

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	SUPPLEMENTAL PLAN TITLE SHEET
2	SUPPLEMENTAL PLAN
3	STORMWATER MANAGEMENT NOTES AND DETAILS
4	BORING LOGS

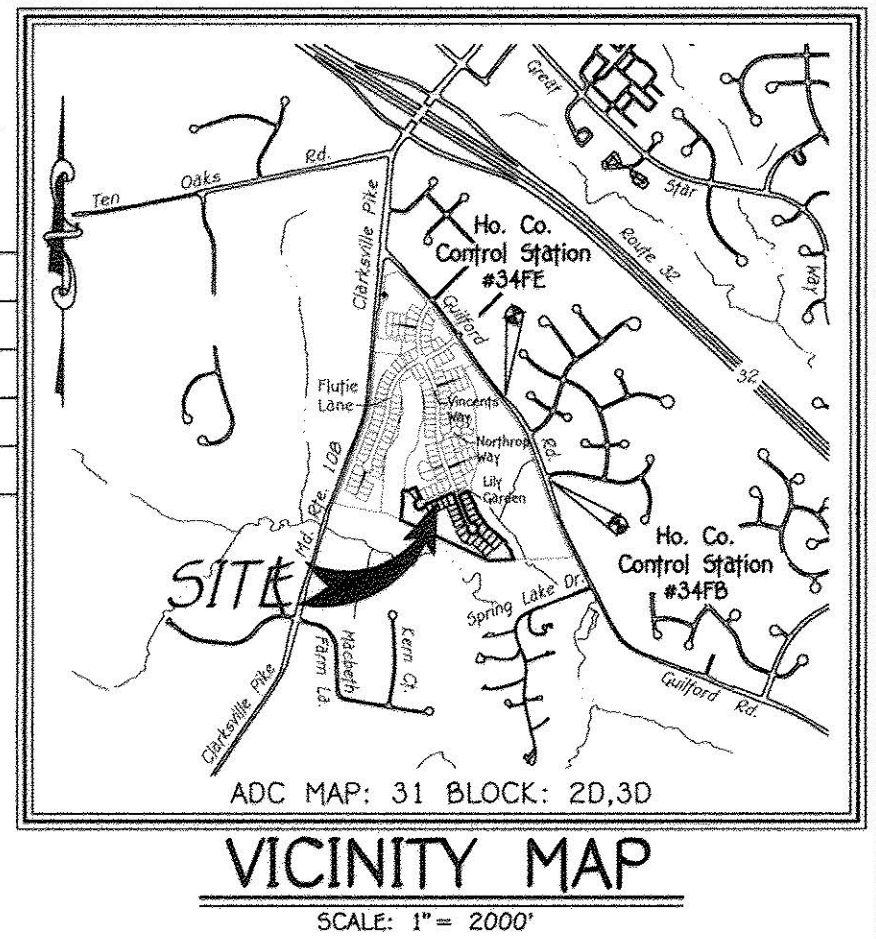
SUPPLEMENTAL PLAN ENCLAVE AT RIVER HILL PHASE 3 LOTS 130 THRU 159 AND OPEN SPACE LOT 160 R-ED (RESIDENTIAL: ENVIRONMENTAL DEVELOPMENT) TAX MAP No. 34 GRID No. 18 PARCEL NO. 88

Approved: Department Of Planning And Zoning

J. M. ... 2-22-18
Chief, Division Of Land Development

... 2-15-18
Chief, Development Engineering Division

NO.	DESCRIPTION	DATE

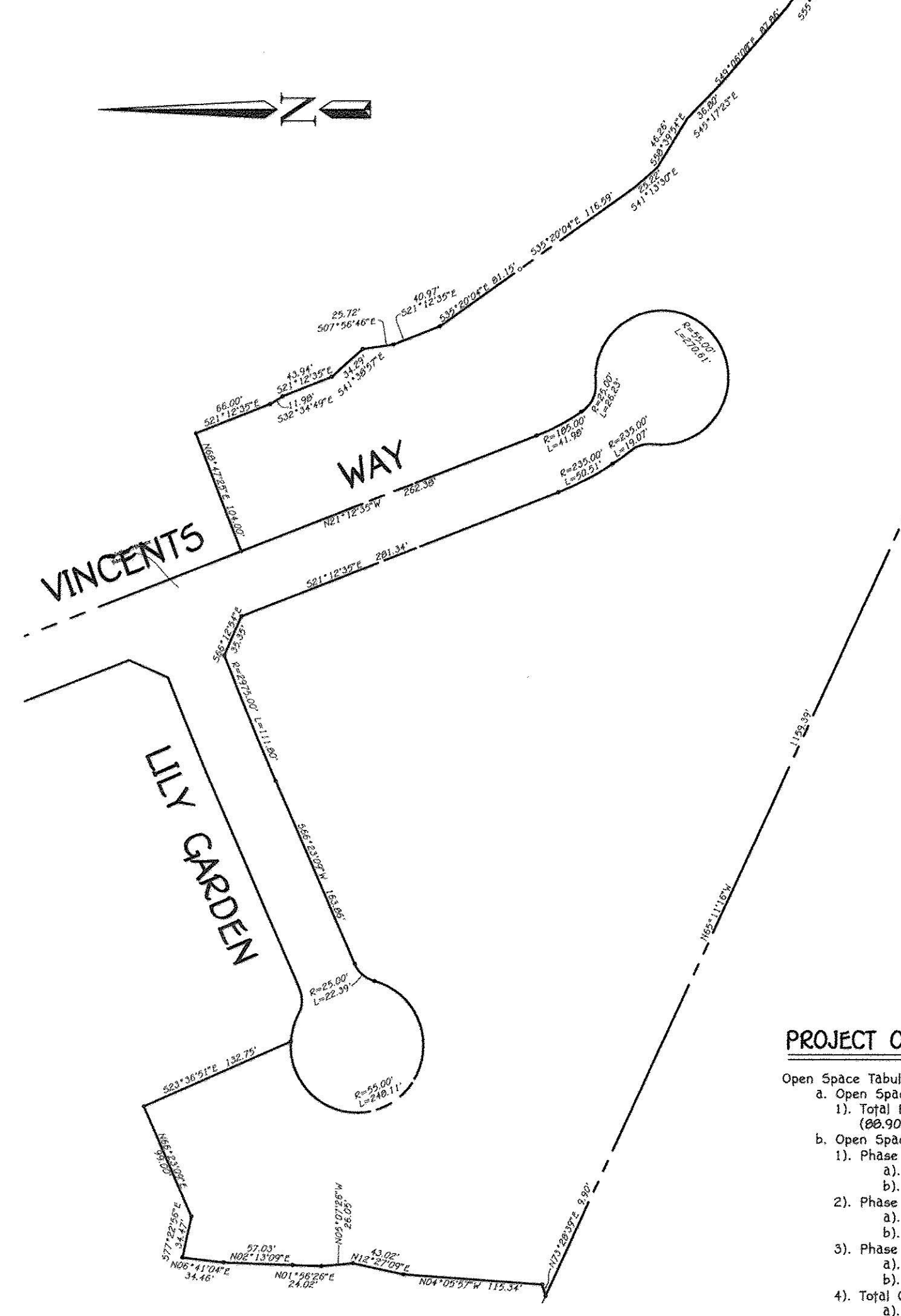


GENERAL NOTES (CONTINUED)

- TRAFFIC CONTROL DEVICES:
 - The 61-1 (STOP) SIGN AND THE STREET NAME SIGN (SNS) ASSEMBLY FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETED.
 - THE TRAFFIC CONTROL DEVICES LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410-213-2430) PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES.
 - ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
 - ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED (QUICK PUNCH), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. THE ANCHORS SHALL NOT EXTEND MORE THAN TWO QUICK PUNCH HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- OPEN SPACE LOT 160 WILL BE OWNED BY THE ENCLAVE AT RIVER HILL HOMEOWNERS ASSOCIATION, INC.
- THE PRIVATE USE-IN-COMMON DRIVEWAY EASEMENTS AND MAINTENANCE AGREEMENTS FOR SHARED DRIVEWAYS, 148 THRU 153 ARE RECORDED SIMULTANEOUSLY WITH THE FINAL PLAN.
- DECLARATION OF COVENANTS AND RESTRICTIONS FOR THE ENCLAVE AT RIVER HILL HOMEOWNERS ASSOCIATION, INC. HAVE BEEN RECORDED IN LIBER 17564 AT FOLD 379.
- APPROVAL OF A SITE DEVELOPMENT PLAN IS REQUIRED FOR THE DEVELOPMENT OF ALL RESIDENTIAL LOTS WITHIN THIS SUBDIVISION PRIOR TO ISSUANCE OF ANY GRADING OR BUILDING PERMITS FOR NEW HOUSE CONSTRUCTION IN ACCORDANCE WITH SECTION 18.155 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- THE LOTS CREATED BY THIS SUBDIVISION PLAN ARE SUBJECT TO A FEE OR AN ASSESSMENT TO COVER OR DEFRAY ALL OR PART OF THE DEVELOPER'S COST OF THE INSTALLATION OF THE WATER AND SEWER FACILITIES, PURSUANT TO THE HOWARD COUNTY CODE SECTION 18.112. THIS FEE OR ASSESSMENT, WHICH RUNS WITH THE LAND, IS A CONTRACTUAL OBLIGATION BETWEEN THE DEVELOPER AND EACH OWNER OF THIS PROPERTY AND IS NOT IN ANY WAY A FEE OR ASSESSMENT OF HOWARD COUNTY.
- THE NATURAL RESOURCE INVENTORY/FOREST STAND DELINEATION PLAN FOR THE ENCLAVE AT RIVER HILL WAS PREPARED BY ECOTONE, INC. ON JUNE 3, 2014 AND APPROVED ON MARCH 24, 2015.
- PLAN SUBJECT TO PLANNING BOARD CASE NO. 409 APPROVED BY THE HOWARD COUNTY PLANNING BOARD ON JANUARY 20, 2015.
- BECAUSE OF THE PLANNED ROADWAY WIDTH OF 24', PARKING RESTRICTION SIGNAGE MAY BE INSTALLED BY THE COUNTY ALONG ONE SIDE OF BOTH OF THESE ROADWAYS TO INSURE ACCESS BY EMERGENCY VEHICLES.
- THE PLAN IS SUBJECT TO WF-15-089 WHICH ON DECEMBER 8, 2014, THE PLANNING DIRECTOR APPROVED A REQUEST TO WAIVE SECTION 16.1202(A)(7)&(10) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, WHICH REQUIRES THE RETENTION OF STATE CHAMPION TREES 75% OF THE DIAMETER OF STATE CHAMPION TREES, AND TREES 30" IN DIAMETER OR LARGER.

- APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
 - APPROVAL OF SECTION 16.1202(A)(10) IS FOR THE REMOVAL OF FOURTEEN (14) SPECIMEN TREES IDENTIFIED AS SPECIMEN TREES 2355, 2356, 2357, 2358, 2362, 2363, 2364, 2366, 2367, 2368, 2369, 2391, 2392, 2398 ON THE HARVEY PETERSON EXHIBIT AND PRELIMINARY EQUIVALENT SKETCH PLAN. NO OTHER SPECIMEN TREES WILL BE REMOVED. REMOVAL OF THE FOURTEEN SPECIMEN TREES WILL REQUIRE MITIGATION OF 3"-4" CALIBER TREES. THE MITIGATED TREES SHALL BE NATIVE SPECIES AND SHALL BE SHOWN AS PART OF THE LANDSCAPE PLAN WITH THE FINAL PLAN AND SHALL BE BONDED WITH THE LANDSCAPE OBLIGATION.

- THE PERIMETER LANDSCAPING FOR PHASE 3 WAS PROVIDED WITH THE DEVELOPER'S AGREEMENT FOR THE ENCLAVE AT RIVER HILL (FORMERLY THE ENCLAVE AT TIERNEY FARM, PHASE 1, F-15-110).
- A NOISE STUDY IS NOT REQUIRED BECAUSE THE PROJECT DOES NOT FALL WITHIN THE GUIDELINES OF DESIGN, VOLUME II, ROADS AND BRIDGES, SECTION 5.2, F.2.
- THERE ARE NO EXISTING UTILITIES LOCATED ON THIS SITE.
- STORMWATER MANAGEMENT FACILITIES FOR THE PUBLIC ROADS (LILY GARDEN AND VINCENTS WAY) WAS PROVIDED WITH THE DEVELOPER'S AGREEMENT FOR THE ENCLAVE AT RIVER HILL (FORMERLY THE ENCLAVE AT TIERNEY FARM, PHASE 1, F-15-110).
- THE LOT OWNERS ON LILY GARDEN DRIVEWAY ARE RESPONSIBLE FOR MAINTENANCE OF THE USE-IN-COMMON DRIVEWAY, REFUSE AND RECYCLING COLLECTION PADS AND ASSOCIATED LANDSCAPING LOCATED IN THE PUBLIC ROAD RIGHT-OF-WAY.



PROJECT OPEN SPACE TABULATION SUMMARY

Open Space Tabulation:	
1.	Total Project Open Space Required = 44.45 Acres (80.90 Acres x 50%)
2.	Open Space Provided:
a.	Phase 1 Total Open Space Provided = 36,776 Acres
b.	Credited Open Space = 36,769 Acres
c.	Non-Credited Open Space = 0.007 Acres
d.	Phase 2 Total Open Space Provided = 12,491 Acres
e.	Credited Open Space = 12,491 Acres
f.	Non-Credited Open Space = 0.456 Acres
g.	Phase 3 Total Open Space Provided = 3,964 Acres
h.	Credited Open Space = 3,897 Acres
i.	Non-Credited Open Space = 0.107 Acres
j.	Total Open Space Provided (Phase 1 + 2 + 3) = 53,687 Acres
k.	Total Credited Open Space = 53,117 Acres
l.	Total Non-Credited Open Space = 0.57 Acres (0.007 Ac. + 0.456 Ac. + 0.107 Ac.)
Recreational Open Space Tabulation:	
1.	Total Project Recreational Open Space Required (Phase 1, 2, 3) = 45,000 Sq. Ft.
2.	Recreational Open Space Provided under F-15-110 (Open Space Lot 51) = 48,682 Sq. Ft.

SITE ANALYSIS DATA CHART FOR PHASE 3

A.	TOTAL AREA OF THIS SUBMISSION = 9,230 AC.*
B.	LIMIT OF DISTURBED AREA = 5,226 AC.*
C.	PRESENT ZONING DESIGNATION = R-ED.
D.	NUMBER OF BUILDABLE LOTS PROPOSED: 30 UNITS
E.	OPEN SPACE TABULATION - SEE OPEN SPACE TABULATION SUMMARY THIS SHEET.
F.	RECREATIONAL OPEN SPACE - SEE TABULATION SUMMARY THIS SHEET.
G.	BUILDING COVERAGE OF SITE: 1.74 AC. OR 19%
H.	PREVIOUS HOWARD COUNTY FILES: ECP-15-005, PB CASE NO. 409, SP-15-006, WP-15-069, F-15-110, F-17-003 AND F-18-024.
I.	TOTAL AREA OF FLOODPLAIN = 0.00 AC.*
J.	TOTAL AREA OF SLOPES IN EXCESS OF 25% = 0.00 AC.*
K.	NET TRACT AREA = 9.23 AC (TOTAL SITE AREA - FLOODPLAIN + STEEP SLOPES AREA) (9.23 AC - 0.00 AC + 0.00 AC) = 9.23 AC.*
L.	TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0.00 AC.*
M.	TOTAL FOREST = 0.00 AC.*
N.	TOTAL GREEN OPEN AREA = 6.94 AC.*
O.	TOTAL IMPERVIOUS AREA = 2.29 AC.*
P.	AREA OF ERODIBLE SOILS = 0.00 AC.*
Q.	AREA OF PUBLIC ROAD R/W = 0.00 AC.*
R.	TOTAL PUBLIC ROAD R/W = 0.00 AC.*
S.	TOTAL BUILDABLE LOT AREA = 5.32 AC.*

LOCATION MAP



DENSITY TABULATION SUMMARY

A.	ALLOWED BUILDABLE LOTS = 171 LOTS (NET TRACT ACRES X 2 LOTS PER ACRE)
B.	(GROSS TRACT AREA - FLOODPLAIN AREA - STEEP SLOPES AREA) X 2 LOTS/NET AREA (86.90 AC - 0.00 AC - 0.00 AC) X 2 LOTS/NET AREA = 171 LOTS
C.	NUMBER OF BUILDABLE LOTS PROPOSED UNDER THIS SUBMISSION = 30 LOTS
D.	TOTAL BUILDABLE LOTS PROPOSED IN PHASE 1, 2 AND 3 = 150 LOTS

PHASING CHART

PHASE	NO. OF LOTS	APFO YEAR	REMARKS	FINAL PLAN SUBMISSION
I	50*	2018	*Includes 2 allocations for existing parcels	BY NOVEMBER 6, 2015 (F15-110)
II	70	2019		BETWEEN JULY 1, 2016 - DECEMBER 31, 2016 (F17-003)
III	30	2020		BETWEEN OCTOBER 31, 2017 - FEBRUARY 28, 2018 (F18-031)

Open Space Tabulation

Open Space Lot No.	Credited Area	Non-Credited Area	Total Open Space Area
160	3,897 Ac.*	0.107 Ac.*	3,964 Ac.*

SUPPLEMENTAL PLAN TITLE SHEET

ENCLAVE AT RIVER HILL PHASE 3
LOTS 130 THRU 159 AND OPEN SPACE LOT 160
PREVIOUS HOWARD COUNTY FILES: ECP-15-005, PB#409, SP-05-006, WP-15-069, F-15-110, F-17-003 AND F-18-024
ZONED R-ED TAX MAP NOS.: 34 GRID NO.: 18
PARCEL NO.: 88
FIFTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JANUARY 30, 2018
SHEET 1 OF 4 F-18-031

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALDWIN NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461 - 2925



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/19.
Frank W. Wansan
FRANK WANSAN, L.S.
1/31/18
DATE

DEVELOPER
BEAZER HOMES, LLC
8965 QUILFORD ROAD - SUITE 290
COLUMBIA, MARYLAND 21046
(765)-894-0182

OWNERS
TIERNEY FARMS-CLARKSVILLE, LP.
24151 VENTURE BOULEVARD
CALABASAS, CALIFORNIA 91302
(818)-365-3697

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T. Marshall RKS 2-22-18
Chief, Division Of Land Development Date

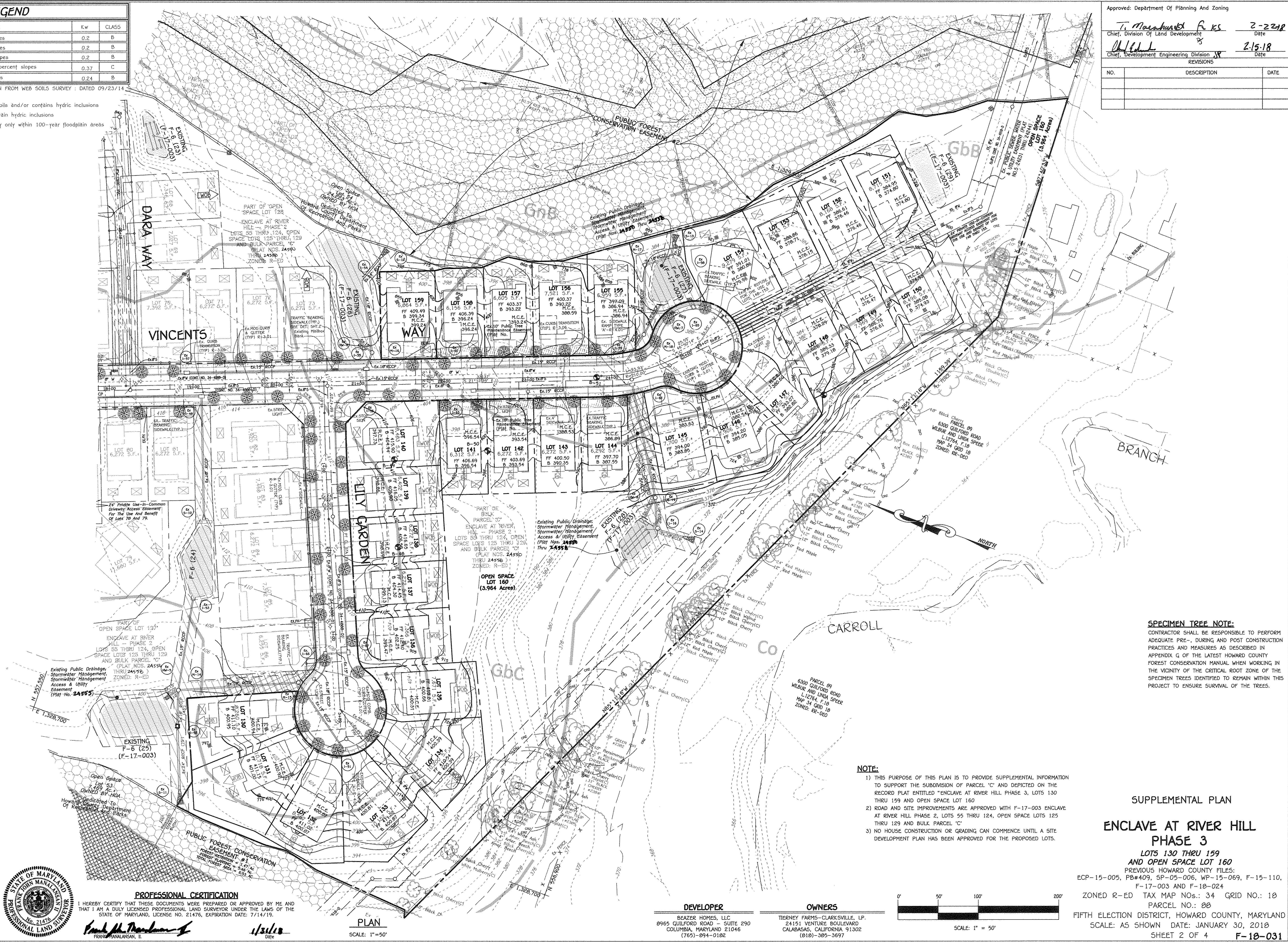
Chief, Development Engineering Division 2-15-18
Date

NO.	DESCRIPTION	DATE

SOIL	NAME	Kw	CLASS
GbA	Gladstone loam, 0 to 3 percent slopes	0.2	B
GbB	Gladstone loam, 3 to 8 percent slopes	0.2	B
GbC	Gladstone loam, 8 to 15 percent slopes	0.2	B
GnB	Glenville - Baile silt loams, 0 to 8 percent slopes	0.37	C
MaD	Manor loam, 15 to 25 percent slopes	0.24	B

SOILS TAKEN FROM WEB SOILS SURVEY : DATED 09/23/14
 NOTES:
 * Hydric soils and/or contains hydric inclusions
 ** May contain hydric inclusions
 † Generally only within 100-year floodplain areas

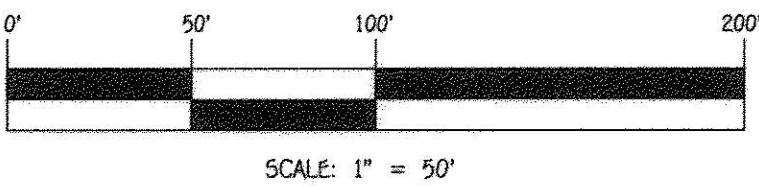
SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
---	EXISTING CONTOUR 10' INTERVAL
---	PROPOSED CONTOUR 2' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
•	SPOT ELEVATION
---	EXISTING STORM DRAIN PIPE
---	EXISTING SEWER MAIN
---	EXISTING WATER MAIN
---	NON CREDIT OPEN SPACE
---	LIMIT OF OBSTRUCTION
---	SUPER SALT FENCE
---	SILT FENCE
---	STREAM BUFFER
---	SEWELL (R-5) TYPICAL
---	SNO RETENTION FACILITY (F-6)
---	EXISTING PUBLIC WATER, SEWER & UTILITY EASEMENT
---	USE IN COMMON ACCESS EASEMENT
---	FOREST CONSERVATION EASEMENT
---	STREET TREES (UNDER F-17-003)



SPECIMEN TREE NOTE:
 CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM ADEQUATE PRE-, DURING AND POST CONSTRUCTION PRACTICES AND MEASURES AS DESCRIBED IN APPENDIX G OF THE LATEST HOWARD COUNTY FOREST CONSERVATION MANUAL WHEN WORKING IN THE VICINITY OF THE CRITICAL ROOT ZONE OF THE SPECIMEN TREES IDENTIFIED TO REMAIN WITHIN THIS PROJECT TO ENSURE SURVIVAL OF THE TREES.

- NOTE:**
- 1) THE PURPOSE OF THIS PLAN IS TO PROVIDE SUPPLEMENTAL INFORMATION TO SUPPORT THE SUBDIVISION OF PARCEL 'C' AND DEPICTED ON THE RECORD PLAT ENTITLED "ENCLAVE AT RIVER HILL PHASE 3, LOTS 130 THRU 159 AND OPEN SPACE LOT 160"
 - 2) ROAD AND SITE IMPROVEMENTS ARE APPROVED WITH F-17-003 ENCLAVE AT RIVER HILL PHASE 2, LOTS 55 THRU 124, OPEN SPACE LOTS 125 THRU 129 AND BULK PARCEL 'C'
 - 3) NO HOUSE CONSTRUCTION OR GRADING CAN COMMENCE UNTIL A SITE DEVELOPMENT PLAN HAS BEEN APPROVED FOR THE PROPOSED LOTS.

SUPPLEMENTAL PLAN
ENCLAVE AT RIVER HILL
PHASE 3
 LOTS 130 THRU 159
 AND OPEN SPACE LOT 160
 PREVIOUS HOWARD COUNTY FILES:
 ECP-15-005, PB#409, 5P-05-006, WP-15-069, F-15-110,
 F-17-003 AND F-18-024
 ZONED R-ED TAX MAP NOS.: 34 GRID NO.: 18
 PARCEL NO.: 88
 FIFTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: JANUARY 30, 2018
 SHEET 2 OF 4 **F-18-031**



DEVELOPER
 BEAZER HOMES, LLC
 8965 GUILFORD ROAD - SUITE 290
 COLUMBIA, MARYLAND 21046
 (765)-894-0182

OWNERS
 TIERNY FARMS-CLARKSVILLE, LP.
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 FRANK MANALIGAN, E
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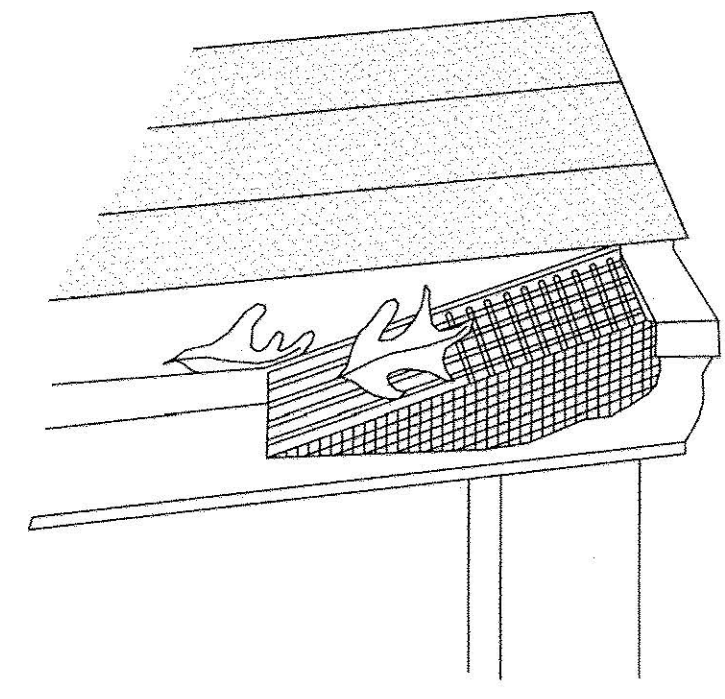
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 (410) 461-2955

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STORMWATER MANAGEMENT PRACTICES							
LOT NO.	STREET ADDRESS	DISCONNECTION OF ROOFTOP RUNOFF N-1 (Y/N)	DISCONNECTION OF NON-ROOFTOP RUNOFF N-2 (Y/N)	DRY WELLS M-5 (Y/N)	MICRO BIO-RETENTION M-6 (Y/N)	BIO-RETENTION F-6 (Y/N)	GRASS SWALE M-8 (NUMBER)
130	6122 LILY GARDEN			Y(3)		Y (PROVIDED BY F-17-003)	
131	6126 LILY GARDEN			Y(3)		Y (PROVIDED BY F-17-003)	
132	6130 LILY GARDEN			Y(3)		Y (PROVIDED BY F-17-003)	
133	6131 LILY GARDEN			Y(3)		Y (PROVIDED BY F-17-003)	
134	6127 LILY GARDEN			Y(3)		Y (PROVIDED BY F-17-003)	
135	6123 LILY GARDEN			Y(3)		Y (PROVIDED BY F-17-003)	
136	6119 LILY GARDEN			Y(3)		Y (PROVIDED BY F-17-003)	
137	6115 LILY GARDEN			Y(3)		Y (PROVIDED BY F-17-003)	
138	6111 LILY GARDEN			Y(3)		Y (PROVIDED BY F-17-003)	
139	6107 LILY GARDEN			Y(3)		Y (PROVIDED BY F-17-003)	
140	6103 LILY GARDEN			Y(3)		Y (PROVIDED BY F-17-003)	
(Note 1)	12634 VINCENTS WAY			Y(3)		Y (PROVIDED BY F-17-003)	
141	12630 VINCENTS WAY			Y(3)		Y (PROVIDED BY F-17-003)	
142	12642 VINCENTS WAY			Y(3)		Y (PROVIDED BY F-17-003)	
143	12646 VINCENTS WAY			N		Y (PROVIDED BY F-17-003)	
144	12650 VINCENTS WAY			N		Y (PROVIDED BY F-17-003)	
145	12654 VINCENTS WAY			Y(3)		Y (PROVIDED BY F-17-003)	
146	12658 VINCENTS WAY			Y(3)		Y (PROVIDED BY F-17-003)	
147	12662 VINCENTS WAY			Y(3)		Y (PROVIDED BY F-17-003)	
148	12666 VINCENTS WAY			Y(2)		Y (PROVIDED BY F-17-003)	
149	12670 VINCENTS WAY			Y(2)		Y (PROVIDED BY F-17-003)	
150	12674 VINCENTS WAY			Y(2)		Y (PROVIDED BY F-17-003)	
151	12678 VINCENTS WAY			Y(2)		Y (PROVIDED BY F-17-003)	
152	12682 VINCENTS WAY			Y(2)		Y (PROVIDED BY F-17-003)	
153	12686 VINCENTS WAY			Y(2)		Y (PROVIDED BY F-17-003)	
154	12690 VINCENTS WAY			Y(2)		Y (PROVIDED BY F-17-003)	
155	12694 VINCENTS WAY			Y(3)		Y (PROVIDED BY F-17-003)	
156	12698 VINCENTS WAY			Y(3)		Y (PROVIDED BY F-17-003)	
157	12702 VINCENTS WAY			Y(3)		Y (PROVIDED BY F-17-003)	
158	12706 VINCENTS WAY			Y(3)		Y (PROVIDED BY F-17-003)	
159	12710 VINCENTS WAY			Y(3)		Y (PROVIDED BY F-17-003)	

Note: 1) Lot 140 has two numbers, depending on driveway access

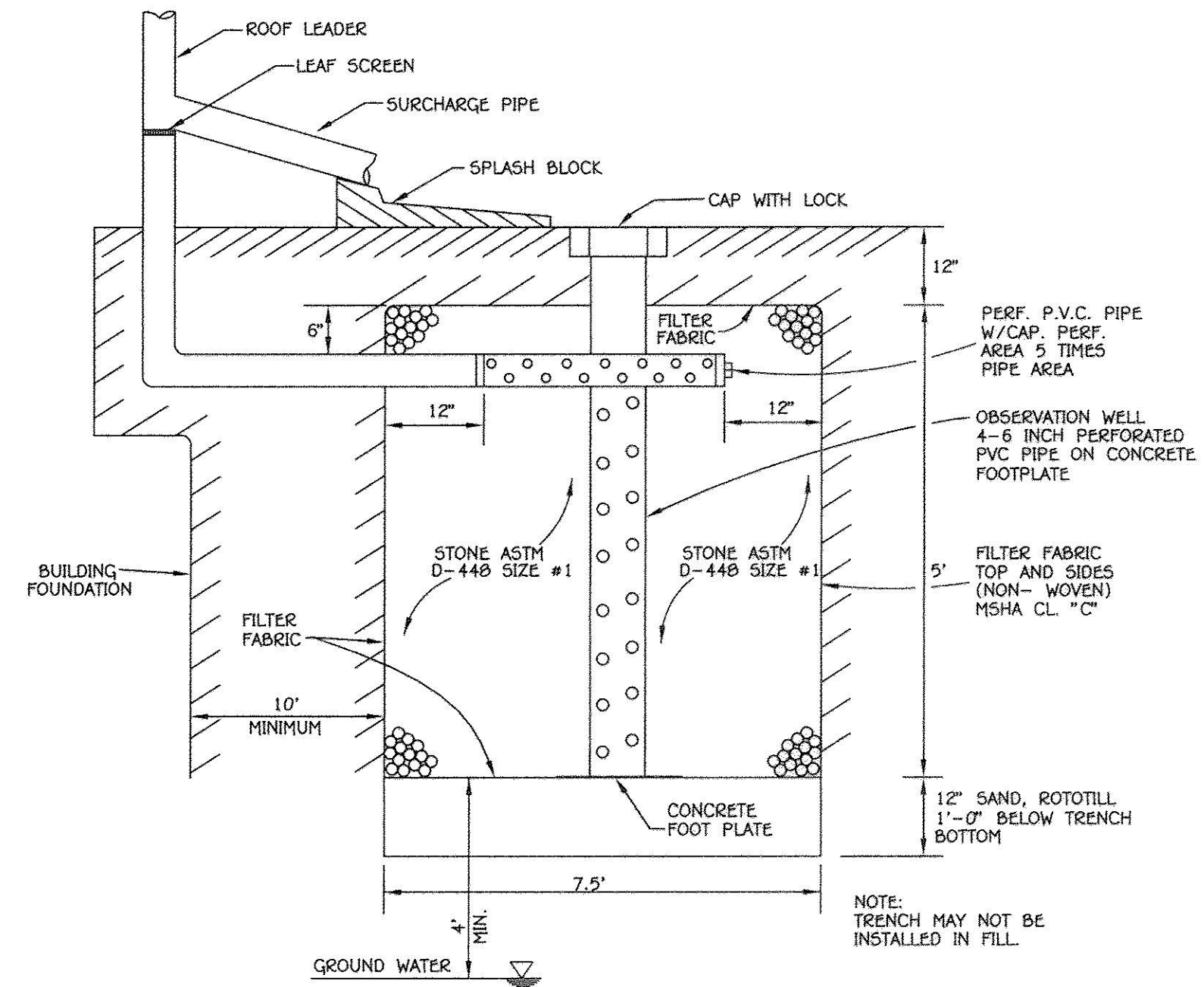
Approved: Department Of Planning And Zoning
J. Muehler for ES Date 2-22-18
 Chief, Division Of Land Development
John E. ... Date 2-15-18
 Chief, Development Engineering Division
 Approved: Howard County Department Of Public Works
 Chief, Bureau Of Highways Date
 REVISIONS
 NO. DESCRIPTION DATE



GUTTER DRAIN FILTER DETAIL
NO SCALE

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY WELLS (M-5)

- THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY HEAVY STORM EVENT.
- THE OWNER SHALL RECORD THE WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS OVER A PERIOD OF SEVERAL DAYS TO ENSURE TRENCH DRAINAGE.
- THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
- WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN A SEVENTY-TWO (72) HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.
- THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.



M-5 DRY WELL DETAIL
NO SCALE

*77 DRYWELLS ARE REQUIRED. EACH WILL BE 10' LONG, 6' WIDE AND 5' DEEP. THE EXACT SIZE AND LOCATION OF EACH DRYWELL WILL BE DETERMINED ONCE DOWNSPOUT DRAINAGE PATTERNS ARE DETERMINED AT SITE DEVELOPMENT PLAN.

STORMWATER MANAGEMENT NOTES AND DETAILS
 ENCLAVE AT RIVER HILL PHASE 3
 LOTS 130 THRU 159 AND OPEN SPACE LOT 160
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 SHEET 3 OF 4 F-18-031

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Frank Marulanan 2/8/18
 FRANK MARULANAN, L.S. DATE



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 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2995

DEVELOPER: BEAZER HOMES, LLC
 8965 QUILFORD ROAD - SUITE 290
 COLUMBIA, MARYLAND 21046
 (765)-894-0182

OWNERS: TIERNEY FARMS-CLARKSVILLE, LP.
 24151 VENTURE BOULEVARD
 CALABASAS, CALIFORNIA 91302
 (818)-365-3697

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HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: Enclave at Tierney Boring No. B-48
 Location: Clarksville 108 Job # 16108A

SAMPLER
 Datum: Hammer Wt. 140 lbs. Hole Diameter 6" Foreman J. Russell
 Surf. Elev. 407.15 ft Hammer Drop 30 in. Rock Core Diameter N/A Inspector
 Date Started 03/16/2016 Pipe Size 2.25 OD in. Boring Method HSA Date Completed 03/16/2016

Elevation Depth	SOIL SYMBOLS & SAMPLE CONDITIONS	Description	Boring and Sampling Notes	Rec.	N.M.P.	SPT Blows	SPT Blow/Foot Curve		
							N	10	30
0		Topsoil - 3"		12		2-1-2	3	10	30
3		Brown, moist, very dense, clayey SAND, trace silt (SC, FI/PT)		10		2-4-4	8	10	30
5		Becomes brown-red, loose		12		3-4-4	8	10	30
10		Tan-gray, moist, medium dense, silty SAND, trace clay		12		4-5-6	11	10	30
15		Becomes light tan-gray		12		11-11-7	18	10	30
20		Becomes buff, some clay		14		33-13-13	26	10	30
25		Boring terminated at 20 ft. Backfilled after 24 hours.							

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED
 SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
 GROUND WATER: AT COMPLETION 10.5 ft; AFTER 24 HRS 10 ft
 CAVE IN DEPTH: NONE
 BORING METHOD: HSA - HOLLOW STEM AUGERS; CA - CONTINUOUS FLIGHT AUGERS; MD - MUD DRILLING
 STANDARD PENETRATION TEST DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30" COUNT MADE AT 4" INTERVALS

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: Enclave at Tierney Boring No. B-51
 Location: Clarksville 108 Job # 16108A

SAMPLER
 Datum: Hammer Wt. 140 lbs. Hole Diameter 6" Foreman J. Russell
 Surf. Elev. 389.64 ft Hammer Drop 30 in. Rock Core Diameter N/A Inspector
 Date Started 03/16/2016 Pipe Size 2.25 OD in. Boring Method HSA Date Completed 03/16/2016

Elevation Depth	SOIL SYMBOLS & SAMPLE CONDITIONS	Description	Boring and Sampling Notes	Rec.	N.M.P.	SPT Blows	SPT Blow/Foot Curve		
							N	10	30
0		Topsoil - 3"		12		1-3-2	5	10	30
3		Brown, moist, silty, sandy lean CLAY, trace silt, with roots		10		4-5-4	9	10	30
5		Becomes brown-red, trace fine gravel		4		5-5-6	11	10	30
10		Brown-red, moist, medium dense, clayey SAND, trace silt, trace fine gravel (SC, FI/PT)		8		6-6-7	13	10	30
15		Becomes buff brown (SC)		8		5-4-5	9	10	30
20		Boring terminated at 12 ft. Backfilled after 24 hours.							

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED
 SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
 GROUND WATER: AT COMPLETION 8 ft; AFTER 24 HRS 5.3 ft
 CAVE IN DEPTH: NONE
 BORING METHOD: HSA - HOLLOW STEM AUGERS; CA - CONTINUOUS FLIGHT AUGERS; MD - MUD DRILLING
 STANDARD PENETRATION TEST DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30" COUNT MADE AT 4" INTERVALS

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: Enclave at Tierney Boring No. B-49
 Location: Clarksville 108 Job # 16108A

SAMPLER
 Datum: Hammer Wt. 140 lbs. Hole Diameter 6" Foreman J. Russell
 Surf. Elev. 408.43 ft Hammer Drop 30 in. Rock Core Diameter N/A Inspector
 Date Started 03/17/2016 Pipe Size 2.25 OD in. Boring Method HSA Date Completed 03/17/2016

Elevation Depth	SOIL SYMBOLS & SAMPLE CONDITIONS	Description	Boring and Sampling Notes	Rec.	N.M.P.	SPT Blows	SPT Blow/Foot Curve		
							N	10	30
0		Topsoil - 3"		13		2-4-7	11	10	30
3		Brown, moist, silty, sandy lean CLAY, trace silt, with roots		12		3-4-4	8	10	30
5		Becomes brown-red, trace fine gravel		13		2-4-6	10	10	30
10		Brown, moist, silty, sandy lean CLAY, trace silt, with roots, micaceous (CL, FI/PT)		11		3-3-4	7	10	30
15		Becomes buff, moist, loose, silty SAND, trace clay, micaceous (SM)		15		2-4-6	10	10	30
20		Becomes medium dense, trace fine gravel		14		4-11-11	22	10	30
25		Boring terminated at 21 ft. Backfilled after 24 hours.							

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED
 SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
 GROUND WATER: AT COMPLETION 11.5 ft; AFTER 24 HRS 11.5 ft
 CAVE IN DEPTH: NONE
 BORING METHOD: HSA - HOLLOW STEM AUGERS; CA - CONTINUOUS FLIGHT AUGERS; MD - MUD DRILLING
 STANDARD PENETRATION TEST DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30" COUNT MADE AT 4" INTERVALS

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: Enclave at Tierney Boring No. B-50
 Location: Clarksville 108 Job # 16108A

SAMPLER
 Datum: Hammer Wt. 140 lbs. Hole Diameter 6" Foreman J. Russell
 Surf. Elev. 395.81 ft Hammer Drop 30 in. Rock Core Diameter N/A Inspector
 Date Started 03/16/2016 Pipe Size 2.25 OD in. Boring Method HSA Date Completed 03/16/2016

Elevation Depth	SOIL SYMBOLS & SAMPLE CONDITIONS	Description	Boring and Sampling Notes	Rec.	N.M.P.	SPT Blows	SPT Blow/Foot Curve		
							N	10	30
0		Topsoil - 3"		12		3-4-5	9	10	30
3		Brown, moist, silty, sandy lean CLAY, trace silt, with roots, micaceous (CL, FI/PT)		16		4-5-7	12	10	30
5		Becomes brown-red		16		3-3-4	7	10	30
10		Buff, moist, loose, silty SAND, trace clay, micaceous (SM)		12		5-4-5	9	10	30
15		Becomes buff-gray		14		3-3-5	8	10	30
20		Becomes tan-gray, very dense, decreasing mica content		12		4-19-39	58	10	30
25		Boring terminated at 18 ft. Backfilled after 24 hours.							

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED
 SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
 GROUND WATER: AT COMPLETION 10 ft; AFTER 24 HRS 10 ft
 CAVE IN DEPTH: NONE
 BORING METHOD: HSA - HOLLOW STEM AUGERS; CA - CONTINUOUS FLIGHT AUGERS; MD - MUD DRILLING
 STANDARD PENETRATION TEST DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30" COUNT MADE AT 4" INTERVALS

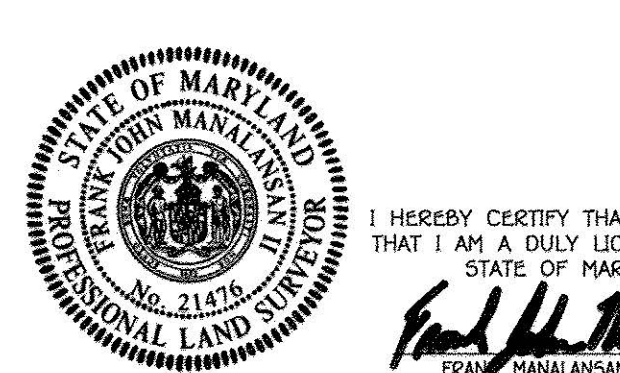
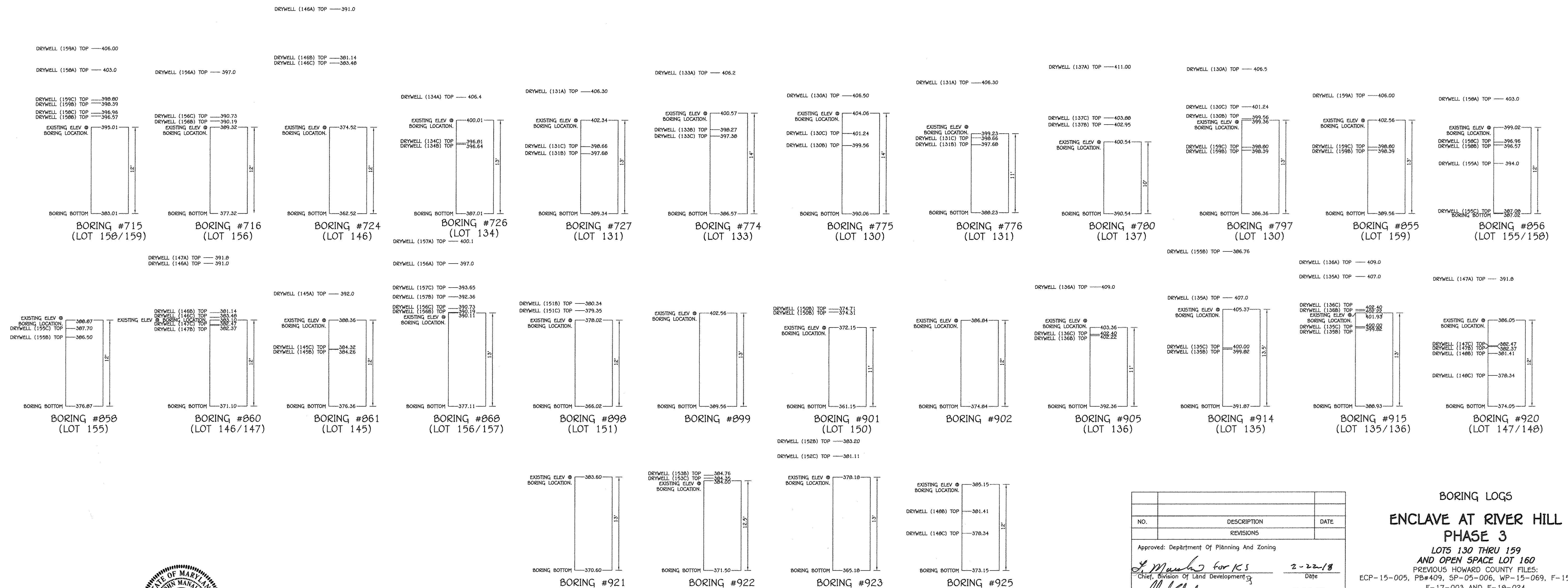
HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: Enclave at Tierney Boring No. B-52
 Location: Clarksville 108 Job # 16108A

SAMPLER
 Datum: Hammer Wt. 140 lbs. Hole Diameter 6" Foreman J. Russell
 Surf. Elev. 371.33 ft Hammer Drop 30 in. Rock Core Diameter N/A Inspector
 Date Started 03/16/2016 Pipe Size 2.25 OD in. Boring Method HSA Date Completed 03/16/2016

Elevation Depth	SOIL SYMBOLS & SAMPLE CONDITIONS	Description	Boring and Sampling Notes	Rec.	N.M.P.	SPT Blows	SPT Blow/Foot Curve		
							N	10	30
0		Topsoil - 3"		3		2-1-2	3	10	30
3		Brown, moist, silty, sandy lean CLAY, trace silt, with roots, micaceous (CL, FI/PT)		14		4-4-5	9	10	30
5		Becomes brown-red, trace fine gravel		10		4-4-5	9	10	30
10		Brown, moist, medium dense, clayey SAND, trace fine to coarse gravel (CL, FI/PT)	Groundwater encountered at 8 ft while drilling	2		4-5-9	14	10	30
15		Becomes loose, some silt, with fine gravel	Low recovery due to rock in shoe	14		5-3-5	8	10	30
20		Becomes tan-gray, some fine gravel		10		2-3-7	10	10	30
25		Boring terminated at 18 ft. Backfilled after 24 hours.							

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED
 SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
 GROUND WATER: AT COMPLETION 6.5 ft; AFTER 24 HRS 7.5 ft
 CAVE IN DEPTH: NONE
 BORING METHOD: HSA - HOLLOW STEM AUGERS; CA - CONTINUOUS FLIGHT AUGERS; MD - MUD DRILLING
 STANDARD PENETRATION TEST DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30" COUNT MADE AT 4" INTERVALS



PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/19.
 Paul H. Manlaska, E
 DATE: 2/16/18

DEVELOPER
 BEAZER HOMES, LLC
 8965 GUILFORD ROAD - SUITE 290
 COLUMBIA, MARYLAND 21046
 (765)-894-0182

OWNERS
 TIERNEY FARMS-CLARKSVILLE, LP.
 24151 VENTURE BOULEVARD
 CALABASAS, CALIFORNIA 91302
 (818)-385-3697

BORING LOGS

ENCLAVE AT RIVER HILL

PHASE 3

LOTS 130 THRU 159
 AND OPEN SPACE LOT 160
 PREVIOUS HOWARD COUNTY FILES:
 ECP-15-005, PB#409, SP-05-006, WP-15-069, F-15-110,
 F-17-003 AND F-18-024
 ZONED R-ED TAX MAP NOS.: 34 GRID NO.: 18
 PARCEL NO.: 88
 FIFTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: JANUARY 30, 2018
 SHEET 4 OF 4 **F-18-031**

NO.	DESCRIPTION	DATE
	REVISIONS	

Approved: Department of Planning And Zoning
 Chief, Division of Land Development: *L. Manlaska for KCS* 2-22-18
 Chief, Development Engineering Division: *JF* 2-15-18
 Approved: Howard County Department of Public Works
 Chief, Bureau of Highways: _____

E:\2013\1308\Boring\Boring Phase 3\Plan Set\1308 Boring Sheet 4.dwg, C:\M_S\W\Boring Logs, 1/1