

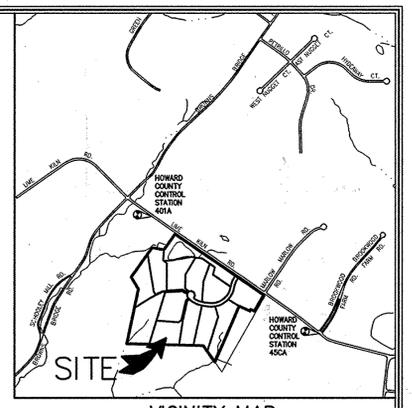
FINAL ROAD CONSTRUCTION PLANS WESTLAND FARM ESTATES LOTS 3 THRU 14 & OPEN SPACE LOT 15

TAX MAP No. 45 GRID No. 5 PARCEL No. 28
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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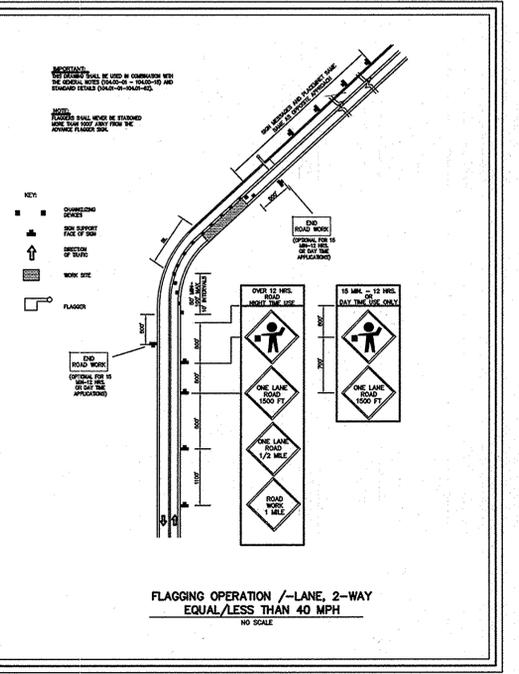
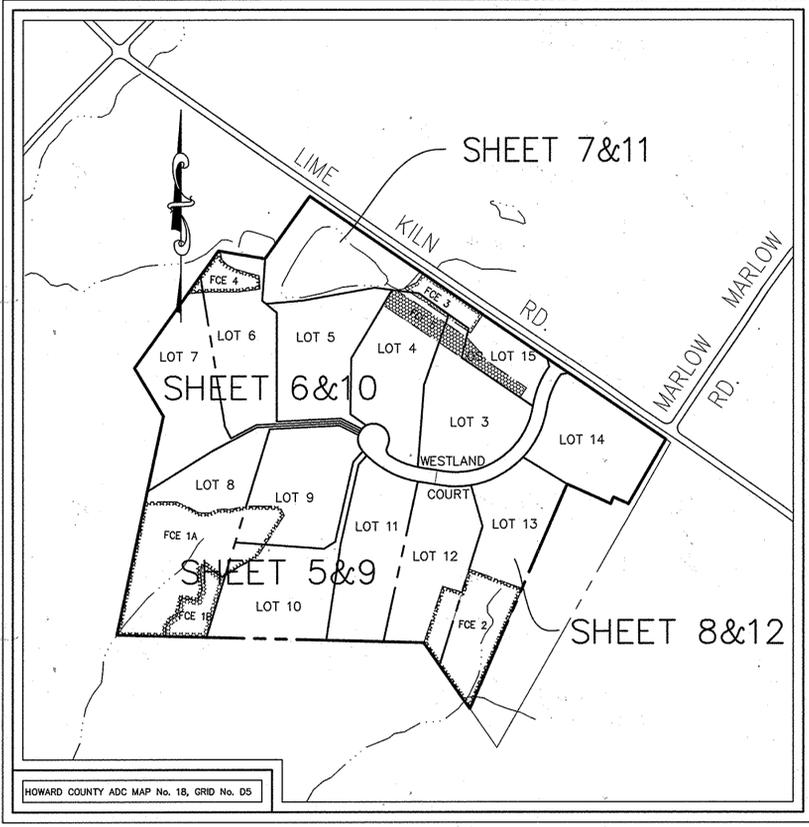
Minimum Lot Size Chart			
Lot No.	Gross Area	Pipestem Area	Minimum Lot Size
5	3.039 Ac.±	0.035 Ac.±	3,004 Ac.±
6	3.070 Ac.±	0.057 Ac.±	3,013 Ac.±
7	3.087 Ac.±	0.087 Ac.±	3,000 Ac.±
8	5.132 Ac.±	0.059 Ac.±	5,073 Ac.±
10	3.164 Ac.±	0.152 Ac.±	3,012 Ac.±

SPECIMEN TREE TABLE				
KEY	SPECIES	SIZE (DBH)	CRZ (FT RADIUS)	COMMENTS
SP1	BLACK WALNUT	30"	45	TO BE RETAINED
SP2	SYCAMORE	50"	75	TO BE REMOVED
SP3	SYCAMORE	62"	93	TO BE REMOVED
SP4	TULIP POPLAR	30"	45	TO BE REMOVED
SP5	NORWAY MAPLE	30"	45	TO BE RETAINED



STORMWATER MANAGEMENT SUMMARY			
AREA ID.	ESDv REQUIRED CU.FT.	ESDv PROVIDED CU.FT.	REMARKS
SITE	17,093	18,761	NON-ROOFTOP DISCONNECTIONS (N-2), DRY WELLS (M-5), MICRO-BIORETENTION (M-6), GRASS SWALE (M-8) & BIORETENTION (F-6)
TOTAL	17,093	18,761	

STORMWATER MANAGEMENT PRACTICES				
LOT NO.	DISCONNECTION OF ROOFTOP RUNOFF (N-1) Y/N, NUMBER	DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2) Y/N	DRY WELLS (M-5) Y/N, NUMBER	MICRO-BIORETENTION (M-6) Y/N, NUMBER
3	NO	YES	YES, FOUR (4)	NO
4	NO	YES	YES, FOUR (4)	NO
5	NO	YES	NO	YES, ONE (1)
6	NO	NO	YES, FOUR (4)	NO
7	NO	NO	NO	YES, ONE (1)
8	NO	YES	YES, FOUR (4)	NO
9	NO	YES	YES, FOUR (4)	NO
10	NO	YES	NO	YES, ONE (1)
11	NO	YES	YES, FOUR (4)	NO
12	NO	YES	YES, FOUR (4)	NO
13	NO	YES	YES, FOUR (4)	NO
14	NO	YES	NO	YES, ONE (1)



SITE ANALYSIS DATA CHART	
A.	TOTAL AREA OF THIS SUBMISSION = 45.28 AC.±
B.	LIMIT OF DISTURBED AREA = 16.20 AC.±
C.	PRESENT ZONING DESIGNATION = RR-DEO (PER 10/06/2013 COMPREHENSIVE ZONING PLAN)
D.	PROPOSED USE: RESIDENTIAL
E.	REQUIRED PARKING: 2.5 SPACES PER LOT X 11 LOTS = 28 SPACES. PROPOSED PARKING: 44 SPACES (4 SPACES PER LOT).
F.	TOTAL AREA OF FLOODPLAIN LOCATED ON-SITE = 3.00 AC.±
G.	TOTAL AREA OF SLOPES IN EXCESS OF 15% = 11.15 AC.± (1.06 AC. IS 25% OR GREATER)
H.	TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0.00 AC.
I.	TOTAL AREA OF EXISTING FOREST = 8.30 AC.±
J.	TOTAL GREEN OPEN AREA = 42.43 AC.±
K.	TOTAL IMPERVIOUS AREA = 2.64 AC.±
L.	AREA OF ERODIBLE SOILS = 6.34 AC.±
M.	AREA OF ROAD DEDICATION = 0.00 AC.
N.	AREA OF O.S. (PROVIDED; BUT NOT REQUIRED): 4.33 AC.
O.	O.S.FEE-IN-LIEU OF \$1,500.00 PER LOT WILL BE PROVIDED.

SOILS LEGEND				
SOIL	NAME	CLASS	K FACTOR	
BeB	Benevola silt loam, 3 to 8 percent slopes	C	0.43	
GgB	Glenely loam, 3 to 8 percent slopes	B	0.28	
GgC	Glenely loam, 8 to 15 percent slopes	B	0.28	
GmB	Glenville silt loam, 3 to 8 percent slopes	C	0.43	
MoC	Manor loam, 8 to 15 percent slopes	B	0.28	
MoD	Manor loam, 15 to 25 percent slopes	B	0.28	
MkF	Manor-Brinklow Complex, 25 to 65 percent slopes, very rocky	B	0.32	
WhB	Wiltshire silt loam, 3 to 8 percent slopes	C	0.20	



LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
---+12---	EXISTING 2' CONTOURS	---482---	PROPOSED CONTOUR
---410---	EXISTING 10' CONTOURS	---382.5---	SPOT ELEVATION
---GgB---	SOILS LINES AND TYPE	---LOD---	LIMITS OF DISTURBANCE
---	EXISTING TREELINE	---	PROPOSED TREELINE
---	15% TO 24.9% STEEP SLOPES	---	PROPOSED PAVING
---	25% AND GREATER STEEP SLOPES	---	BORING (PERC) TEST HOLE
---FP---	100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT	---	SILT FENCE
---	STREAM BANK BUFFER	---	EROSION CONTROL MATTING
---	EXISTING CENTERLINE OF STREAM	---	SUPER SILT FENCE
---	SPECIMEN TREE	---	DIVERSION FENCE
---	PROPOSED FOREST CONSERVATION EASEMENT	---	STABILIZATION CONSTRUCTION ENTRANCE
---	TREE PROTECTIVE FENCING	---	DRAINAGE AREA DIVIDE

- GENERAL NOTES**
- SUBJECT PROPERTY IS ZONED RR-DEO PER 10/06/2013 COMPREHENSIVE ZONING PLAN.
 - TOTAL AREA OF PROPERTY: 45.28 AC.
 - NUMBER OF PROPOSED BUILDABLE LOTS: 12
 - NUMBER OF PROPOSED OPEN SPACE LOTS = 1
 - TOTAL NUMBER OF LOTS = 13
 - AREA OF PROPOSED OPEN SPACE LOTS = 4.33 AC.
 - AREA OF PROPOSED ROAD RIGHT OF WAY WIDENING = 0 AC.
 - AREA OF PROPOSED ROAD (INTERIOR) RIGHT OF WAY = 1.25 AC.
 - TOTAL AREA OF SUBDIVISION = 45.28 AC.
 - THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
 - EXISTING AREAS DESIGNATED AS PRIVATE SEWAGE TREATMENT PLANTS OR SEWERAGE SYSTEMS SHALL BE REMOVED AND THE PROPERTY SHALL BE RESTRICTED TO PUBLIC SEWERAGE AS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT.
 - ALL WELL AND SEPTIC FIELDS WITHIN 100' OF PROPERTY'S BOUNDARY HAVE BEEN SHOWN.
 - ALL PERCOLATION TEST HOLES AND THEIR ELEVATIONS HAVE BEEN FIELD LOCATED BY FISHER, COLLINS & CARTER, INC.
 - PRIVATE WATER AND SEWAGE WILL BE USED WITHIN THIS SITE.
 - ALL WELLS TO BE DRILLED PRIOR TO SUBMITTAL OF THE FINAL PLAN FOR SIGNATURE. IT IS THE DEVELOPER'S RESPONSIBILITY TO SCHEDULE THE WELL DRILLING PRIOR TO FINAL PLAN SUBMISSION. IT WILL NOT BE CONSIDERED GOVERNMENT DELAY IF THE WELL DRILLING HOLDS UP THE HEALTH DEPARTMENT SIGNATURE OF THE RECORD PLAT. ALL EXISTING WELL AND SEPTIC SYSTEMS ASSOCIATED WITH THE EXISTING STRUCTURES IS TO BE ABANDONED PRIOR TO RECORDATION OF THE FINAL PLAN.
 - THE PROJECT IS NOT WITHIN THE METROPOLITAN DISTRICT.
 - THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
 - BOUNDARY SURVEY PREPARED BY FISHER, COLLINS & CARTER, INC. ON OR ABOUT OCTOBER 23, 1991.
 - APFO TRAFFIC STUDY WAS PREPARED BY MARS GROUP, DATED NOVEMBER, 2014.
 - FOREST STAND DELINEATION AND FOREST CONSERVATION PLAN PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED DECEMBER, 2008.
 - NO NOISE STUDY IS REQUIRED FOR THIS PROJECT.
 - WETLANDS EVALUATION PREPARED BY ECO-SCIENCE PROFESSIONALS, INC.
 - NOISE STUDY IS REQUIRED FOR THIS PROJECT.
 - THE GEOTECHNICAL REPORT FOR THIS PROJECT WAS PREPARED BY HILLIS-CARENS DATED FEBRUARY, 2009 AND SUBMITTED WITH SP-09-010. EXCAVATIONS TO DETERMINE DEPTH OF UNDERGROUND WATER IN THE AREAS AROUND THE MICRO-BIORETENTIONS AND DRYWELLS WERE CONDUCTED ON-SITE IN NOVEMBER, 2010.
 - SOILS INFORMATION BASED ON NRCS WEBSOIL SURVEY AND SOIL MAP NO. 22 SOIL SURVEY, HOWARD COUNTY.
 - NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN WETLANDS, STREAMS, FLOODPLAINS, FOREST CONSERVATION EASEMENTS OR THEIR REQUIRED BUFFERS IN ACCORDANCE WITH SECTION 16.116 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, UNLESS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING.
 - THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE (37 LANDSCAPE MANUAL FINANCIAL SURETY FOR THE REQUIRED PERMETER LANDSCAPING WILL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$13,350.00 (37 SHRUBS @ \$300.00 EACH, 14 EVERGREENS @ \$150.00 EACH & 6 SHRUBS @ \$300.00 EACH).
 - THERE ARE NO CELESTIAL OR HISTORIC STRUCTURES LOCATED ON THIS SITE TO THE BEST OF OUR KNOWLEDGE.
 - ALL EXISTING DWELLING/STRUCTURES SHALL BE REMOVED ON OR BEFORE
 - THIS PLAN IS IN COMPLIANCE WITH THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PER COUNCIL BILL 45-2003 AND THE ZONING REGULATIONS AS AMENDED BY COUNCIL BILL 75-2003. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS MUST COMPLY WITH THE ZONING REGULATIONS AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION, OR BUILDING/GRADING PERMIT.
 - TOPOGRAPHIC CONTOURS BASED ON GARDNER AERIAL SURVEYS, INC. DATED JANUARY 2006 AND SUPPLEMENTED WITH FIELD RUN TOPOGRAPHY BY FISHER, COLLINS & CARTER, INC. ON OR ABOUT APRIL, 2009 AND JANUARY, 2010.
 - THERE ARE AREAS OF STEEP SLOPES (25% OR GREATER) LOCATED ON THIS PROPERTY AS DEFINED BY THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, SECTION 16.116.
 - STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH HOWARD COUNTY AND MARYLAND 378 SPECIFICATIONS. STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE M.D.E. STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009. NON-STRUCTURAL PRACTICES IN ACCORDANCE WITH CHAPTER 5 AND A BIORETENTION IN ACCORDANCE WITH CHAPTER 3 ARE BEING UTILIZED.
 - FOR FLAG OR PIPESTEM TIES, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND THE ROAD PAVEMENT LINE AND NOT THE PIPESTEM LOT DRIVEWAY.
 - NO NOISE STUDY IS REQUIRED FOR THIS PROJECT.
 - PRIOR HOWARD COUNTY DPZ FILE NUMBERS: F-10-103, SP-09-011; WP-10-014; WP-13-076; WP-15-023; ECP-15-028; WP-15-126.
 - THE FOREST CONSERVATION EASEMENT AREAS WITHIN THIS SUBDIVISION HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.120 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION ACT, NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION ARE ALLOWED. THE FOREST CONSERVATION REQUIREMENTS PER SECTION 16.120 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION ACT WILL BE FULFILLED BY ON-SITE RETENTION OF 5.99 ACRES OF FOREST AND AFFORESTATION OF 1.81 ACRES. AFFORESTATION IS ADJUSTED DUE TO CREDIT TAKEN FOR LANDSCAPE PLANTINGS IN F01B AND F03A. SURETY IS NOT REQUIRED FOR RETENTION. SURETY FOR 1.81 ACRES OF AFFORESTATION IS THE AMOUNT OF \$30,000.00 (70,846.50 SFT X \$0.50) SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS FINAL PLAN, F-15-038. THE REMAINING OBLIGATION OF 1.22 ACRES OF AFFORESTATION AND 0.27 ACRES OF AFFORESTATION FOR A TOTAL OF 1.49 ACRES OF PLANTINGS SHALL BE PROVIDED OF THE UNDERGROUND WATER.
 - GROUND WATER APPROPRIATIONS PERMIT SHALL BE OBTAINED FOR THE PROPERTY PRIOR TO FINAL RECORD PLAT SUBMITTAL FOR SIGNATURES.
 - THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY HORIZONTAL AND VERTICAL CONTROL DATUM IS BASED ON HOWARD COUNTY GEODETIC CONTROL STATIONS: HOWARD COUNTY MONUMENT NO. 401A N 541,725,7807 E 1,325,318,7971 N 540,075,9730 E 1,327,702,7218
 - ON SEPTEMBER 14, 2009, THE PLANNING DIRECTOR APPROVED A REQUEST TO WAIVE SECTION 16.120(B)(4)(I) REQUIRING LOT DIMENSIONS TO GENERALLY NOT EXCEED 3:1 LOT DEPTH TO LOT WIDTH RATIO (LOTS 11 & 12), SECTION 16.120(B)(4)(II) REQUIRING THE LOCATIONS OF FLOODPLAINS, WETLANDS, STREAMS AND THEIR BUFFERS AND FOREST CONSERVATION EASEMENTS TO BE LOCATED ON LOTS 10 ACRES OR GREATER IN SIZE AND SECTION 16.132(A)(2)(I) REQUIRING THAT IF LAND IS OWNED ON ONLY ONE SIDE OF THE LOT OR ROAD, THE DEVELOPER SHALL CONSTRUCT ONE SIDE OF THE ROAD TO ACCOMMODATE A STORM WATER MANAGEMENT FACILITY DESIGNATED PAVEMENT WIDTH OR CONTRIBUTE TO THE COUNTY FUNDS NECESSARY TO DO CONSTRUCTION, SUBJECT TO THE FOLLOWING CONDITIONS:
 - A 35' BUILDING RESTRICTION LINE FROM THE STREAM BANK BUFFERS, FLOODPLAIN LIMITS AND FOREST CONSERVATION EASEMENTS SHALL BE DELINEATED AND ABIDE ON THE FINAL PLAN.
 - NO GRADING, REMOVAL OF VEGETATIVE COVER AND TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED IN THE STREAMS, STREAM BANK BUFFERS, FLOODPLAIN AREA OR FOREST CONSERVATION EASEMENTS.
 - ON JANUARY 5, 2013, THE PLANNING DIRECTOR APPROVED A WAIVER (WP-13-076) TO SECTION 16.144(K) REQUIRING SUBMISSION OF THE FINAL PLANS FOR WESTLAND FARM ESTATES, PHASE II, BETWEEN JULY 1, 2012 TO NOVEMBER 1, 2012 (SP-09-011). A ONE YEAR EXTENSION WAS APPROVED SUBJECT TO THE FOLLOWING CONDITIONS:
 - THE FINAL PLAN FOR PHASE II MUST BE SUBMITTED BETWEEN JULY 1, 2013 TO NOVEMBER 1, 2013.
 - SUBMISSION TO THE DEVELOPMENT ENGINEERING DIVISION OF AN ENVIRONMENTAL CONCEPT PLAN (ECP) BASED ON NEW STORMWATER MANAGEMENT REGULATIONS FOR REVIEW A NEW APPROPRIATE CONCEPT PLAN (ON OR BEFORE JUNE 1, 2013).
 - THE FINAL PLAN FOR PHASE II OF WESTLAND FARM ESTATES (SP-09-011) SHALL BE DESIGNED IN ACCORDANCE WITH THE NEW STORMWATER MANAGEMENT REGULATIONS AND SHALL ADDRESS ALL ECP COMMENTS AS APPLICABLE.
 - ON SEPTEMBER 14, 2009, THE PLANNING DIRECTOR APPROVED A WAIVER (WP-15-023) TO SECTION 16.144(B) TO REACTIVATE SP-09-011 AND SECTION 16.144(K) REQUIRING SUBMISSION OF FINAL PLANS FOR PHASE II BETWEEN JULY 1, 2013 TO NOVEMBER 1, 2013 (SP-09-011) TO EXTEND THE DEADLINE BY SIX MONTHS FROM THE WAIVER PETITION APPROVAL LETTER. APPROVAL TO THE REQUESTED WAIVERS IS SUBJECT TO THE FOLLOWING CONDITIONS:
 - THE PRELIMINARY CONCEPT PLAN, SP-09-011, IS REACTIVATED AND A SIX MONTH EXTENSION FROM THE DATE OF THIS WAIVER PETITION APPROVAL LETTER (ON OR BEFORE MARCH 26, 2015) IS GRANTED FOR THE SUBMISSION OF THE FINAL PLAN FOR PHASE II.
 - SUBMISSION TO THE DEVELOPMENT ENGINEERING DIVISION OF AN ENVIRONMENTAL CONCEPT PLAN (ECP) BASED ON NEW STORMWATER MANAGEMENT REGULATIONS WITHIN 45 DAYS FROM THE DATE OF THIS WAIVER PETITION APPROVAL LETTER (ON OR BEFORE NOVEMBER 10, 2014).
 - THE FINAL PLAN MUST COMPLY WITH ALL CURRENT COUNTY AND STATE REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION (INCLUDING MODERATE INCOME HOUSING UNIT REQUIREMENTS).
 - THE FINAL PLAN FOR PHASE II OF WESTLAND FARM ESTATES (SP-09-011) SHALL BE DESIGNED IN ACCORDANCE WITH THE NEW STORMWATER MANAGEMENT REGULATIONS AND SHALL ADDRESS ALL ECP COMMENTS AS APPLICABLE.
 - A NEW APPFO TRAFFIC STUDY MAY BE REQUIRED WITH THE FINAL PLAN SUBMISSION. PLEASE VERIFY WITH THE DEVELOPMENT ENGINEERING DIVISION.
 - SECTION 16.18 OF THE SUBDIVISION REGULATIONS REQUIRE A \$1,500.00 PER LOT FEE-IN-LIEU OF OPEN SPACE FOR NON-CLUSTER SUBDIVISIONS IN THE RR ZONING DISTRICT. THE DEVELOPER WILL PAY THE FEE-IN-LIEU, BUT IS ALSO CREATING A BONUS OPEN SPACE LOT TO ACCOMMODATE A STORM WATER MANAGEMENT FACILITY FOR THIS SUBDIVISION. A FEE-IN-LIEU IN THE AMOUNT OF \$16,500.00 WILL BE PAID.
 - A FLOODPLAIN STUDY WAS PREPARED BY FISHER, COLLINS & CARTER, INC. DATED SEPTEMBER, 2009 AND APPROVED ON NOVEMBER 4, 2009 WITH SP-09-011. ARTICLES OF INCORPORATION FOR THE WESTLAND FARM ESTATES HOMEOWNERS ASSOCIATION, INC. WILL BE FILED WITH THE MARYLAND STATE DEPARTMENT OF ASSESSMENTS AND TAXATION PRIOR TO THE RECORDATION OF THE FINAL PLAN.
 - OPEN SPACE LOT 15 IS OWNED AND MAINTAINED BY THE WESTLAND FARM ESTATES HOMEOWNERS ASSOCIATION, INC.
 - THIS SUBDIVISION IS WITHIN THE GROWTH TIER III.
 - THE PRIVATE USE-IN-COMMON ACCESS EASEMENT AND MAINTENANCE AGREEMENT FOR SHARED DRIVEWAYS IS RECORDED SIMULTANEOUSLY WITH THE PLAT. THE HOA SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND upkeep OF THE EXISTING POND.
 - THE EXISTING UTILITIES ARE BASED ON FIELD LOCATION OF UTILITIES ARE BASED ON AVAILABLE COUNTY RECORDS.
 - THE FOLLOWING SHALL BE NOTED REGARDING TRAFFIC CONTROL SIGNS IN THE COUNTY RIGHT-OF-WAY:
 - THE R-1 (STOP) SIGN (51A 04-56, 0/3 1/2' LEFT), R-2 (25 MPH) SPEED SIGN (51A 04-56, 0/3 1/2' RIGHT), AND THE STREET NAME SIGN (51S) ASSEMBLIES FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETED.
 - THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410-313-2430) 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. TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS SHALL BE 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 ANCHOR SHALL NOT EXTEND MORE THAN TWO QUICK PUNCH HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE INSTALLED ON EACH POST.
 - A PRIVATE RANGE OF ADDRESS SIGN SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPER'S/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-2430 FOR DETAILS AND COST ESTIMATE.
 - THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST 5 (5) WORKING DAYS PRIOR TO THE START OF WORK.
 - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
 - TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
 - ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
 - STANDARD SEDIMENT CONTROL PLAN MAY NOT BE UTILIZED TO OBTAIN GRADING PERMITS FOR THIS PROJECT.
 - DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM) REQUIREMENTS:
 - WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE);
 - SURFACE - SIX (6) INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MINIMUM);
 - GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNING RADIUS;
 - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (125-TONS-LOADING);
 - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER SURFACE;
 - STRUCTURE CLEARANCES - MINIMUM 12 FEET;
 - MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
 - SECTION 16.121 OF THE SUBDIVISION REGULATIONS REQUIRE A \$1,500.00 PER LOT FEE-IN-LIEU OF OPEN SPACE FOR NON-CLUSTER SUBDIVISIONS IN THE RR ZONING DISTRICT. THE DEVELOPER WILL PAY THE FEE-IN-LIEU, BUT IS ALSO CREATING A BONUS OPEN SPACE LOT TO ACCOMMODATE A STORMWATER MANAGEMENT FACILITY FOR THIS SUBDIVISION. BOC HAS REVIEWED AND APPROVED LANDSCAPE PLANTINGS ALONG LIME KILN ROAD.
 - IT WAS DETERMINED THAT THE PREVIOUSLY RECORDED 100' STREAM BANK BUFFER CAN BE REDUCED TO 75' ON PLAT 3 OF 3 ONLY, IN ACCORDANCE WITH THE WATERSHED MAP.

APPROVED: DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 DATE: 2/6/2016

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Land Development
 DATE: 6-21-16

APPROVED: DEVELOPMENT ENGINEERING DIVISION
 Chief, Development Engineering Division
 DATE: 3-2-16

OWNERS
 LIME KILN, LLC
 12549 LIME KILN ROAD
 FULTON, MARYLAND 20759-0460
 410-792-2922

DEVELOPER
 WILLIAMSBURG GROUP, LLC
 C/O BOB CORBETT
 5485 HARBERS FARM ROAD, SUITE 200
 COLUMBIA, MARYLAND 21044
 410-997-8800

PERRY C. WESTLAND, JR.
 12549 LIME KILN ROAD
 FULTON, MARYLAND 20759-0460
 410-792-2922

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38396, EXPIRATION DATE: 01/12/2016.

Signature: Stephen J. Jurek
 DATE: 12/9/15
 Signature Of Professional Engineer



TITLE SHEET

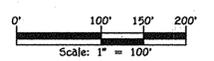
WESTLAND FARM ESTATES
 LOTS 3 THRU 14 AND OPEN SPACE LOT 15
 ZONED RR-DEO
 TAX MAP No. 45 GRID No. 5 PARCEL No. 28
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: DECEMBER, 2015
 SHEET 1 OF 19

F-15-038

LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	EXISTING 2' CONTOURS		PROPOSED CONTOUR
	EXISTING 10' CONTOURS		SPOT ELEVATION
	SOILS LINES AND TYPE		LIMITS OF DISTURBANCE
	EXISTING TREELINE		PROPOSED TREELINE
	15% TO 24.9% STEEP SLOPES		PROPOSED PAVING
	25% AND GREATER STEEP SLOPES		BORING (PERC) TEST HOLE
	100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT		SILT FENCE
	STREAM BANK BUFFER		EROSION CONTROL MATTING
	EXISTING CENTERLINE OF STREAM		SUPER SILT FENCE
	SPECIMEN TREE		DIVERSION FENCE
	PROPOSED FOREST CONSERVATION EASEMENT		STABILIZES CONSTRUCTION ENTRANCE
	STRUCTURES AND PAVING TO BE REMOVED		DRAINAGE AREA DIVIDE



PLAN VIEW
SCALE: 1" = 100'



APPROVED: DEPARTMENT OF PUBLIC WORKS
M. Meunier 2/22/2016
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
K. S. Shivers 6-21-16
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

C. J. ... 3-2-16
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

OWNERS
LIME KILN, LLC
12549 LIME KILN ROAD
FULTON, MARYLAND 20799-0460
410-792-2922

DEVELOPER
WILLIAMSBURG GROUP, LLC
C/O BOB CORDETT
5405 HAPPERS FARM ROAD, SUITE 200
COLUMBIA, MARYLAND 21044
410-997-8600

AND
PERRY C. WESTLAND, JR.
12549 LIME KILN ROAD
FULTON, MARYLAND 20799-0460
410-792-2922

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CORTLAND SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2895

PROFESSIONAL CERTIFICATION
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. 36366, EXPIRATION DATE: 01/12/2016.

Andrew C. Mintz 12/2/15
Signature Of Professional Engineer DATE

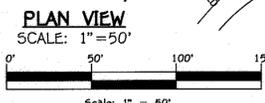
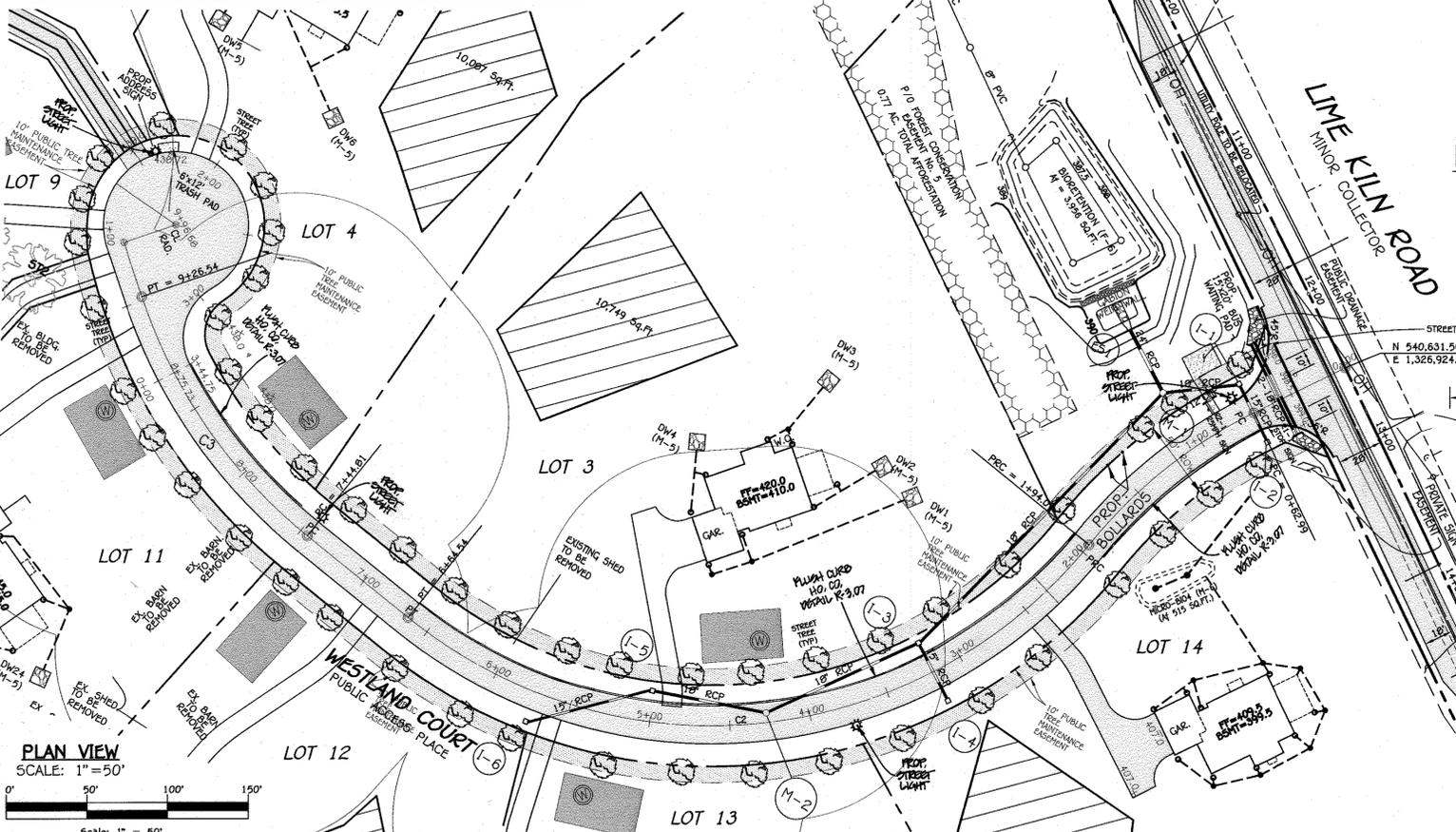


DEMOLITION PLAN
WESTLAND FARM ESTATES
LOTS 3 THRU 14 AND OPEN SPACE LOT 15
ZONED RR-DEO
TAX MAP No. 45 GRID No. 5 PARCEL No. 28
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2015
SHEET 2 OF 19

1:200506262.dwg/Plan/Rendering/SHEET 2, 12/22/2015 2:42:45 PM, 1:1

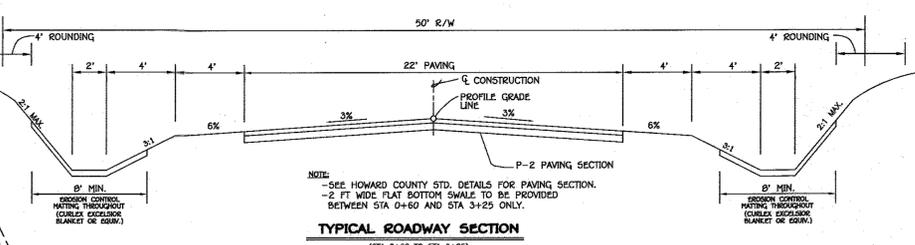
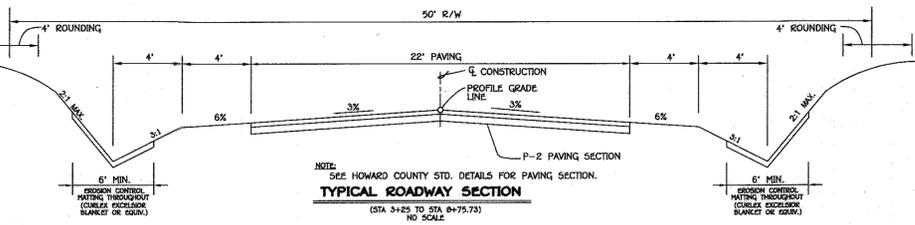
ROADWAY INFORMATION CHART

ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	STATION LIMITS	PAVING SECTION
WESTLAND COURT	PUBLIC ACCESS PLACE	25 M.P.H.	RR-DEO	0+00 TO 0+75.73	P-2



FOR DETAIL OF PAVEMENT WIDENING FOR ACCELERATION/DECELERATION LANE, SEE DETAIL SHEET 4.

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)					
		3 TO <5	5 TO <7	>7	3 TO <5	5 TO <7	>7
P-2	PARKING DRIVE ASLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY LOCAL ROADS: ACCESS PLACE, ACCESS STREET CUL-DE-SACS: RESIDENTIAL	PAVEMENT MATERIAL (INCHES)					
		HMA SUPERPAVE FINAL SURFACE 9.5 MM PG 54-22 LEVEL 1 (ESAL)					
		HMA SUPERPAVE INTERMEDIATE SURFACE 9.5 MM PG 54-22 LEVEL 1 (ESAL)					
		HMA SUPERPAVE BASE 19.0 MM PG 54-22 LEVEL 1 (ESAL)					
		MIN HMA WITH GAB		HMA WITH CONSTANT GAB			
		1.5	1.5	1.5	1.5	1.5	1.5
		1.0	1.0	1.0	1.0	1.0	1.0
		2.0	2.0	2.0	3.5	2.0	2.0
		8.0	4.0	3.0	4.0	4.0	4.0



STREET LIGHTS TABLE

ROAD NAME	STATION & OFFSET	TYPE
WESTLAND COURT	0+70.7 14' RIGHT	LED 100 COLONIAL POST TOP
WESTLAND COURT	0+75.25 13' LEFT	LED 100 COLONIAL POST TOP
WESTLAND COURT	7+44.81 13' RIGHT	LED 100 COLONIAL POST TOP
WESTLAND COURT	11' HIGH 2' LEFT	LED 100 COLONIAL POST TOP

CENTERLINE CURVE DATA

ROAD NAME	STA. TO STA.	RADIUS	LENGTH	DELTA
WESTLAND COURT	0+58.99 - 1+94.07	300.00'	131.08'	25°02'03"
WESTLAND COURT	1+94.07 - 6+64.54	300.00'	470.47'	89°51'12"
WESTLAND COURT	7+44.81 - 9+26.54	320.00'	181.73'	32°32'21"

PROFESSIONAL CERTIFICATION
 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. 38386, EXPIRATION DATE: 01/12/2016.
Signature of Professional Engineer DATE: 2/8/16



REVISIONS

DATE	DESCRIPTION
11/16/16	ADD STREET LIGHTS & STREET LIGHTS TRAIL

APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF HIGHWAYS: *Signature* DATE: 2/2/2016
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT: *Signature* DATE: 6-21-16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: *Signature* DATE: 3-2-16

WESTLAND FARM ESTATES
 LOTS 3 THRU 14 AND OPEN SPACE LOT 15
 ZONED RR-DEO
 TAX MAP No. 45 GRID No. 5 PARCEL No. 28
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

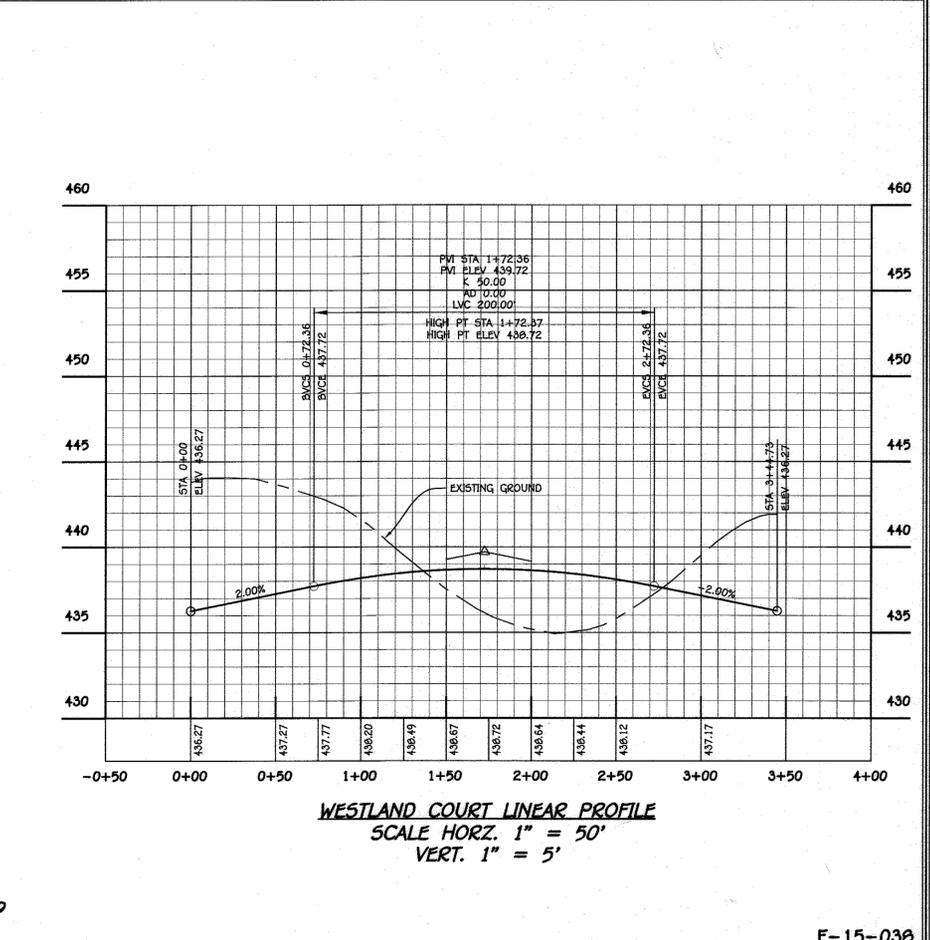
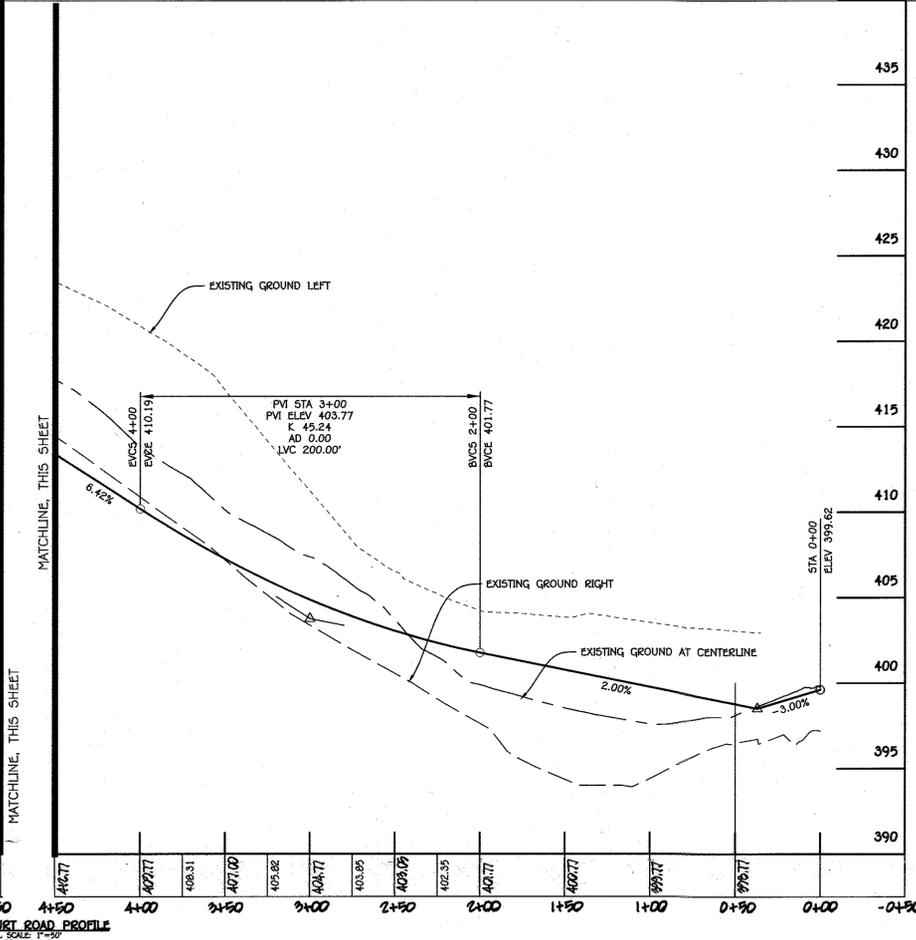
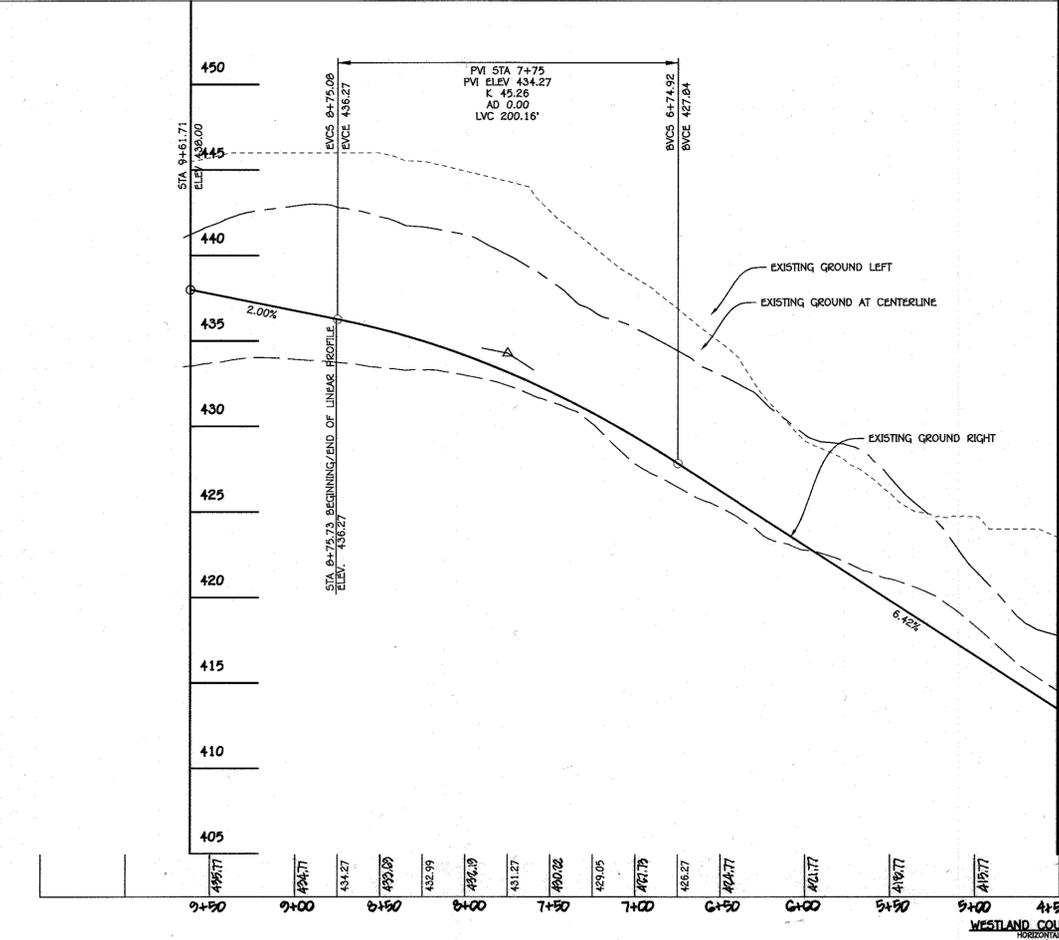
WESTLAND COURT
 PLAN AND PROFILE

OWNERS
 LIME KILN, LLC
 12549 LIME KILN ROAD
 FULTON, MARYLAND 20759-0460
 410-792-2922
 AND
 PERRY C. WESTLAND, JR.
 12549 LIME KILN ROAD
 FULTON, MARYLAND 20759-0460
 410-792-2922

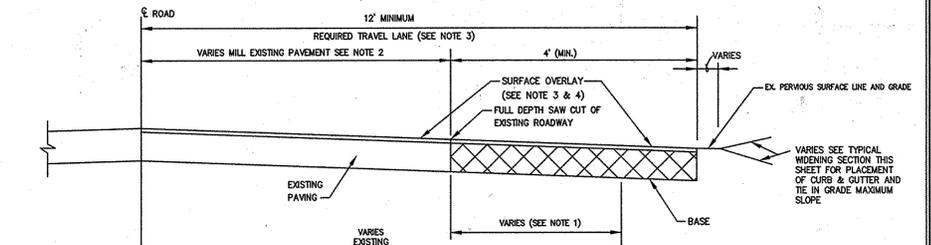
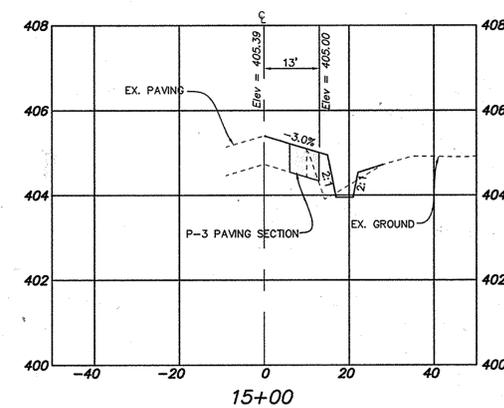
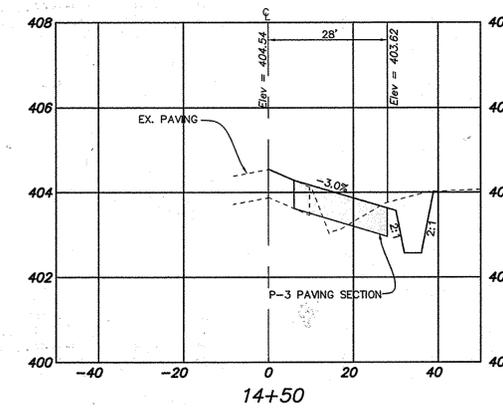
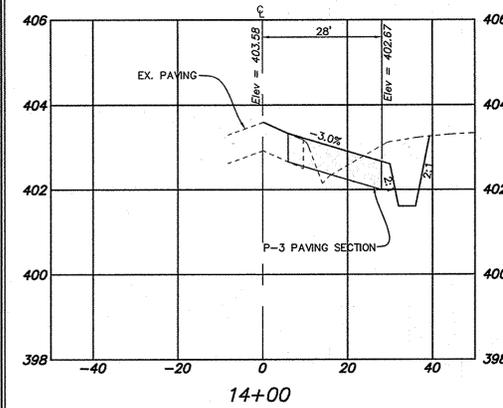
DEVELOPER
 WILLIAMSBURG GROUP, LLC
 C/O BOB CORBETT
 5465 HARRISS FARM ROAD, SUITE 200
 COLUMBIA, MARYLAND 21044
 410-997-8800

SCALE: AS SHOWN DATE: DECEMBER, 2015 DWG. NO. 3 OF 18
 DES. SJT DRN. SJT CHK. -

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10273 BALTIMORE NATIONAL PIKE
 ELIJAH CITY, MARYLAND 21042
 (410) 461-2899

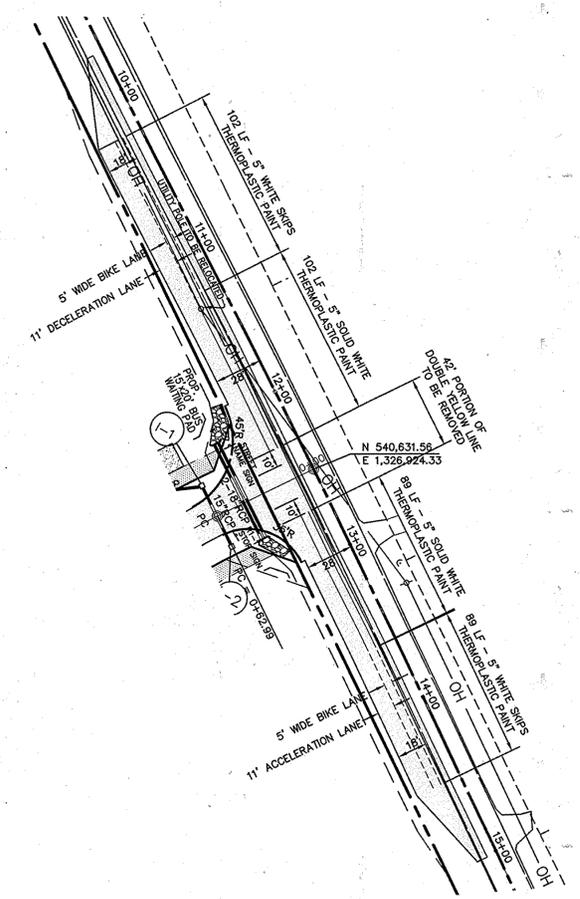
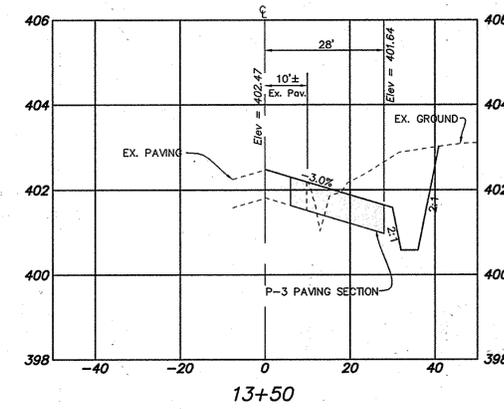
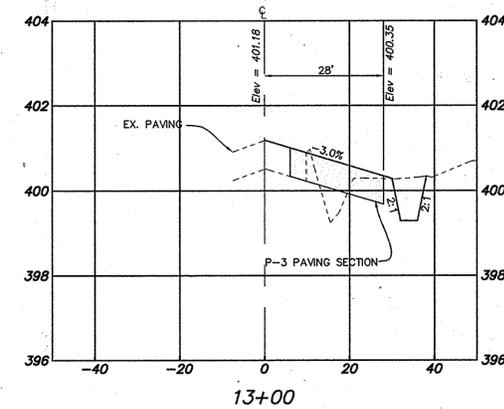
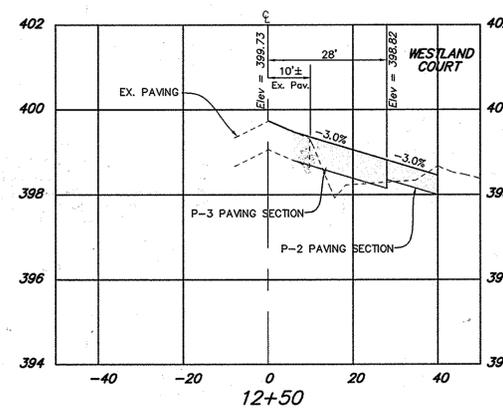
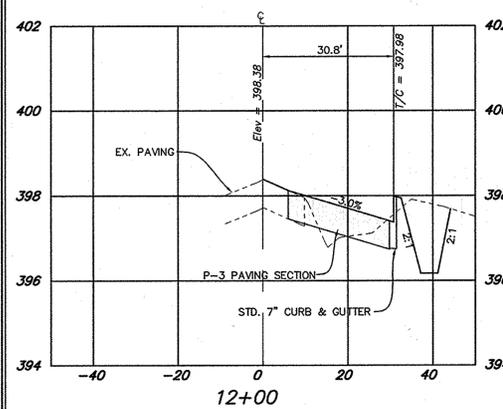


SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)						
		3 TO <5	5 TO <7	≥7	3 TO <5	5 TO <7	≥7	
P-3	PARKING DRIVE AISLES RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY LOCAL ROADS: ACCESS PLACE, ACCESS STREET GUL-DE-SACS RESIDENTIAL MINOR COLLECTORS: RESIDENTIAL	PAVEMENT MATERIAL (INCHES)						
		MIN HMA WITH GAB			HMA WITH CONSTANT GAB			
		HMA SUPERPAVE FINAL SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.0	1.0	1.0	1.0	1.0	1.0
	HMA SUPERPAVE BASE 19.0 MM, PG 64-22, LEVEL 1 (ESAL)	3.0	3.0	3.0	4.5	-3.0	2.0	
	GRADED AGGREGATE BASE (GAB)	10.0	6.0	3.0	6.0	6.0	6.0	

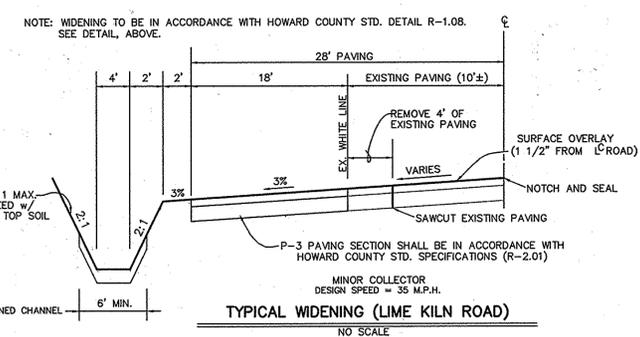
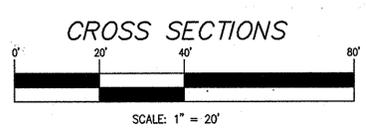
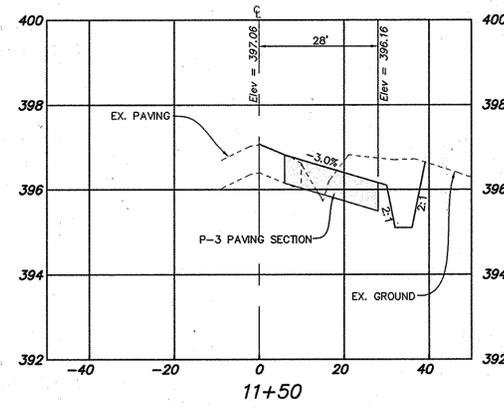
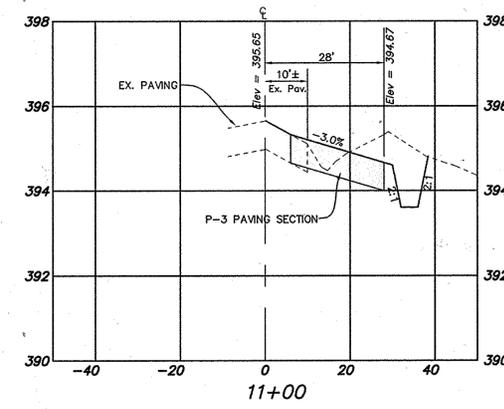
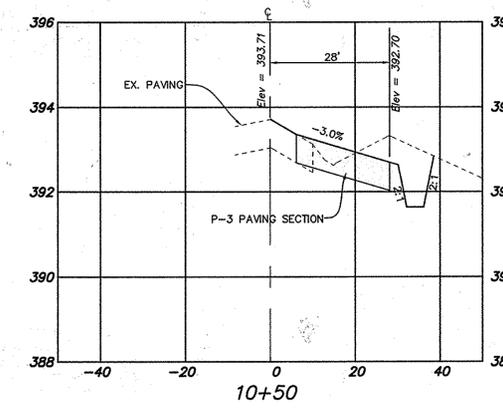
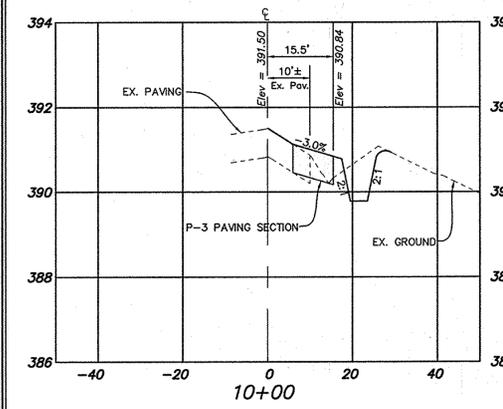


- NOTES:
- WHEN EXISTING TRAVEL LANE IS LESS THAN THE REQUIRED 12' LANE CONTRACTOR SHALL REMOVE A MINIMUM OF 1" FULL DEPTH OF THE EXISTING ROADWAY. IF CURB AND GUTTER IS INSTALLED, PROVIDE A MINIMUM OF 4" OF WIDENING FROM FACE OF GUTTER PAN.
 - THE EXISTING PAVEMENT TO BE RESURFACED SHALL BE MILLED AT DEPTH OF 1 1/2" (MINIMUM).
 - THE RESURFACING SHALL BE PLACED TO THE CENTERLINE OF THE ROADWAY (UPON COMPLETION OF INSTALLATION OF WATER MAIN).
 - RESURFACING COURSE TO BE EQUAL TO THE SURFACE COURSE OF THE TYPICAL PAVEMENT SECTION.

EXISTING ROADWAY WIDENING STRIP (R-1.08)
NO SCALE



ACCELERATION / DECELERATION & BIKE LANE STRIPING
(LIME KILN ROAD)
SCALE: 1" = 50'



ACCELERATION/DECELERATION LANE CROSS SECTIONS
WESTLAND FARM ESTATES
LOTS 3 THRU 14 AND OPEN SPACE LOT 15
ZONED RR-DEO
TAX MAP No. 45 GRID No. 5 PARCEL No. 28
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2015
SHEET 4 OF 19

APPROVED: DEPARTMENT OF PUBLIC WORKS
Melania 2/22/2016
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Kurt Schuler 6-21-16
CHIEF, DIVISION OF LAND DEVELOPMENT

Chad 3-2-16
CHIEF, DEVELOPMENT ENGINEERING DIVISION

OWNERS
LIME KILN, LLC
12549 LIME KILN ROAD
FULTON, MARYLAND 20759-0460
410-792-2922

DEVELOPER
WILLIAMSBURG GROUP, LLC
C/O BOB CORBETT
5485 HARRERS FARM ROAD, SUITE 200
COLUMBIA, MARYLAND 21044
410-997-8800

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2000

PROFESSIONAL CERTIFICATION
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. 38396, EXPIRATION DATE: 01/12/2016.

Stephen J. Hite 12/9/15
Signature of Professional Engineer DATE



LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
- - - 412	EXISTING 2' CONTOURS	— 462	PROPOSED CONTOUR
- - - 410	EXISTING 10' CONTOURS	• 362.5	SPOT ELEVATION
GgB	SOILS LINES AND TYPE	— LOD	LIMITS OF DISTURBANCE
GgC	EXISTING TREELINE	—	PROPOSED TREELINE
15% TO 24.9% SLOPES		—	PROPOSED PAVING
25% AND GREATER SLOPES		• 544	BORING (PERC) TEST HOLE
100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT		— SF	SILT FENCE
STREAM BANK BUFFER		— ECM	EROSION CONTROL MATTING
EXISTING CENTERLINE OF STREAM		— SSF	SUPER SILT FENCE
5T1	SPECIMEN TREE	— DF	DIVERSION FENCE
—	PROPOSED FOREST CONSERVATION EASEMENT	—	STABILIZES CONSTRUCTION ENTRANCE
— TPF	TREE PROTECTIVE FENCING	—	DRAINAGE AREA DIVIDE



PLAN VIEW
SCALE: 1" = 50'

APPROVED: DEPARTMENT OF PUBLIC WORKS
M. M. M. 2/28/2016
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
K. D. D. 6-21-16
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

D. E. E. 3-7-16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

OWNERS
 LIME KILN, LLC
 12549 LIME KILN ROAD
 FULTON, MARYLAND 20779-0460
 410-792-2322

DEVELOPER
 WILLIAMSBURG GROUP, LLC
 C/O BOB CORBETT
 5485 HARGRETS FARM ROAD, SUITE 200
 COLUMBIA, MARYLAND 21044
 410-997-8600

AND
 PERRY C. WESTLAND, JR.
 12549 LIME KILN ROAD
 FULTON, MARYLAND 20779-0460
 410-792-2322

PROFESSIONAL CERTIFICATION
 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. 38886, EXPIRATION DATE: 01/12/2016.

Stephanie Smith 2/8/16
 Signature of Professional Engineer DATE

DEVELOPER'S / BUILDER'S CERTIFICATE
 I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.154 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

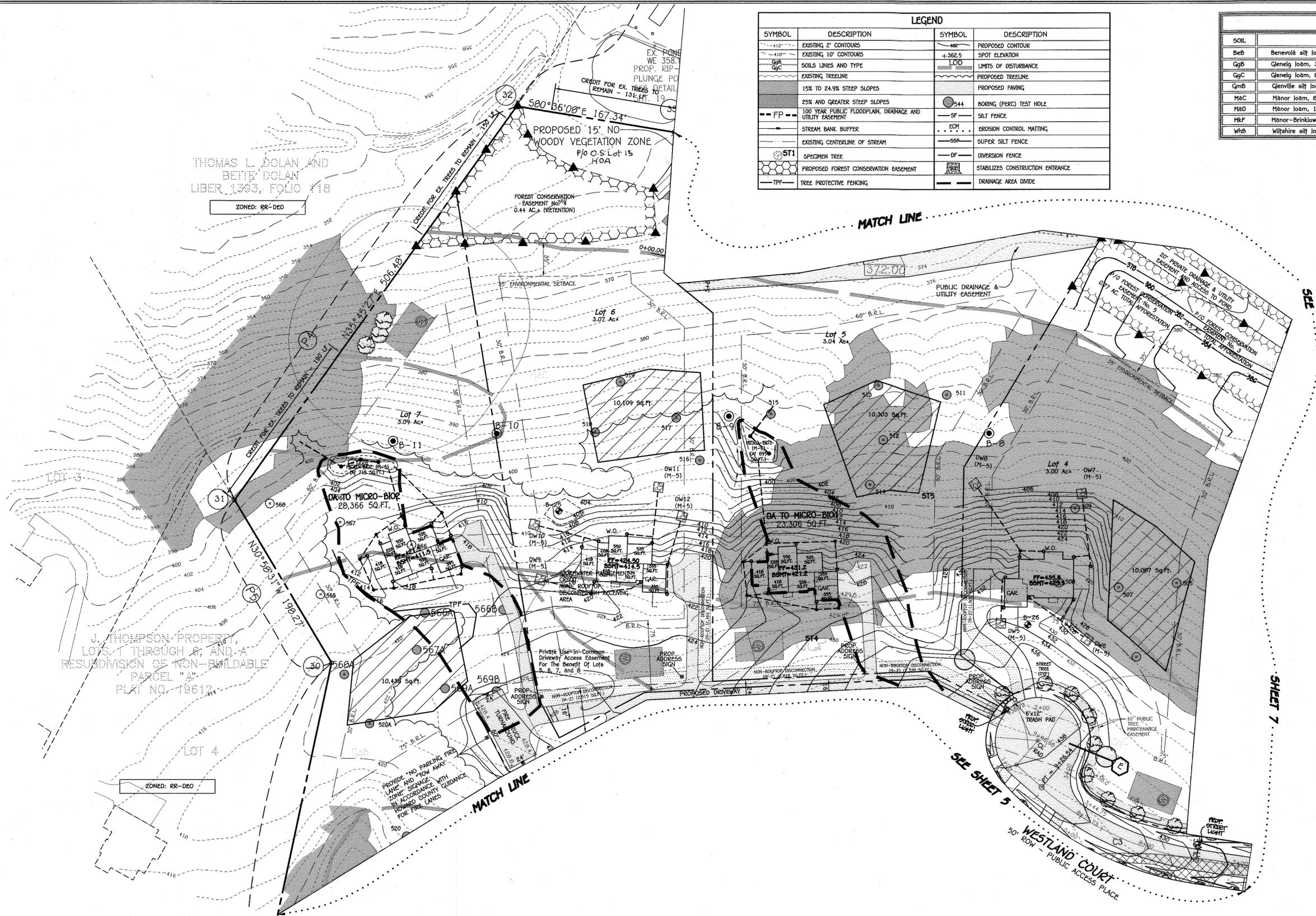
Bob Corbett 2-8-16
 NAME DATE

SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
BeB	Benevola silt loam, 3 to 8 percent slopes	C	0.43
GgB	Glenns loam, 3 to 8 percent slopes	B	0.28
GgC	Glenns loam, 8 to 15 percent slopes	B	0.28
GmB	Glennville silt loam, 3 to 8 percent slopes	C	0.43
MaC	Manor loam, 8 to 15 percent slopes	B	0.28
MaD	Manor loam, 15 to 25 percent slopes	B	0.28
MkF	Manor-Brinklow Complex, 25 to 65 percent slopes, very rocky	B	0.32
WhB	Wiltshire silt loam, 3 to 8 percent slopes	C	0.20

LANDSCAPE & FOREST CONSERVATION PLAN
WESTLAND FARM ESTATES
 LOTS 3 THRU 14 AND OPEN SPACE LOT 15
 ZONED RR-DEO
 TAX MAP No. 45 GRID No. 5 PARCEL No. 28
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: DECEMBER, 2015
 SHEET 5 OF 19

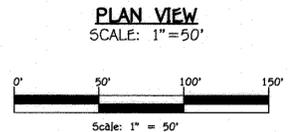
LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
---412---	EXISTING 2' CONTOURS	---400---	PROPOSED CONTOUR
---410---	EXISTING 10' CONTOURS	SPOT ELEVATION	SPOT ELEVATION
---	SOILS LINES AND TYPE	---	LIMITS OF DISTURBANCE
---	EXISTING TREELINE	---	PROPOSED TREELINE
---	15% TO 24.9% STEEP SLOPES	---	PROPOSED PAVING
---	25% AND GREATER STEEP SLOPES	---	BORING (PERC) TEST HOLE
---	100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT	---	SILT FENCE
---	STREAM BANK BUFFER	---	EROSION CONTROL MATTING
---	EXISTING CENTERLINE OF STREAM	---	SUPER SILT FENCE
---	SPECIMEN TREE	---	DIVERSION FENCE
---	PROPOSED FOREST CONSERVATION EASEMENT	---	STABILIZATION CONSTRUCTION ENTRANCE
---	TREE PROTECTIVE FENCING	---	DRAINAGE AREA DIVIDE

SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
BeB	Benevola silt loam, 3 to 8 percent slopes	C	0.43
GgB	Glenelig loam, 3 to 8 percent slopes	B	0.28
GgC	Glenelig loam, 8 to 15 percent slopes	B	0.28
GmB	Glenville silt loam, 3 to 8 percent slopes	C	0.43
MaC	Manor loam, 8 to 15 percent slopes	B	0.28
MaD	Manor loam, 15 to 25 percent slopes	B	0.28
MkF	Manor-Brinklow Complex, 25 to 65 percent slopes, very rocky	B	0.32
WhB	Wiltshire silt loam, 3 to 8 percent slopes	C	0.20



THOMAS L. DOLAN AND BETTE DOLAN
LIBER 1363, FOLIO 718
ZONED: RR-DEO

J. THOMPSON PROPERTY, LOTS 1 THROUGH 8, AND A RESUBDIVISION OF NON-BUILDABLE PARCEL "A" PLAN NO. 19613
ZONED: RR-DEO



APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] 2/22/2016
 CHIEF, BUREAU OF HIGHWAYS DATE
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 6-21-16
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 [Signature] 3-2-16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

OWNERS
 LINE KILN, LLC
 12549 LINE KILN ROAD
 FULTON, MARYLAND 20779-0460
 410-792-2922
 AND
 PERRY C. WESTLAND, JR.
 12549 LINE KILN ROAD
 FULTON, MARYLAND 20779-0460
 410-792-2922

DEVELOPER
 WILLIAMSBURG GROUP, LLC
 C/O BOB CORBETT
 5495 HARPERS FARM ROAD, SUITE 200
 COLUMBIA, MARYLAND 21044
 410-997-0600

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENAL SQUARE OFFICE PARK - 10272 BALTHAZORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2255

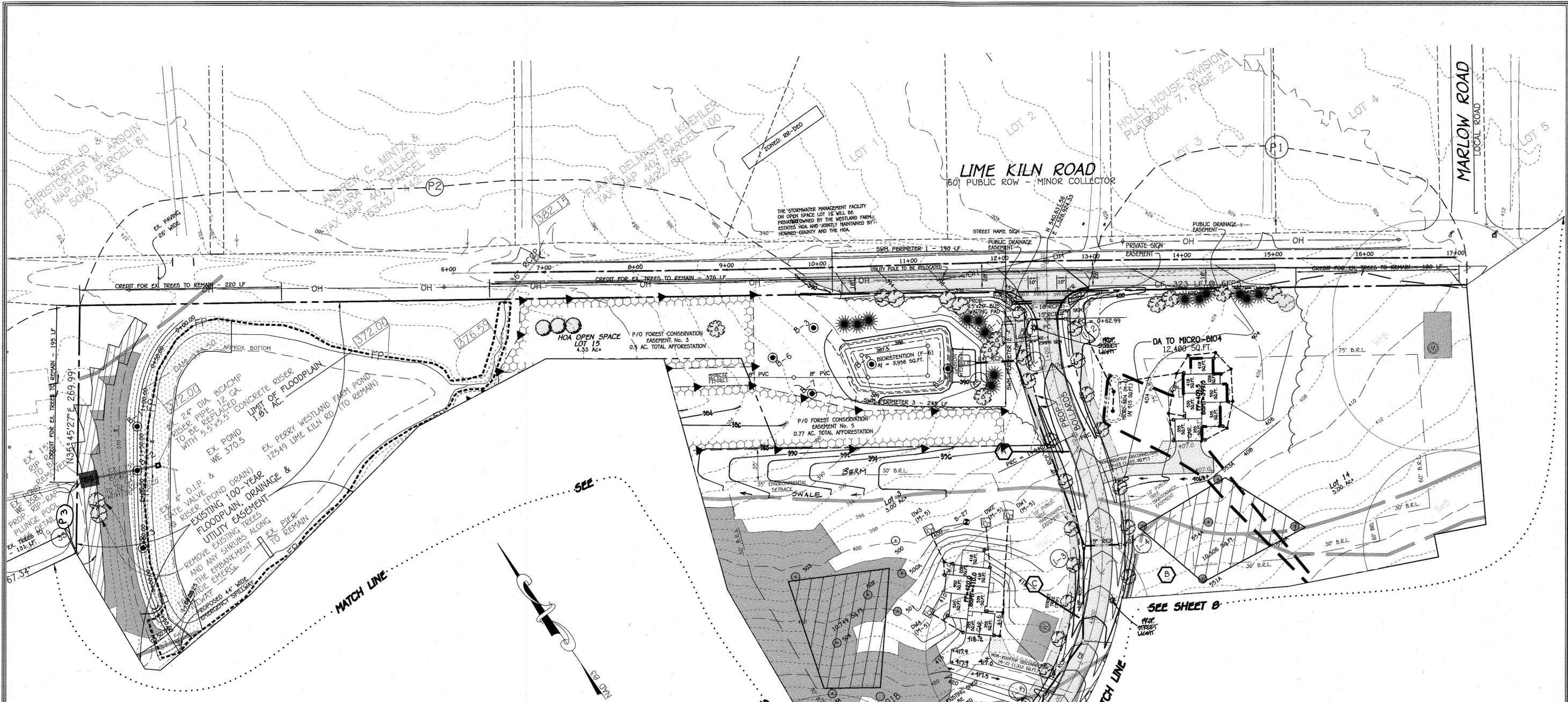
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38386, EXPIRATION DATE: 01/12/2016.
 [Signature] 2/8/16
 Signature of Professional Engineer DATE



DEVELOPER'S / BUILDER'S CERTIFICATE
 I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.
 [Signature] 2-8-16
 NAME DATE

DATE: []
 ADD PROPOSED GRADING, VULNERABILITY ON LOT 4 + ADD STREET LIGHTS
 REVISION

LANDSCAPE & FOREST CONSERVATION PLAN
WESTLAND FARM ESTATES
 LOTS 3 THRU 14 AND OPEN SPACE LOT 15
 ZONED RR-DEO
 TAX MAP No. 45 GRID No. 5 PARCEL No. 28
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: DECEMBER, 2015
 SHEET 6 OF 19
 F-15-038

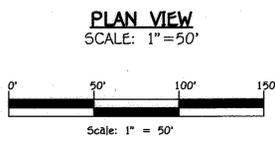


LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
---412---	EXISTING 2' CONTOURS	---400---	PROPOSED CONTOUR
---410---	EXISTING 10' CONTOURS	+362.5	SPOT ELEVATION
GgB GgC	SOILS LINES AND TYPE	LOD	LIMITS OF DISTURBANCE
---	EXISTING TREELINE	---	PROPOSED TREELINE
---	15% TO 24.9% STEEP SLOPES	---	PROPOSED PAVING
---	25% AND GREATER STEEP SLOPES	544	BORING (PERC) TEST HOLE
FP	100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT	5F	SILT FENCE
---	STREAM BANK BUFFER	ECM	EROSION CONTROL MATTING
---	EXISTING CENTERLINE OF STREAM	SSP	SUPER SILT FENCE
ST1	SPECIMEN TREE	DF	DIVERSION FENCE
---	PROPOSED FOREST CONSERVATION EASEMENT	---	STABILIZES CONSTRUCTION ENTRANCE
---	TREE PROTECTIVE FENCING	---	PROPOSED AREA FOR CLAY LAYER IN EX. POND

SOILS LEGEND

SOIL	NAME	CLASS	K FACTOR
BeB	Benevola silt loam, 3 to 8 percent slopes	C	0.43
GgB	Glenelg loam, 3 to 8 percent slopes	B	0.28
GgC	Glenelg loam, 8 to 15 percent slopes	B	0.28
GmB	Glenville silt loam, 3 to 8 percent slopes	C	0.43
MaC	Manor loam, 8 to 15 percent slopes	B	0.28
MaD	Manor loam, 15 to 25 percent slopes	B	0.28
MkF	Manor-Brinklow Complex, 25 to 65 percent slopes, very rocky	B	0.32
WhB	Withshire silt loam, 3 to 8 percent slopes	C	0.20



APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF HIGHWAYS
 DATE: 2/8/2016

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 6-21-16

CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 3-2-16

OWNERS
 LIME KILN, LLC
 12549 LIME KILN ROAD
 FULTON, MARYLAND 20799-0460
 410-792-2922

AND
 PERRY C. WESTLAND, JR.
 12549 LIME KILN ROAD
 FULTON, MARYLAND 20799-0460
 410-792-2922

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2895

DEVELOPER
 WILLIAMSBURG GROUP, LLC
 C/O BOB CORRETT
 5485 HARPERS FARM ROAD, SUITE 200
 COLUMBIA, MARYLAND 21044
 410-997-8900

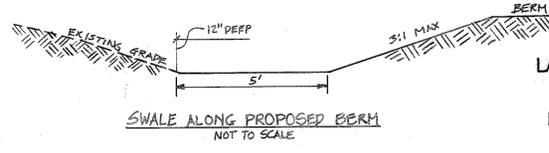
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 36386, EXPIRATION DATE: 01/12/2016.

Signature of Professional Engineer: [Signature]
 DATE: 2/8/16



DEVELOPER'S / BUILDER'S CERTIFICATE
 I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

NAME: [Signature]
 DATE: 2-8-16



1/16/16 DATE AND PROPOSED WORKING FOR A BERM ON LOT 3 & ADD STREET LIGHTS REVISION

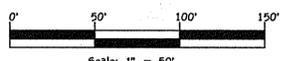
LANDSCAPE & FOREST CONSERVATION PLAN
WESTLAND FARM ESTATES
 LOTS 3 THRU 14 AND OPEN SPACE LOT 15
 ZONED RR-DEO
 TAX MAP No. 45 GRID No. 5 PARCEL No. 28
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: DECEMBER, 2015
 SHEET 7 OF 19

SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
BeB	Benevolá silt loám, 3 to 8 percent slopes	C	0.43
GgB	Glenelg loám, 3 to 8 percent slopes	B	0.28
GgC	Glenelg loám, 8 to 15 percent slopes	B	0.28
GmB	Glenville silt loám, 3 to 8 percent slopes	C	0.43
MaC	Manor loám, 8 to 15 percent slopes	B	0.28
MaD	Manor loám, 15 to 25 percent slopes	B	0.28
MtF	Manor-Brinklow Complex, 25 to 65 percent slopes, very rocky	B	0.32
WhB	Wiltshire silt loám, 3 to 8 percent slopes	C	0.20



LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
---412---	EXISTING 2' CONTOURS	---402---	PROPOSED CONTOUR
---410---	EXISTING 10' CONTOURS	+362.5	SPOT ELEVATION
GgB	SOILS LINES AND TYPE	LOD	LIMITS OF DISTURBANCE
GgC	EXISTING TREELINE	---	PROPOSED TREELINE
15% TO 24.9% STEEP SLOPES		---	PROPOSED PAVING
25% AND GREATER STEEP SLOPES		544	BORING (PERC) TEST HOLE
100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT		SF	SILT FENCE
STREAM BANK BUFFER		ECM	EROSION CONTROL MATTING
EXISTING CENTERLINE OF STREAM		SSC	SUPER SILT FENCE
SPECIMEN TREE		DF	DIVERSION FENCE
PROPOSED FOREST CONSERVATION EASEMENT		---	STABILIZES CONSTRUCTION ENTRANCE
TPF	TREE PROTECTIVE FENCING		

PLAN VIEW
SCALE: 1" = 50'



APPROVED: DEPARTMENT OF PUBLIC WORKS
Meunier 2/28/2016
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
West 6-21-16
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chad 3-2-16
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

OWNERS
LIME KILN, LLC
12549 LIME KILN ROAD
FULTON, MARYLAND 20799-0460
410-792-2922

AND
PERRY C. WESTLAND, JR.
12549 LIME KILN ROAD
FULTON, MARYLAND 20799-0460
410-792-2922

DEVELOPER
WILLIAMSBURG GROUP, LLC
C/O BOB CORBETT
5405 HARPERS FARM ROAD, SUITE 200
COLUMBIA, MARYLAND 21044
410-997-8800

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SOURCE OFFICE SPACE - 10272 BALTIMORE NATIONAL Pk.
ELICOTT CITY, MARYLAND 21042
(410) 481-3999

PROFESSIONAL CERTIFICATION
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. 38386, EXPIRATION DATE: 01/12/2016.

Meunier 12/2/15
Signature of Professional Engineer DATE



DEVELOPER'S / BUILDER'S CERTIFICATE
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

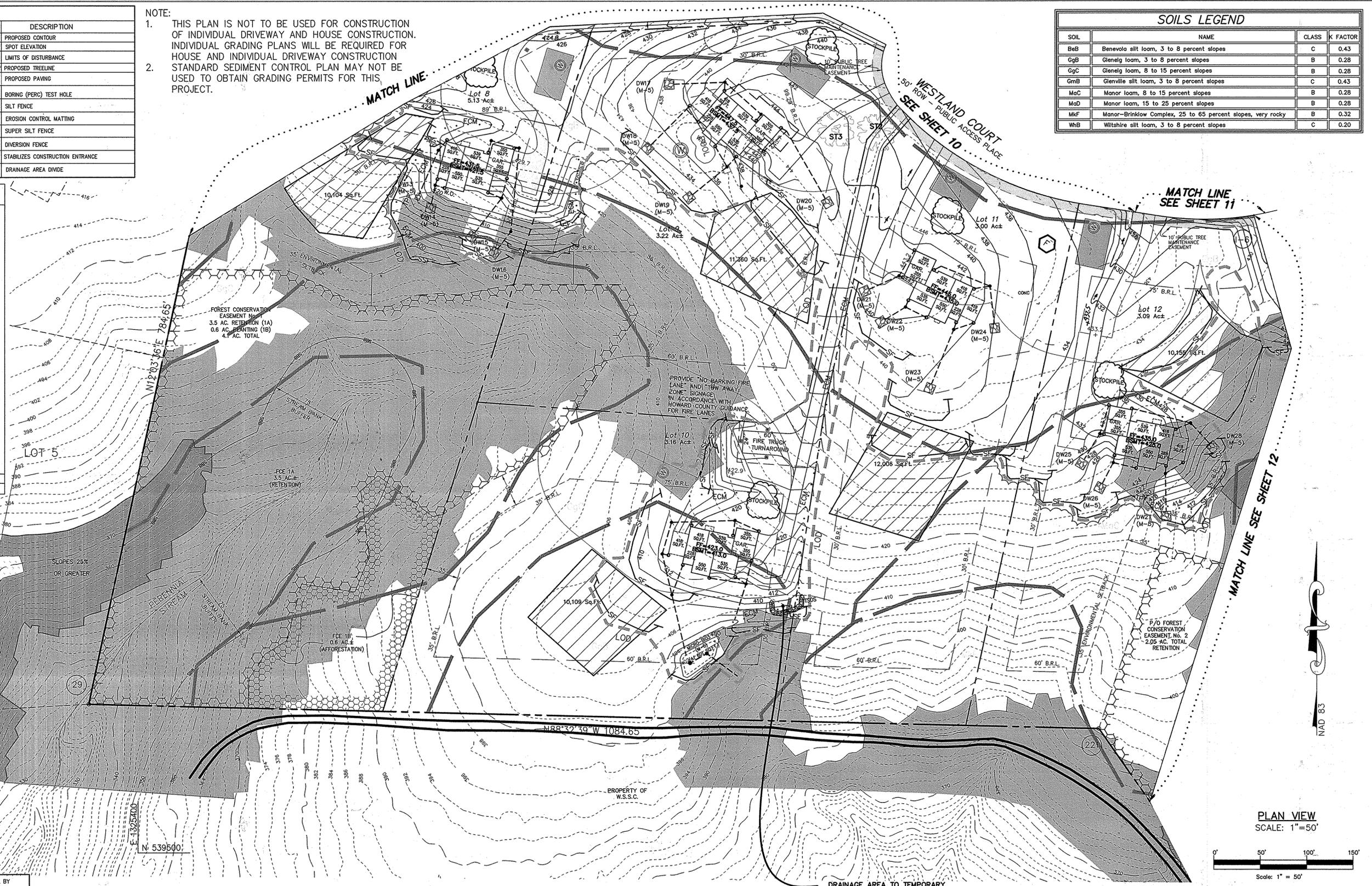
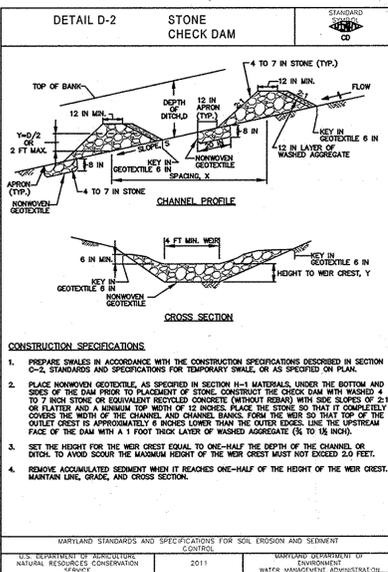
West 1-4-16
NAME DATE

LANDSCAPE & FOREST CONSERVATION PLAN
WESTLAND FARM ESTATES
LOTS 3 THRU 14 AND OPEN SPACE LOT 15
ZONED RR-DEO
TAX MAP No. 45 GRID No. 5 PARCEL No. 28
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2015
SHEET 8 OF 19

LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
-+12-	EXISTING 2' CONTOURS	-+362.5	PROPOSED CONTOUR
-+10-	EXISTING 10' CONTOURS	LOD	SPOT ELEVATION
GcB	SOILS LINES AND TYPE	LOD	LIMITS OF DISTURBANCE
GcC	EXISTING TREELINE	---	PROPOSED TREELINE
15% TO 24.9% STEEP SLOPES		---	PROPOSED PAVING
25% AND GREATER STEEP SLOPES		544	BORING (PERC) TEST HOLE
100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT		SF	SILT FENCE
STREAM BANK BUFFER		ECM	EROSION CONTROL MATTING
EXISTING CENTERLINE OF STREAM		SSP	SUPER SILT FENCE
ST1	SPECIMEN TREE	DF	DIVERSION FENCE
	PROPOSED FOREST CONSERVATION EASEMENT		STABILIZES CONSTRUCTION ENTRANCE
TPF	TREE PROTECTIVE FENCING		DRAINAGE AREA DIVIDE

NOTE:
 1. THIS PLAN IS NOT TO BE USED FOR CONSTRUCTION OF INDIVIDUAL DRIVEWAY AND HOUSE CONSTRUCTION. INDIVIDUAL GRADING PLANS WILL BE REQUIRED FOR HOUSE AND INDIVIDUAL DRIVEWAY CONSTRUCTION.
 2. STANDARD SEDIMENT CONTROL PLAN MAY NOT BE USED TO OBTAIN GRADING PERMITS FOR THIS PROJECT.

SOILS LEGEND				
SOIL	NAME	CLASS	K FACTOR	
BeB	Benevola silt loam, 3 to 8 percent slopes	C	0.43	
GgB	Glenelg loam, 3 to 8 percent slopes	B	0.28	
GgC	Glenelg loam, 8 to 15 percent slopes	B	0.28	
GmB	Glenville silt loam, 3 to 8 percent slopes	C	0.43	
MoC	Manor loam, 8 to 15 percent slopes	B	0.28	
MoD	Manor loam, 15 to 25 percent slopes	B	0.28	
MkF	Manor-Brinklow Complex, 25 to 65 percent slopes, very rocky	B	0.32	
WhB	Wiltshire silt loam, 3 to 8 percent slopes	C	0.20	



THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: *John L. Peloton* 12/9/15
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
Meunier 2/22/2016
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Kat Schulz 6-21-16
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chad Eubank 3-2-16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

OWNERS
 LIME KILN, LLC
 12549 LIME KILN ROAD
 FULTON, MARYLAND 20759-0460
 410-792-2922

DEVELOPER
 WILLIAMSBURG GROUP, LLC
 C/O BOB CORRETT
 5485 HARRIS FARM ROAD, SUITE 200
 COLUMBIA, MARYLAND 21044
 410-997-8800

AND
 PERRY G. WESTLAND, JR.
 12549 LIME KILN ROAD
 FULTON, MARYLAND 20759-0460
 410-792-2922

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2855

PROFESSIONAL CERTIFICATION
 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. 38386, EXPIRATION DATE: 01/12/2016.

Stephanie Jantz 12/9/15
 Signature of Professional Engineer DATE



ENGINEER'S CERTIFICATE
 I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Stephanie Jantz 12/9/15
 SIGNATURE OF ENGINEER DATE

BUILDER/DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, FOR SEDIMENT AND EROSION CONTROL AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

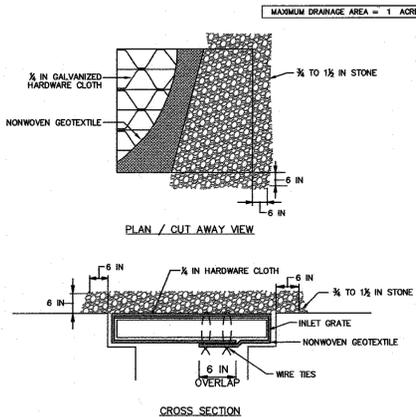
[Signature] 1-6-16
 SIGNATURE OF DEVELOPER DATE

GRADING AND EROSION & SEDIMENT CONTROL PLAN
WESTLAND FARM ESTATES
 LOTS 3 THRU 14 AND OPEN SPACE LOT 15
 ZONED RR-DEO
 TAX MAP No. 45 GRID No. 5 PARCEL No. 28
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: DECEMBER, 2015
 SHEET 9 OF 19

F-15-038

DETAIL E-9-2 AT-GRADE INLET PROTECTION

STANDARD SYMBOL
 AGIP



- CONSTRUCTION SPECIFICATIONS**
- USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
 - LIFT GRATE AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WIRE TIES AND SET GRATE BACK IN PLACE.
 - PLACE CLEAN 1/2 TO 1 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE GRATE.
 - STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
 U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DRAINAGE AREA TO TEMPORARY STONE OUTLET STRUCTURE (TS05)
 0.50 ACRES
 923 CY STORAGE
 TOP = 409 (125 SQ.FT.)
 BOTTOM = 412 (520 SQ.FT.)

DRAINAGE AREA TO TEMPORARY STONE OUTLET STRUCTURE (TS05)
 0.47 ACRES
 846 CY STORAGE
 TOP = 407.75 (664 SQ.FT.)
 BOTTOM = 406 (303 SQ.FT.)

THOMAS L. DOLAN AND BETTE DOLAN
 LIBER 1293, FOLIO 418
 ZONED: RR-DEO

J. THOMPSON PROPERTY, LOTS 1 THROUGH 8, AND A RESUBDIVISION OF NON-BUILDABLE PARCEL "A" PLAT NO. 19612
 ZONED: RR-DEO

DATE	REVISION
11/16/16	ADD PROPOSED DRIVEWAY FOR A BEAM ON LOT 3, PROPOSED ON LOT 4, AND PROPOSED SUPPLY PIT STOPS ON LOTS 3, 6, 7, AND 8. SEE LOTS 3, 6, 7, AND 8.

BUILDER/DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, FOR SOIL EROSION AND SEDIMENT CONTROL AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SOIL EROSION AND SEDIMENT BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Signature of Developer: [Signature] DATE: 2-1-16

ENGINEER'S CERTIFICATE
 I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature of Engineer: [Signature] DATE: 1/29/16

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: [Signature] DATE: 2/2/16
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] DATE: 2/22/2016
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] DATE: 6-21-16
 CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] DATE: 3-2-16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

OWNERS
 LIME KILN, LLC
 12549 LIME KILN ROAD
 FULTON, MARYLAND 20759-0460
 410-792-2922

AND
 PERRY C. WESTLAND, JR.
 12549 LIME KILN ROAD
 FULTON, MARYLAND 20759-0460
 410-792-2922

DEVELOPER
 WILLIAMSBURG GROUP, LLC
 670 808 CORCORAT
 5465 HARRIS FARM ROAD, SUITE 200
 COLUMBIA, MARYLAND 21044
 410-997-8600

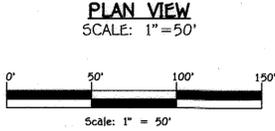
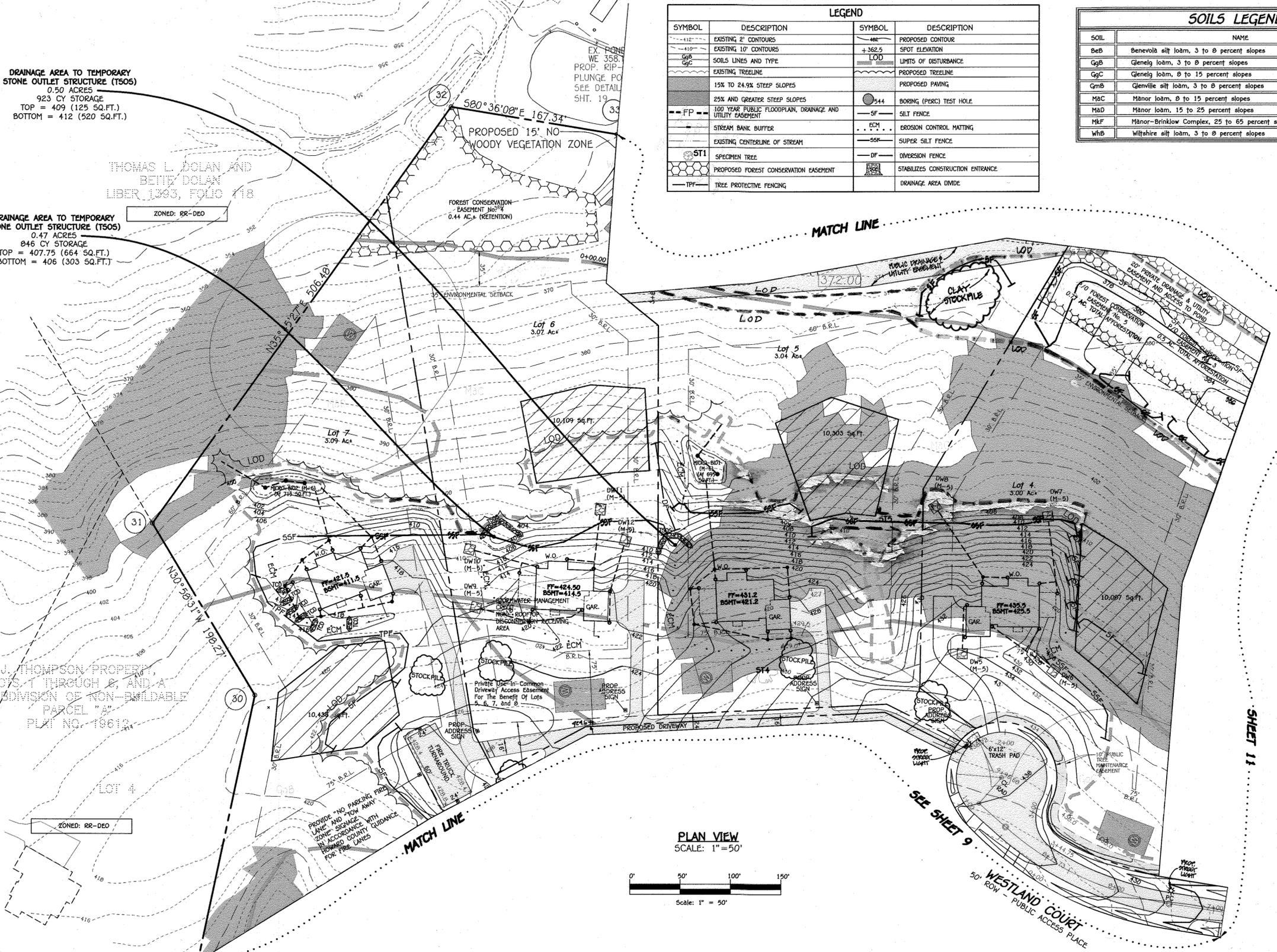
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CONTINENTAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELKROTT CITY, MARYLAND 21042
 (410) 461-2999

PROFESSIONAL CERTIFICATION
 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. 38386, EXPIRATION DATE: 01/12/2016.
 Signature of Professional Engineer: [Signature] DATE: 1/29/16

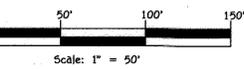


SYMBOL		DESCRIPTION	
	EXISTING 2' CONTOURS		PROPOSED CONTOUR
	EXISTING 10' CONTOURS		SPOT ELEVATION
	SOILS LINES AND TYPE		LIMITS OF DISTURBANCE
	EXISTING TREELINE		PROPOSED TREELINE
	15% TO 24.9% STEEP SLOPES		PROPOSED PAVING
	25% AND GREATER STEEP SLOPES		BORING (PERC) TEST HOLE
	100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT		SILT FENCE
	STREAM BANK BUFFER		EROSION CONTROL MATTING
	EXISTING CENTERLINE OF STREAM		SUPER SILT FENCE
	SPECIMEN TREE		DIVERSION FENCE
	PROPOSED FOREST CONSERVATION EASEMENT		STABILIZES CONSTRUCTION ENTRANCE
	TREE PROTECTIVE FENCING		DRAINAGE AREA DIVIDE

SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
BeB	Benevola silt loam, 3 to 8 percent slopes	C	0.43
GgB	Glenelg loam, 3 to 8 percent slopes	B	0.28
GgC	Glenelg loam, 8 to 15 percent slopes	B	0.28
GmB	Glenville silt loam, 3 to 8 percent slopes	C	0.43
MaC	Manor loam, 8 to 15 percent slopes	B	0.28
MaD	Manor loam, 15 to 25 percent slopes	B	0.28
MkF	Manor-Brinklow Complex, 25 to 65 percent slopes, very rocky	B	0.32
WtB	Wiltshire silt loam, 3 to 8 percent slopes	C	0.20



PLAN VIEW
 SCALE: 1" = 50'

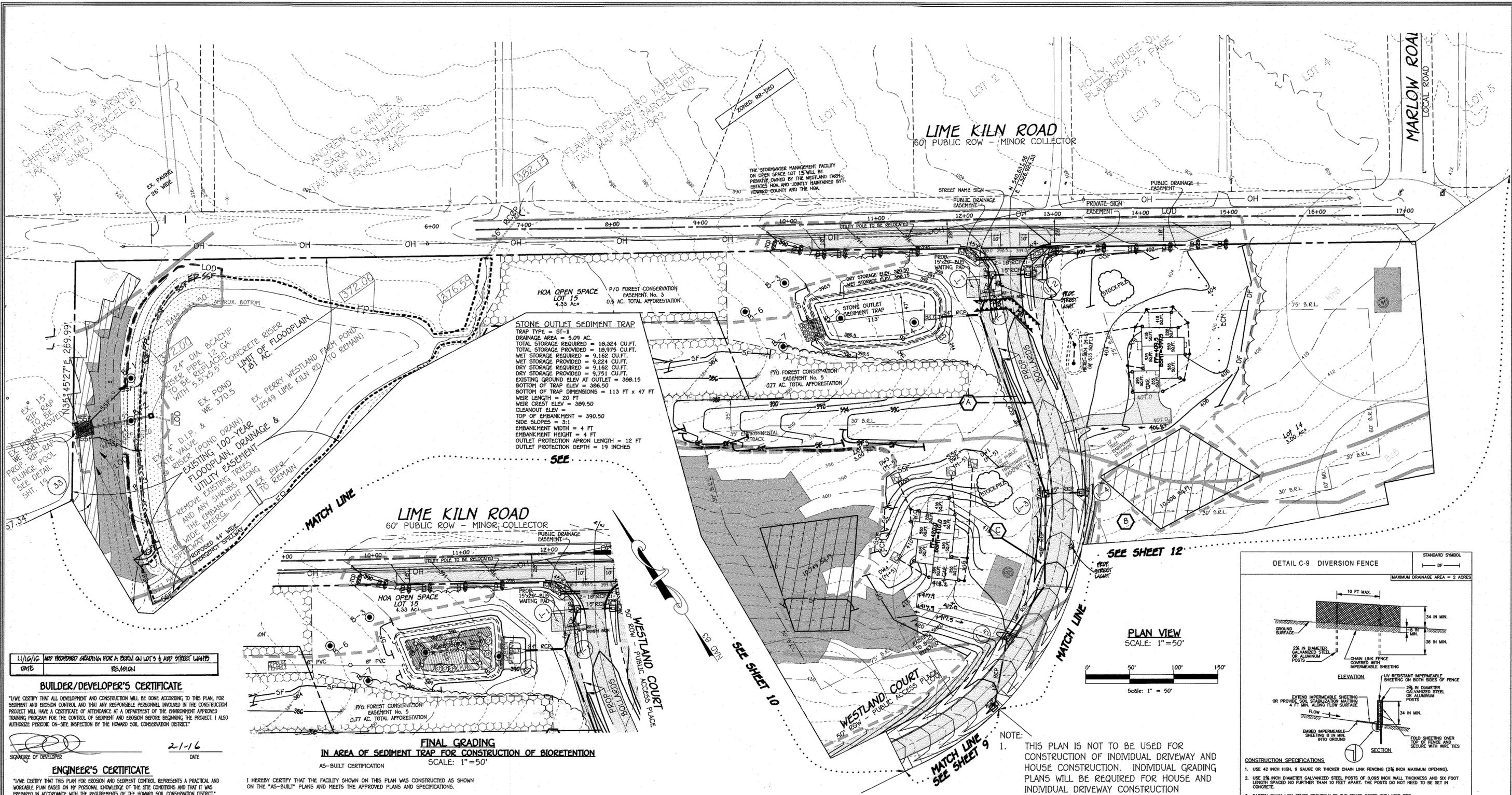


Scale: 1" = 50'

*PAVING SHALL BEGIN AT CUL-DE-SAC END OF WESTLAND COURT AND WORK TOWARD LIME KILN ROAD.

GRADING AND EROSION & SEDIMENT CONTROL PLAN
WESTLAND FARM ESTATES
 LOTS 3 THRU 14 AND OPEN SPACE LOT 15
 ZONED RR-DEO
 TAX MAP No. 45 GRID No. 5 PARCEL No. 28
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: DECEMBER, 2015
 SHEET 10 OF 19

- NOTE:
- THIS PLAN IS NOT TO BE USED FOR CONSTRUCTION OF INDIVIDUAL DRIVEWAY AND HOUSE CONSTRUCTION. INDIVIDUAL GRADING PLANS WILL BE REQUIRED FOR HOUSE AND INDIVIDUAL DRIVEWAY CONSTRUCTION.
 - STANDARD SEDIMENT CONTROL PLAN MAY NOT BE USED TO OBTAIN GRADING PERMITS FOR THIS PROJECT.



11/10/16 ADD PROPOSED GRADING FOR A BERM ON LOTS 3 & ADD STREET LIGHTS
DATE REVISION

BUILDER/DEVELOPER'S CERTIFICATE
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, FOR SEDIMENT AND EROSION CONTROL AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF DEVELOPER: *Alphrami Intir* DATE: 2-1-16

ENGINEER'S CERTIFICATE
I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF ENGINEER: *Alphrami Intir* DATE: 1/29/16

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF HIGHWAYS DATE: 2/22/2016
APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 6-21-16
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 3-2-16

FINAL GRADING IN AREA OF SEDIMENT TRAP FOR CONSTRUCTION OF BIORETENTION
SCALE: 1" = 50'

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

OWNERS
LIME KILN, LLC
12549 LIME KILN ROAD
FULTON, MARYLAND 20759-0460
410-792-2922

DEVELOPER
WILLIAMSBURG GROUP, LLC
C/O BOB CORBETT
9485 HARRIS FARM ROAD, SUITE 200
COLUMBIA, MARYLAND 21044
410-997-9800

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2895

SOIL	NAME	CLASS	K FACTOR
BeB	Benevola silt loam, 3 to 8 percent slopes	C	0.43
GgB	Glenely loam, 3 to 8 percent slopes	B	0.28
GgC	Glenely loam, 8 to 15 percent slopes	B	0.28
GmB	Glenville silt loam, 3 to 8 percent slopes	C	0.43
MbC	Manor loam, 8 to 15 percent slopes	B	0.28
MdD	Manor loam, 15 to 25 percent slopes	B	0.28
MkF	Manor-Brinklow Complex, 25 to 65 percent slopes, very rocky	B	0.32
WhB	Withshire silt loam, 3 to 8 percent slopes	C	0.20

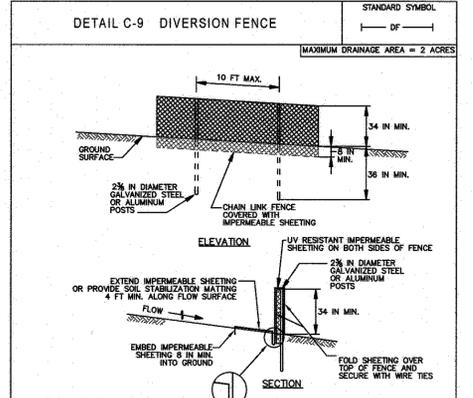
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SIGNATURE: *Alphrami Intir* DATE: 1/29/16



LEGEND		LEGEND	
---412---	EXISTING 2' CONTOURS	---462---	PROPOSED CONTOUR
---410---	EXISTING 10' CONTOURS	+362.5	SPOT ELEVATION
---	SOILS LINES AND TYPE	LOD	LIMITS OF DISTURBANCE
---	EXISTING TREELINE	---	PROPOSED TREELINE
---	15% TO 24.9% STEEP SLOPES	---	PROPOSED PAVING
---	25% AND GREATER STEEP SLOPES	○544	BORING (PERC) TEST HOLE
---FP---	100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT	---	SILT FENCE
---	STREAM BANK BUFFER	---	EROSION CONTROL MATTING
---	EXISTING CENTERLINE OF STREAM	---	SUPER SILT FENCE
○ST1	SPECIMEN TREE	---	DIVERSION FENCE
---	PROPOSED FOREST CONSERVATION EASEMENT	---	STABILIZES CONSTRUCTION ENTRANCE
---	TPF	---	DRAINAGE AREA DIVIDE

NOTE:
1. THIS PLAN IS NOT TO BE USED FOR CONSTRUCTION OF INDIVIDUAL DRIVEWAY AND HOUSE CONSTRUCTION. INDIVIDUAL GRADING PLANS WILL BE REQUIRED FOR HOUSE AND INDIVIDUAL DRIVEWAY CONSTRUCTION
STANDARD SEDIMENT CONTROL PLAN MAY NOT BE USED TO OBTAIN GRADING PERMITS FOR THIS PROJECT.



- CONSTRUCTION SPECIFICATIONS**
- USE 42 INCH HIGH, 9 GAUGE OR THICKER CHAIN LINK FENCING (2% INCH MAXIMUM OPENING).
 - USE 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. THE POSTS DO NOT NEED TO BE SET IN CONCRETE.
 - FASTEN CHAIN LINK FENCE SECURELY TO THE FENCE POSTS WITH WIRE TIES.
 - SECURE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING TO CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT TOP, MID SECTION, AND BELOW GROUND SURFACE.
 - EXTEND SHEETING A MINIMUM OF 4 FEET ALONG FLOW SURFACE AND EMBED END A MINIMUM OF 8 INCHES INTO GROUND. SOIL STABILIZATION MATTING MAY BE USED IN LIEU OF IMPERMEABLE SHEETING ALONG FLOW SURFACE.
 - WHEN TWO SECTIONS OF SHEETING ADJOIN EACH OTHER, OVERLAP BY 6 INCHES AND FOLD WITH SEAM FACING DOWNWARD.
 - KEEP FLOW SURFACE ALONG DIVERSION FENCE AND POINT OF DISCHARGE FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE. REPLACE IMPERMEABLE SHEETING IF TORN, IF UNDERMINING OCCURS, REINSTALL FENCE.
- MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT AND WATER MANAGEMENT ADMINISTRATION

GRADING AND EROSION & SEDIMENT CONTROL PLAN
WESTLAND FARM ESTATES
LOTS 3 THRU 14 AND OPEN SPACE LOT 15
ZONED RR-DEO
TAX MAP No. 45 GRID No. 5 PARCEL No. 28
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2015
SHEET 11 OF 19

- NOTE:
1. THIS PLAN IS NOT TO BE USED FOR CONSTRUCTION OF INDIVIDUAL DRIVEWAY AND HOUSE CONSTRUCTION. INDIVIDUAL GRADING PLANS WILL BE REQUIRED FOR HOUSE AND INDIVIDUAL DRIVEWAY CONSTRUCTION.
 2. STANDARD SEDIMENT CONTROL PLAN MAY NOT BE USED TO OBTAIN GRADING PERMITS FOR THIS PROJECT.

SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
BeB	Benevola silt loam, 3 to 8 percent slopes	C	0.43
GgB	Glenelg loam, 3 to 8 percent slopes	B	0.28
GgC	Glenelg loam, 8 to 15 percent slopes	B	0.28
GmB	Glenville silt loam, 3 to 8 percent slopes	C	0.43
MaC	Manor loam, 8 to 15 percent slopes	B	0.28
MaD	Manor loam, 15 to 25 percent slopes	B	0.28
MkF	Manor-Brinklow Complex, 25 to 65 percent slopes, very rocky	B	0.32
WhB	Wiltshire silt loam, 3 to 8 percent slopes	C	0.20



BUILDER/DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, FOR SEDIMENT AND EROSION CONTROL AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

[Signature] 12/16
SIGNATURE OF DEVELOPER DATE

ENGINEER'S CERTIFICATE

"I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

[Signature] 12/9/15
SIGNATURE OF ENGINEER DATE

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
APPROVED:

[Signature] 12/16/15
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
[Signature] 2/22/2016
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
[Signature] 6-21-16
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 3-2-16
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

OWNERS
LIME KILN, LLC
12549 LIME KILN ROAD
FULTON, MARYLAND 20759-0460
410-792-2922

DEVELOPER
WILLIAMSBURG GROUP, LLC
C/O BOB CORBETT
5485 HARPERS FARM ROAD, SUITE 200
COLUMBIA, MARYLAND 21044
410-697-6800

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2885

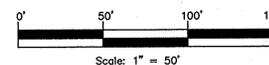
PROFESSIONAL CERTIFICATION

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. 38386, EXPIRATION DATE: 01/12/2016.

[Signature] 12/9/15
SIGNATURE OF PROFESSIONAL ENGINEER DATE



PLAN VIEW
SCALE: 1" = 50'



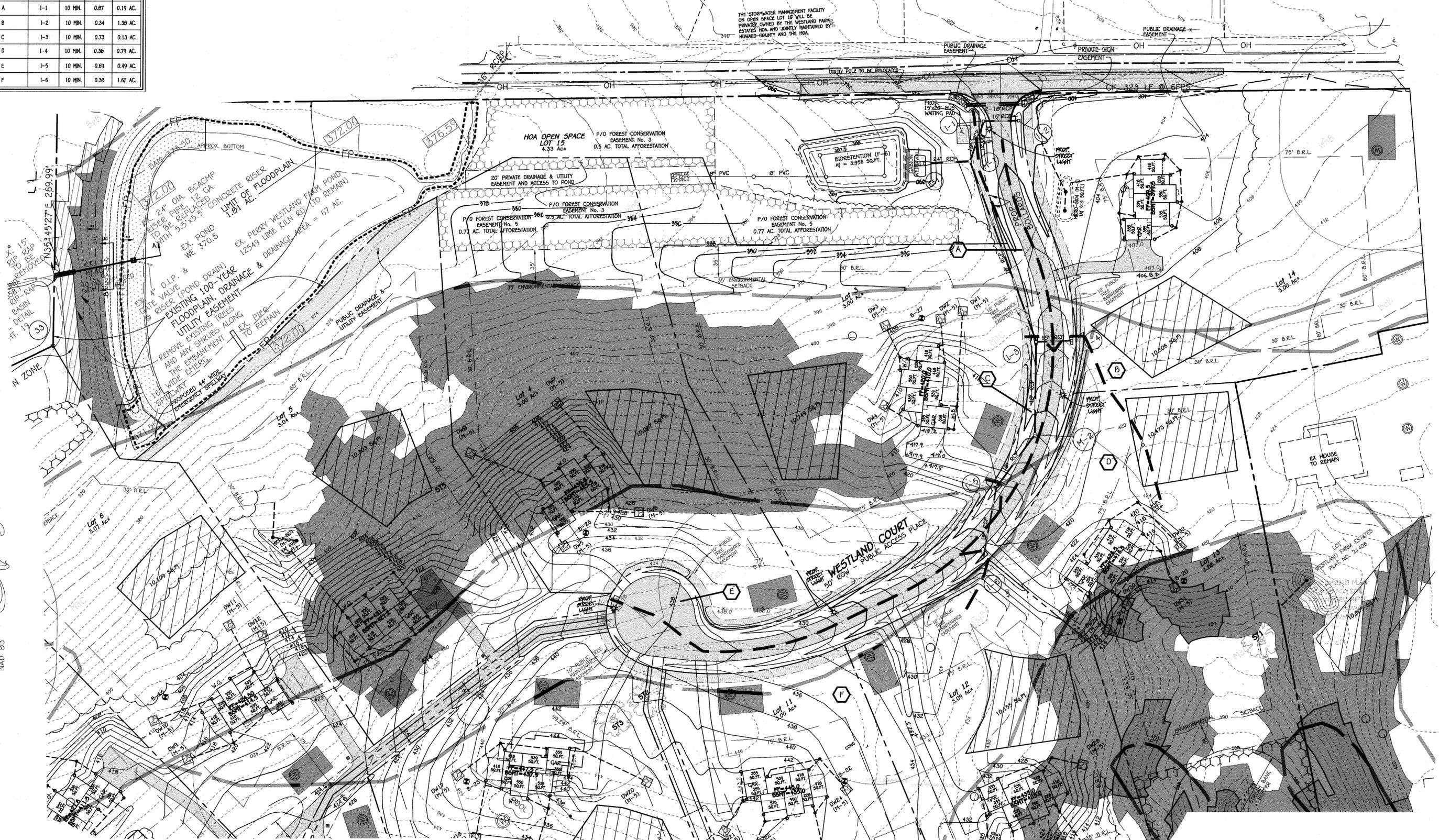
LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	EXISTING 2' CONTOURS		PROPOSED CONTOUR
	EXISTING 10' CONTOURS		SPOT ELEVATION
	SOILS LINES AND TYPE		LIMITS OF DISTURBANCE
	EXISTING TREE LINE		PROPOSED TREE LINE
	15% TO 24.9% STEEP SLOPES		PROPOSED PAVING
	25% AND GREATER STEEP SLOPES		BORING (PERC) TEST HOLE
	100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT		SILT FENCE
	STREAM BANK BUFFER		EROSION CONTROL MATTING
	EXISTING CENTERLINE OF STREAM		SUPER SILT FENCE
	SPECIMEN TREE		DIVERSION FENCE
	PROPOSED FOREST CONSERVATION EASEMENT		STABILIZES CONSTRUCTION ENTRANCE
	TREE PROTECTIVE FENCING		DRAINAGE AREA DIVIDE

GRADING AND EROSION & SEDIMENT CONTROL PLAN

WESTLAND FARM ESTATES
LOTS 3 THRU 14 AND OPEN SPACE LOT 15
ZONED RR-DEO
TAX MAP No. 45 GRID No. 5 PARCEL No. 28
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2015
SHEET 12 OF 19

INLET DRAINAGE AREA INFORMATION				
DRAINAGE AREA	INLET #	Tc	C	AREA
A	I-1	10 MIN.	0.87	0.19 AC.
B	I-2	10 MIN.	0.34	1.38 AC.
C	I-3	10 MIN.	0.73	0.13 AC.
D	I-4	10 MIN.	0.36	0.79 AC.
E	I-5	10 MIN.	0.69	0.49 AC.
F	I-6	10 MIN.	0.36	1.62 AC.

LIME KILN ROAD
 160' PUBLIC ROW - MINOR COLLECTOR



APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF HIGHWAYS
 DATE: 2/22/2016

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 6-21-16

CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 3-2-16

OWNERS
 LIME KILN, LLC
 12549 LIME KILN ROAD
 FULTON, MARYLAND 20759-0460
 410-792-2922

DEVELOPER
 WILLIAMSBURG GROUP, LLC
 C/O BOB CORBETT
 5465 HARRIS FARM ROAD, SUITE 200
 COLUMBIA, MARYLAND 21044
 410-997-8600

AND
 PERRY C. WESTLAND, JR.
 12549 LIME KILN ROAD
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FISHER, COLLINS & CARTER, INC.
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 ELICOTT CITY, MARYLAND 21042
 (410) 461-2895

PROFESSIONAL CERTIFICATION
 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. 36366, EXPIRATION DATE: 01/12/2016.

Stephen J. Jurek 12/2/15
 Signature of Professional Engineer DATE



STORM DRAIN DRAINAGE AREA MAP
WESTLAND FARM ESTATES
 LOTS 3 THRU 14 AND OPEN SPACE LOT 15
 ZONED RR-DEO
 TAX MAP No. 45 GRID No. 5 PARCEL No. 28
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: DECEMBER, 2015
 SHEET 13 OF 19

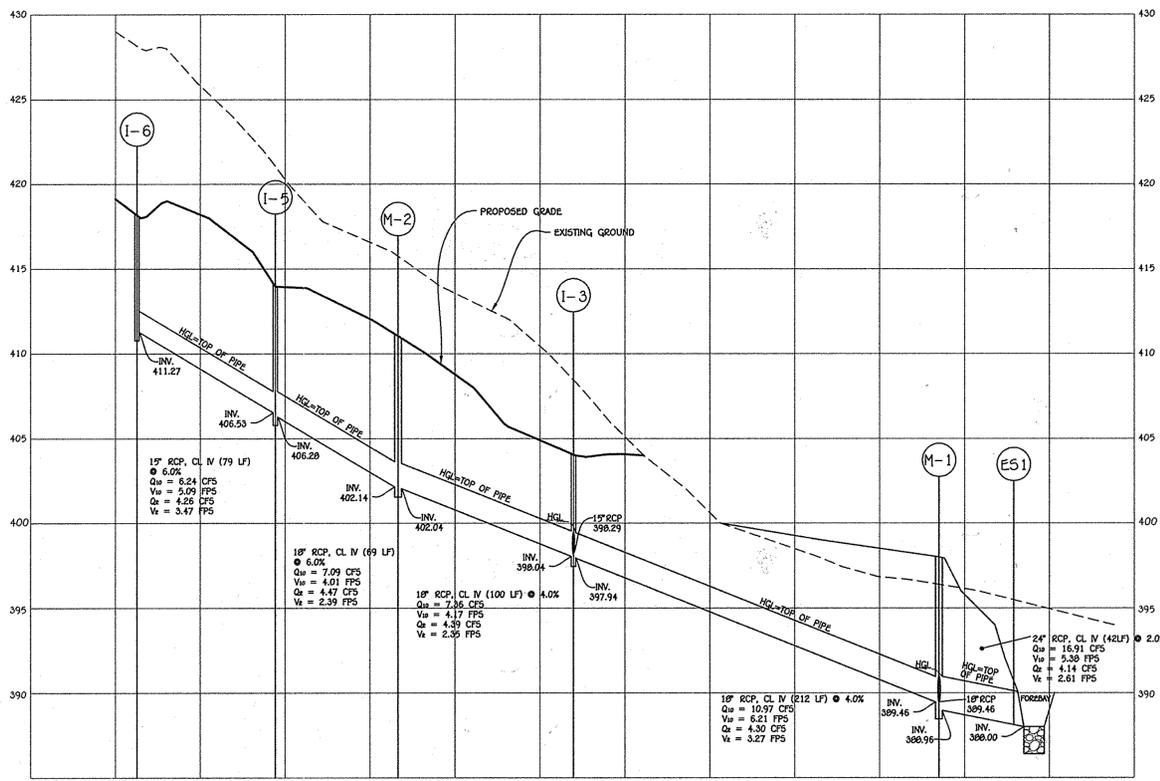
DATE: 12/2/15
 REVISION: 1

PIPE SCHEDULE - WESTLAND COURT		
TYPE	SIZE	QUANTITY
RCP, CL IV	15"	154 LF
RCP, CL IV	18"	549 LF
RCP, CL IV	24"	42 LF

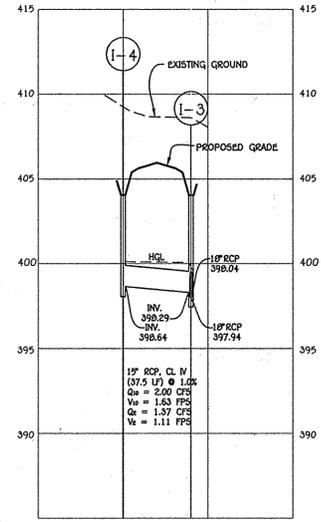
PIPE SCHEDULE - BIORETENTION 5		
TYPE	SIZE	QUANTITY
PVC, SCHEDULE 40, PERFORATED	6"	180 LF
PVC, SCHEDULE 40, SOLID	8"	147 LF

STRUCTURE SCHEDULE						
STRUCTURE NO.	TOP ELEVATION	INV. IN	INV. OUT	LOCATION	TYPE	REMARKS
I-6	418.22	-----	411.27	WESTLAND CT STA 5+72.22, 19' LT	YARD	D-4.14
I-5	413.93	406.53	406.28	WESTLAND CT STA 5+00.74, 19' RT	YARD	D-4.14
I-4	411.19	-----	398.64	WESTLAND CT STA 3+18.88, 20' LT	YARD	D-4.14
I-3	403.66	398.29 398.04	397.94	WESTLAND CT STA 3+18.88, 20' LT	YARD	D-4.14
I-2	397.15	-----	390.53	WESTLAND CT STA 0+63.36, 20' LT	YARD	D-4.14
I-1	397.15	390.15	389.90	WESTLAND CT STA 0+63.36, 20' RT	YARD	D-4.14
M-2	411.19	402.14	402.04	WESTLAND CT STA 4+26.76, 6' RT	MANHOLE	G-5.12
M-1	398.00	389.46 389.46	388.96	WESTLAND CT STA 1+03, 38.7' RT	MANHOLE	G-5.12
E51 (PRIVATELY OWNED & MAINTAINED)	-----	-----	398.00	WESTLAND CT STA 0+99.54, 82.2' RT	24" RCP END SECTION	D-5.51
H2	TW 399.30	396.30	-----	WESTLAND CT STA 0+40.57, 23.39' LT	TYPE "A" HEADWALL (DOUBLE WIDTH TO ACCOMMODATE DUAL PIPES)	D-5.11
H1	TW 398.40	-----	395.40	WESTLAND CT STA 0+42.85, 38.56' RT	TYPE "A" HEADWALL (DOUBLE WIDTH TO ACCOMMODATE DUAL PIPES)	D-5.11

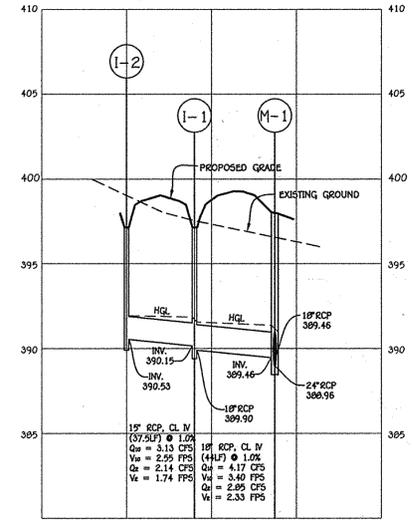
NOTE: LOCATION OF YARD INLETS AND MANHOLES IS TO CENTER OF STRUCTURE. LOCATION OF END SECTION IS TO MIDDLE OF WALL BETWEEN DUAL PIPES AT JUNCTION WITH PIPE. LOCATION OF HEADWALL IS TO MIDDLE OF WALL BETWEEN DUAL PIPES AT JUNCTION WITH PIPE.



STORM DRAIN PROFILE FROM I-6 TO E51
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



STORM DRAIN PROFILE FROM I-4 TO I-3
VERTICAL SCALE: 1"=5'



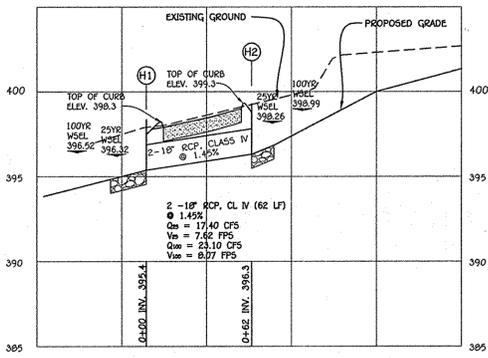
STORM DRAIN PROFILE FROM I-2 TO M-1
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

DETAIL D-3-1 RIPRAP INFLOW PROTECTION

CONSTRUCTION SPECIFICATIONS

- PROVIDE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, UNDER THE BOTTOM AND ALONG SIDES OF ALL RIPRAP.
- CONSTRUCT INFLOW CHANNEL WITH CLASS 1 RIPRAP OR EQUIVALENT RECYCLED CONCRETE LINING TO A MINIMUM DEPTH OF 19 INCHES (2 x 2 1/2) AND A 1 FOOT DEEP FLOW CHANNEL. INFLOW RIPRAP PROTECTION CHANNEL MUST HAVE A TRAPEZOIDAL CROSS SECTION WITH 2:1 OR FLATTER SIDE SLOPES AND A 4 FOOT RIPRAP BOTTOM WIDTH.
- INSTALL ENTRANCE AND EXIT SECTIONS AS SHOWN ON THE PROFILE.
- BLEND RIPRAP INTO EXISTING GROUND.
- MAINTAIN LINE, GRADE AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. KEEP POINTS OF INFLOW AND OUTFLOW FREE OF OBSTRUCTION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES WATER MANAGEMENT ADMINISTRATION



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

APPROVED: DEPARTMENT OF PUBLIC WORKS
Meunier 2/22/2016
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Kate Calabrese 6-21-16
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chad Edwards 3-2-16
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

OWNERS
LIME KILN, LLC
12549 LIME KILN ROAD
FULTON, MARYLAND 20759-0460
410-792-2922

DEVELOPER
WILLIAMSBURG GROUP, LLC
C/O BOB CORBETT
5485 HARPERS FARM ROAD, SUITE 200
COLLINGSVILLE, MARYLAND 21044
410-997-8800

AND
PERRY C. WESTLAND, JR.
12549 LIME KILN ROAD
FULTON, MARYLAND 20759-0460
410-792-2922

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 18272 BALDORRE NATIONAL FEE
ELICOTT CITY, MARYLAND 21042
(410) 461-2899

PROFESSIONAL CERTIFICATION
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. 38306, EXPIRATION DATE: 01/12/2016.

Stephen J. Smith 12/2/15
Signature Of Professional Engineer DATE



THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

Approved: *Judy L. Blunt*
Howard SCD 2/17/16

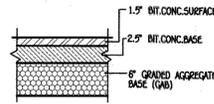
STORM DRAIN PROFILES
WESTLAND FARM ESTATES
LOTS 3 THRU 14 AND OPEN SPACE LOT 15
ZONED RR-DEO
TAX MAP No. 45 GRID No. 5 PARCEL No. 28
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2015
SHEET 14 OF 19

Table B.4. Materials Specifications for Micro-Bioretenion, Rain Gardens & Landscape Infiltration

Material	Specification	Size	Notes
Planting soil (2" to 4" deep)	see Appendix K, Table A.4	n/a	identifications are site-specific
Planting soil (2" to 4" deep)	loamy sand 60-65% compost 35-40% or sandy loam 50% coarse sand 30% compost 40%	n/a	USDA soil types loamy sand or sandy loam; clay content <5%
Organic Content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum
Pea gravel diaphragm	pea gravel: ASTM-D-440	No. 8 or No. 9 (1/8" to 3/8")	
Curtain drain	ornamental stone: washed bobbles	stone: 2" to 5"	
Geotextile	n/a	n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	ASTM M-43	No. 57 or No. Aggregate (3/8" to 3/4")	
Underdrain piping	F 750, Type PS 2B or ASTM N-276	4" to 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe: 3/8" max. Ø @ 6" on center, 4 holes per row, minimum of 3" of gravel over pipe; not necessary underneath pipe. Perforated pipe shall be wrapped with 1/4 inch galvanized hardware cloth.
Poured in place concrete (if required)	MSHA Mix No. 3; f = 3500 psi at 28 days, normal weight, air-entrained, conforming to meet ASTM-615-60	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 308.2R; vertical loading H-10 or H-20; allowable horizontal loading (based on soil pressure); and analysis of potential cracking
Sand	ASTM-M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Dabbas and Graystone (ASTM) #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED, DISCONNECTION OF ROOFTOP RUNOFF (N-1) DISCONNECTION OF NONROOFTOP RUNOFF (N-2)

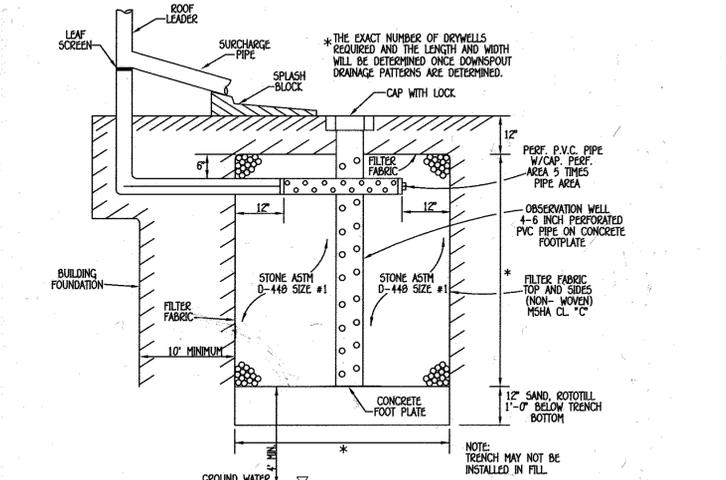
1. MAINTENANCE OF AREAS RECEIVING DISCONNECTION RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTON OR DEVELOPMENT OF IMPERVIOUS AREA IN COMMERCIAL AREAS FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.



P-1 DRIVEWAY PAVING SECTION
NOT TO SCALE

MICRO-BIORETENTION									
BIORETENTION FILTER	A	B	C	D	E	F	G	H	I
1	394.00	394.00	393.00	392.75	390.75	390.50	390.00	389.00	389.75
2	400.00	400.00	399.00	398.75	396.75	396.50	396.00	395.00	395.75
3	400.00	400.00	399.00	398.75	396.75	396.50	396.00	395.00	395.75
4	403.50	403.50	403.25	403.00	401.00	400.75	400.25	399.80	400.00

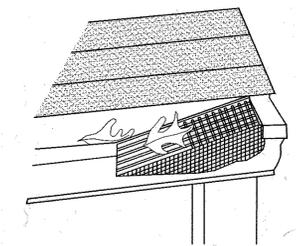
MICRO-BIORETENTION PLANT MATERIAL					
MICRO-BIO 1 QUANTITY	MICRO-BIO 2 QUANTITY	MICRO-BIO 3 QUANTITY	MICRO-BIO 4 QUANTITY	NAME	MAXIMUM SPACING (FT.)
60	60	55	50	MIXED PERENNIALS	1.5 TO 3.0 FT.
3	3	1	1	SILKY DOGWOOD	PLANT AWAY FROM INFLOW LOCATION



DRY WELL DETAIL (M-5)
NOT TO SCALE

STORMWATER MANAGEMENT NOTES

1. STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
2. MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 1,000 SQ. FT. OR LESS.
3. LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5%, THE SIZE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET.
4. FINAL GRADING IS SHOWN ON THIS SITE DEVELOPMENT PLAN.



GUTTER DRAIN FILTER DETAIL
NOT TO SCALE

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

- A. THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY HEAVY STORM EVENT.
- B. 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.
- C. THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
- D. 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.
- E. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
- F. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

U/I/G/IG AND DEVELOPER GRADING FOR A BEAM ON LOT 3

APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF HIGHWAYS
 DATE: 2/22/2016

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 6-21-16

APPROVED: DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 3-2-16

OWNERS
 LIME KILN, LLC
 12549 LIME KILN ROAD
 FULTON, MARYLAND 20799-0460
 410-792-2922

AND
 PERRY C. WESTLAND, JR.
 12549 LIME KILN ROAD
 FULTON, MARYLAND 20799-0460
 410-792-2922

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
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 (410) 461-2995

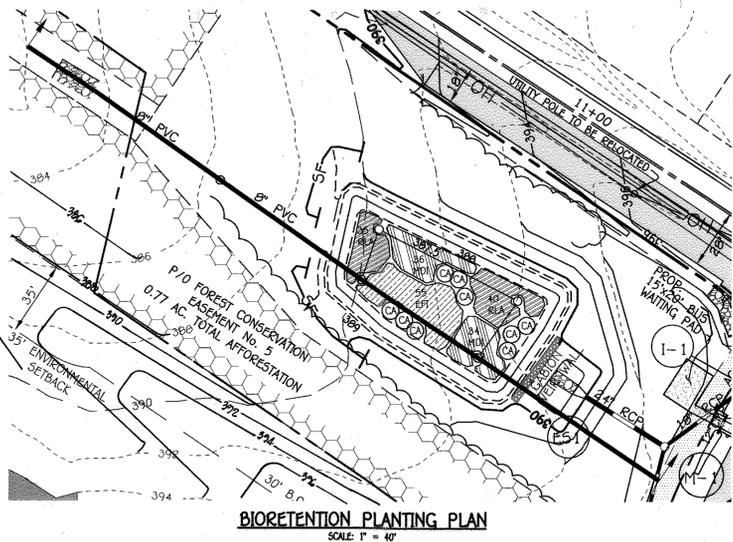
DEVELOPER
 WILLIAMSBURG GROUP, LLC
 C/O BDO COBBLETT
 5485 HARPERS FARM ROAD, SUITE 200
 COLUMBIA, MARYLAND 21044
 410-997-0900

PROFESSIONAL CERTIFICATION
 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. 30386, EXPIRATION DATE: 01/12/2016.

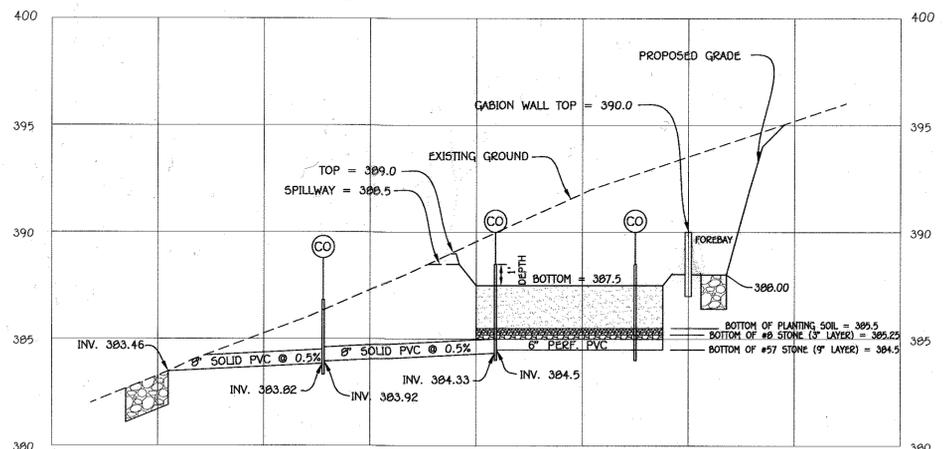
Stephen Junt 12/4/15
 Signature of Professional Engineer DATE

DRY WELL CHART						
DRYWELL NO.	AREA OF ROOF PER DOWN SPOUT	VOLUME REQUIRED	VOLUME PROVIDED	AREA OF TREATMENT	L	W D
DW1	894 SQ. FT.	72 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW2	836 SQ. FT.	71 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW3	778 SQ. FT.	67 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW4	890 SQ. FT.	71 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW5	710 SQ. FT.	57 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW6	957 SQ. FT.	76 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW7	646 SQ. FT.	52 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW8	1,095 SQ. FT.	86 C.F.	102 C.F.	100%*	8' x	8' x 4'
DW9	957 SQ. FT.	76 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW10	646 SQ. FT.	52 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW11	1,095 SQ. FT.	86 C.F.	102 C.F.	100%*	8' x	8' x 4'
DW12	710 SQ. FT.	57 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW13	418 SQ. FT.	34 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW14	778 SQ. FT.	62 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW15	890 SQ. FT.	71 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW16	894 SQ. FT.	71 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW17	957 SQ. FT.	76 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW18	646 SQ. FT.	52 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW19	1,095 SQ. FT.	86 C.F.	102 C.F.	100%*	8' x	8' x 4'
DW20	710 SQ. FT.	57 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW21	710 SQ. FT.	57 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW22	1,095 SQ. FT.	86 C.F.	102 C.F.	100%*	8' x	8' x 4'
DW23	646 SQ. FT.	52 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW24	957 SQ. FT.	76 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW25	710 SQ. FT.	57 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW26	1,095 SQ. FT.	86 C.F.	102 C.F.	100%*	8' x	8' x 4'
DW27	646 SQ. FT.	52 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW28	957 SQ. FT.	76 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW29	710 SQ. FT.	57 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW30	1,095 SQ. FT.	86 C.F.	102 C.F.	100%*	8' x	8' x 4'
DW31	646 SQ. FT.	52 C.F.	77 C.F.	100%*	8' x	8' x 3'
DW32	957 SQ. FT.	76 C.F.	77 C.F.	100%*	8' x	8' x 3'

* AREA OF TREATMENT EXCEEDS THAT REQUIRED.

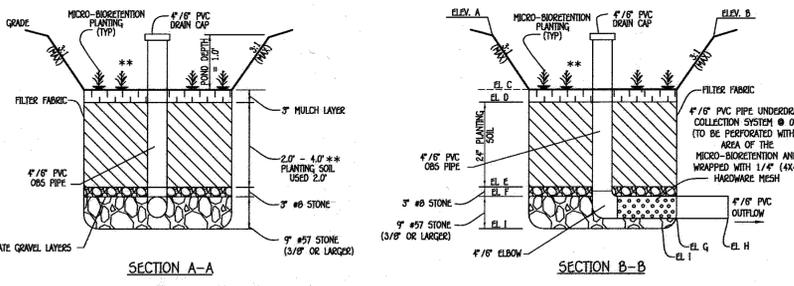


BIORETENTION PLANTING PLAN
SCALE: 1" = 40'



SECTION THRU BIORETENTION (F-6) FACILITY
HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'

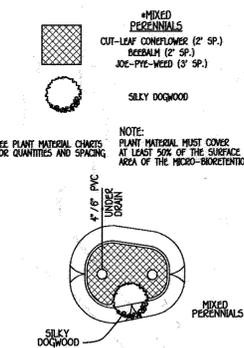
NOTE: CLEANOUTS WITHIN THE FACILITY TO HAVE DRAIN CAPS.



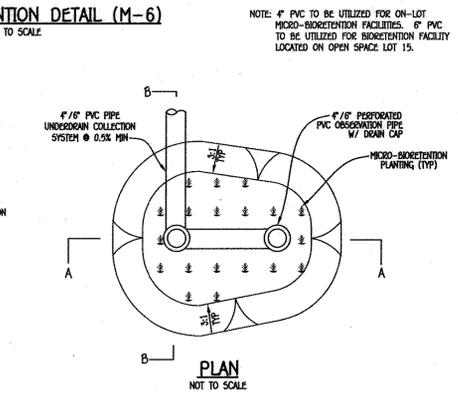
MICRO-BIORETENTION DETAIL (M-6)
NOT TO SCALE

OPERATION & MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)

- A. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. 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 LISTED IN THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME 6, TABLE A.4.1 AND 2.
- B. THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT. REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL. TREAT DISEASED TREES AND SHRUBS AND REPLACE ALL DEFICIENT STAKES AND WIRES.
- C. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- D. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.



MICRO-BIORETENTION PLANTING DETAIL
NOT TO SCALE



MICRO-BIORETENTION PLANTING DETAIL
NOT TO SCALE

BIORETENTION PLANT LIST				
SYMBOL	QTY.	BOTANICAL AND COMMON NAME	SIZE	SPACING
PH	55	EUTROCHILUM FISTULOSUM "TROPICPURPUREA" JOE-PYE-WEED	BARE ROOT OR PLUG	3' SPACING
MB	70	HOWARDA DIOYMA BEEBALM	BARE ROOT OR PLUG	2' SPACING
BLA	75	RUDBECKIA LACINIATA CUTLEAF CONEFLOWER	BARE ROOT OR PLUG	2' SPACING
CA	9	CORNUS AMOMUM SILKY DOGWOOD	B&B OR CONT.	6'-8' SPACING

STORMWATER MANAGEMENT NOTES & DETAILS
WESTLAND FARM ESTATES
 LOTS 3 THRU 14 AND OPEN SPACE LOT 15
 ZONED RR-DEO
 TAX MAP No. 45 GRID No. 5 PARCEL No. 28
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: DECEMBER, 2015
 SHEET 15 OF 19

PLANTING / SOIL SPECIFICATIONS

- Planting of Nursery Stock Shall Take Place Between March 15th And April 30th Or September 15th And November 15th.
- A Twelve (12) Inch Layer Of Topsoil Shall Be Spread Over All Reforestation Areas Impacted By Site Grading To Assure A Suitable Planting Area, If Applicable. Disturbed Areas Shall Be Seeded And Stabilized In Accordance With The Sedimentation Control Plan For This Project. Planting Areas Not Impacted By Site Grading Shall Have No Additional Topsoil Installed.
- All Bare Root Planting Stock Shall Have Their Root System Dipped Into An Anti-Desiccant Gel Prior To Planting.
- Plants Shall Be Installed So That The Top Of The Root Mass Is Level With The Top Of Existing Grade. Backfill In The Planting Pits Shall Consist Of 3 Parts Existing Soil To 1 Part Fine Fines Or Equivalent.
- Fertilizer Shall Consist Of Agriform 22-8-2, Or Equivalent, Applied As Per Manufacturer's Specifications.
- A Two (2) Inch Layer Of Handing Mulch Shall Be Placed Over The Root Area Of All Plantings. See Planting Detail.
- Plant Material Shall Be Transported To The Site In A Tarped Or Covered Truck. Plants Shall Be Kept Moist Prior To Planting.
- All Non-Organic Debris Associated With The Planting Operation Shall Be Removed From The Site By The Contractor.

SEQUENCE OF CONSTRUCTION FOR REFORESTATION AREAS

- Sediment Controls And Tree Protective Devices Shall Be Installed In Accordance With Sediment & Erosion Control Plans For This Site, If Applicable. Site Shall Be Graded In Accordance With The Plans. (2 Days)
- Proposed Reforestation Areas Impacted By The Site Grading Shall Be Topsoiled And Stabilized As Per Note 2 Of The "Planting / Soil Specifications". (1 Day)
- Plants Shall Be Installed And Maintained As Per Notes And Specifications For This Project. (1 Week)
- Upon Completion Of The Plantings, Signage Shall Be Installed As Per The Signage Detail. (1 Week)
- Plantings Shall Be Guaranteed And Maintained In Accordance With The "Guarantee Requirements" And "Maintenance Of Plantings" Associated With This Project. (2 Years)

MAINTENANCE OF PLANTINGS

- Maintenance Of Plantings Shall Last For A Period Of 26 Months.
- All Plant Material Shall Be Generally Watered Twice A Month During The 1st Growing Season. Watering May Be More Or Less Frequent Depending On Weather Conditions.
- During The 2nd Growing Season, Plant Material Shall Be Watered Once A Month From May To September, As Needed.
- Invasive Exotics And Noxious Weeds Shall Be Removed From The Reforestation Area(s). Old Field Successional Species Shall Be Retained.
- Plants Shall Be Examined A Minimum Of Two (2) Times During The Growing Season For Serious Plant Pests And Diseases With The Appropriate Agent.
- Dead Branched Shall Be Pruned From The Plantings.

GUARANTEE REQUIREMENTS

A 75% Survival Rate For The Reforestation Plantings Is Required At The End Of The 24 Month Maintenance Period. All Plant Material Below The 75% Threshold Is Required To Be Replaced At The Beginning Of The Next Growing Season.

MULTIFLORA ROSE CONTROL NOTE:

PRIDE TO PLANTING ALL MULTIFLORA ROSE WITHIN PLANTING AREAS SHALL BE REMOVED. Removal Of The Multiflora Rose May Be Performed With Mowing And Herbicide Treatment. Physical Removal Of All Top Growth Followed By Periodic Herbicide Treatment Of Stump Sprouts Is Recommended. Native Tree And Shrub Species Occurring Within The Rose Thickets Should Be Retained Wherever Possible. Herbicide Treatments Shall Occur On Two (2) Month Intervals During The First Growing Season And Once In The Spring And Once In The Fall For Subsequent Years. Herbicide Used Shall Be Made Specially To Address Woody Plant Material And Shall Be Applied As Per Manufacturer's Specifications. Care Should Be Taken Not To Spray Planted Trees Or Naturally Occurring Native Tree And Shrub Seedlings. It Is Recommended That Initiation Of Rose Removal Begin At Least Six Months Prior To Planting So That New Growth Of Roses Is Able To Be More Successfully Managed.

REFORESTATION PLANTING NOTES

- Plants, Related Material, And Operations Shall Meet The Detailed Description As Given On The Plans And As Described Herein.
- Plant Material, Unless Otherwise Specified, Shall Be Nursery Grown, Uniformly Branched And Have A Vigorous Root System. Plant Material Shall Be Healthy, Vigorous Plants Free From Defects, Decay, Disturbing Roots, Sunscald Injuries, Abrasions Of The Bark, Plant Disease, Insect Pest Eggs, Borer, Infestations Or Objectionable Disfigurements. Plant Material That Is Weak Or Which Has Been Cut Back From Larger Grades To Meet Specified Requirements Will Be Rejected. Trees With Forged Leaders Will Not Be Accepted. Plants Shall Be Freshly dug, No Holed-in Plants Or Plants From Cold Storage Will Be Accepted.
- Unless Otherwise Specified, Plant Material Shall Conform To "American Standard For Nursery Stock" ANSI Z60.1-1990, Published By The American Association Of Nurserymen, Including All Addenda.
- Contractor Will Be Required To Guarantee Plant Material For A Period Of Two (2) Years After The Date Of Acceptance And Maintain A 75% Survival Rate At The End Of The Two (2) Years.
- To Lessen The Chance Of Loss, The Plantings Should Be Checked From Time To Time To Insure That They Are Receiving Sufficient Water. See "Maintenance Of Plantings" For Guidelines.
- The Location And Orientation Of All Plant Material Shall Be Randomly Planted In Designated Reforestation Areas By The Contractor. Contractor Shall Be Responsible For Moving Any Plant Material Installed Without Approval.
- Mowing And Applying Herbicides To The Reforestation Area Is Prohibited At Any All Stages Of The Planting Process In Order To Encourage The Existing Saplings To Grow.
- Contractor Is Responsible For Installing And Pruning Plant Material In The Proper Planting Season For Each Plant Type. See Tree Planting & Maintenance Calendar.
- Upon Completion Of Installation, Signage Shall Be Installed As Shown.

DEVELOPER'S / BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.12 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF HIGHWAYS
 DATE: 2/22/2016

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 6-21-16

APPROVED: DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 3-2-16

FOREST PROTECTION GENERAL NOTES

- ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC FENCING, AS NECESSARY, AND SIGNAGE AS INDICATED ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY PRIOR TO ANY LAND CLEARING, GRUBBING, OR GRADING ACTIVITIES.
- THE FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT THE CRITICAL ROOT ZONES OF ALL TREES WITHIN THE RETENTION AREA NOT OTHERWISE PROTECTED WILL BE WITHIN FOREST PROTECTION DEVICES, UNLESS ROOT PRUNING IS PROPOSED.
- ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING SILT FENCE BEING USED AS PROTECTIVE FENCING. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY.
- ATTACHMENT OF SIGNS, OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THESE PROTECTED AREAS.
- INSTALLATION AND MAINTENANCE OF PROTECTIVE FENCING AND SIGNAGE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL TAKE THE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE AND DRAINING OF MATERIALS THAT MAY BE HARMFUL TO TREES.
- THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION VEHICLES AND EQUIPMENT, AND THE STORING OF BUILDING SUPPLIES OR STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS.
- REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED.
- THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS.
- ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE OR LIMIT OF GRADING WITHIN AND ADJACENT TO ALL PRESERVATION AREAS, AS NECESSARY.

PRE-CONSTRUCTION MEETING

- AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS HAVE BEEN FIELD LOCATED AND MARKED, AND AFTER THE FOREST PROTECTION DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER DISTURBANCE HAS TAKEN PLACE ON SITE, A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE ON SITE. THE DEVELOPER, CONTRACTOR OR PRODUCT MANAGER, AND HOWARD COUNTY INSPECTORS SHALL ATTEND. THE PURPOSE OF THIS MEETING WILL BE:
 - TO IDENTIFY THE LOCATIONS OF THE FOREST RETENTION AREAS, SPECIMEN TREES WITHIN 50 FEET OF THE LIMIT OF DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING AREAS AND EQUIPMENT STORAGE AREAS.
 - INSPECT ALL FLAGGED BOUNDARIES AND PROTECTION DEVICES;
 - MAKE ALL NECESSARY ADJUSTMENTS;
 - ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS PENALTIES.

CONSTRUCTION MONITORING

- THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, LIMB INJURY, OR STRESS CAUSED BY FLOODING OR DROUGHT CONDITIONS.
- ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIATED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE CONSULTATION WITH A PROFESSIONAL ARBORIST.
- THE CONSTRUCTION PROCEDURE SHALL NOT DAMAGE AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS DESIGNATED ON THE PLANS. ANY SUCH DAMAGE SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

FCE # 1B - 0.60 acres

PLANTING REQUIRED: 120 = 420 UNITS
 PLANTING PROVIDED: 114 = 399 + 21 UNITS (LANDSCAPE CREDIT)

Qty	Species	Size (Spacing)
10	Acer rubrum - Red maple	1" cal. (150c.c.)
14	Carya tomentosa - Mockernut Hickory	1" cal. (150c.c.)
10	Carya glabra - Pignut Hickory	1" cal. (150c.c.)
14	Cornus florida - Flowering Dogwood	1" cal. (150c.c.)
14	Populus grandidentata - Bigtooth Aspen	1" cal. (150c.c.)
10	Quercus alba - White oak	1" cal. (150c.c.)
9	Quercus prinus - Chestnut Oak	1" cal. (150c.c.)
9	Quercus rubra - Red Oak	1" cal. (150c.c.)
5	Viburnum granatum - Blackhaw	2 gals.
5	Viburnum dentatum - Arrowwood Viburnum	2 gals.
114 trees & 10 shrubs		

Note: (1) SIZE PROPOSED TO BE UTILIZED AND PLANTED AT 200 TREES PER ACRE (200 TREES/ACRE x 0.60 ACRES = 120 TREES). (2) PLANTING UNITS: 7 UNITS = 1" CAL. TREE (120 TREES / 7 UNITS = 17.14 UNITS). (3) CREDIT TAKEN FOR LANDSCAPE PLANTINGS (11 TREES) = 21 PLANTING UNITS (11 TREES x 2 UNITS/TREE = 22 UNITS). (4) SURETY TO BE BASED ON 0.57 ACRES DUE TO LANDSCAPE CREDIT.

FCE # 3 - 0.50 acres

PLANTING REQUIRED: 50 = 350 UNITS
 PLANTING PROVIDED: 48 = 322 + 28 UNITS (LANDSCAPE CREDIT)

Qty	Species	Size (Spacing)
8	Acer rubrum - Red maple	2" cal. (200c.c.)
5	Carya tomentosa - Mockernut Hickory	2" cal. (200c.c.)
5	Carya glabra - Pignut Hickory	2" cal. (200c.c.)
5	Cornus florida - Flowering Dogwood	2" cal. (200c.c.)
5	Populus grandidentata - Bigtooth Aspen	2" cal. (200c.c.)
5	Quercus alba - White oak	2" cal. (200c.c.)
5	Quercus prinus - Chestnut Oak	2" cal. (200c.c.)
4	Quercus rubra - Red Oak	2" cal. (200c.c.)
2	Viburnum granatum - Blackhaw	2 gals.
3	Viburnum dentatum - Arrowwood Viburnum	2 gals.
48 trees & 9 shrubs		

Note: (1) SIZE PROPOSED TO BE UTILIZED AND PLANTED AT 100 TREES PER ACRE (100 TREES/ACRE x 0.50 ACRES = 50 TREES). (2) PLANTING UNITS: 7 UNITS = 1" CAL. TREE (50 TREES / 7 UNITS = 7.14 UNITS). (3) CREDIT TAKEN FOR LANDSCAPE PLANTINGS (10 TREES) = 28 PLANTING UNITS (10 TREES x 2 UNITS/TREE = 20 UNITS). (4) SURETY TO BE BASED ON 0.37 ACRES DUE TO LANDSCAPE CREDIT.

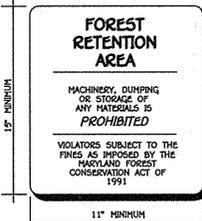
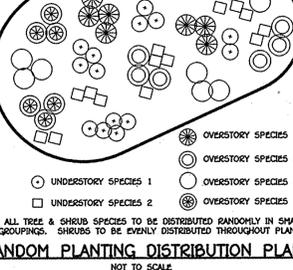
FCE # 5 - 0.77 acres

PLANTING REQUIRED: 154 = 539 UNITS
 PLANTING PROVIDED: 154 = 539 UNITS

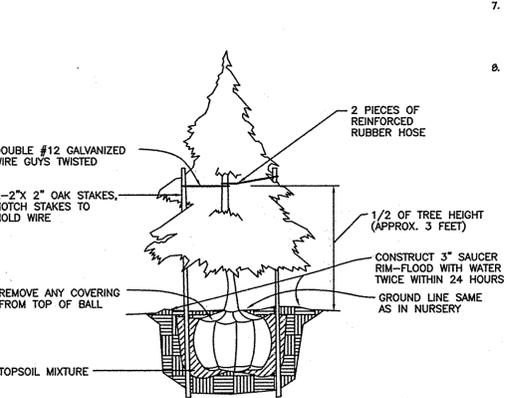
Qty	Species	Size (Spacing)
24	Acer rubrum - Red maple	1" cal. (150c.c.)
18	Carya tomentosa - Mockernut Hickory	1" cal. (150c.c.)
24	Carya glabra - Pignut Hickory	1" cal. (150c.c.)
16	Cornus florida - Flowering Dogwood	1" cal. (150c.c.)
16	Populus grandidentata - Bigtooth Aspen	1" cal. (150c.c.)
24	Quercus alba - White oak	1" cal. (150c.c.)
12	Quercus prinus - Chestnut Oak	1" cal. (150c.c.)
10	Quercus rubra - Red Oak	1" cal. (150c.c.)
2	Viburnum granatum - Blackhaw	2 gals.
3	Viburnum dentatum - Arrowwood Viburnum	2 gals.
154 trees & 5 shrubs		

Note: (1) SIZE PROPOSED TO BE UTILIZED AND PLANTED AT 200 TREES PER ACRE (200 TREES/ACRE x 0.77 ACRES = 154 TREES). (2) PLANTING UNITS: 7 UNITS = 1" CAL. TREE (154 TREES / 7 UNITS = 22 UNITS). (3) SURETY TO BE BASED ON 0.77 ACRES.

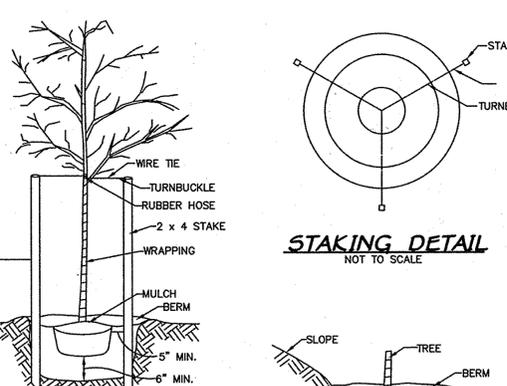
RANDOM PLANTING DISTRIBUTION PLAN



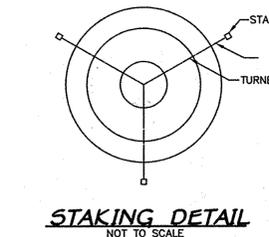
FOREST CONSERVATION SIGN DETAIL



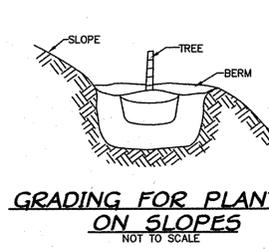
EVERGREEN PLANTING DETAIL



DECIDUOUS TREE PLANTING



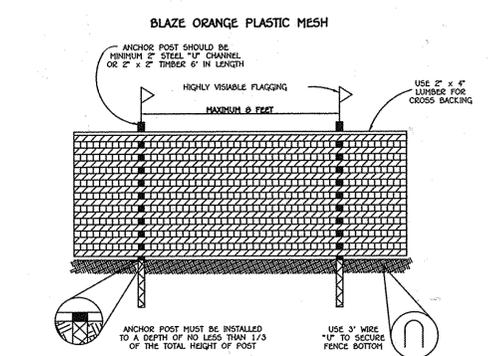
GRADING FOR PLANTING ON SLOPES



SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING				
LINEAR FEET OF PERIMETER	SWM-1 : 190'	SWM-2 : 125'	SWM-3 : 257'	TOTAL
CREDIT FOR EXISTING VEGETATION (NO. YES AND %)	NO	NO	YES, 100%	
CREDIT FOR OTHER LANDSCAPING (NO. YES AND %)	NO	NO	NO	
NUMBER OF TREES REQUIRED:				
SHADE TREES	4	3	0	7
EVERGREEN TREES	5	3	0	8
NUMBER OF TREES PROVIDED:				
SHADE TREES	4	3	0	7
EVERGREEN TREES	5	3	0	8

STREET TREE SCHEDULE				
SYMBOL	QTY.	BOTANICAL AND COMMON NAME	SIZE	COMMENTS
	975/73 x 2 / 40 = 48.76 TREES	TILIA CODATA 'GREENSPIRE' (GREENSPIRE LITTLELEAF LINDEN)	2.5" - 3" CAL.	40' APART ON PUBLIC R/W

NOTE: STREET TREE TYPES ARE ONLY A RECOMMENDATION AND MAY BE SUBSTITUTED WITH A COUNTY ACCEPTED EQUIVALENT FROM THE HOWARD COUNTY LANDSCAPE MANUAL.



- FOREST PROTECTION DEVICE ONLY.
- RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
- BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
- ROOT DAMAGE SHOULD BE AVOIDED.
- PROTECTIVE SIGNAGE MAY ALSO BE USED.
- DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION DETAIL

PERIMETER CATEGORY	SCHEDULE A - PERIMETER LANDSCAPE EDGE								TOTAL	
	1	2	3	4	5	6	7	8		
ADJACENT TO ROADWAY	ADJACENT TO OPEN SPACE ADJACENT TO ROADWAY	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	TRASH PAD	SPECIMEN TREE REPLACEMENTS
LINEAR FEET OF PERIMETER	416 L.F.	739 L.F.	437 L.F.	506 L.F.	198 L.F.	795 L.F.	1,095 L.F.	284 L.F.		
CREDIT FOR EXISTING VEGETATION	180 LF OF EX. TREES 236 LF REMAINING	510 LF OF EX. TREES 229 LF REMAINING	326 LF OF EX. TREES 111 LF REMAINING	340 LF OF EX. TREES 165 LF REMAINING	198 LF OF EX. TREES 0 LF REMAINING	795 LF OF EX. TREES 0 LF REMAINING	515 LF OF EX. TREES 570 LF REMAINING	284 LF OF EX. TREES 0 LF REMAINING		
NUMBER OF PLANTS REQUIRED	5/6 (236/150 = 1.7 OR 5) (236/140 = 5.9 OR 6)	4 (229/60 = 3.8 OR 4)	2 (111/60 = 1.9 OR 2)	3 (165/60 = 2.8 OR 3)	0	0	10 (570/60 = 9.5 OR 10)	0		
SHADE TREES	0	0	0	0	0	0	0	0	0	6
EVERGREEN TREES	0	0	0	0	0	0	0	0	0	6
SHRUBS	0	0	0	0	0	0	0	0	0	6
CREDIT FOR EXISTING VEGETATION										
SHADE TREES	0	0	0	0	0	0	0	0	0	0
EVERGREEN TREES	0	0	0	0	0	0	0	0	0	0
SHRUBS	0	0	0	0	0	0	0	0	0	0
NUMBER OF PLANTS PROVIDED										
SHADE TREES	5	4	2	3	0	0	10	0	0	6
EVERGREEN TREES	6	6	0	0	0	0	0	0	0	6
SHRUBS	6	6	0	0	0	0	0	0	0	6

LANDSCAPING PLANT LIST				
QTY.	KEY	NAME	SIZE	
9		ACER RUBRUM 'RED SUNSET' (RED SUNSET RED MAPLE)	2.5" - 3" CAL. FULL CROWN, B&B	
12		TILIA CODATA 'GREENSPIRE' (GREENSPIRE LITTLELEAF LINDEN)	2.5" - 3" CAL. FULL CROWN, B&B	
10		QUERCUS ALBA (WHITE OAK)	2.5" - 3" CAL. FULL CROWN, B&B	
6		PLATANUS X ACERIFOLIA 'BLOODGOOD' (BLOODGOOD LONDON PLANE)	2.5" - 3" CAL. FULL CROWN, B&B	
14		TILIA FLICATA (GIANT ARBORVITAE 'GREEN GIANT')	5' - 6' HT. B&B	
6		TAXUS MEDIA 'HICKS YEW' (HICKS YEW)	2.5" - 3" HT. CONT./B&B	

TOTAL: 37 SHADE TREES, 14 EVERGREENS, 6 SHRUBS

SPECIMEN TREE CHART			
TREE No.	SIZE & DESCRIPTION	CONDITION	REMARKS
1	30" BLACK WALNUT	GOOD	TO REMAIN
2	50" SYCAMORE	GOOD	TO BE REMOVED
3	62" SYCAMORE	GOOD	TO BE REMOVED
4	30" TULIP POPLAR	GOOD	TO BE REMOVED
5	30" NORWAY MAPLE	GOOD	TO REMAIN

OWNERS
 LIME KILN, LLC
 12549 LIME KILN ROAD
 FULTON, MARYLAND 20799-0460
 410-792-2922

DEVELOPER
 WILLIAMSBURG GROUP, LLC
 C/O BOB CORRETT
 5405 HARRIS FARM ROAD, SUITE 200
 COLUMBIA, MARYLAND 21044
 410-997-9800

AND
 PERRY C. WESTLAND, JR.
 12549 LIME KILN ROAD
 FULTON, MARYLAND 20799-0460
 410-792-2922

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 NATIONAL SQUARE OFFICE - 10722 BALDWIN NATIONAL FEE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461 - 2895

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. 383866, EXPIRATION DATE: 01/12/2016.

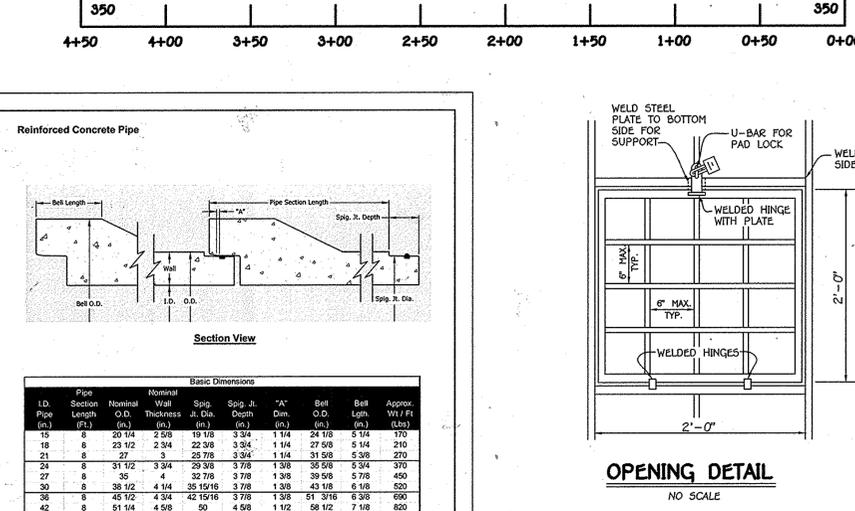
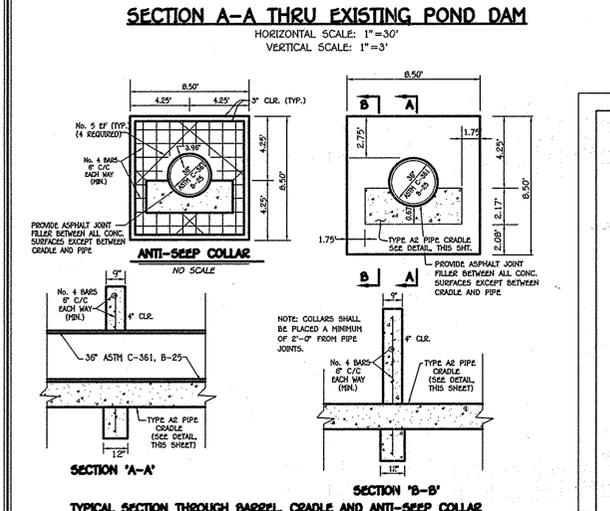
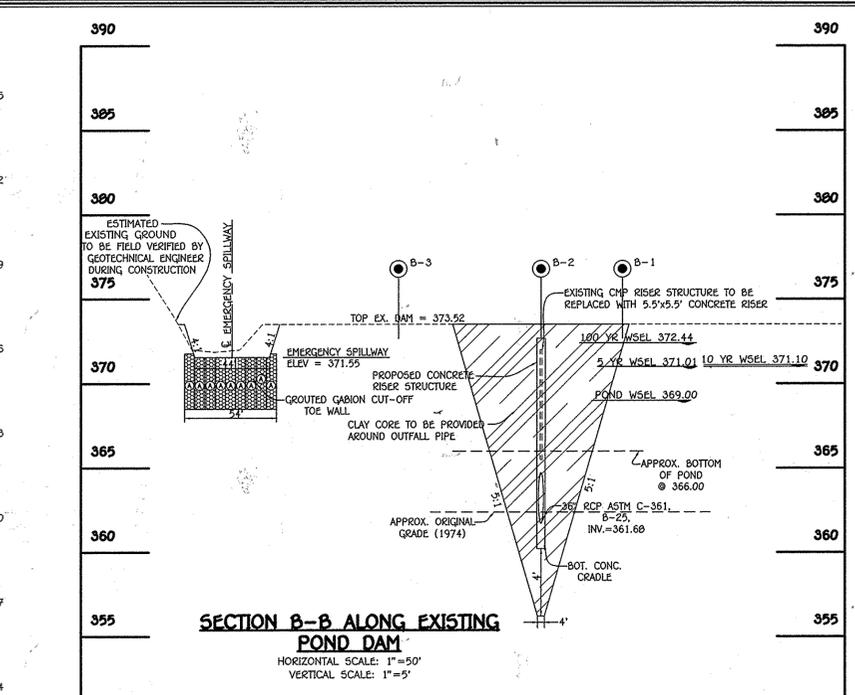
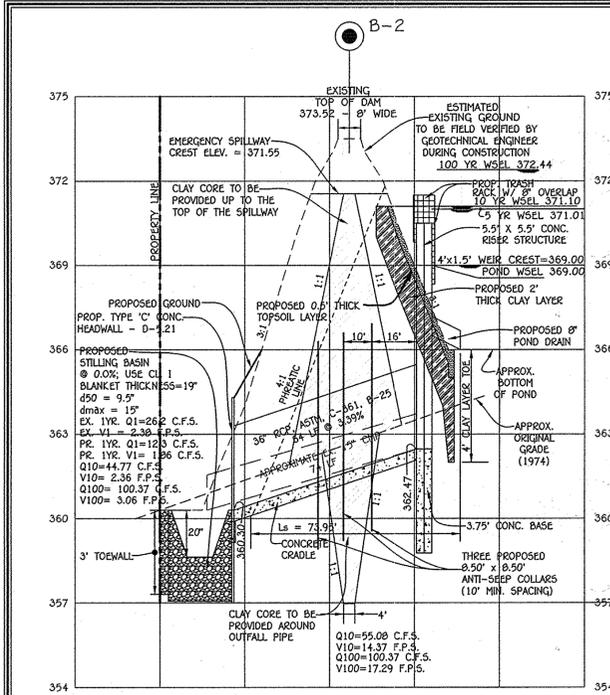
Signature of Professional Engineer: [Signature]
 DATE: 12/2/15

LANDSCAPE & FOREST CONSERVATION NOTES & DETAILS

WESTLAND FARM ESTATES

LOTS 3 THRU 14 AND OPEN SPACE LOT 15
 ZONED RR-DEO

TAX MAP No. 45 GRID No. 5 PARCEL No. 28
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: DECEMBER, 2015
 SHEET 16 OF 19



BUILDER/DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature of Developer: *Stephen J. White* DATE: 5-26-16

ENGINEER'S CERTIFICATE

"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature of Engineer: *Stephen J. White* DATE: 5/26/16

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

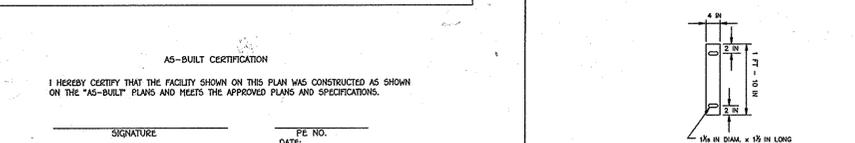
APPROVED: DEPARTMENT OF PUBLIC WORKS
 APPROVED: DEPARTMENT OF PLANNING AND ZONING

DATE: 6-21-16
 DATE: 6-21-16
 DATE: 6-1-16

Basic Dimensions

Pipe I.D. Section	Nominal Pipe Length (ft)	Nominal O.D. (in)	Nominal Thickness (in)	Spig. Dia. (in)	Spig. Jt. Depth (in)	"A" Dim. (in)	Bell O.D. (in)	Bell Length (in)	Approx. Wt (lb)
15	7	20 1/4	2.00	19 1/2	3 3/4	1 1/4	24 1/8	1 1/4	310
18	8	23 1/2	2.34	22 3/8	3 3/4	1 1/4	27 5/8	1 1/4	210
21	8	27	3	25 7/8	3 3/4	1 1/4	31 5/8	1 1/4	270
24	8	31 1/2	3.34	29 3/8	3 7/8	1 3/8	35 5/8	1 1/4	370
27	8	35	4	32 7/8	3 7/8	1 3/8	39 5/8	1 1/4	450
30	8	38 1/2	4 1/4	35 7/8	3 7/8	1 3/8	43 1/8	1 1/4	520
36	8	45 1/2	4.34	42 1/8	3 7/8	1 3/8	50 1/8	1 1/4	630
42	8	51 1/4	4.98	50	4 1/8	1 1/2	58 1/2	1 1/4	820
48	8	58 1/4	5 1/8	57	4 3/4	1 1/2	65 1/4	1 1/4	1050

Notes:
 1) Meets ASTM C261, Classification A-25, B-25, C-25, or D-25 as required.
 2) "A" dimension is based on joint full gasket.
 3) Joints and gaskets meet the requirements of ASTM C261.



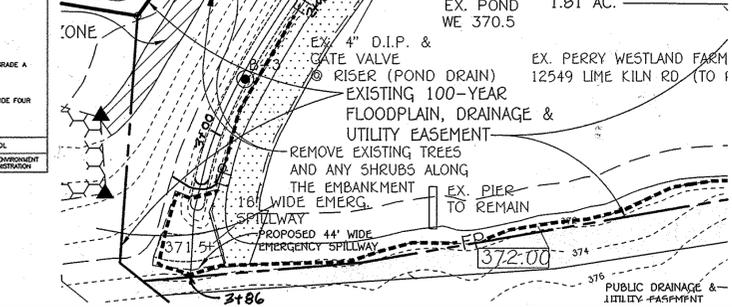
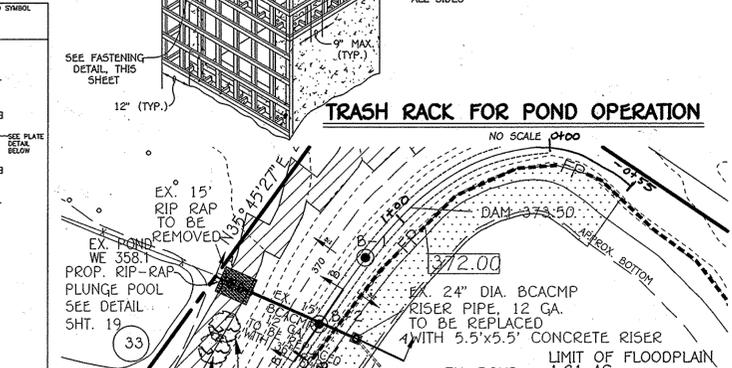
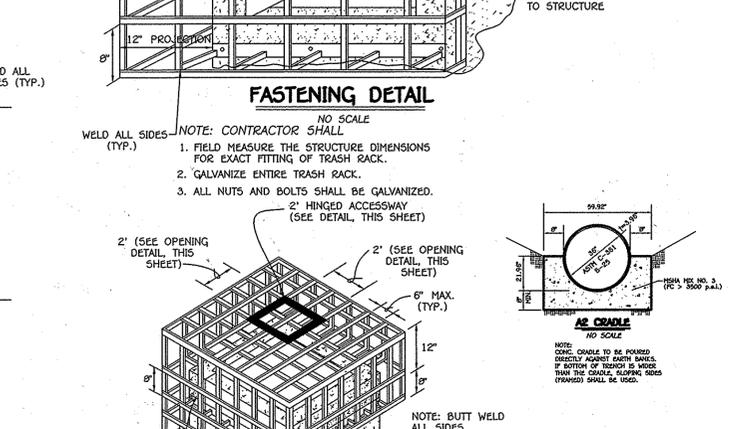
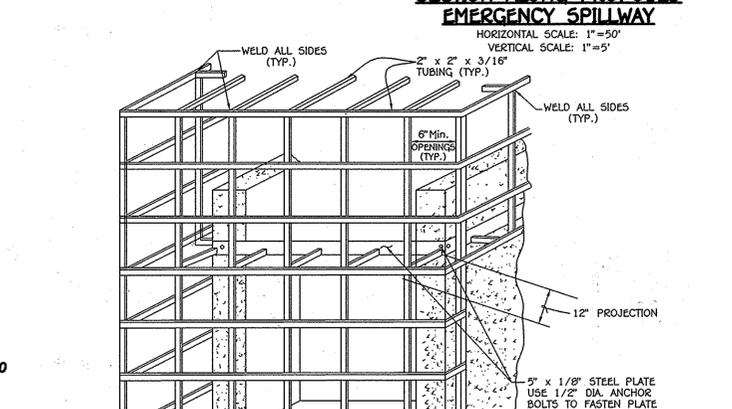
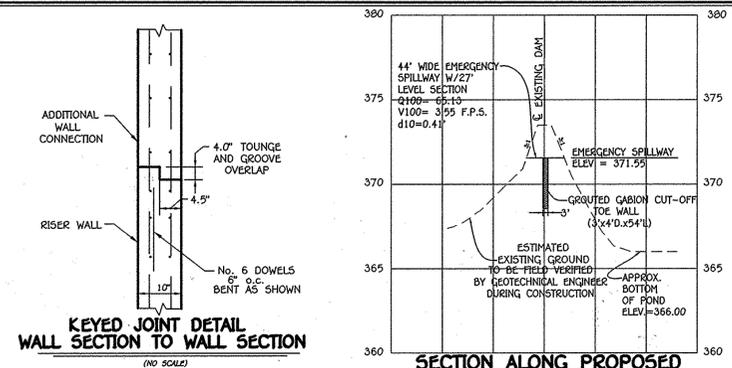
CONSTRUCTION SPECIFICATIONS

- FABRICATE PLATE CONNECTORS FROM STAINLESS STEEL CONFORMING TO ASTM A366-72, GRADE A OR B.
- USE TYPE 304 STAINLESS STEEL FOR BOLTS.
- PROVIDE CONNECTORS AT CENTERLINE OF EACH PRECAST BOX FACE. FOR MANHOLES PROVIDE FOUR PLATES SPACED AT 90°.

PROFESSIONAL CERTIFICATION

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. 38396, EXPIRATION DATE: 01/12/2016.

Signature of Professional Engineer: *Stephen J. White* DATE: 5/26/16



STORM WATER MANAGEMENT POND CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice 10-370, and are intended to apply to all ponds within the scope of the Standard for practice 10-370, and are intended to apply to all ponds within the scope of the Standard for practice 10-370.

Site Preparation

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be aligned to the nearest 10' centerline. All trees shall be cleared and grubbed within 15 feet of the toe of the embankment.

EMERGENCY SPILLWAY

44" WIDE EMERGENCY SPILLWAY (22' WIDE SECTION) 4109-05-10 V100=355 F.P.S. 410-0-4.1

EMERGENCY SPILLWAY

EMERGENCY SPILLWAY ELEV. = 371.55

SECTION ALONG PROPOSED EMERGENCY SPILLWAY

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

FASTENING DETAIL

WELD ALL SIDES (TYP.)
 2" x 2" x 3/16" TUBING (TYP.)
 6" MIN. OPENING (TYP.)
 12" PROJECTION

OPENING DETAIL

NO SCALE
 WELDED HINGE WITH PLATE
 WELDED HINGE
 6" MAX. TYP.
 2" x 2" x 3/16" TUBING (TYP.)
 12" PROJECTION

TRASH RACK FOR POND OPERATION

NO SCALE
 EX. 15" RIP RAP TO BE REMOVED
 EX. POND WE 370.5
 EX. PERRY WESTLAND FARM 12549 LIME KILN RD (TO)

GABION BASKET DETAIL FOR EMERGENCY SPILLWAY TOE WALL

SCALE: NOT TO SCALE

GABION BASKET SIZING

DESIGNATION	DIMENSIONS
(A)	6'W x 3'H x 3'D

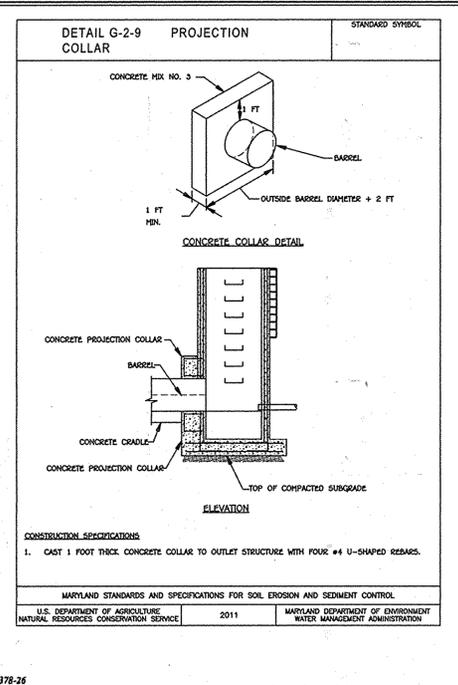
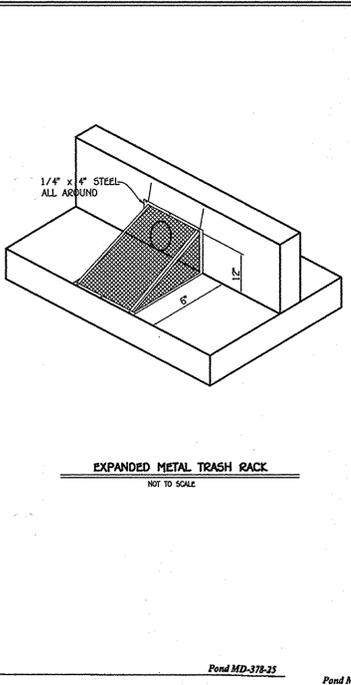
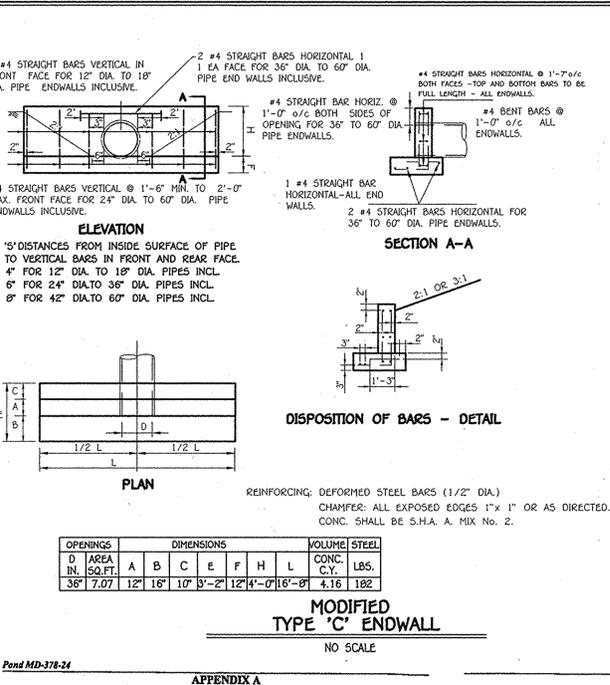
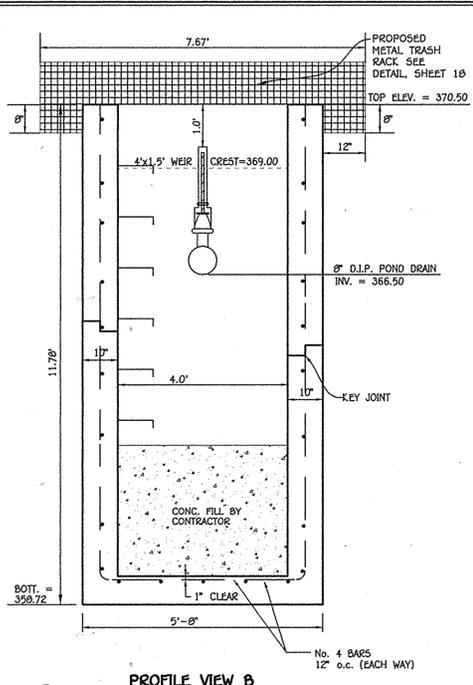
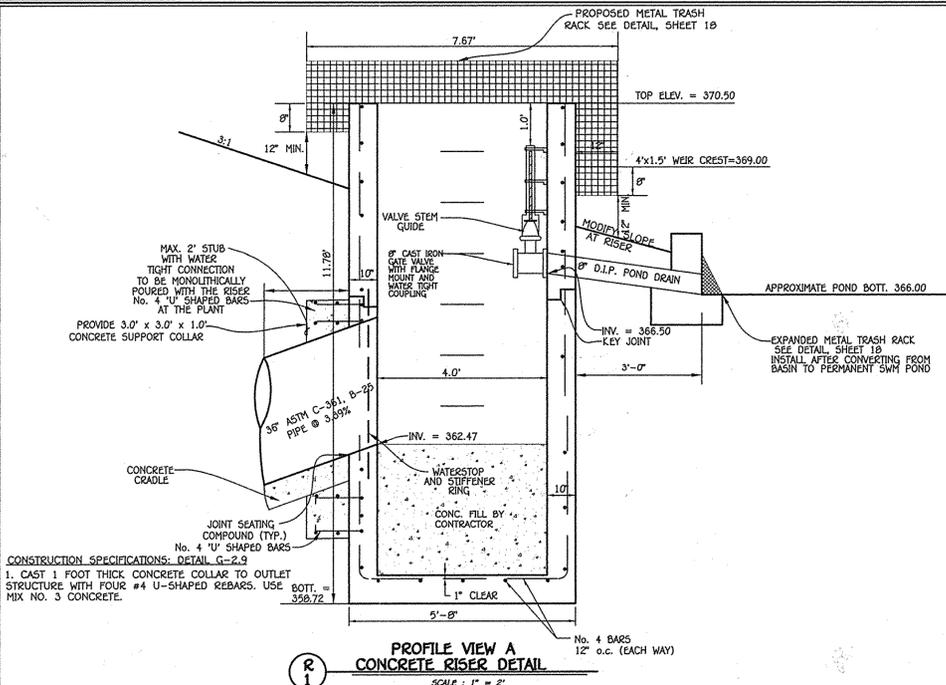
POND UPGRADE DETAILS & SPECIFICATIONS

LOTS 3 THRU 14 AND OPEN SPACE LOT 15 ZONED RR-DEO

TAX MAP No. 45 GRID No. 5 PARCEL No. 28
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: MAY, 2016
 SHEET 18 OF 19

EX. POND PLAN VIEW SCALE: 1"=50'

F-15-038



EXISTING POND OPERATION AND MAINTENANCE NOTES:

ROUTINE MAINTENANCE

1. Facility shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the pond is functioning properly.
2. Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes and maintenance access should be mowed as needed.
3. Debris and litter shall be removed during regular mowing operations and as needed.
4. Visible signs of erosion in the pond as well as the rip-rap or gabion outlet area shall be repaired as soon as it is noticed.

NON-ROUTINE MAINTENANCE

1. Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components shall be inspected during routine maintenance operations.
2. Sediment shall be removed from the pond, and forebay, no later than when the capacity of the pond or forebay, is half full of sediment, or, when deemed necessary for aesthetic reasons, upon approval from the Department of Public Works.

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

SIGNATURE: _____ DATE: _____
 PE NO. _____

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

BUILDER/DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

SIGNATURE OF DEVELOPER: _____ DATE: 5-26-16

ENGINEER'S CERTIFICATE

"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

SIGNATURE OF ENGINEER: _____ DATE: 5/26/16

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

APPROVED: DEPARTMENT OF PUBLIC WORKS
 _____ DATE: 6-21-16
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 _____ DATE: 6-21-16
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: DEPARTMENT OF PUBLIC WORKS
 _____ DATE: 6-1-16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

OWNERS
 LIME KILN, LLC
 12549 LIME KILN ROAD
 FULTON, MARYLAND 20739-0460
 410-792-2922

DEVELOPER
 WILLIAMSBURG CONSULTANTS, LLC
 C/O BOB CORBETT
 5405 HARPERS FARM ROAD, SUITE 200
 COLUMSBIA, MARYLAND 21044
 410-997-8900

PROFESSIONAL CERTIFICATION

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. 38386, EXPIRATION DATE: 01/12/2016.

SIGNATURE OF PROFESSIONAL ENGINEER: _____ DATE: 5/26/16



DAM INSPECTION CHECKLIST

To help the dam owner perform periodic safety inspections of the structure, a checklist is provided. Each item of the checklist should be completed. Repair is required when obvious problems are observed. Maintaining is recommended if there is potential for a problem to occur in the future. Investigation is necessary if the reason for the observed problem is not obvious.

A brief description should be made of any noted irregularities, needed maintenance, or problems. Abbreviations and short descriptions are recommended. Space at the bottom of the form should be used for any items not listed.

Item	Comments	Y	N	U
DAM (WESTLAND FARM) DIVERSION				
INSPECTED BY: M. JOHNSON DATE: 4 AUG 15 WEATHER: SUNNY POOL LEVEL:				
1. CRIST				
a. Visual settlement?		N		
b. Misalignment?		N		
c. Cracking?		N		
2. UPSTREAM SLOPE				
a. Erosion?	ABOUND INLET		Y	
b. Ground cover in good condition?		Y		
c. Trees, shrubs, or other woody vegetation?		N		
d. Longitudinal/vertical cracks?		N		
e. Adequate riprap protection?		N		
f. Stone deterioration?		N		
g. Settlements, depression, or bulges?		N		
3. DOWNSTREAM SLOPE				
a. Erosion?		Y		
b. Ground cover in good condition?		Y		
c. Trees, shrubs, or other woody vegetation?	AT TOP, NEAR OUTLET		Y	
d. Longitudinal/vertical cracks?		N		
e. Settlements, depression, or bulges?		Y		
f. Soft spots or boggy areas?		N		
g. Movement at or beyond crest?		N		
h. Boils at toe?		N		
4. DOWNSTREAM CHANNEL				
a. Interval draw flumes?	Ext. Left _____ Ext. Right _____	Y		
b. Seepage at toe?	Estimated _____	Y		
c. Does seepage contain fines?		N		

INSPECTION CHECKLIST - PAGE 2

Item	Comments	Y	N	U
5. ABUTMENT CONTACTS				
a. Erosion?		N		
b. Differential movement?		N		
c. Cracks?		N		
d. Seepage?	Estimated _____	N		
e. Adequate erosion protection for discharge?		N		
6. INLET STRUCTURE				
a. Seepage into structure?	Concrete or Metal Pipe (circle one)	N		
b. Obstruction or obstruction?		N		
c. If concrete, do surface show:				
1. Spalling?		N		
2. Cracking?		N		
3. Erosion?		N		
4. Scaling?		N		
5. Exposed reinforcement?		N		
6. Other?		N		
d. Do the joints show:				
1. Displacement or offset?		N		
2. Loss of joint material?		N		
3. Leakage?		N		
7. STILLING BASIN/POOL				
a. If concrete, condition of surfaces?		N		
b. Deterioration or displacement of joints?		N		
c. Outlet channel obstructed?		N		
d. 12' released water:				
1. Undercutting the outlet?		N		
2. Eroding the embankment?		N		
3. Displaced riprap?		N		
4. Scouring the plunge pool?		N		
e. Tailwater elevation and flow condition:		N		
8. CHANNEL SPILLWAY				
a. Is the channel:				
1. Eroding or undercutting?		N		
2. Obstructed?		N		
b. Trees or shrubs in the channel?		N		
c. Seepage present?		N		
d. Soft spots or boggy areas?		N		
e. Channel slopes eroding or sloughing?		N		
f. Leaking?		N		
g. Scouring the plunge pool?		N		
9. RIBS/WEIR				
a. High water mark?		Y		
b. Erosion/flow into pool area?		Y		
c. Seepage present?		N		
d. Floating objects present?		N		
e. Adequate riprap protection for discharge?		N		

INSPECTION CHECKLIST - PAGE 3

Item	Comments	Y	N	U
10. SPILLWAY				
a. Spillage into conduit?	Concrete or Metal Pipe (circle one)			U
b. Debris present?	UNABLE TO ACCESS			U
c. Do concrete surfaces show:				
1. Spalling?			Y	
2. Cracking?			Y	
3. Erosion?			Y	
4. Scaling?			Y	
5. Exposed reinforcement?			Y	
6. Other?			Y	
d. Do the joints show:				
1. Displacement or offset?			Y	
2. Loss of joint material?			Y	
3. Leakage?			Y	
11. RIBS/WEIR				
a. If concrete, condition of surfaces?		N		
b. Deterioration or displacement of joints?		N		
c. Outlet channel obstructed?		N		
d. 12' released water:				
1. Undercutting the outlet?		N		
2. Eroding the embankment?		N		
3. Displaced riprap?		N		
4. Scouring the plunge pool?		N		
e. Tailwater elevation and flow condition:		N		
12. SPILLWAY				
a. Is the channel:				
1. Eroding or undercutting?		N		
2. Obstructed?		N		
b. Trees or shrubs in the channel?		N		
c. Seepage present?		N		
d. Soft spots or boggy areas?		N		
e. Channel slopes eroding or sloughing?		N		
f. Leaking?		N		
g. Scouring the plunge pool?		N		
13. RIBS/WEIR				
a. High water mark?		Y		
b. Erosion/flow into pool area?		Y		
c. Seepage present?		N		
d. Floating objects present?		N		
e. Adequate riprap protection for discharge?		N		

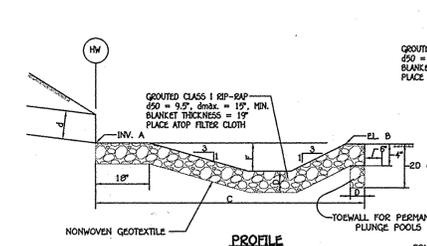
WESTLAND FARM POND RECONSTRUCTION SUMMARY

As part of the Westland Farm development project we were required to address the Howard Soil Conservation District's requirement that all existing Farm Ponds within any developed property be either removed and the stream restored to pre-existing conditions or upgrade the Pond to meet today's current MDE-378 Pond Specifications (Year 2000). This requirement is also a product of the MDE Dam Safety Division program to help upgrade older failing ponds for safety concerns.

Consideration was given to the removal of the dam embankment however this would have resulted in an increase of stream flow runoff on the downstream properties not seen since the original farm pond was constructed in the 1970's. The Developer opted for reconstruction of the pond. For consistency, the height of the dam embankment and volume of water being stored were kept the same from the existing pond to this new embankment design. This design approach will allow for similar release rates as best can be obtained using the current MD-378 Pond Specifications.

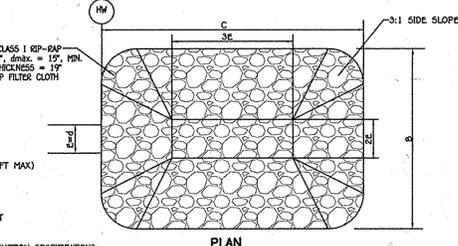
MD-378 Table #1 Hydraulic Criteria for Ponds:
 Class "A" Structure, Drainage Area < 100 acres, Height < 15', Water Surface Area < 12 acres in size
 Existing Condition: 5-Year Storm Event: Inflow=25.38 c.f.s.; Outflow=53.7 c.f.s. @ elev.371.94.
 100-Year Storm Event: Inflow=237.18 c.f.s.; Outflow=185.50 @ elev.373.23.
 Proposed Condition: 5-Year Storm Event: Inflow=25.38 c.f.s.; Outflow=36.76 c.f.s. @ elev.371.01.
 100-Year Storm Event: Inflow=237.18 c.f.s.; Outflow=173.68 @ elev.372.44.

Summary:
 In summary, the reconstruction of the Dam Embankment was designed to maintain the existing height and storage volume of the old original dam while meeting the current design standards of the MD-378 Pond Specifications. In addition to the 5-year and 10-year design storm events other storms were evaluated for water surface storage elevations and relationships to various weir elevations. The smaller 1 and 2-year storm events were evaluated since they are more common and found to match the existing discharge and storage volumes very well. The design criteria used is the best available method that protects downstream properties and also keeps the pond in compliance with the MD-378 regulations.



STRUCTURE NO.	INV.	EL.	C	D	SE	F	B	G
HW-1	362.30	350.30	20.00'	19'	9.00'	1.67'	16.00'	3.00'

TYP. TYPE 1 STILLING BASIN OUTFALL DETAIL



CONSTRUCTION SPECIFICATIONS:
 1. The structure shall be constructed of concrete or masonry. The structure shall be designed to maintain the existing height and storage volume of the old original dam while meeting the current design standards of the MD-378 Pond Specifications. In addition to the 5-year and 10-year design storm events other storms were evaluated for water surface storage elevations and relationships to various weir elevations. The smaller 1 and 2-year storm events were evaluated since they are more common and found to match the existing discharge and storage volumes very well. The design criteria used is the best available method that protects downstream properties and also keeps the pond in compliance with the MD-378 regulations.

POND UPGRADE DETAILS & SPECIFICATIONS
WESTLAND FARM ESTATES
 LOTS 3 THRU 14 AND OPEN SPACE LOT 15
 ZONED RR-DEO
 TAX MAP No. 45 GRID No. 5 PARCEL No. 28
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: MAY, 2016
 SHEET 19 OF 19