OF PLANT MATERIALS FOR THREE DEFINED ZONES.

PRELIMINARY EQUIVALENT SKETCH PLAN. PRELIMINARY LANDSCAPE & FOREST CONSERVATION NOTES & DETAILS. MAPLE LAWN SOUTH. SFD RESIDENTIAL LOTS 11-172, NON-BUILDABLE PARCEL 'A' (FUTURE LOTS 173-175) AND OPEN SPACE LOT 177-189. ZONED: R-ED-MXD-3. HOWARD COUNTY, MARYLAND. ROBERT H. VOGEL ENGINEERING, INC. ENGINEERS • SURVEYORS • PLANNERS. 8407 MAIN STREET, ELLICOTT CITY, MD 21043. TEL: 410.461.7666. FAX: 410.461.8961.

MATCH LINE - SEE SHEET 28



LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREELINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- PROPOSED SIDEWALK
- NON-STRUCTURAL ROOFTOP DISCONNECTIONS
- MICRO-SCALE PRACTICE BIO-SWALE (M-B)
- MICRO-SCALE PRACTICE MICRO BIO-RETENTION / BIO-RETENTION (M-S)
- 200 GAL RAIN BARREL
- DRAINAGE DIVIDE
- DRAINAGE AREA DESIGNATION
- NON-STRUCTURAL DISCONNECTION OF NON-ROOFTOP RUNOFF
- PROPOSED DRYWELL
- PROPOSED STREET LIGHT

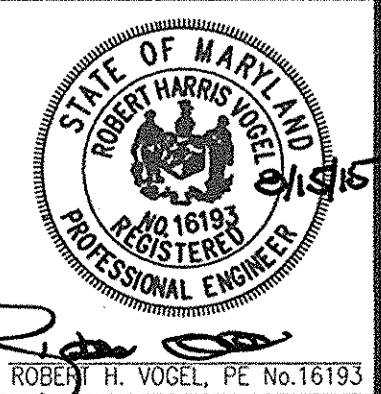
OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
 PRELIMINARY STORMWATER MANAGEMENT
 DRAINAGE AREA MAP
MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
 (FUTURE LOTS 173-178)
 AND OPEN SPACE LOT 177-189
 TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DPZ REF: ECP-14-093, WP-15-136, PB#415

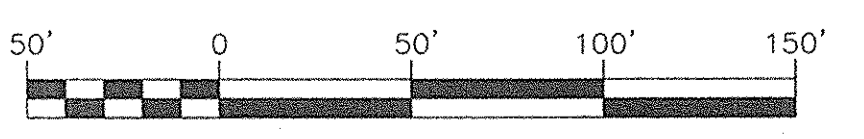
ROBERT H. VOGEL
ENGINEERS, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410-461-7666
 ELIGGITT CITY, MD 21043 FAX: 410-461-8961



PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS
 WERE PREPARED OR APPROVED BY ME AND
 THAT I AM A FULLY LICENSED PROFESSIONAL
 ENGINEER UNDER THE LAWS OF THE STATE
 OF MARYLAND, LICENSE NO. 16193
 EXPIRATION DATE: 09-27-2018

DESIGN BY: RHV/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHV
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

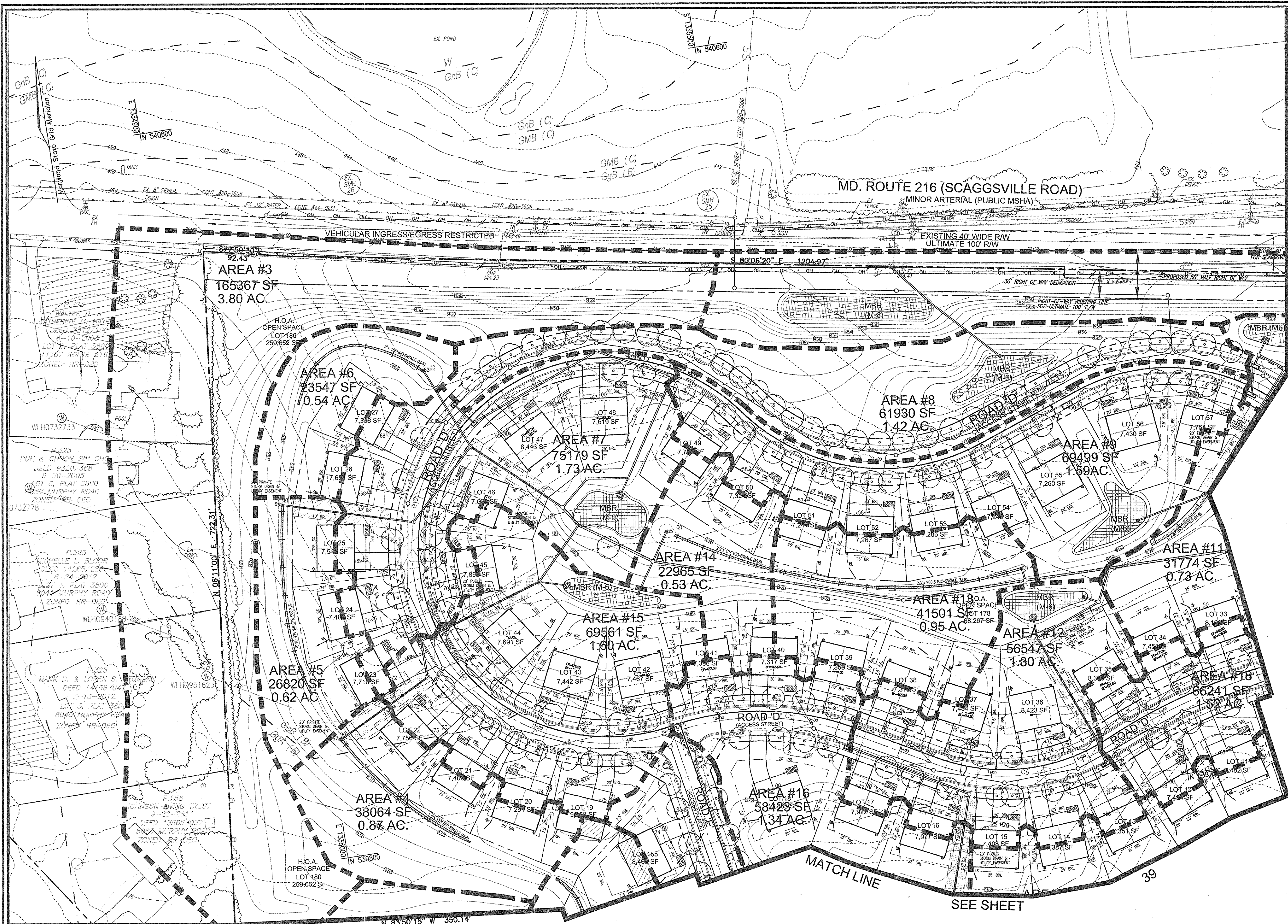
PRELIMINARY STORMWATER MANAGEMENT
 DRAINAGE AREA MAP
 SCALE: 1"=50'



TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

APPROVED
 HOWARD COUNTY PLANNING BOARD
 PB 415
 JUNE 30, 2015

9-18-15
 DATE



MATCH LINE - SEE SHEET 37

- LEGEND:**
- EXISTING CONTOUR
 - PROPOSED CONTOUR
 - PROPOSED SPOT ELEVATION
 - EXISTING SPOT ELEVATION
 - EXISTING CURB AND GUTTER
 - PROPOSED CURB AND GUTTER
 - EXISTING UTILITY POLE
 - EXISTING LIGHT POLE
 - EXISTING MAILBOX
 - EXISTING SIGN
 - EXISTING SANITARY MANHOLE
 - EXISTING SANITARY LINE
 - EXISTING CLEANOUT
 - EXISTING FIRE HYDRANT
 - EXISTING WATER LINE
 - PROPOSED STORM DRAIN
 - PROPOSED STORM DRAIN INLET
 - EXISTING TREE LINE
 - EXISTING FENCE
 - PROPERTY LINE
 - RIGHT-OF-WAY LINE
 - PROPOSED SIDEWALK
 - NON-STRUCTURAL ROOFTOP DISCONNECTIONS
 - MICRO-SCALE PRACTICE 600-SWALE (M-6)
 - MICRO-SCALE PRACTICE MICRO BIORETENTION BIORETENTION (M-6)
 - 200 GAL RAIN BARREL
 - DRAINAGE DIVIDE
 - DRAINAGE AREA DESIGNATION
 - NON-STRUCTURAL DISCONNECTION OF NON-ROOFTOP RUNOFF
 - PROPOSED DRYWELL
 - PROPOSED STREET LIGHT

OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

**PRELIMINARY EQUIVALENT SKETCH PLAN
 PRELIMINARY STORMWATER MANAGEMENT
 DRAINAGE AREA MAP**

MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
 (FUTURE LOTS 173-176)
 AND OPEN SPACE LOT 177-189
 ZONED: R-ED-MXD-3
 HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL
 ENGINEERING, INC.**
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

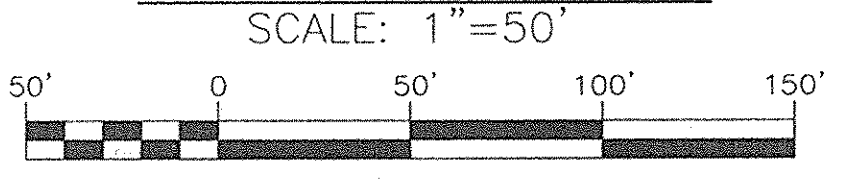
DESIGN BY: RHV/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHV
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 18193 EXPIRATION DATE: 09-27-2018

38 SHEET OF 45

MATCH LINE SEE SHEET 39

**PRELIMINARY STORMWATER MANAGEMENT
 DRAINAGE AREA MAP**

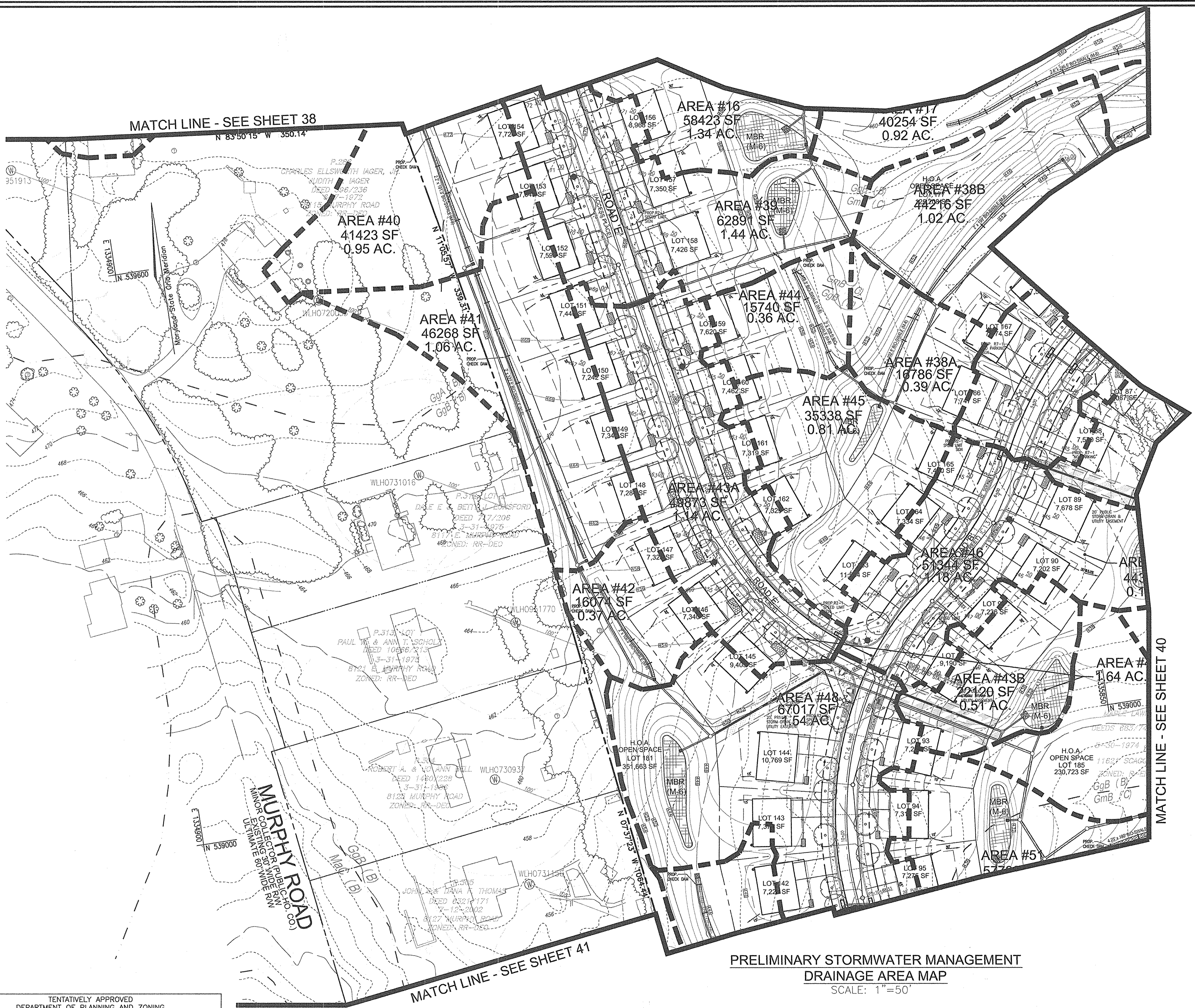


TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

APPROVED
 HOWARD COUNTY PLANNING BOARD
 PB 415
 JUNE 30, 2015

9-18-15
 DATE

K:\Projects\15-0000\15-0000_Prelim\15-0000_Prelim.dwg, E:\DWG\15-0000_Prelim.dwg, 8/11/2015 9:59:28 AM



LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREES (FIELD LOCATED)
- EXISTING TREELINE (FIELD LOCATED)
- EXISTING VEGETATION (APPROXIMATE LOCATION)
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- PROPOSED SIDEWALK
- NON-STRUCTURAL DISCONNECTION OF NON-ROOFTOP RUNOFF
- 200 CAL RAIN BARREL
- DRAINAGE DIVIDE
- DRAINAGE AREA DESIGNATION
- NON-STRUCTURAL DISCONNECTION OF NON-ROOFTOP RUNOFF
- PROPOSED DRYWELL
- PROPOSED STREET LIGHT

OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

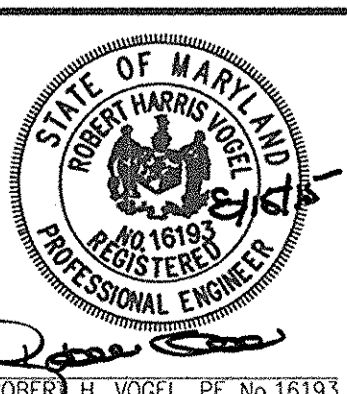
DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2661 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
 443-472-2846

NO.	REVISION	DATE

**PRELIMINARY EQUIVALENT SKETCH PLAN
 PRELIMINARY STORMWATER MANAGEMENT
 DRAINAGE AREA MAP**

MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
 (FUTURE LOTS 173-176)
 AND OPEN SPACE LOT 177-189
 ZONED: R-ED-MXD-3
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961



PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A QUALIFIED LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2016

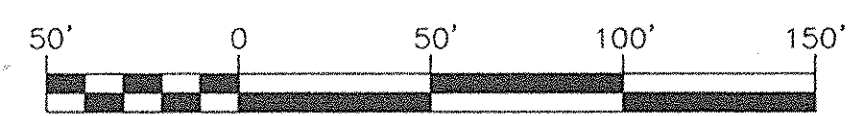
DESIGN BY: RHV/GAH
 DRAWN BY: KG/GAH
 CHECKED BY: RHV
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

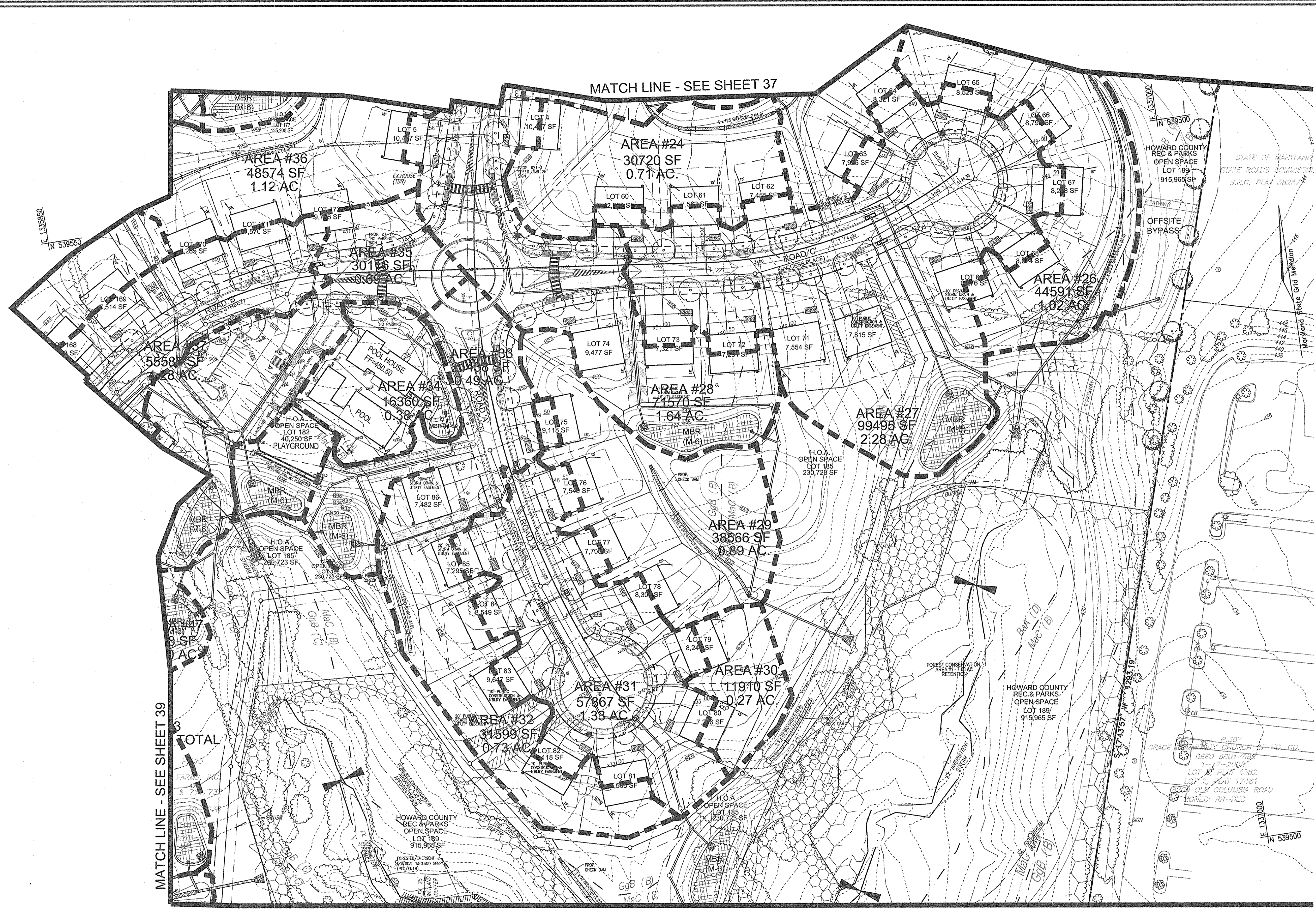
TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

AGW
 PLANNING DIRECTOR

APPROVED
 HOWARD COUNTY PLANNING BOARD
 PB 415
 JUNE 30, 2015

**PRELIMINARY STORMWATER MANAGEMENT
 DRAINAGE AREA MAP**
 SCALE: 1"=50'





LEGEND:

	EXISTING CONTOUR
	PROPOSED CONTOUR
	PROPOSED SPOT ELEVATION
	EXISTING SPOT ELEVATION
	EXISTING CURB AND GUTTER
	PROPOSED CURB AND GUTTER
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING MAILBOX
	EXISTING SIGN
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY LINE
	EXISTING CLEANOUT
	EXISTING FIRE HYDRANT
	EXISTING WATER LINE
	PROPOSED STORM DRAIN
	PROPOSED STORM DRAIN INLET
	EXISTING TREE LINE
	EXISTING FENCE
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	PROPOSED SIDEWALK
	NON-STRUCTURAL ROOFTOP DISCONNECTIONS
	MICRO-SCALE PRACTICE BIO-SWALE (M-6)
	MICRO-SCALE PRACTICE MICRO BIO-RETENTION / BIO-RETENTION (M-6)
	200 GAL RAIN BARREL
	DRAINAGE DIVIDE
	DRAINAGE AREA DESIGNATION
	NON-STRUCTURAL DISCONNECTION OF NON-ROOFTOP RUNOFF
	PROPOSED DRYWELL
	PROPOSED STREET LIGHT

OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY STORMWATER MANAGEMENT DRAINAGE AREA MAP

MAPLE LAWN SOUTH
SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A' (FUTURE LOTS 173-176) AND OPEN SPACE LOT 177-189

TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DPZ REF: ECP-14-093, WP-15-136, PB#415

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: RHV/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHV
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 08-27-2018

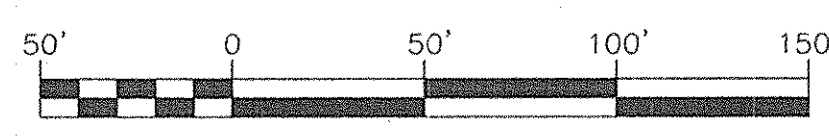
40 SHEET OF 45

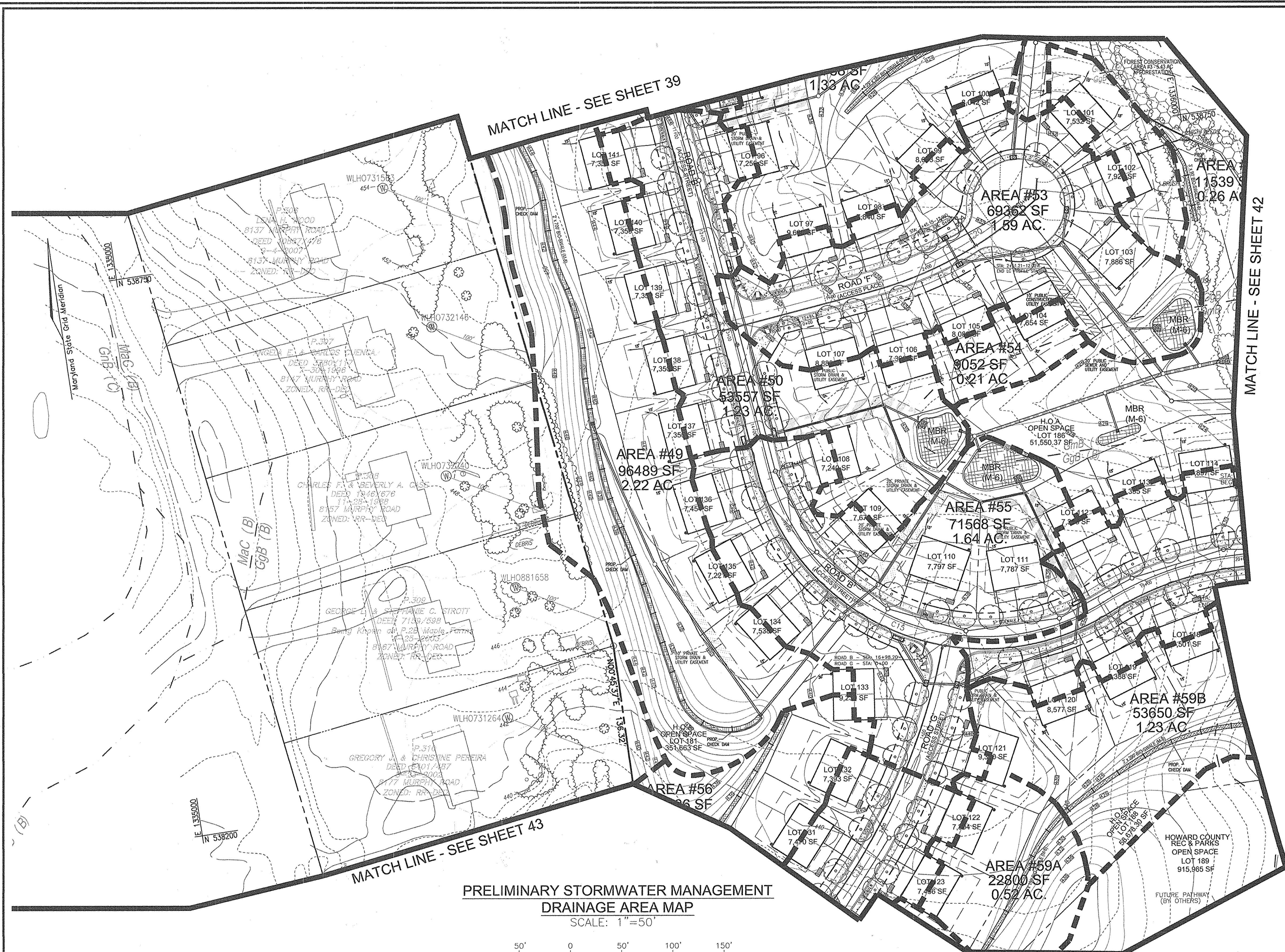
TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

APPROVED
HOWARD COUNTY PLANNING BOARD
PB 415
JUNE 30, 2015

9-18-15
DATE

PLANNING DIRECTOR





- LEGEND:**
- 50' --- EXISTING CONTOUR
 - 40' --- PROPOSED CONTOUR
 - + 40.28' --- PROPOSED SPOT ELEVATION
 - + 42.28' --- EXISTING SPOT ELEVATION
 - ==== EXISTING CURB AND GUTTER
 - ==== PROPOSED CURB AND GUTTER
 - ⊙ EXISTING UTILITY POLE
 - ⊙ EXISTING LIGHT POLE
 - ⊙ EXISTING MAILBOX
 - ⊙ EXISTING SIGN
 - ⊙ EXISTING SANITARY MANHOLE
 - ⊙ EXISTING SANITARY LINE
 - ⊙ EXISTING CLEANOUT
 - ⊙ EXISTING FIRE HYDRANT
 - ⊙ EXISTING WATER LINE
 - PROPOSED STORM DRAIN
 - PROPOSED STORM DRAIN INLET
 - EXISTING TREE LINE
 - EXISTING FENCE
 - PROPERTY LINE
 - RIGHT-OF-WAY LINE
 - PROPOSED SIDEWALK
 - NON-STRUCTURAL ROOFTOP DISCONNECTIONS
 - MICRO-SCALE PRACTICE BIO-SWALE (M-8)
 - MICRO-SCALE PRACTICE MICRO BIoretention / BIoretention (M-4)
 - 200 GAL RAIN BARREL
 - DRAINAGE DIVIDE
 - DRAINAGE AREA DESIGNATION
 - AREA #3
 - NON-STRUCTURAL DISCONNECTION OF NON-ROOFTOP RUNOFF
 - PROPOSED DRYWELL
 - PROPOSED STREET LIGHT

OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2346

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY STORMWATER MANAGEMENT DRAINAGE AREA MAP
MAPLE LAWN SOUTH
SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A' (FUTURE LOTS 173-176) AND OPEN SPACE LOT 177-189
TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
5TH ELECTION DISTRICT DPZ REF: ECP-14-093, WP-15-136, PB#415 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLCOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: RHV/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHV
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 09-27-2016.

41 SHEET OF 45

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

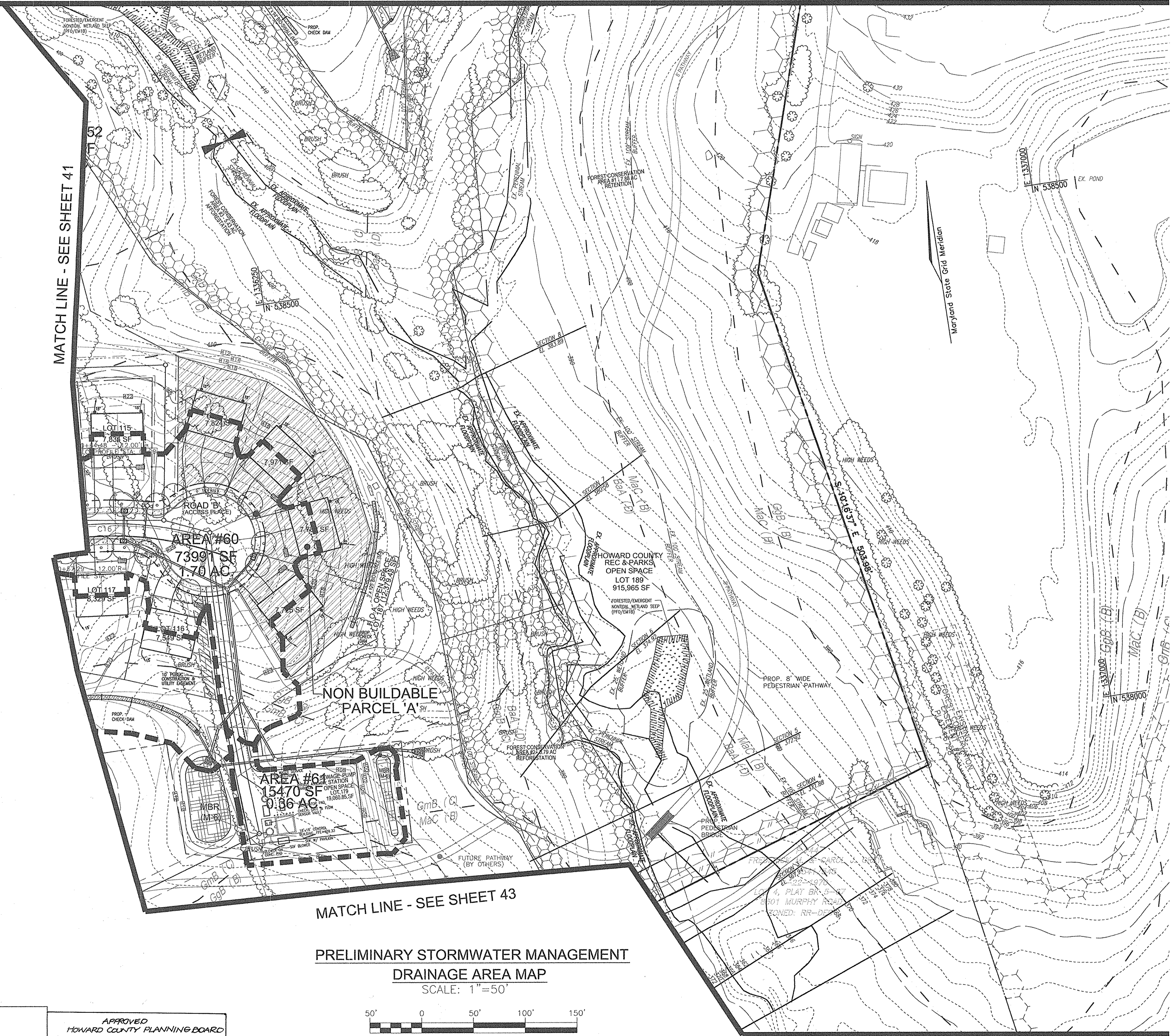
APPROVED
HOWARD COUNTY PLANNING BOARD
PB 415
JUNE 30, 2015

9-15-15
DATE

PLANNING DIRECTOR

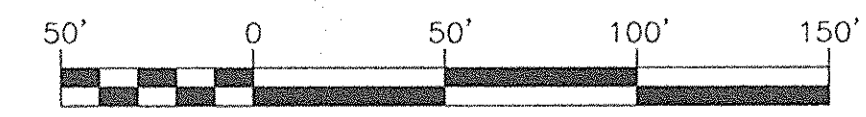
MATCH LINE - SEE SHEET 40

MATCH LINE - SEE SHEET 41



MATCH LINE - SEE SHEET 43

PRELIMINARY STORMWATER MANAGEMENT DRAINAGE AREA MAP
SCALE: 1"=50'



- LEGEND:**
- - - - - EXISTING CONTOUR
 - - - - - PROPOSED CONTOUR
 - + 402.88 PROPOSED SPOT ELEVATION
 - + 402.88 EXISTING SPOT ELEVATION
 - - - - - EXISTING CURB AND GUTTER
 - - - - - PROPOSED CURB AND GUTTER
 - ⊕ EXISTING UTILITY POLE
 - ⊕ EXISTING LIGHT POLE
 - ⊕ EXISTING MAILBOX
 - ⊕ EXISTING SIGN
 - ⊕ EXISTING SANITARY MANHOLE
 - - - - - EXISTING SANITARY LINE
 - - - - - EXISTING CLEAFOUT
 - ⊕ EXISTING FIRE HYDRANT
 - - - - - EXISTING WATER LINE
 - - - - - PROPOSED STORM DRAIN
 - - - - - PROPOSED STORM DRAIN INLET
 - - - - - EXISTING TREELINE (FIELD LOCATED)
 - - - - - EXISTING FENCE
 - - - - - PROPERTY LINE
 - - - - - RIGHT-OF-WAY LINE
 - - - - - PROPOSED SIDEWALK
 - - - - - NON-STRUCTURAL ROOFTOP DISCONNECTIONS
 - - - - - MICRO-SCALE PRACTICE BIO-SWALE (M-5)
 - - - - - MICRO-SCALE PRACTICE MICRO BIORETENTION / BIORETENTION (M-6)
 - 200 GAL RAIN BARREL
 - - - - - DRAINAGE DRIVE
 - - - - - DRAINAGE AREA DESIGNATION
 - - - - - NON-STRUCTURAL DISCONNECTION OF NON- ROOFTOP RUNOFF
 - ⊕ PROPOSED DRYWELL
 - ⊕ PROPOSED STREET LIGHT

AREA #3

OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY STORMWATER MANAGEMENT DRAINAGE AREA MAP
MAPLE LAWN SOUTH
SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A' (FUTURE LOTS 173-176) AND OPEN SPACE LOT 177-189
TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DPZ REF: ECP-14-093, WP-15-136, PBJ#415

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410.461.7666
ELICOTT CITY, MD 21043 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: RHV/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHV
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2016

42 SHEET OF 45

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

APPROVED
HOWARD COUNTY PLANNING BOARD
FB#415
JUNE 30, 2015

9-13-15
DATE

PLANNING DIRECTOR

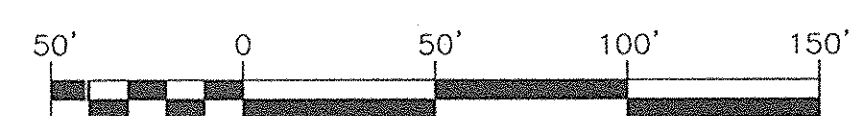


MATCH LINE - SEE SHEET 41

MATCH LINE
SEE SHEET 41
MATCH LINE
SEE SHEET 42

MATCH LINE - SEE SHEET 42

**PRELIMINARY STORMWATER MANAGEMENT
DRAINAGE AREA MAP**
SCALE: 1"=50'



LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREES (FIELD LOCATED)
- EXISTING VEGETATION (APPROXIMATE LOCATION)
- PROPOSED DRYWELL
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- PROPOSED SIDEWALK
- NON-STRUCTURAL ROOFTOP DISCONNECTIONS
- MICRO-SCALE PRACTICE BIO-SWALE (M-B)
- MICRO-SCALE PRACTICE MICRO BIO-RETENTION / BIO-RETENTION (M-B)
- 200 GAL RAIN BARREL
- DRAINAGE DIVIDE
- DRAINAGE AREA DESIGNATION
- NON-STRUCTURAL DISCONNECTION OF NON-ROOFTOP RUNOFF
- EXISTING TREELINE (FIELD LOCATED)
- PROPOSED STREET LIGHT

AREA #3

OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

NO.	REVISION	DATE

**PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY STORMWATER MANAGEMENT
DRAINAGE AREA MAP**

MAPLE LAWN SOUTH
SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
(FUTURE LOTS 173-176)
AND OPEN SPACE LOT 177-189

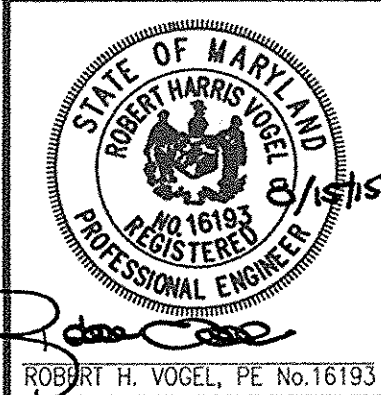
TAX MAP 46 - GRID 2 - PARCEL 113
5TH ELECTION DISTRICT
DPZ REF: ECP-14-093, WP-15-136, PB#415

ZONED: R-ED-MXD-3
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL
ENGINEERS, INC.**
SURVEYORS • PLANNERS • ENGINEERS

8407 MAIN STREET
ELLICOTT CITY, MD 21043

TEL: 410.461.7666
FAX: 410.461.8961



PROFESSIONAL CERTIFICATE

DESIGN BY: RHV/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHV
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 08-31-2015.

43 SHEET OF 45

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

[Signature]
PLANNING DIRECTOR

APPROVED
HOWARD COUNTY PLANNING BOARD
PB 415
JUNE 30, 2015

9-18-15
DATE

APPENDIX B.4.C SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDEN, LANDSCAPE INFILTRATION & INFILTRATION BERMS

1. MATERIAL SPECIFICATIONS
THE ALLOWABLE MATERIALS TO BE USED IN THESE PRACTICES ARE DETAILED IN TABLE B.4.1.

2. FILTERING MEDIA OR PLANTING SOIL
THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR BURIED WITHIN THE MICRO-BIORETENTION PRACTICE THAT MAY BE HARMFUL TO PLANT GROWTH OR PROVIDE A HYDROPHOBIC TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 16.06.01.02.

THE PLANTING SOIL SHALL MEET THE FOLLOWING CRITERIA:
 * SOIL COMPONENT - LOAMY SAND OR SANDY LOAM (USDA SOIL TEXTURAL CLASSIFICATION).
 * ORGANIC CONTENT - MINIMUM 10% BY DRY WEIGHT (ASTM D 2974). IN GENERAL, THIS CAN BE MET WITH A MIXTURE OF LOAMY SAND (60%-65%) AND COMPOST (35% TO 40%) OR SANDY LOAM (LOAM, COMPOST AND COCO) AND COMPOST (40%).
 * CLAY CONTENT - MEDIA SHALL HAVE A CLAY CONTENT OF LESS THAN 5%.
 * PH RANGE - SHOULD BE BETWEEN 5.5 - 7.0. AMENDMENTS (E.G., LIME, IRON SULFATE PLUS SULFUR) MAY BE MIXED IN TO THE SOIL TO INCREASE OR DECREASE PH.

THESE SHALL BE AT LEAST ONE SOIL TEST PER PROJECT. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, AND ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAVATED.

3. COMPACTION
IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF BIORETENTION FACILITY AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF PRACTICES ARE EXCAVATED USING LONGER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TIRE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH-PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.

COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACTURE THE SOIL PROFILE THROUGHOUT THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.

ROTOTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER. PUMP ANY PONDING WATER BEFORE PREPARING (ROTOTILLING) BASE.
 WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE.
 WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SANDS. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

4. PLANT MATERIAL
RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION A.2.3.

5. PLANT INSTALLATION
COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS. MULCH SHOULD BE PLACED IN SURROUNDING TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDED OR CHIPPED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.

ROOTSTOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THROUGHOUT WATER GROUND BED COVER AFTER INSTALLATION. TREES SHALL BE BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.
 GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLOWS SHALL BE PLANTED FOLLOWING THE NON-CROSS GROUND COVER PLANTING SPECIFICATIONS.

THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS, DEFEATS, OR AT A MINIMUM, IMPEDS THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.

6. UNDERDRAINS
UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:
 * PIPE - SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTM 758, TYPE PS 28, OR AASHTO-M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED 4" RIGID PIPE (E.G., PVC OR HDPE).
 * PERFORATIONS - IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH 1/4" GALVANIZED HARDWARE CLOTH OR EQUAL MATERIAL.
 * GRAVEL - THE GRAVEL LAYER (NO. 57 STONE PREFERRED) SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN.
 * THE MAIN COLLECTOR PIPE SHALL BE AT A MINIMUM 0.5% SLOPE.
 * A RIGID, NON-PERFORATED OBSERVATION WELL MUST BE PROVIDED (ONE PER EVERY 1,000 SQUARE FEET) TO PROVIDE A CLEAN-OUT POINT AND MONITOR PERFORMANCE OF THE FILTER.
 * A 4" LAYER OF PEA GRAVEL (1/8" TO 3/8" STONE) SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND UNDERDRAIN TO PREVENT MIGRATION OF FINES TO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24".

THIS MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5%. OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE UNDERDRAIN PER EVERY 1000 SQUARE FEET OF SURFACE AREA).

7. MISCELLANEOUS
THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

OPERATION AND MAINTENANCE SCHEDULE FOR MICROBIORETENTION / BIO-SWALE AREAS

1. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
2. SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
3. MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
4. SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

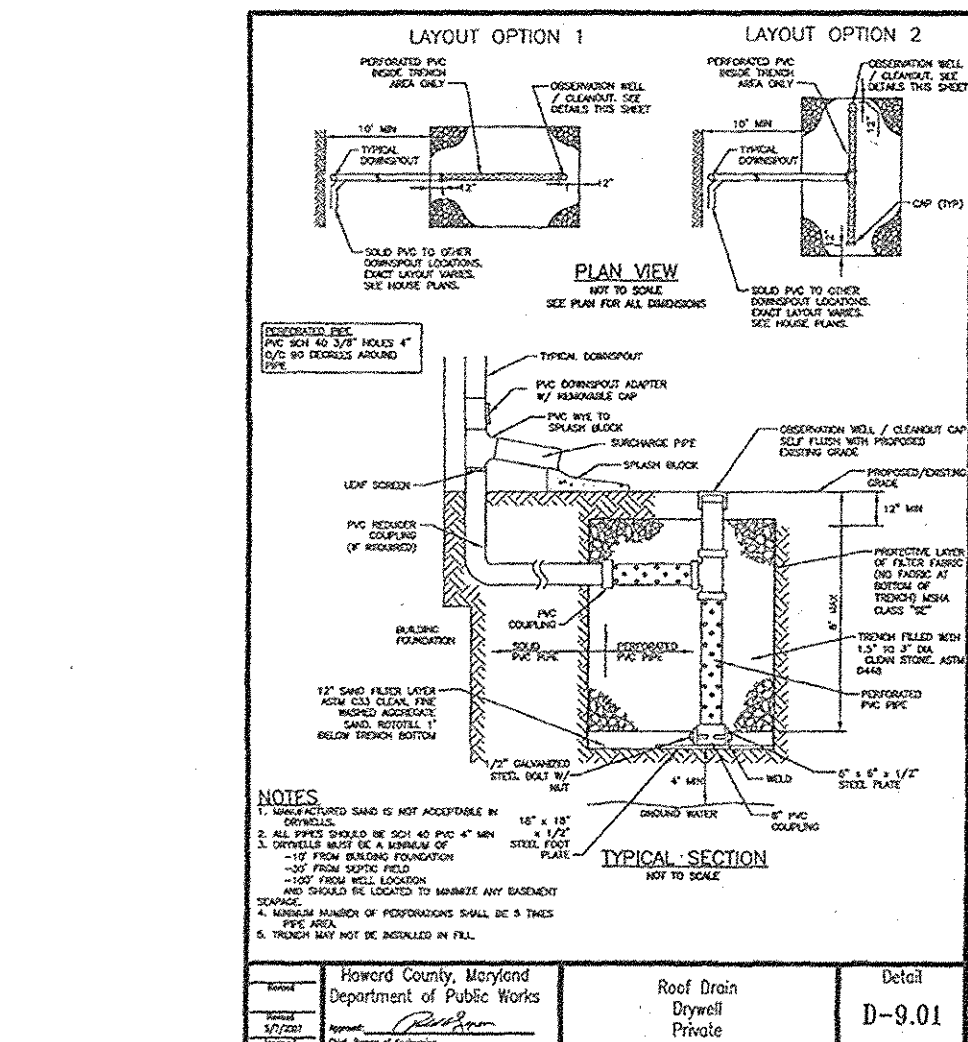
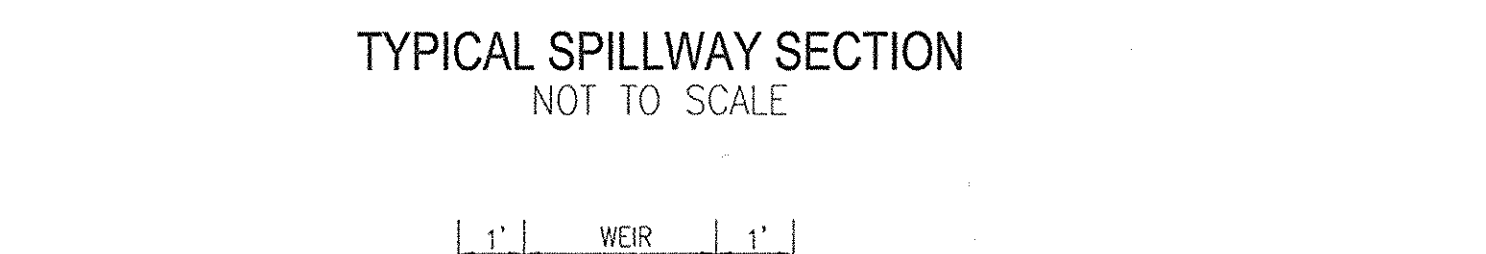
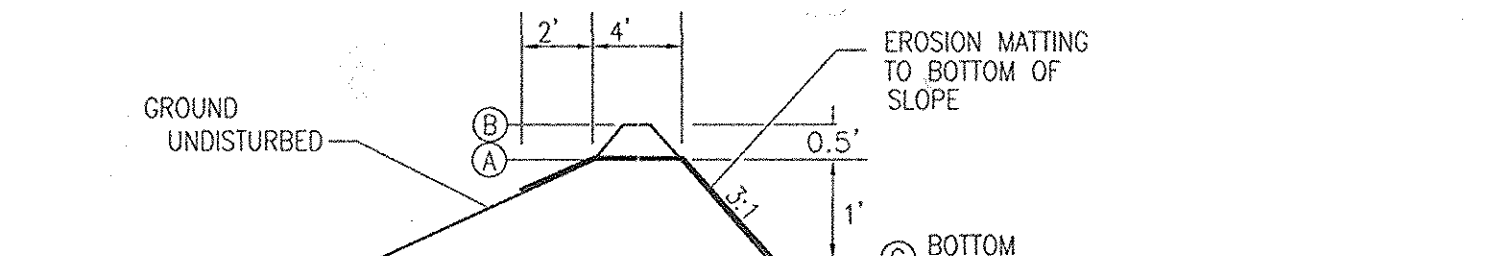
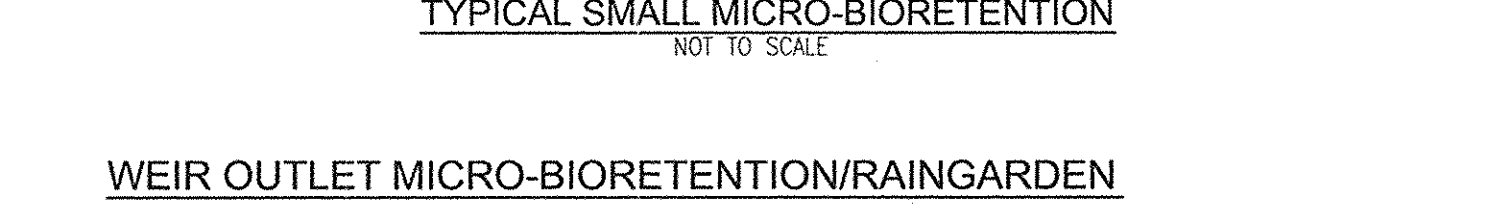
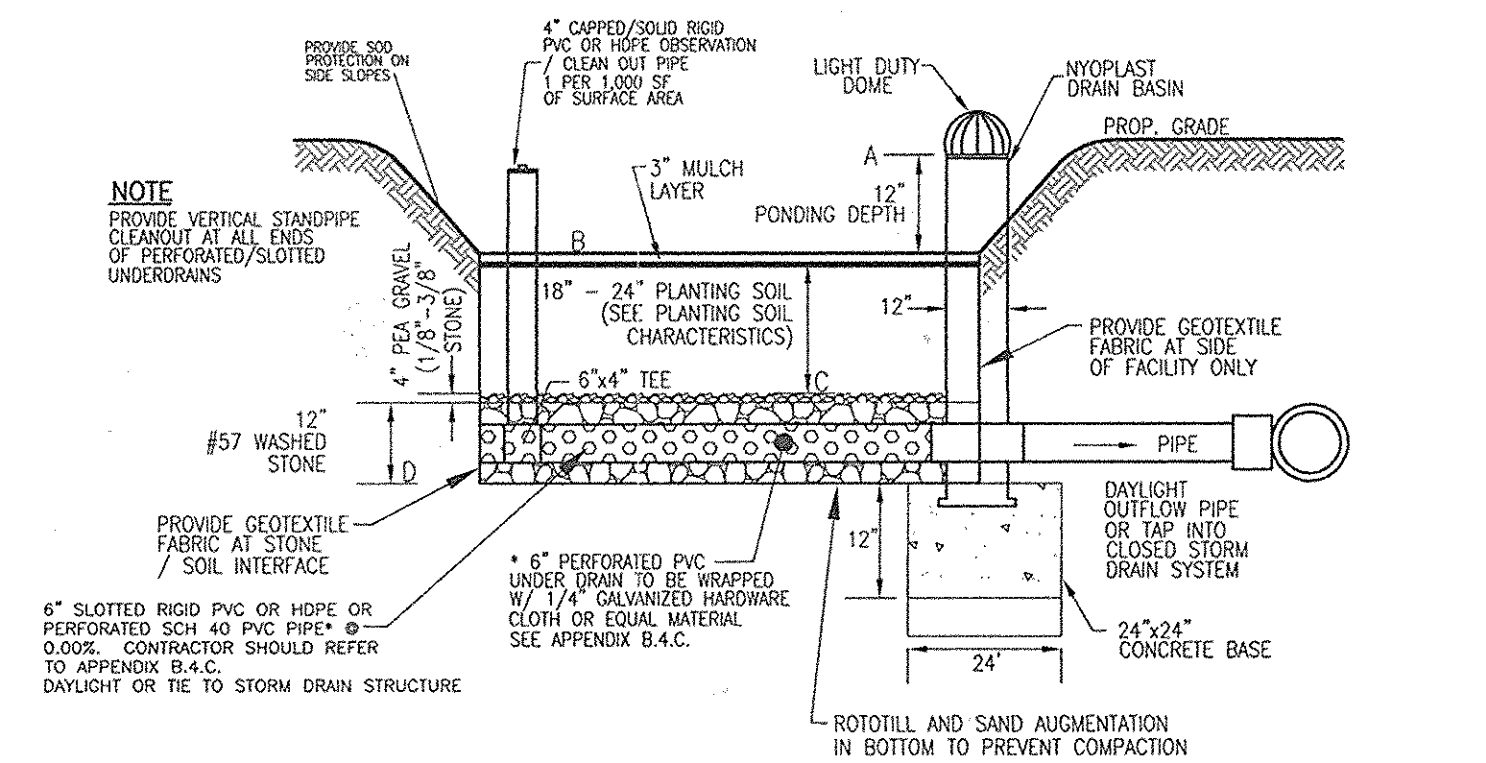
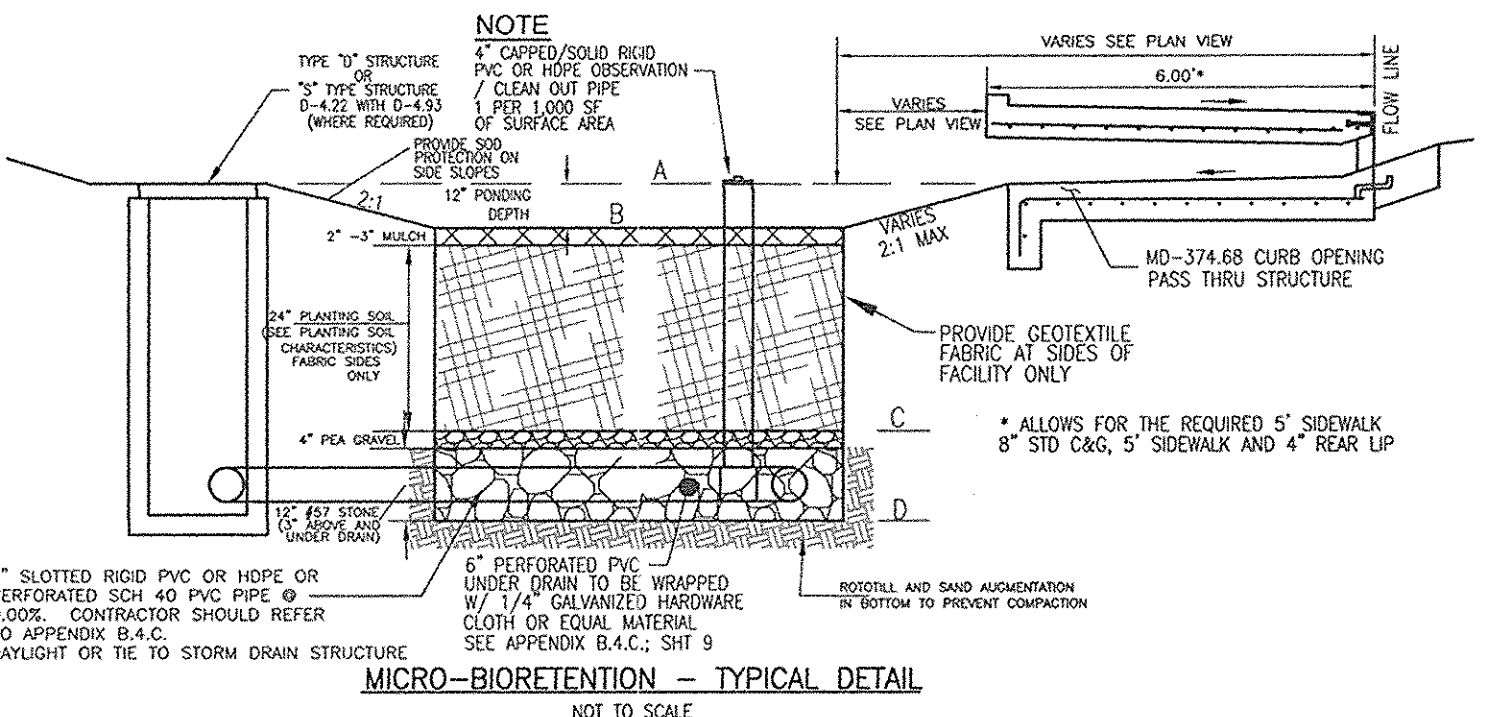


Table B.4.1 Materials Specifications for Micro-BioRetention, Rain Gardens & Landscape Infiltration-

Material	Specification	Size	Notes
Plantings soil	see Appendix A, Table A.4	n/a	plantings are site-specific
Planting soil (2' to 4' deep)	loamy sand (60 - 65%) & compost (35 - 40%) or sandy loam (39%), coarse sand (30%) & compost (40%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 3%
Organic content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum; no pine or wood chips
Pea gravel diaphragm	pea gravel: ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")	
Curtain drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile	AASHTO M-43	n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" to 3/4")	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe, 3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 1/4-inch galvanized hardware cloth
Poured in place concrete (if required)	MSHA Mix No. 3; f'c = 3500 psi @ 28 days, normal weight, air-entrained; reinforcing to meet ASTM-616-60	n/a	on-site testing of poured-in-place concrete required; 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved State or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI Code 308.8R; vertical loading (H-10 or H-20); allowable horizontal loading (based on soil pressure); and analysis of potential cracking
Sand	AASHTO M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Craystone (AASHTO) #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.



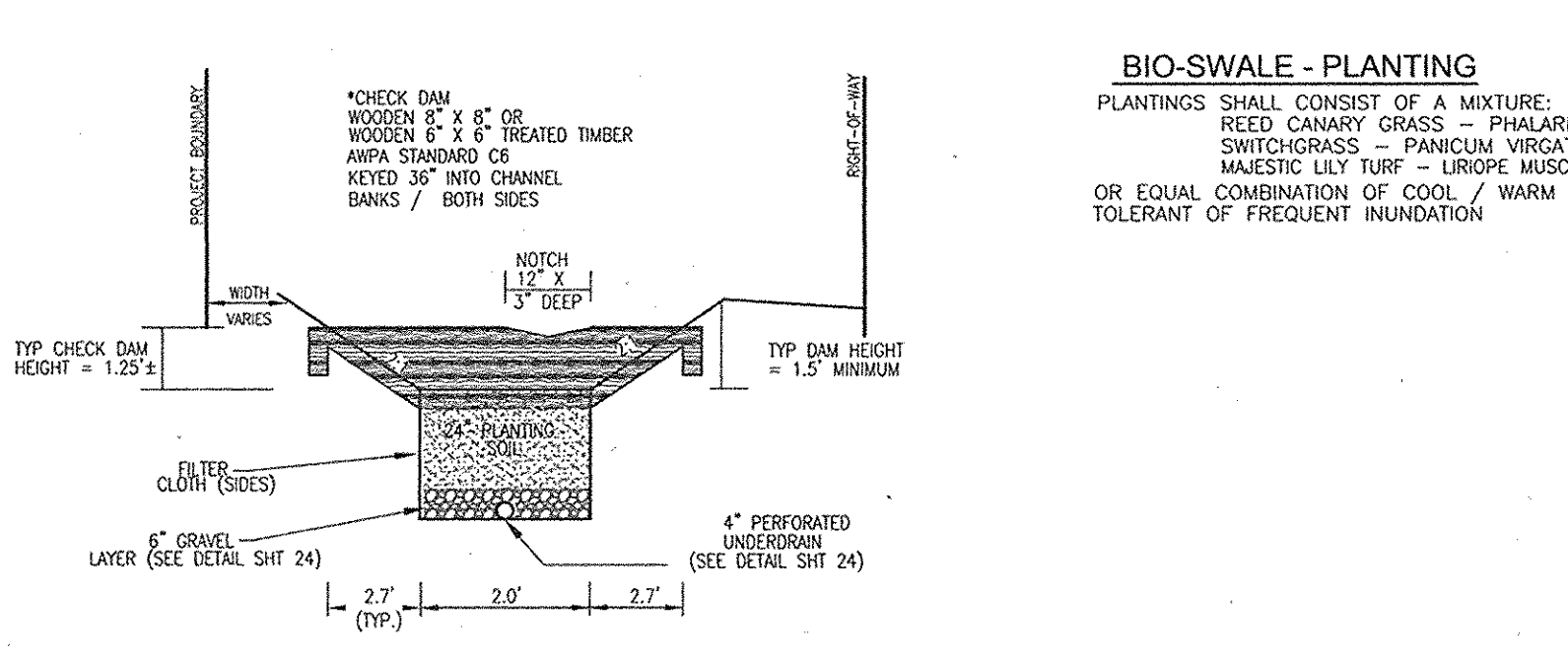
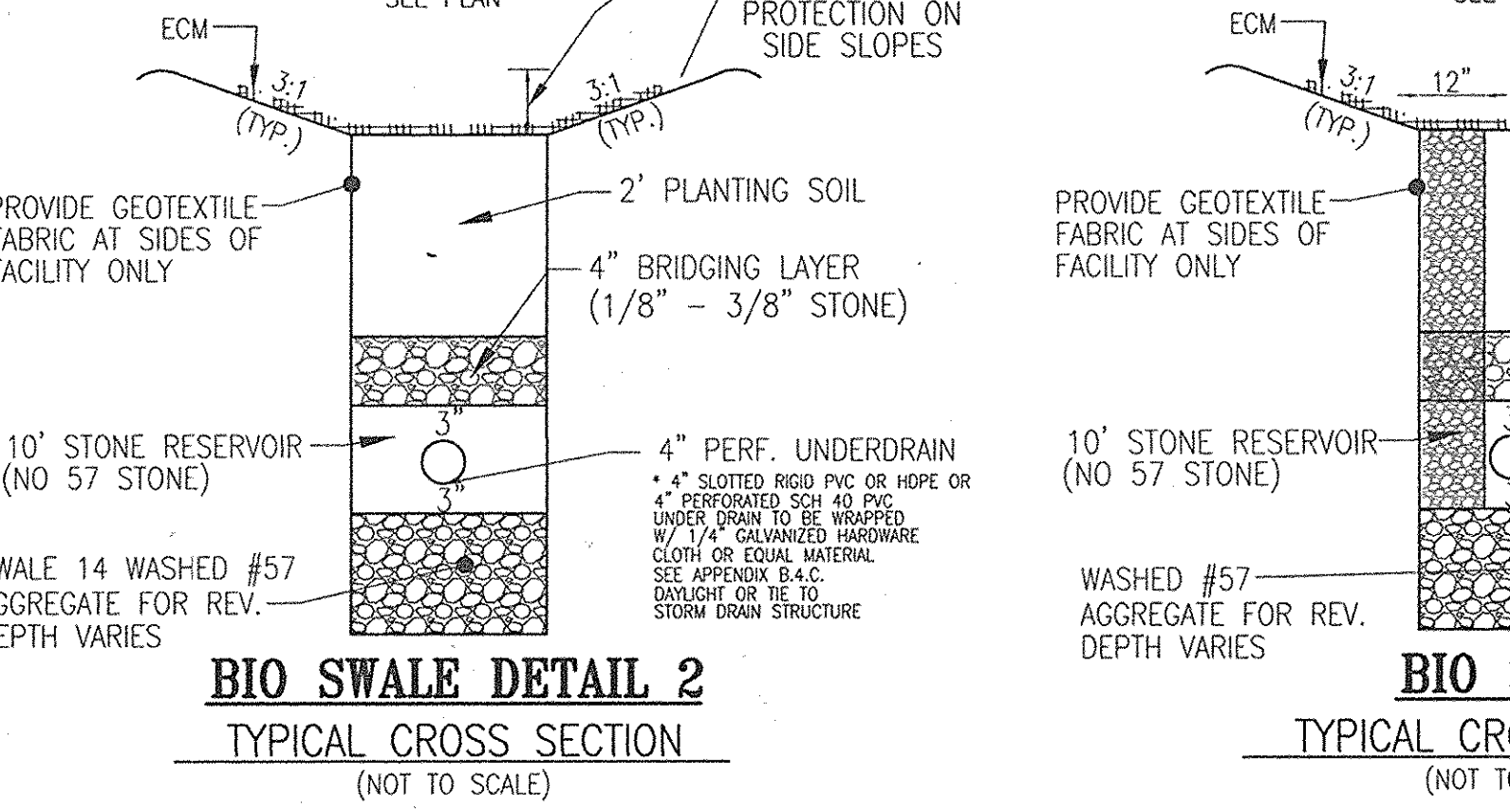
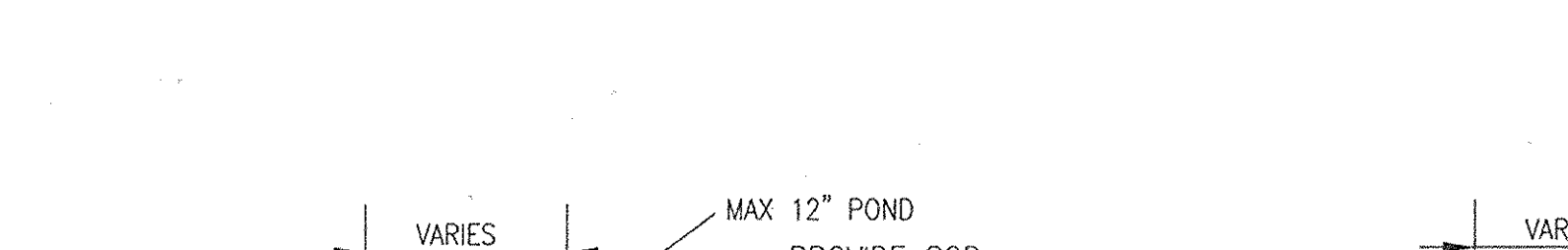
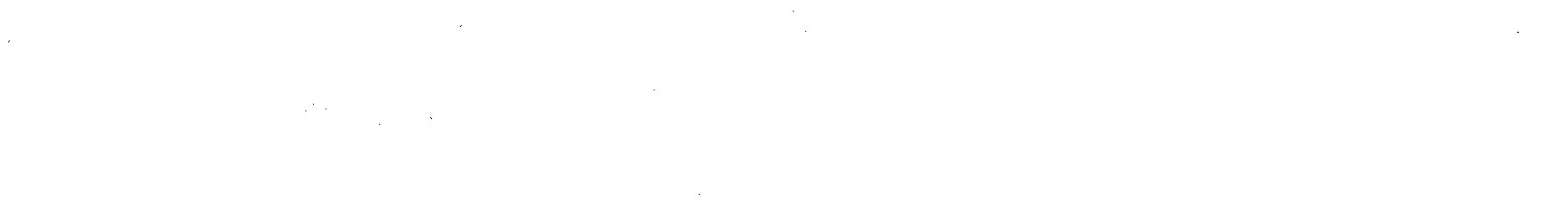
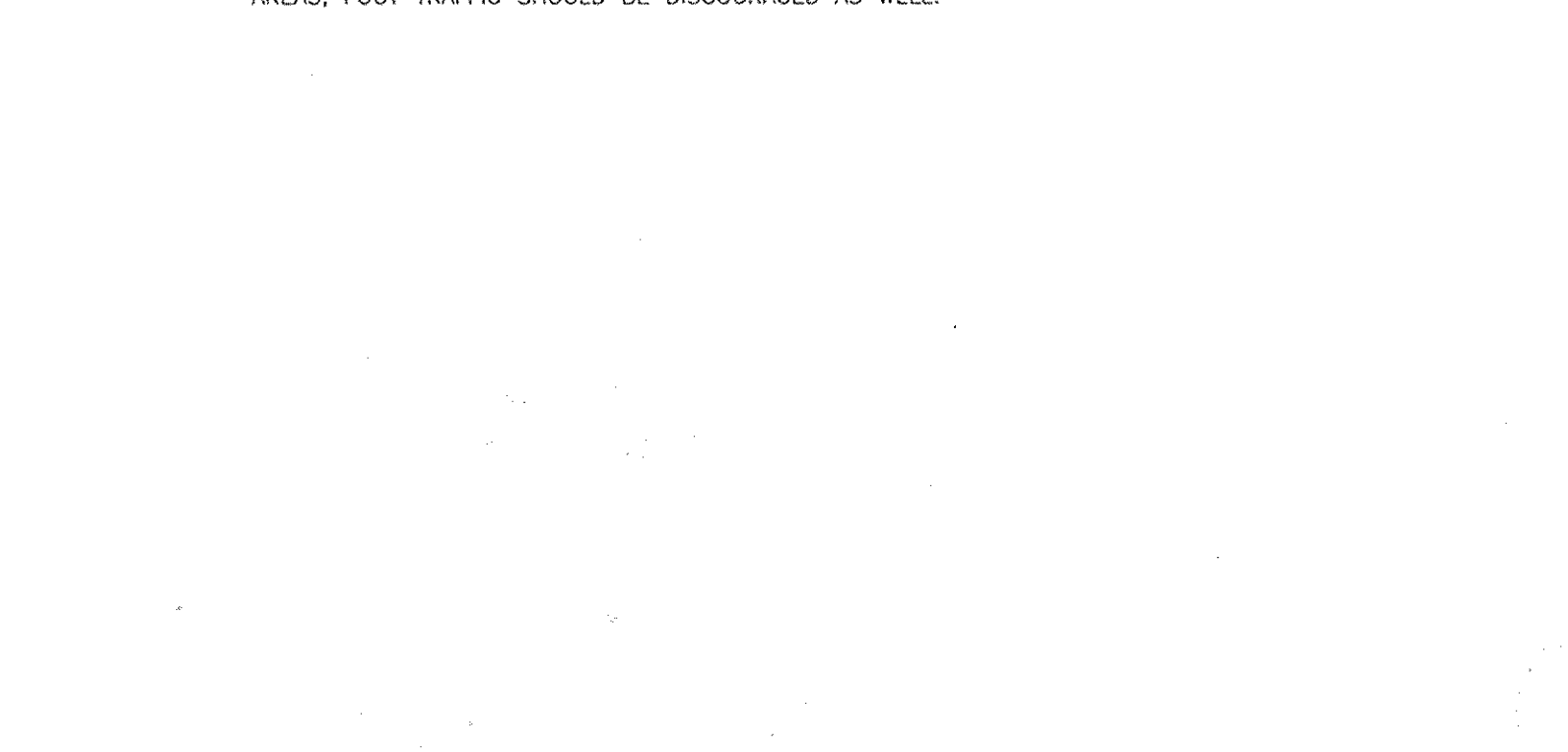
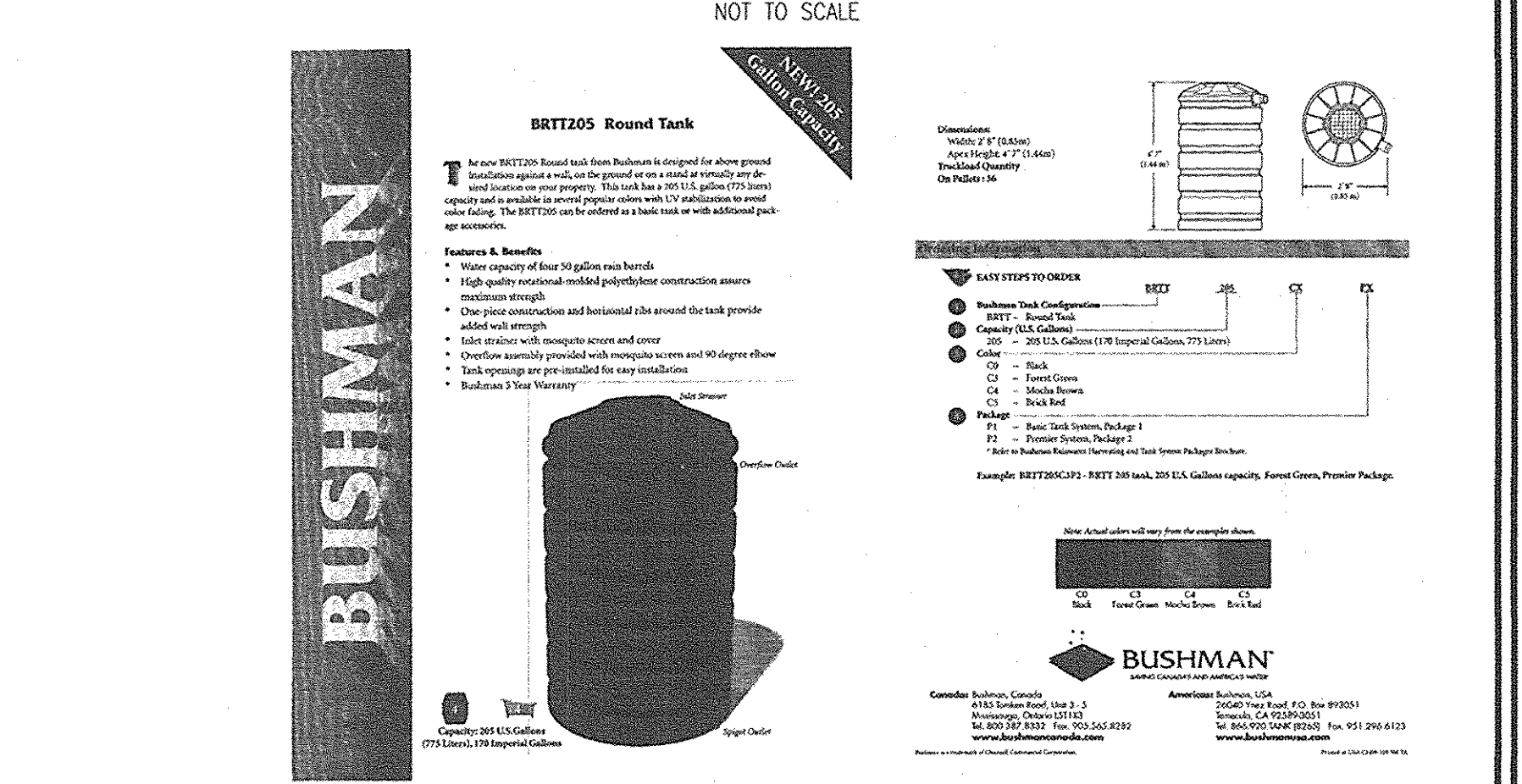
N-1. DISCONNECTION OF ROOFTOP RUNOFF

CONSTRUCTION CRITERIA:
THE FOLLOWING ITEMS SHOULD BE ADDRESSED DURING THE CONSTRUCTION OF PROJECTS WITH PLANNED ROOFTOP DISCONNECTIONS:
 - EROSION AND SEDIMENT CONTROL: EROSION AND SEDIMENT CONTROL PRACTICES (E.G., SEDIMENT TRAPS) SHALL NOT BE LOCATED IN VEGETATED AREAS RECEIVING DISCONNECTED RUNOFF
 - SITE DISTURBANCE: CONSTRUCTION VEHICLES AND EQUIPMENT SHOULD AVOID AREAS RECEIVING DISCONNECTED RUNOFF TO MINIMIZE DISTURBANCE AND COMPACTION. SHOULD AREAS RECEIVING DISCONNECTED RUNOFF BECOME COMPACTED, SCARIFYING THE SURFACE OR ROTOTILLING THE SOIL TO A DEPTH OF FOUR TO SIX INCHES SHALL BE PERFORMED TO ENSURE PERMEABILITY. ADDITIONALLY, AMENDMENTS MAY BE NEEDED FOR TIGHT, CLAYEY SOILS.

INSPECTION:
A FINAL INSPECTION SHALL BE CONDUCTED BEFORE USE AND OCCUPANCY APPROVAL TO ENSURE THAT SIZING FOR TREATMENT AREAS HAVE BEEN MET AND PERMANENT STABILIZATION HAS BEEN ESTABLISHED.

MAINTENANCE CRITERIA:
MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTION (E.G., BY PLANTING TREES OR SHRUBS ALONG THE PERIMETER). IN COMMERCIAL AREAS, FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

BUSHMAN BRIT205 (205 GALLON) RAIN HARVESTING SYSTEM OR EQUIVALENT RAIN BARREL DETAIL



OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED RAINWATER HARVESTING (M-1)

- A. THE OWNER SHALL EMPTY BARRELS ON A MONTHLY BASIS AND CLEAN BARREL WITH A HOSE.
- B. THE OWNER SHALL VERIFY INTEGRITY OF LEAF SCREENS, GUTTERS, DOWNSPOUTS, SPIGOTS, AND MOSQUITO SCREENS, AND CLEAN AND REMOVE ANY DEBRIS.
- C. THE OWNER SHALL REPLACE DAMAGED COMPONENTS AS NEEDED.
- D. THE OWNER SHALL ALLOW THE BARREL TO DRAIN BY BOTTOM SPIGOT DURING THE WINTER SEASON.

OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY STORMWATER MANAGEMENT NOTES AND DETAILS
MAPLE LAWN SOUTH
 SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A' (FUTURE LOTS 173-176)
 AND OPEN SPACE LOT 177-189
 TAX MAP 46 - GRID 2 - PARCEL 113
 5TH ELECTION DISTRICT
 DPZ REF: ECP-14-093, WP-15-136, PB#415
 ZONED: R-ED-MXD-3
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERS, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
 DESIGN BY: RHY/GAH
 DRAWN BY: KC/GAH
 CHECKED BY: RHY
 DATE: AUGUST 2015
 SCALE: AS SHOWN
 W.O. NO.: 11-34

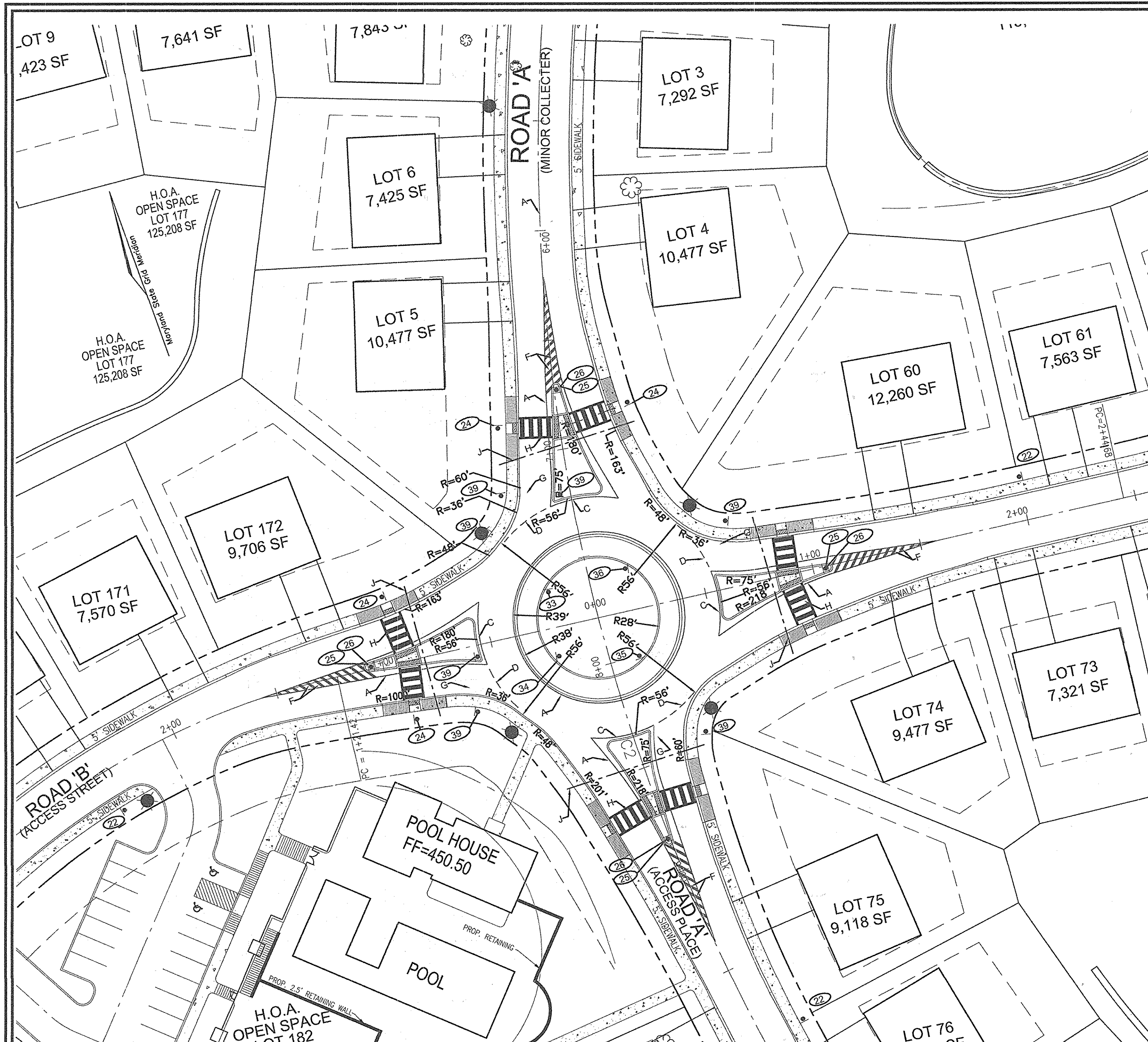
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRES DATE: 09-27-2018

44 SHEET OF 45

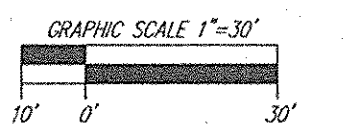
TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

APPROVED
 HOWARD COUNTY PLANNING BOARD
 PB 4-15
 JUNE 30, 2015

9-18-15
 DATE

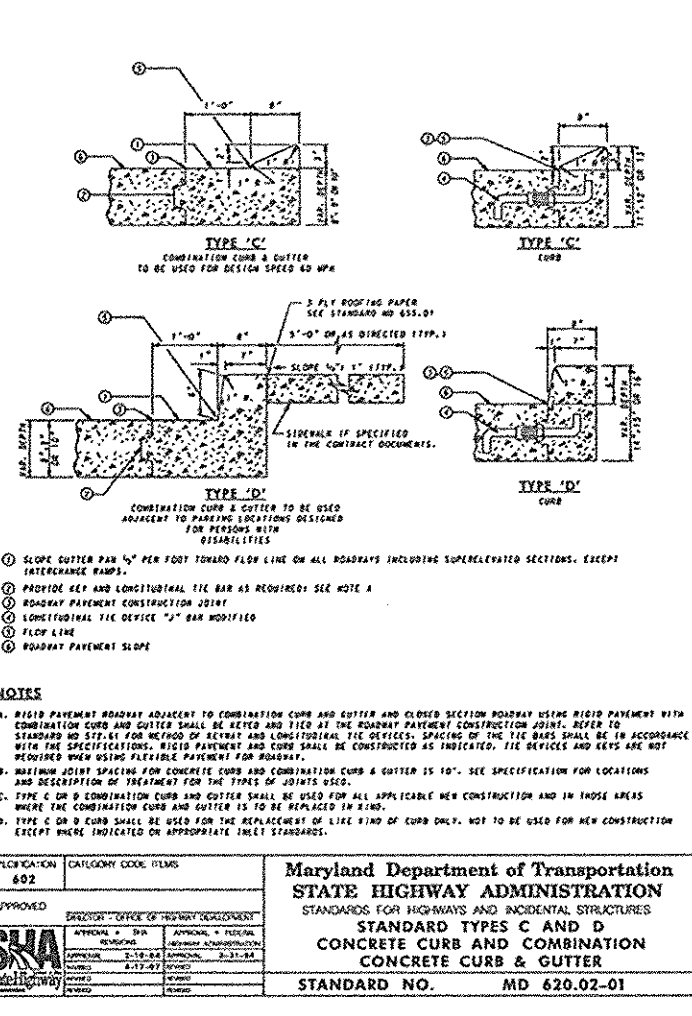
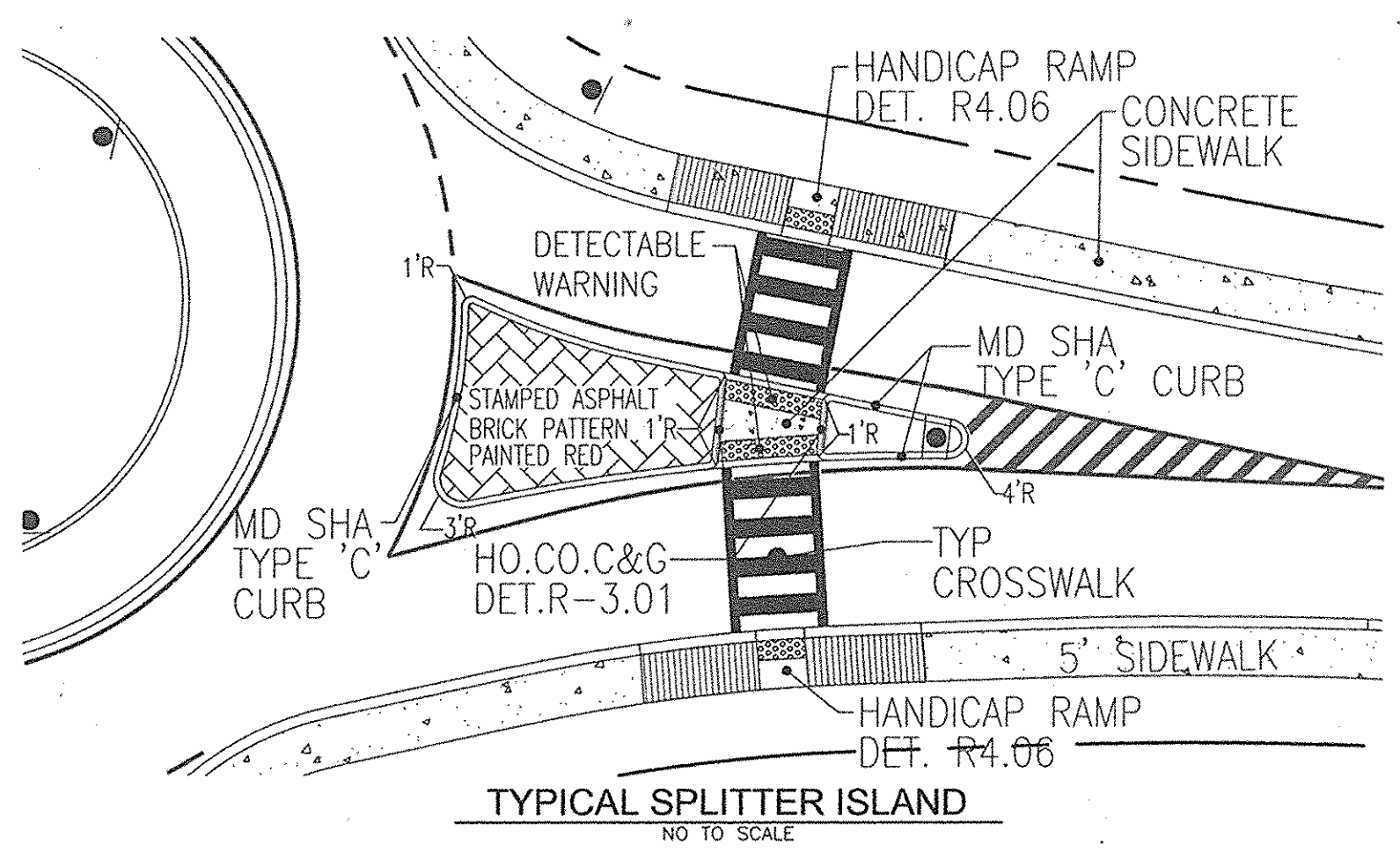
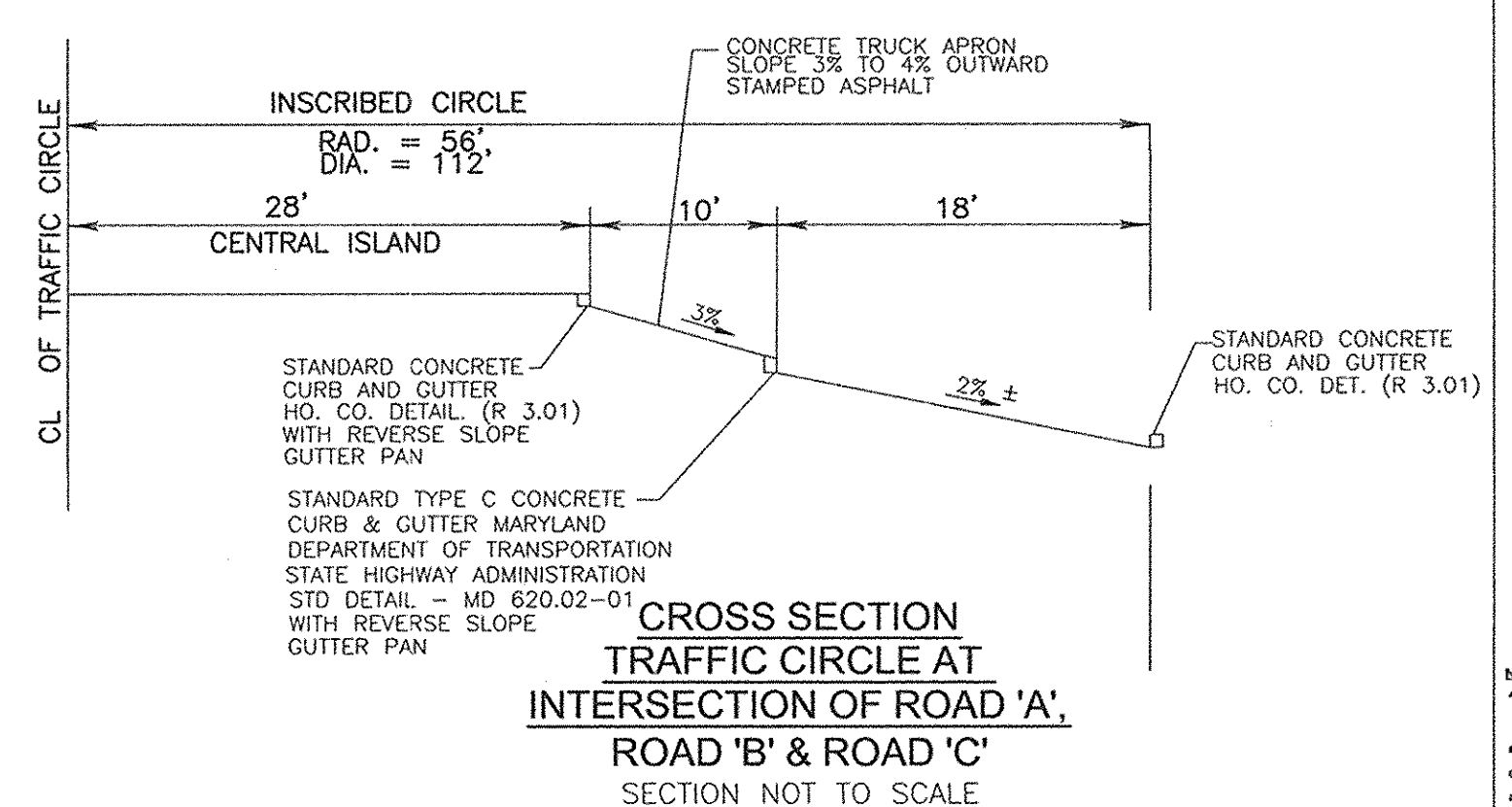
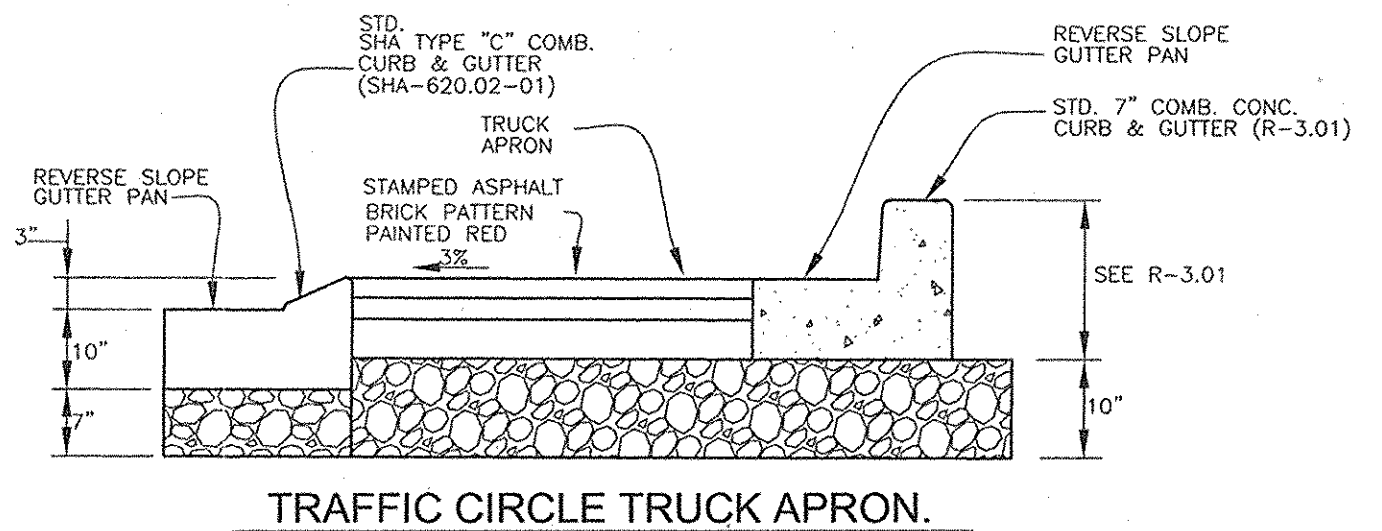
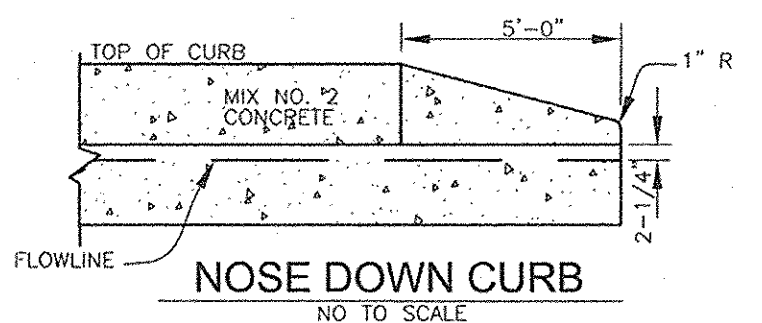
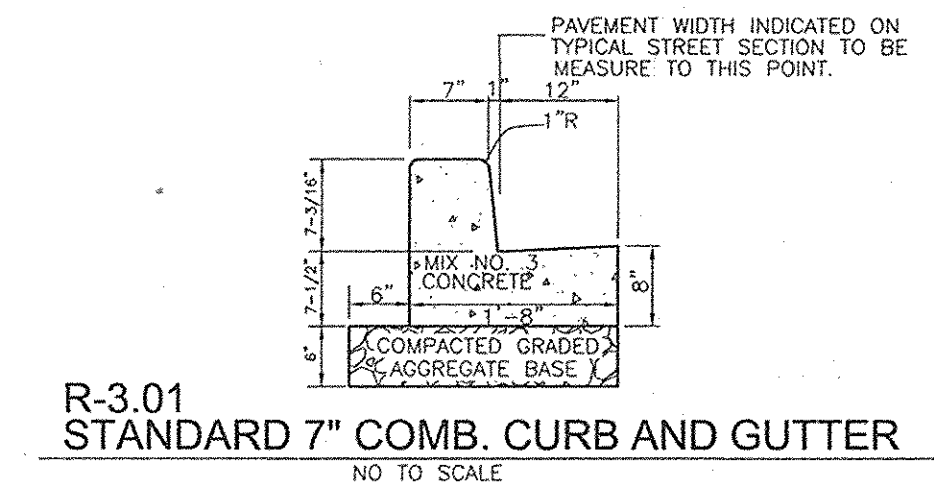


TRAFFIC CIRCLE - PLAN VIEW
SCALE: 1"=30'



STREET SIGN SCHEDULE

NO.	SIGN TYPE / DESCRIPTION
22	W11-2 (30x30) FVG / W16-5P (AHEAD) FVG
24	W11-2 (30x30) FVG / W16-7P (24x12) FVG
25	R4-7 KEEP RIGHT (SEE DETAIL)
26	(2) YELLOW O.M. (O.M.I-3) BACK TO BACK
27	W11-2 (30x30) FVG / W16-7P (24x12) FVG
33	RE-4 MOUNT BOTTOM 4" FROM ROAD SURFACE
34	RE-4 MOUNT BOTTOM 4" FROM ROAD SURFACE
37	RE-4 MOUNT BOTTOM 4" FROM ROAD SURFACE
38	RE-4 MOUNT BOTTOM 4" FROM ROAD SURFACE
39	R1-2 YIELD



- CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL MEASURES AND SHALL WORK WITH THE COUNTY ON THE BEST TIME FOR WORK TO TAKE PLACE.
- LANDSCAPE MATERIAL SHALL BE PLANTED BETWEEN APRIL AND OCTOBER OF SUPERSEDER AND SHALL BE PLANTED AT THE PROPER DEPTH AND SPACING.
- ALL EXISTING PLANT MATERIAL SHALL BE REMOVED FROM THE AREA.
- THE CENTER OF THE TRAFFIC CIRCLE SHALL BE PLANTED WITH ONE (1) TREE AND ONE (1) SHURB.
- THE TRAFFIC CIRCLE SHALL BE PLANTED WITH ONE (1) TREE AND ONE (1) SHURB.
- THE TRAFFIC CIRCLE SHALL BE PLANTED WITH ONE (1) TREE AND ONE (1) SHURB.
- THE TRAFFIC CIRCLE SHALL BE PLANTED WITH ONE (1) TREE AND ONE (1) SHURB.
- THE TRAFFIC CIRCLE SHALL BE PLANTED WITH ONE (1) TREE AND ONE (1) SHURB.
- THE TRAFFIC CIRCLE SHALL BE PLANTED WITH ONE (1) TREE AND ONE (1) SHURB.
- THE TRAFFIC CIRCLE SHALL BE PLANTED WITH ONE (1) TREE AND ONE (1) SHURB.
- THE TRAFFIC CIRCLE SHALL BE PLANTED WITH ONE (1) TREE AND ONE (1) SHURB.
- THE TRAFFIC CIRCLE SHALL BE PLANTED WITH ONE (1) TREE AND ONE (1) SHURB.
- THE TRAFFIC CIRCLE SHALL BE PLANTED WITH ONE (1) TREE AND ONE (1) SHURB.
- THE TRAFFIC CIRCLE SHALL BE PLANTED WITH ONE (1) TREE AND ONE (1) SHURB.
- THE TRAFFIC CIRCLE SHALL BE PLANTED WITH ONE (1) TREE AND ONE (1) SHURB.

Howards County, Maryland Department of Public Works	Traffic Circle Generic Landscape Design Information	Detail L-1.02
--	---	------------------

Howards County, Maryland Department of Public Works	Traffic Circle Generic Landscape Design Layout	Detail L-1.03
--	--	------------------

OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY TRAFFIC CIRCLE DETAILS
MAPLE LAWN SOUTH
SFD RESIDENTIAL LOTS 1-172, NON-BUILDABLE PARCEL 'A'
(FUTURE LOTS 173-176)
AND OPEN SPACE LOT 177-189

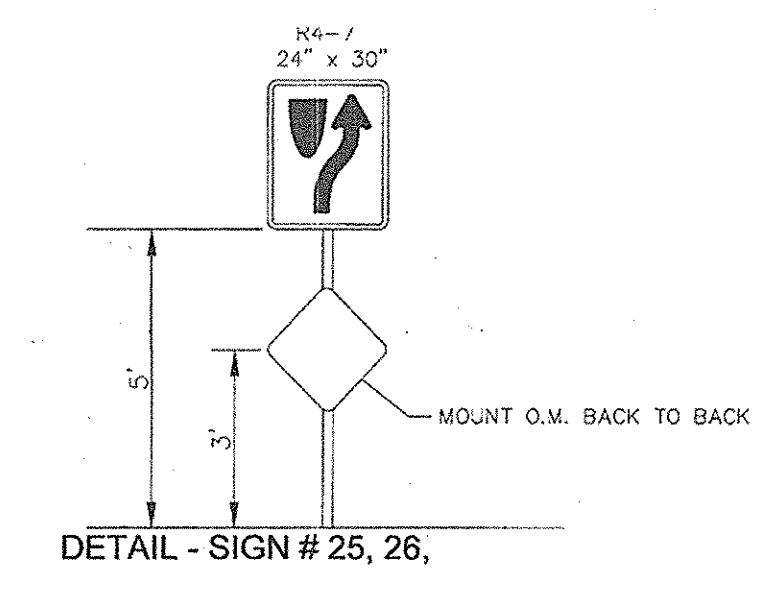
TAX MAP 46 - GRID 2 - PARCEL 113 ZONED: R-ED-MXD-3
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DPZ REF: ECP-14-093, WP-15-136, PB#415

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410.461.7666
ELLICOTT CITY, MD 21043 FAX: 410.461.8961

DESIGN BY: RHW/GAH
DRAWN BY: KG/GAH
CHECKED BY: RHW
DATE: AUGUST 2015
SCALE: AS SHOWN
W.O. NO.: 11-34

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 14183, EXPIRATION DATE: 09-27-2016

45 SHEET OF 45



- NOTES**
- ALL SIGN LOCATIONS ARE APPROXIMATE. HOWARD COUNTY TRAFFIC SHALL FIELD APPROVE OR MARK ALL SIGN LOCATIONS PRIOR TO ANY SIGNS BEING INSTALLED. CALL 410-313-5752.
 - ALL ROUNDABOUT MARKINGS SHALL BE LAID OUT BY HOWARD COUNTY TRAFFIC.
 - TOTAL NUMBER OF "SHARKS TEETH" NEEDED WILL BE DETERMINED IN THE FIELD.
 - STREET NAME SIGNS WILL BE MOUNTED ON THE R1-2 SIGNS IN THE ROUNDABOUT AS DIRECTED BY THE COUNTY TRAFFIC ENGINEER.
 - "NO PARKING" SIGNS TO BE INSTALLED AS NEEDED NEAR ROUNDABOUT. TRAFFIC DIVISION WILL FIELD DETERMINE LOCATIONS.

- PAVEMENT MARKING LEGEND**
- 5" YELLOW PAINT LINE
 - 12" WHITE THERMOPLASTIC
 - 12" x 3'-0" WHITE THERMOPLASTIC
 - 10" WIDE YELLOW HATCH MARKINGS-PAINT
 - SHARKS TEETH 1" WHITE THERMOPLASTIC
 - HOWARD COUNTY CROSSWALK
 - PVC STREET LIGHT CONDUIT LOCATIONS (4" PVC SCHED 40 S/PULL STRING)

K:\Projects\11-SPRING\09\PRELIMS_ROUNDABOUT_DETAILS.dwg, 8/11/2015 10:53:17 AM