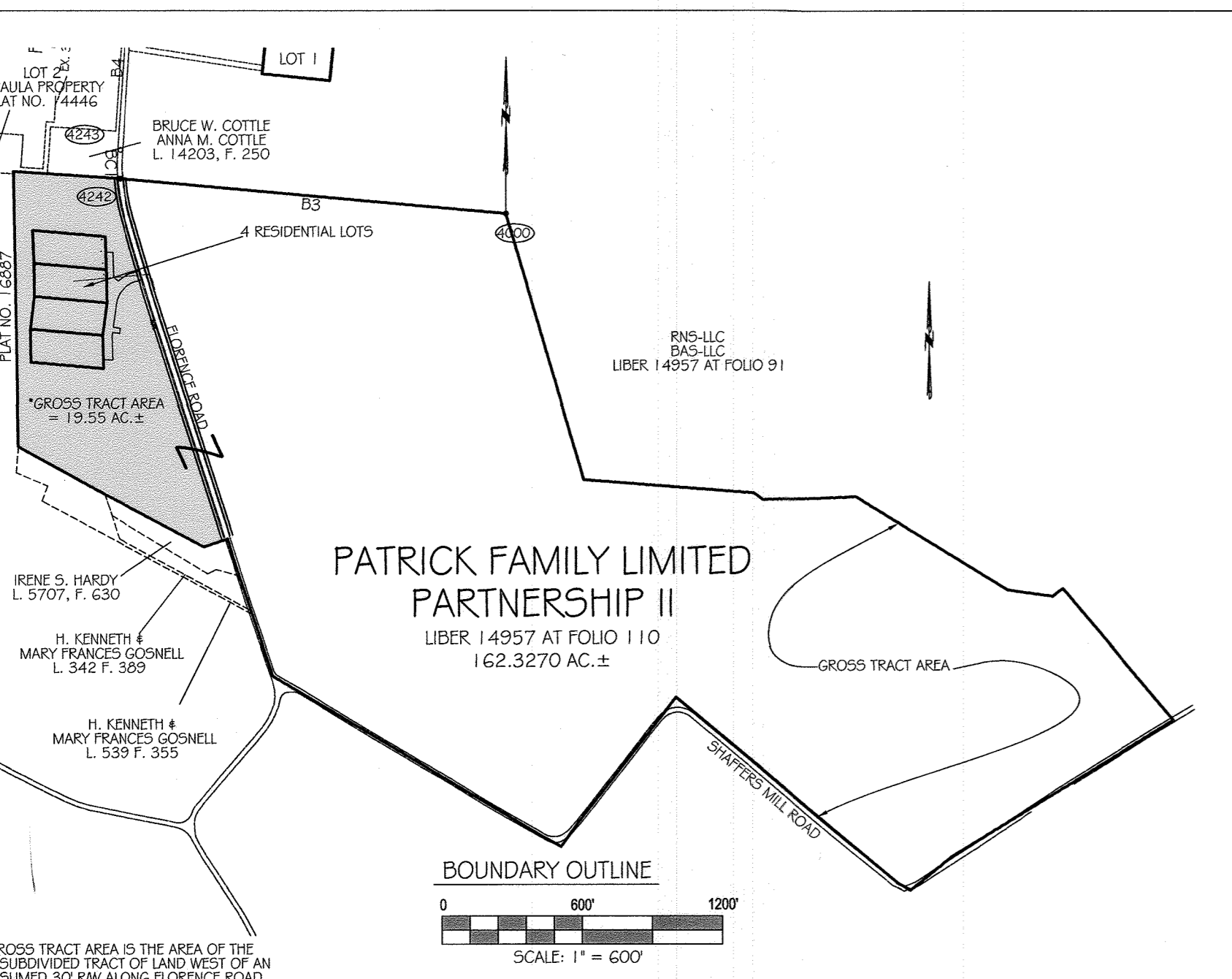


GENERAL NOTES (CONT.):

- LANDSCAPING FOR THESE LOTS IS IN COMPLIANCE WITH SECTION 16.124 OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL PAGE 24 (OPTIONAL TREATMENTS-PRESERVING EXISTING VEGETATION). THE LOTS ARE LOCATED IN THE INTERIOR OF THE FARM AND THE ADJOINING PROPERTIES ARE BUFFERED BY THE PROPOSED FOREST CONSERVATION EASEMENT, WHICH SURPASSED THE REQUIRED PERIMETER LANDSCAPE REQUIREMENTS. NO LANDSCAPE SURETY IS REQUIRED.
- LOT FRONTAGES ARE IN ACCORDANCE WITH SECTION 16.120(a)(2)(iv) OF THE SUBDIVISION REGULATIONS. PUBLIC ROAD IS NOT REQUIRED FOR AGRICULTURAL PRESERVATION SUBDIVISION LOTS AS LONG AS THEY ARE SERVED BY A USE-IN-COMMON DRIVEWAY.
- RELATED APPROVALS: EOP-18-008, HO-07-01-E, WF-07-026, WF-19-007 (SEE NOTE #15), WF-19-008, WF-19-009, SECTION 16.128 APPROVED ON AUGUST 29, 2018 SUBJECT TO THE FOLLOWING CONDITIONS:
 - INDICATE THIS ALTERNATE COMPLIANCE FILE NUMBER (WF-19-008), ON SHEET 1 OF FINAL PLAN (F-18-085) AND THE FINAL PLAN FOR THE STABLE PROPERTY (FILE NUMBER TO BE DETERMINED), INCLUDING SECTION NUMBERS, CONDITIONS OF APPROVAL AND DATE OF DECISION.
 - ADD A PURPOSE NOTE TO STABLE PROPERTY FINAL PLAN. THE PURPOSE OF THIS PLAN IS TO CREATE THE NEW BUILDING LOT AND THEN IMMEDIATELY VACATE THIS LOT AND TRANSFER THE LOT RIGHT TO THE PATRICK FAMILY, F-18-085.
- MHU AGREEMENT IS REQUIRED TO BE RECORDED SIMULTANEOUSLY WITH THIS PLAN. MITIGATION IS PROPOSED BY PAYMENT OF FEE-IN-LIEU.
- THE FOREST STAND DELINEATION FOR THIS PROJECT WAS PREPARED BY VANMAR ASSOCIATES, INC. DATED JULY 2017 AND APPROVED 04/19/18.

LEGEND

- PROPOSED SEPTIC SYSTEM
- SILT FENCE
- LIMIT OF DISTURBANCE
- (PASSED) PERCOLATION TEST SITE
- (FAILED) PERCOLATION TEST SITE
- PROPOSED WELL
- PROPOSED TREE LINE
- DRIVEWAY PAVEMENT
- N-2 NON ROOFTOP DISCONNECTION
- HOWARD COUNTY GEODETIC COORDINATES
- EXISTING FOREST CONSERVATION EASEMENT
- PROPOSED FOREST CONSERVATION EASEMENT
- SOIL TYPES
- SPECIMEN TREE



APPROVED
 HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature]
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 1-03-19
 [Signature]
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

	(N-1) ROOFTOP DISCONNECTION				(N-2) NON-ROOFTOP DISCONNECTION		(N-3) SHEETFLOW TO CONSERVATION AREAS				TOTAL REQUIRED	TOTAL PROVIDED
	LOT 1	LOT 2	LOT 3	LOT 4	DRIVES & WALKS	COMMON DRIVE	LOT 1	LOT 2	LOT 3	LOT 4		
IMPERVIOUS AREA (SF)	1,200	1,200	2,400	2,400	6,700	1,200	1,200	1,200	1,200	22,700		
P _e (INCH)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.8	1.0	1.1	
ESD _v (CF)	95	95	190	190	530	507	95	95	76	1,797	1,930	
Rev (CF)	25	25	50	50	138	132	25	25	25	467	520	

MAP SYMBOL	MAPPING UNIT	HYDROLOGIC SOIL GROUP	HYDRIC COMPONENTS	K _w	SLOPE
GgB	GLENELG LOAM	B	NO	0.20	3-8%
GgC	GLENELG LOAM	B	NO	0.20	8-15%
OcC	OCCOQUAN LOAM	B	NO	0.20	8-15%

SCALE: 1" = 50'
 OWNER / DEVELOPER: PATRICK FAMILY LIMITED PARTNERSHIP II
 c/o TIM FEAGA
 P.O. BOX 482
 USBN, MARYLAND 21765
 (410) 489-7900
 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. 18417, Expiration Date: 9/18/19.

ACRES	ACRES
PROPOSED SITE USE	RESIDENTIAL
WETLANDS	0.00
WETLANDS BUFFER	0.00
FLOODPLAIN	0.00
FORESTS	4.64 AC. ±
STEEP SLOPES (> 15%) NO 15% SLOPES ON SITE	0.00
TOTAL PROJECT AREA	4.01 AC. ±
LOOD AREA	3.41 AC. ±
GREEN OPEN SPACE AREA	0.00
EX. IMPERVIOUS AREA	0.00
PROP. IMPERVIOUS AREA	0.54 AC. ±
TIGHTLY ERODIBLE SOILS IN PROJECT AREA	0.00

GROSS TRACT AREA =	19.55 AC. ±
AREA OF FLOODPLAIN =	0.00 AC. ±
AREA OF 25% OR GREATER SLOPE (OUTSIDE OF FLOODPLAIN) =	0.00 AC. ±
NET TRACT AREA (GROSS AREA-FLOODPLAIN) =	19.55 AC. ±
AREA-STEEP SLOPE AREA =	0.00 AC. ±
ALLOWED DEVELOPMENT RIGHTS (GROSS TRACT AREA x 1 d.u./4.25 ACRES) =	4.6
NUMBER OF BUILDABLE LOTS AND PARCELS =	4

- ALL LOTS / RESIDENTIAL UNITS IN THIS SUBDIVISION ARE SUBJECT TO THE MHU FEE-IN-LIEU REQUIREMENTS THAT IS TO BE CALCULATED AND PAID TO THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS AT THE TIME OF FINAL RECORDATION.
- OWNER: PATRICK FAMILY LIMITED PARTNERSHIP II DEED REFERENCE: LIBER 14957 AT FOLIO 110 DATE: MAY 30, 2013 GRANTEE: DORIS S. DONALDSON & DOROTHY E. WARPFIELD, PERSONAL REPRESENTATIVES OF THE ESTATE OF CALVIN M. MURRAY, DECEASED TAX MAP 6: GSD, 17 PARCEL 65
 - EXISTING ZONING: RC-DEO
 - THE SUBJECT PROPERTY IS NOT LOCATED IN SPECIAL FLOOD HAZARD AREA PER NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP COMMUNITY PANEL NO. 24027C0010D, EFFECTIVE NOVEMBER 6, 2013. DNR WATERSHEDS: 021311000269; 021311000970
 - ON-SITE TOPOGRAPHY & PLANIMETRIC FEATURES SHOWN HEREON TAKEN FROM COPYRIGHTED GIS DATA FROM HOWARD COUNTY AND SUPPLEMENTED WITH FIELD LOCATIONS BY VANMAR ASSOCIATES, INC. CONTOUR INTERVAL IS 2 FEET. VERTICAL DATUM IS NAVD83.
 - THE BASIS OF BEARINGS FOR THIS PLAN IS THE MARYLAND COORDINATE SYSTEM (NAD83/91) PER HOWARD COUNTY SURVEY CONTROL STATIONS: HO.CO.#06FA N.606.746.162 E. 1,271,284.439 HO.CO.#06G1A N.602.649.507 E. 1,271,163.363 DISTANCES SHOWN HEREON ARE GROUND DISTANCES. THERE ARE NO WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THE PROPERTY BOUNDARY UNLESS OTHERWISE SHOWN HEREON.
 - THE EXISTING WELLS SHOWN ON THIS PLAN HAVE BEEN FIELD LOCATED BY VANMAR ASSOCIATES OR TAKEN FROM AVAILABLE RECORDS AND ACCURATELY SHOWN.
 - THE SUBJECT PROPERTY IS ZONED RC-DEO PER THE 1006/13 COMPREHENSIVE ZONING REGULATIONS. THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE OCTOBER 7, 2009 AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCIES PER TO FOLLOWING MINIMUM REQUIREMENTS:
 - Width - 12' (1/2" serving more than one residential)
 - Surface - 6" of compacted crushed run base with tar and chip coating - 1-1/2" min.
 - Geometry - Maximum 15% grade, maximum 10% grade change and minimum 45-foot turning radius.
 - Structures (overhead/crossing) - Capable of supporting 25 gross tons (125 loadings)
 - Damage Elements - Capable of safely passing 100 year flood with no more than 1 foot depth over driveway surface.
 - Structure clearances - minimum 12 feet.
 - Maintenance - sufficient to ensure all weather use.
 - THERE ARE NO HISTORIC SITES OR CONSERVATION ON THIS PROPERTY.
 - NO ENVIRONMENTAL FEATURES EXIST WITHIN THE LOD.
 - TWO SPECIMEN TREES ARE IMPACTED BY THIS DEVELOPMENT: SPECIMEN #1 & #2. WF-19-007, SECTION 16.1205(a)(7) APPROVED AUGUST 20, 2018 AND SUBJECT TO THE FOLLOWING CONDITIONS:
 - INDICATE THIS ALTERNATE COMPLIANCE FILE NUMBER (WF-19-007), ON SHEET 1 OF FINAL PLAN (F-18-085), INCLUDING SECTION NUMBERS, CONDITIONS OF APPROVAL AND DATE OF DECISION.
 - MITIGATE AT 2:1 THE REMOVAL OF TWO SPECIMEN TREES. THE REPLACEMENT TREES SHALL BE A TOTAL OF 4 NATIVE SHADE TREES OF 2.5" CALIPER AND PLANTED IN THE PROPOSED FOREST CONSERVATION RETENTION EASEMENT.
 - F-18-085 SHALL INCLUDE A FOREST CONSERVATION RETENTION EASEMENT, FINAL ACREAGE SUBJECT TO POTENTIAL CHANGES OR COMMENTS DURING REVIEW OF THE FINAL PLAN.
 - HOWARD COUNTY SOIL CONSERVATION DISTRICT REQUIRES THE DELINEATION OF STEEP SLOPES INCLUDE SLOPES WITH GRADIENTS OF 20% OR MORE.
 - STORMWATER MANAGEMENT REQUIREMENTS WILL BE ADDRESSED USING ROOFTOP DISCONNECTION (N-1), NON-ROOFTOP DISCONNECTION (N-2) AND SHEETFLOW (N-3) TO THE FOREST CONSERVATION AREA. THIS SWM CONTROL SYSTEM IS IN ACCORDANCE WITH THE 2009 REVISIONS OF THE 2000 MD STORMWATER DESIGN MANUAL AND ADDRESSES ESD TO THE MFP.
 - ALL AREAS SHOWN HEREON ARE + OR -, MORE OR LESS.
 - TOTAL LIMIT OF DISTURBANCE = 142,500 SQ. FT. OR 3.27 AC. ±.
 - DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF THE USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCIES PER TO FOLLOWING MINIMUM REQUIREMENTS:
 - Width - 12' (1/2" serving more than one residential)
 - Surface - 6" of compacted crushed run base with tar and chip coating - 1-1/2" min.
 - Geometry - Maximum 15% grade, maximum 10% grade change and minimum 45-foot turning radius.
 - Structures (overhead/crossing) - Capable of supporting 25 gross tons (125 loadings)
 - Damage Elements - Capable of safely passing 100 year flood with no more than 1 foot depth over driveway surface.
 - Structure clearances - minimum 12 feet.
 - Maintenance - sufficient to ensure all weather use.
 - ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MD SHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
 - THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1060 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
 - THE CONTRACTOR SHALL NOTIFY THE UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
 - THERE ARE NO WETLANDS, STREAMS, FLOOD PLAINS OR BUFFERS ON THIS SITE.
 - THE FOLLOWING SETBACKS APPLY TO THE PROPOSED HOUSES: DISTANCE TO WELL: 30' DISTANCE TO SEPTIC: 20'
 - THE PROPERTY IS NOT LOCATED WITHIN THE METROPOLITAN DISTRICT.
 - NO NOISE STUDY IS REQUIRED FOR THIS PROJECT.
 - NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT. THE PROPOSED RESIDENTIAL SUBDIVISION GENERATES 4 PEAK HOUR TRIPS. DAYVILLE ROAD MAINTAINS LOS 'A' WITH ADDED SUBDIVISION TRAFFIC, AND THE SUBDIVISION MEETS AFOY REQUIREMENTS.
 - THE USE-IN-COMMON DRIVEWAY WILL SERVE FOUR (4) HOUSES, A USE IN COMMON DRIVEWAY MAINTENANCE AGREEMENT FOR LOTS 1-4 WILL BE RECORDED AT THE TIME OF FINAL FLAT RECORDATION.
 - A COMMUNITY MEETING WAS HELD ON JULY 20, 2017 AT 6:00PM AT THE LEBSON VOLUNTEER FIRE DEPARTMENT.
 - FLORENCE ROAD IS A PUBLIC ROAD AND MAINTAINED BY HOWARD COUNTY.
 - TRAFFIC CONTROL DEVICES, MARKING AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
 - ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT OF WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (1 1/4 GA) 3' LONG. A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (1 1/2 GA) 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
 - EXISTING UTILITIES ARE BASED ON FIELD OBSERVATION.
 - THE RL-1 (STOP) SIGN AND THE STREET NAME SIGN (S) ASSEMBLY 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 SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MAMUTC).
 - ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT OF WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (1 1/4 GA) 3' LONG. A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (1 1/2 GA) 3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
 - A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPERS / OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-2430 FOR DETAILS AND COST ESTIMATES.
 - THE OBLIGATION OF 3.40 AC. TO BE MET ON BY ON SITE RETENTION OF 3.40 AC. IN A FOREST CONSERVATION EASEMENT PER SECTION 16.12105(b)(1) OF THE SUBDIVISION REGULATIONS.
 - NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING, AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENTS.

NO.	TITLE
1	SOILS/TOPOGRAPHY/GRADING/STORMWATER MANAGEMENT/COMMON DRIVEWAY/SC
2	STORMWATER MANAGEMENT/CONSTRUCTION NOTES & DETAILS
3	SEDIMENT AND EROSION CONTROL NOTES & DETAILS
4	FOREST CONSERVATION PLAN/LANDSCAPE PLAN

DATE: 09/21/18
 10/09/18
 3/29/2020
 REVISIONS:
 COMMENTS
 COMMENTS
 LOT 1 HSE'S GRADING PLAN

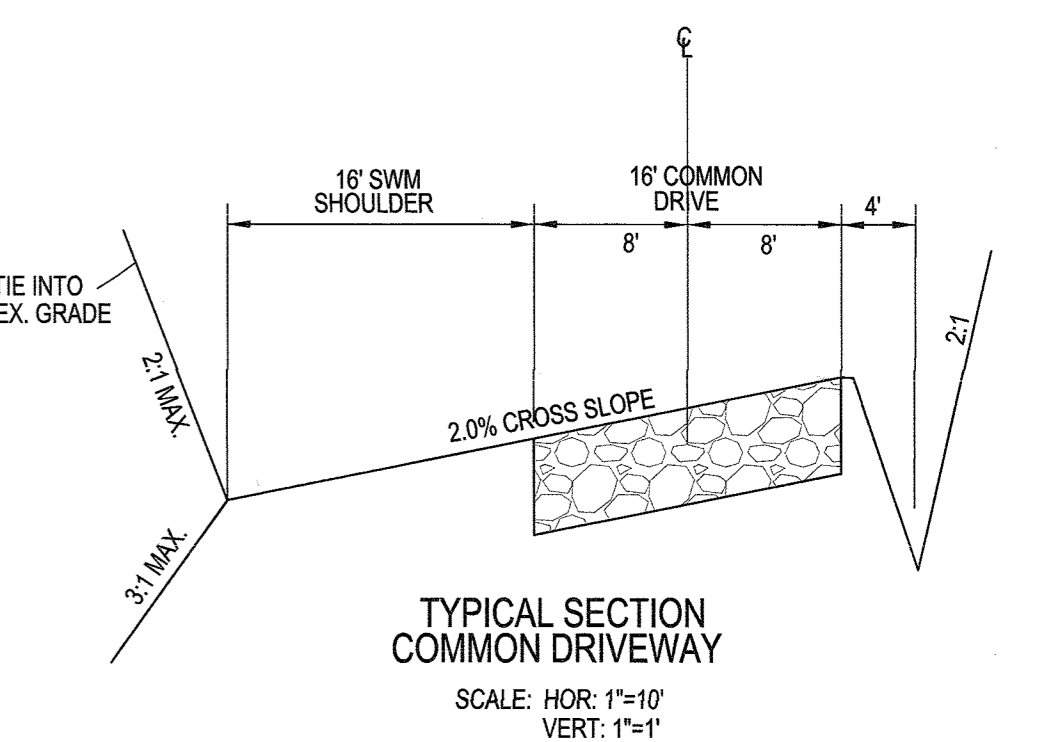
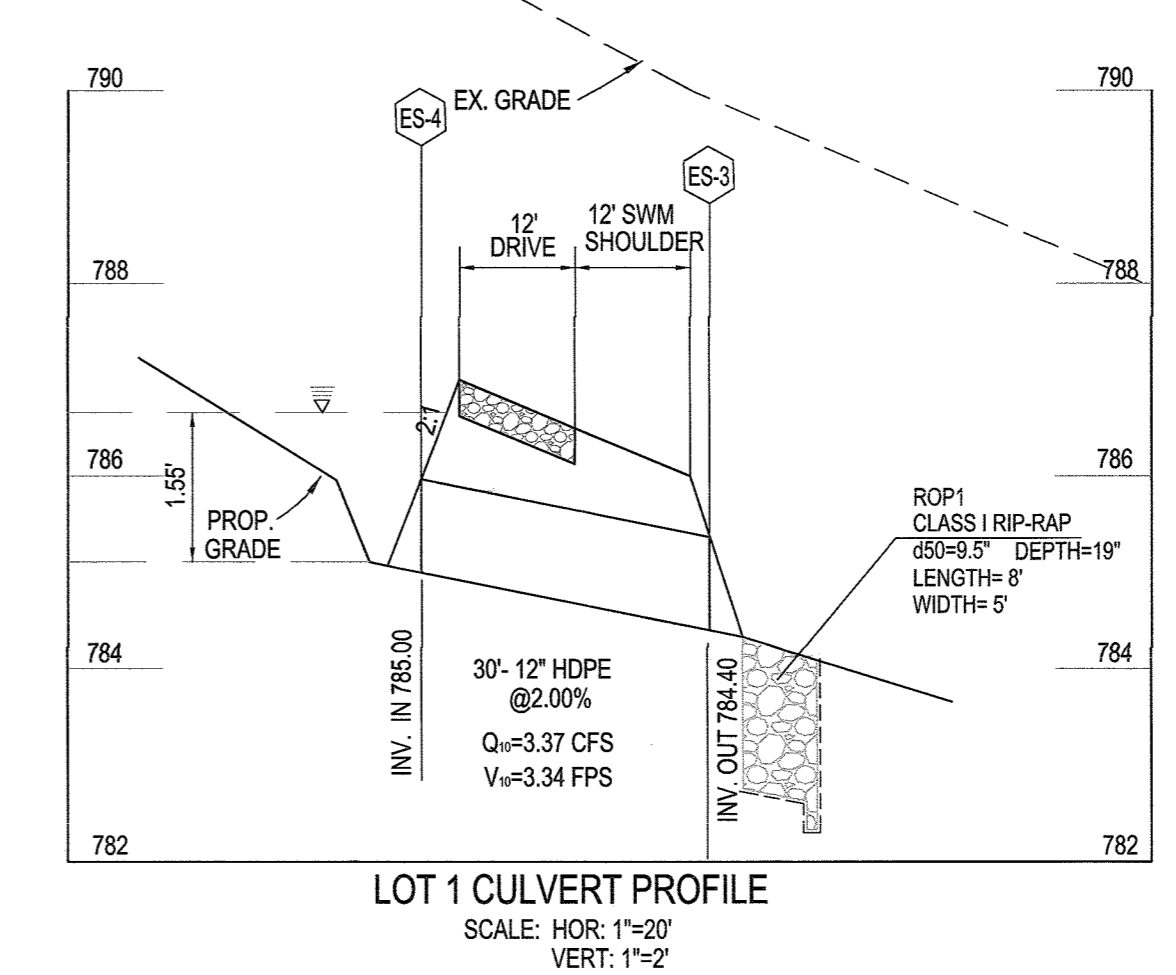
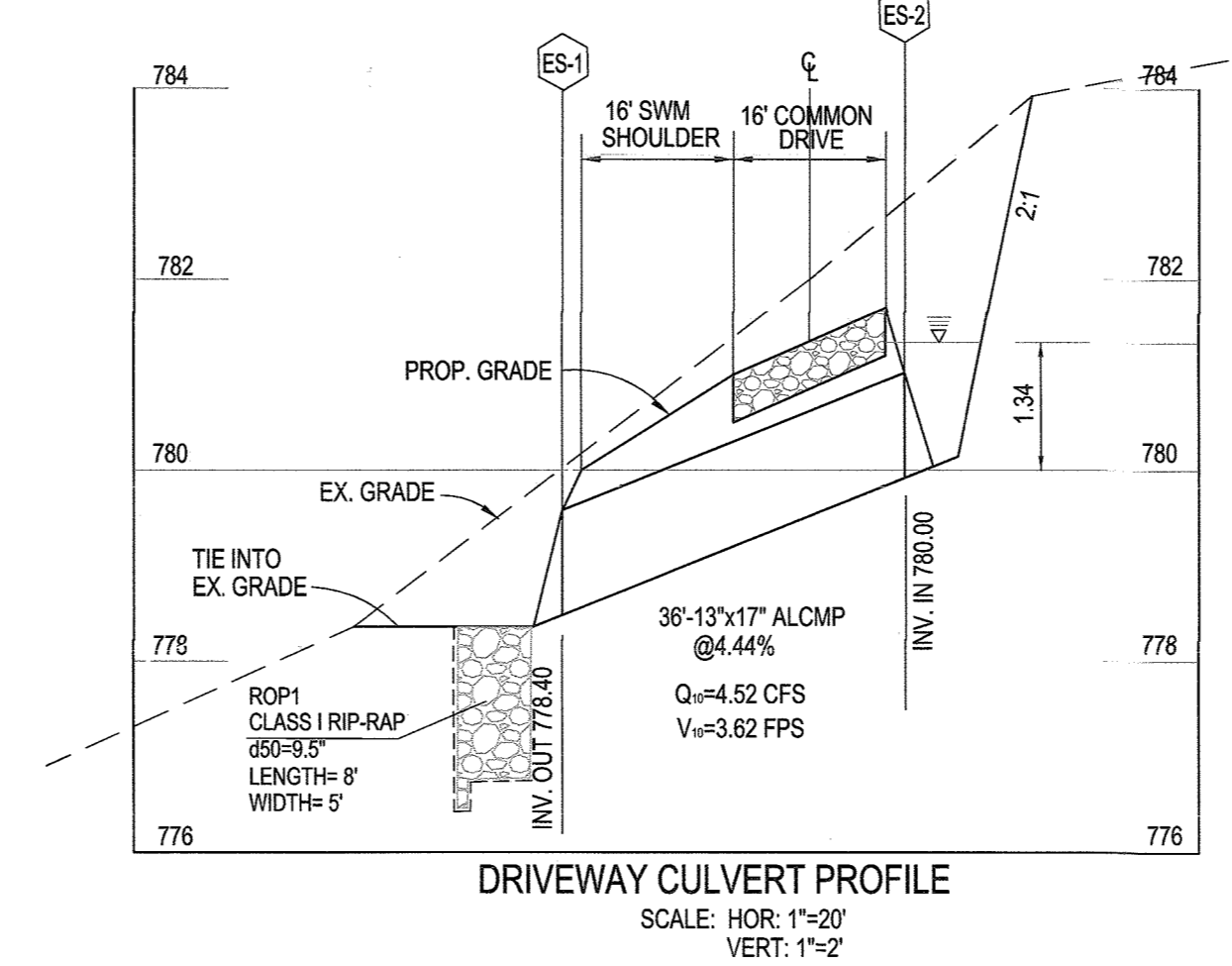
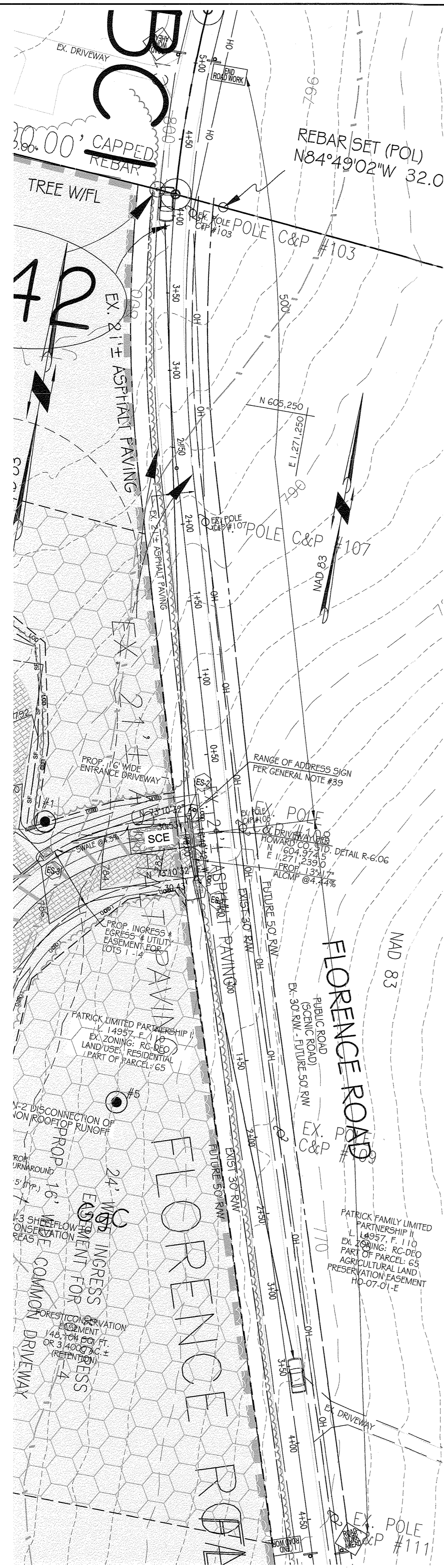
SUPPLEMENTAL PLAN
 SOILS / TOPOGRAPHY / GRADING / STORMWATER MANAGEMENT / COMMON DRIVEWAY / SEDIMENT CONTROL
 LOTS 1 THRU 4
 PATRICK FAMILY LIMITED PARTNERSHIP II
 LIBER 14957 AT FOLIO 110

TAX MAP: 6 ELECTION DISTRICT: No. 4 SCALE: 1" = 50'
 GRID NO: 17 HOWARD COUNTY, MARYLAND MARCH, 2018
 PARCEL NO: 65 EX. ZONING: RC-DEO SHEET 1 OF 4

PREVIOUS FILE NUMBERS: ECP-18-008, HO-07-01-E, WF-07-026, WF-19-007
 RELATED FILE NUMBERS: F-19-029, F-19-030 & WF-19-008

VANMAR ASSOCIATES, INC.
 Engineers Surveyors Planners
 310 South Main Street Mount Airy, Maryland 21771
 (301) 829-2880 (301) 831-5015 (410) 549-2751
 Fax (301) 831-5603 ©Copyright, Latest Date Shown

F-18-085



STORM DRAIN STRUCTURE SCHEDULE					
No.	TYPE	TOP ELEVATION	INVERT IN / OUT	COORDINATES	OWNERSHIP
ES-1	13' x 17' ALCMP END SECTION	—	778.40	N 604944.2241 E 1271231.2918	PRIVATE
ES-2	13' x 17' ALCMP END SECTION	—	780.00	N 604978.8923 E 1271219.8971	PRIVATE
ES-3	12' HDPE END SECTION	—	784.40	N 604935.1274 E 1271128.1806	PRIVATE
ES-4	12' HDPE END SECTION	—	785.00	N 604915.4111 E 1271110.8235	PRIVATE

STORM DRAIN PIPE SCHEDULE		
TYPE	LENGTH	OWNERSHIP
13' x 17' ALCMP	36 LF	PRIVATE
12' HDPE AASHTO M294 TYPE 5	30 LF	PRIVATE

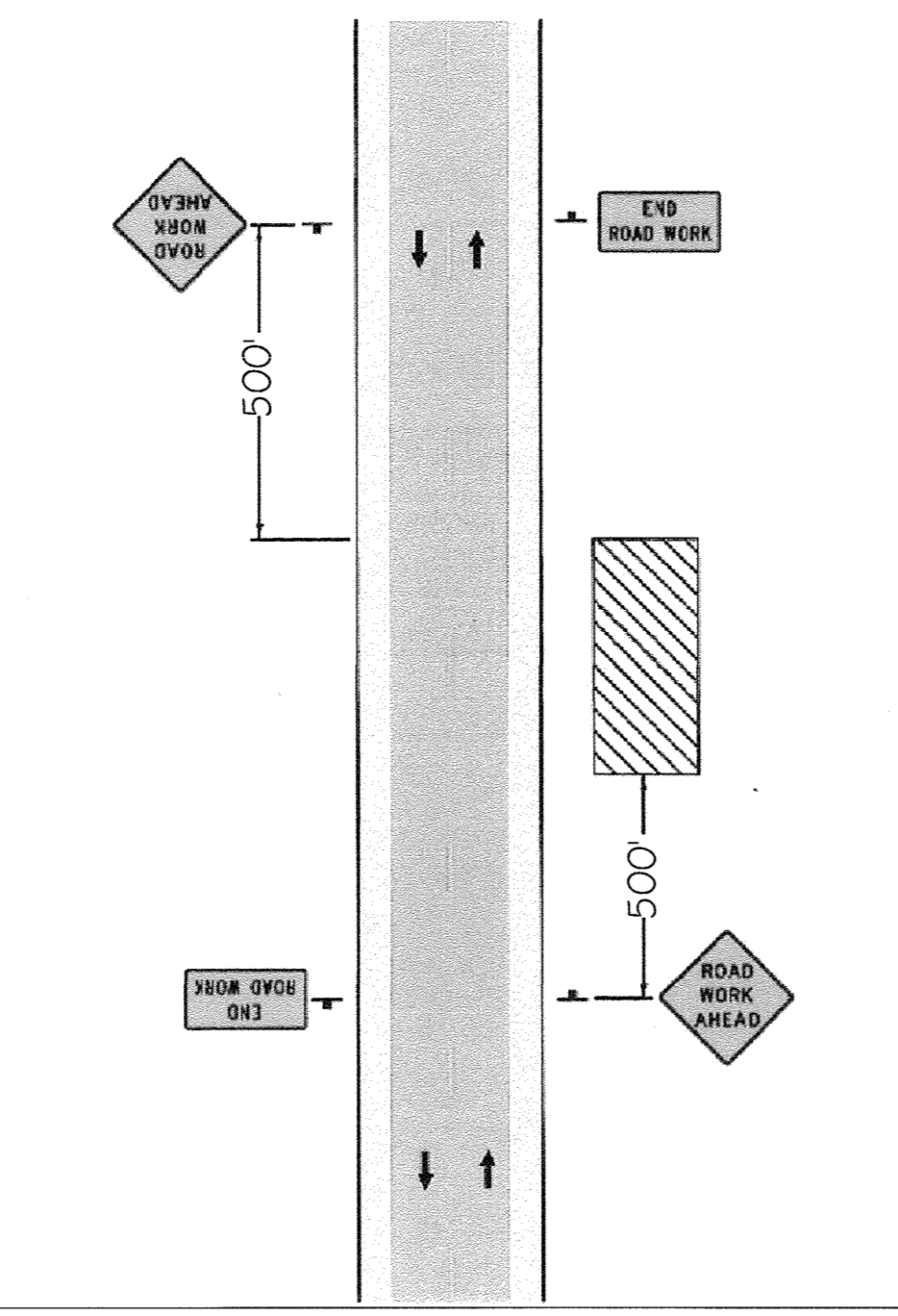
OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF ROOFTOP RUNOFF (N-1), DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)

Maintenance of areas receiving disconnected runoff is generally no different than that required for other lawn or landscaped areas. The Owner shall ensure the areas receiving runoff are protected from future compaction or development of impervious area. In commercial areas, foot traffic should be discouraged as well.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED SHEETFLOW TO CONSERVAION AREA (N-3)

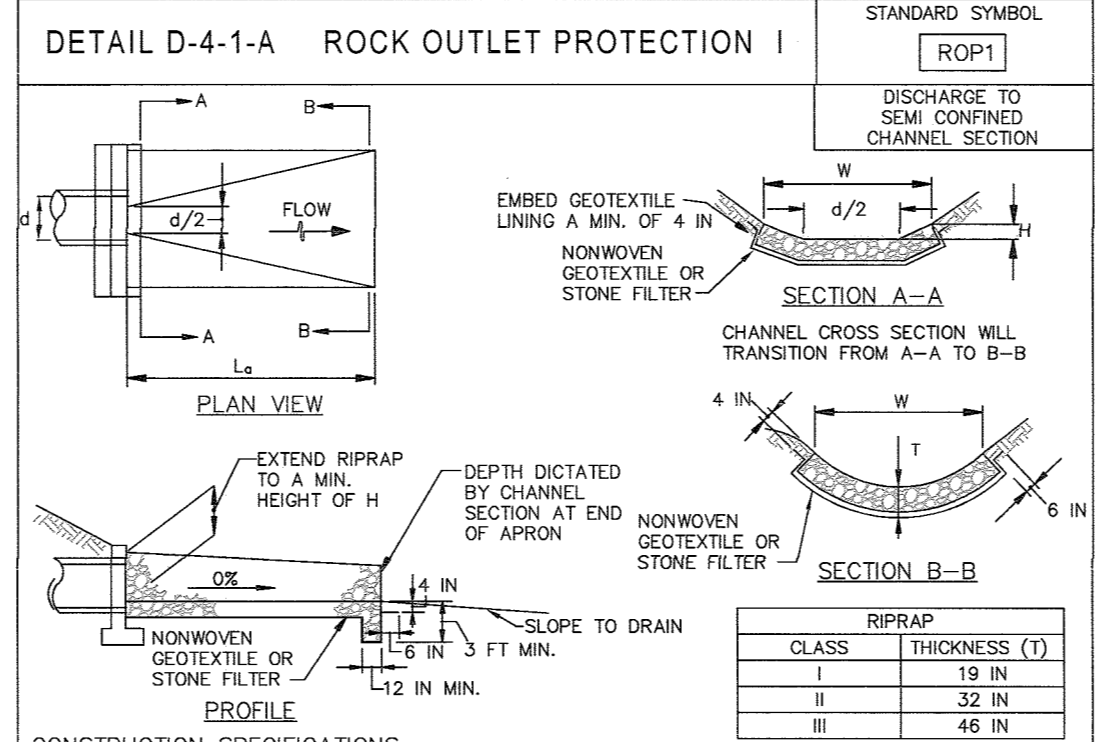
Conservation areas shall remain undisturbed and unmanaged other than routine debris removal and repairing areas of concentrated flow. Invasive and noxious plant removal and bi-annual mowing for meadow areas may be needed. Signs delineating the limits of the conservation area should be maintained and supplemental plantings performed as needed.

1. WORK BEYOND THE SHOULDER/BEHIND THE CURB
For workers and equipment operating more than 12 to 15 feet from the edge of the traveled way during daylight hours, such as mowing, litter pickup, and utility repair. The work area should be established on one side of the road only. No work or parking on the opposite side within 500 feet. The ROAD WORK AHEAD (W20-1) signs may be replaced with other appropriate signing such as SHOULDER WORK AHEAD (W21-5) or worker symbol signs. For a single daylight period or less, all signs and channelizing devices may be omitted, if a vehicle displays vehicle warning light(s).



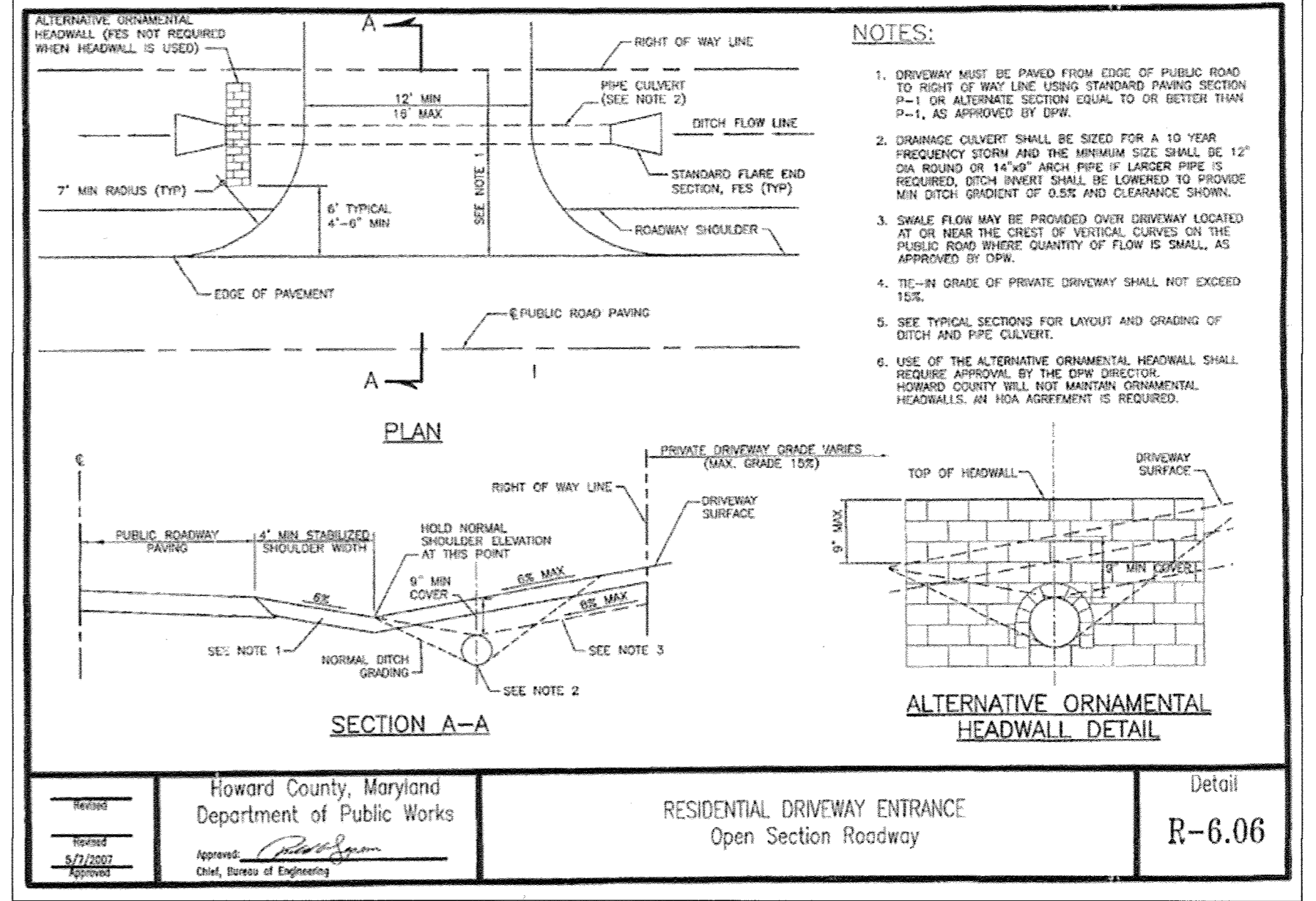
Temporary Traffic Control Notes

- Contractor shall maintain traffic along Florence Road in a safe manner.
- Contractor shall submit means and methods for maintenance of traffic to Howard County Department of Public Works, Bureau of Engineering, Traffic Engineering Division for approval.
- The contractor shall follow the Temporary Traffic Control General Notes in addition to directives by the Howard County Department of Public Works, Bureau of Engineering, Traffic Engineering Division.
- Traffic channelizing devices shall contain flashers on the devices. Contractor shall maintain working condition of flashers.
- During non-construction periods, the contractor shall install traffic channelization / protection devices at the Use-In-Common Driveway and maintain two-way traffic operation on Florence Road.
- Upon completion of the Use-In-Common Driveway construction, contractor will remove all Temporary Traffic Control Devices.



- CONSTRUCTION SPECIFICATIONS**
- RIRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.
 - USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.
 - PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (1/2 TO 1 1/2 INCH STONE FOR 6 INCH MINIMUM DEPTH) AND RIRAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
 - EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RIRAP AND EMBED AT LEAST 4 INCHES AT SIDES OF THE RIRAP.
 - CONSTRUCT RIRAP OUTLET TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RIRAP OUTLET IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RIRAP IN A MANNER TO PREVENT DAMAGE TO THE STONE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.
 - WHERE NO ENDWALL IS USED, CONSTRUCT THE UPSTREAM END OF THE APRON SO THAT THE WIDTH IS TWO TIMES THE DIAMETER OF THE OUTLET PIPE, AND EXTEND THE STONE UNDER THE OUTLET BY A MINIMUM OF 18 INCHES.
 - CONSTRUCT APRON WITH 0% SLOPE ALONG ITS LENGTH AND WITHOUT OBSTRUCTIONS. PLACE STONE SO THAT IT BLENDS IN WITH EXISTING GROUND.
 - MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND DISLOADED RIRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.

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

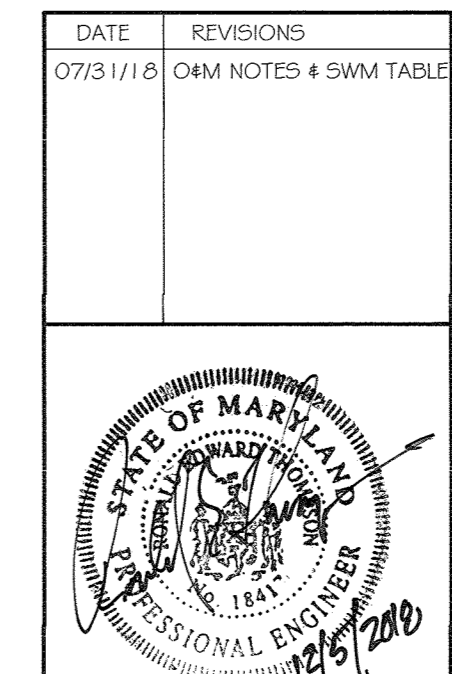


STORMWATER MANAGEMENT PRACTICES				
Lot Number	ADDRESS	DISCONNECTION		SHEETFLOW TO CONSERVATION AREA
		OF ROOFTOP RUNOFF	OF NON-ROOFTOP RUNOFF	
		N-1 (Y/N)	N-2 (Y/N)	N-3 (Y/N)
1	1600 Florence Road	Y	Y	Y
2	1604 Florence Road	Y	Y	Y
3	1608 Florence Road	Y	Y	Y
4	1612 Florence Road	Y	Y	Y

APPROVED
HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Karl Seidewitz 1-3-19
CHIEF, DIVISION OF LAND DEVELOPMENT DATE
John Edwards 12-28-18
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

OWNER / DEVELOPER
PATRICK FAMILY LIMITED PARTNERSHIP II
c/o TIM FEAGA
P.O. BOX 482
LISBON, MARYLAND 21765
(410) 489-7900

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. 18417, Expiration Date: 9/18/19.



SUPPLEMENTAL PLAN
STORMWATER MANAGEMENT / CONSTRUCTION NOTES & DETAILS
LOTS 1 THRU 4
PATRICK FAMILY LIMITED PARTNERSHIP II
LIBER 14957 AT FOLIO 110
TAX MAP: 6 ELECTION DISTRICT: No. 4 NO SCALE
GRID NO: 17 HOWARD COUNTY, MARYLAND MARCH, 2018
PARCEL NO: 65 EX. ZONING: RC-DEO SHEET 2 OF 4
PREVIOUS FILE NUMBERS: ECP-18-008, HO-07-01-E, WF-07-026, WP-19-007
RELATED FILE NUMBERS: F-19-029, F-19-030 & WF-19-008.
VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Main Street Mount Airy, Maryland 21771
(301) 829-2890 (301) 831-5015 (410) 549-2751
vanmar.com Fax (301) 831-5603 ©Copyright, Latest Date Shown

LAWSON PROPERTY
FOREST STAND DELINEATION NARRATIVE REPORT
October 2, 2018

- FOREST STRUCTURE STAND CONDITION: GOOD
- FIVE SPECIMEN TREES HAVE BEEN LOCATED ON THE SITE.
 - SPECIMEN #1. RED OAK, 34" DBH, FAIR CONDITION.
 - SPECIMEN #2. WHITE OAK, 35" DBH, FAIR CONDITION.
 - SPECIMEN #3. WHITE OAK, 38" DBH, FAIR CONDITION.
 - SPECIMEN #4. WHITE OAK, 34" DBH, FAIR CONDITION.
 - SPECIMEN #5. WHITE OAK, 54" DBH, FAIR CONDITION.
- RELATIONSHIP TO OTHER ENVIRONMENTAL FEATURES.
 - STEEP SLOPES 25% OR GREATER: 1.7 AC. MINOR 15% SLOPES ON ERODIBLE SOILS: NONE
 - NO CRITICAL HABITATS, RARE, THREATENED, OR ENDANGERED SPECIES WERE OBSERVED.
 - NO THREATENED OR ENDANGERED TREES, SHRUBS, PLANTS OR ANIMALS WERE OBSERVED. THE PROJECT SITE IS NOT LOCATED WHOLLY OR PARTIALLY WITHIN A SENSITIVE SPECIES PROJECT REVIEW AREA.
 - ONE PERENNIAL STREAM EXISTS ON THE SITE. NO SOILS WITH K VALUE GREATER THAN 0.35 ON SLOPES OF 15% OR MORE.
 - NO WETLANDS EXIST ON THE SITE.
 - NO BUILDINGS, STRUCTURES, WALLS, OR FENCES EXIST ON SITE.
 - NO HISTORIC STRUCTURES, TREES, OR KNOWN CEMETERIES.
- WATERSHED NAME AND DNR NUMBER: BRIGHTON DAM, 02131108
- PRIORITY RETENTION AREAS: RETAIN AREAS EXCEPT AS NEEDED TO DEVELOP ALLOWED RESIDENTIAL LOTS AND USES.
- ON-SITE FOREST RETENTION CRITERIA:
 - NO FLOODPLAIN NOR STREAM BUFFER WILL BE DISTURBED.
 - NO WETLAND NOR WETLAND BUFFER WILL BE DISTURBED.
 - NO RARE OR THREATENED AND ENDANGERED SPECIES NOR CRITICAL HABITAT AREAS NOR CRITICAL FOREST CORRIDORS NOR WILDLIFE MOVEMENT WILL BE DISTURBED.
 - NO 25% STEEP SLOPES WILL BE DISTURBED.
 - NO ON-SITE FOREST STAND OR ADJACENT FOREST STAND IS CONTIGUOUS TO SENSITIVE AREAS.
 - IN SITING THE ACCESS DRIVEWAY AND LOTS A BUFFER HAS MAINTAINED ALONG ALL PROPERTY LINES AND RIGHT OF WAY BUFFERS, PARTICULARLY ADJACENT TO FLORENCE ROAD, WHICH IS A SCENIC ROAD.
 - THREE OF FIVE SPECIMEN TREES WILL BE SAVED.
 - THERE ARE NO ISOLATED SMALL FOREST STANDS TO ENLARGE.
 - SPECIMEN TREES ARE NOT PART OF ANY OF THE ABOVE.
- OFF-SITE FOREST RETENTION: NONE PROPOSED.
- POTENTIAL PROBLEMS: NO POTENTIAL PROBLEMS TO THE PROPOSED DEVELOPMENT HAVE BEEN IDENTIFIED.
- RELATIONSHIP TO OFF-SITE FOREST: NO ADVERSE IMPACT FROM THE PROPOSED DEVELOPMENT TO THE SURROUNDING FORESTS IS FORESEEN.

CLASSIFICATION OF FOREST STANDS AND OTHER VEGETATION

- THE TYPICAL COVER OF ON-SITE FOREST IS OAK/HICKORY. CANOPY CLOSURE IS 90-95%. DOMINANT SPECIES IS CHESTNUT OAK, 18-24" DBH. TWO SMALL AREAS OF STANDING DEAD TREES EXISTS, WHAT APPEARS TO BE FORMER GYPSY MOTH KILL. NO CURRENT GYPSY MOTH ACTIVITY OBSERVED. GROUND FLOOR THICK WITH 24" CHESTNUT OAK SEEDLINGS. LESS THAN 5% INVASIVES.

FOREST STAND DESCRIPTION

- THE SITE IS FULLY FORESTED WITH ONE UNIFORM OAK STAND.

WOODLAND SUITABILITY REQUIREMENTS

- SOIL EROSION HAZARD: SLIGHT - MODERATE
 - EQUIPMENT LIMITATION: SLIGHT - MODERATE
 - SEEDLING MORTALITY: SLIGHT - MODERATE
 - WIND THROW HAZARD: SLIGHT - MODERATE
 - TREES TO PLANT: HARDWOODS, POPLAR, PINES.
 - RELATION TO OFF-SITE FOREST: SURROUNDED BY MATURE FOREST TO THE WEST AND SOUTH. RESIDENTIAL USES TO THE NORTH AND SOUTH. AGRICULTURE TO THE WEST. PUBLIC STREET AND AGRICULTURE TO THE EAST.
- CONCLUSION: SITE SUITABLE FOR CONTINUED FOREST RETENTION AND FOREST MANAGEMENT.

LEGEND

EDGE OF EXISTING FOREST PER HOWARD COUNTY MAPPING

1.5" 33" RED OAK GOOD CONDITION QUERCUS RUBRA

SPECIMEN

EXISTING FOREST WITHIN THE NET TRACT

EXISTING PERC TEST FAILED

EXISTING PERC TEST PASSED

LANDSCAPE PERIMETER

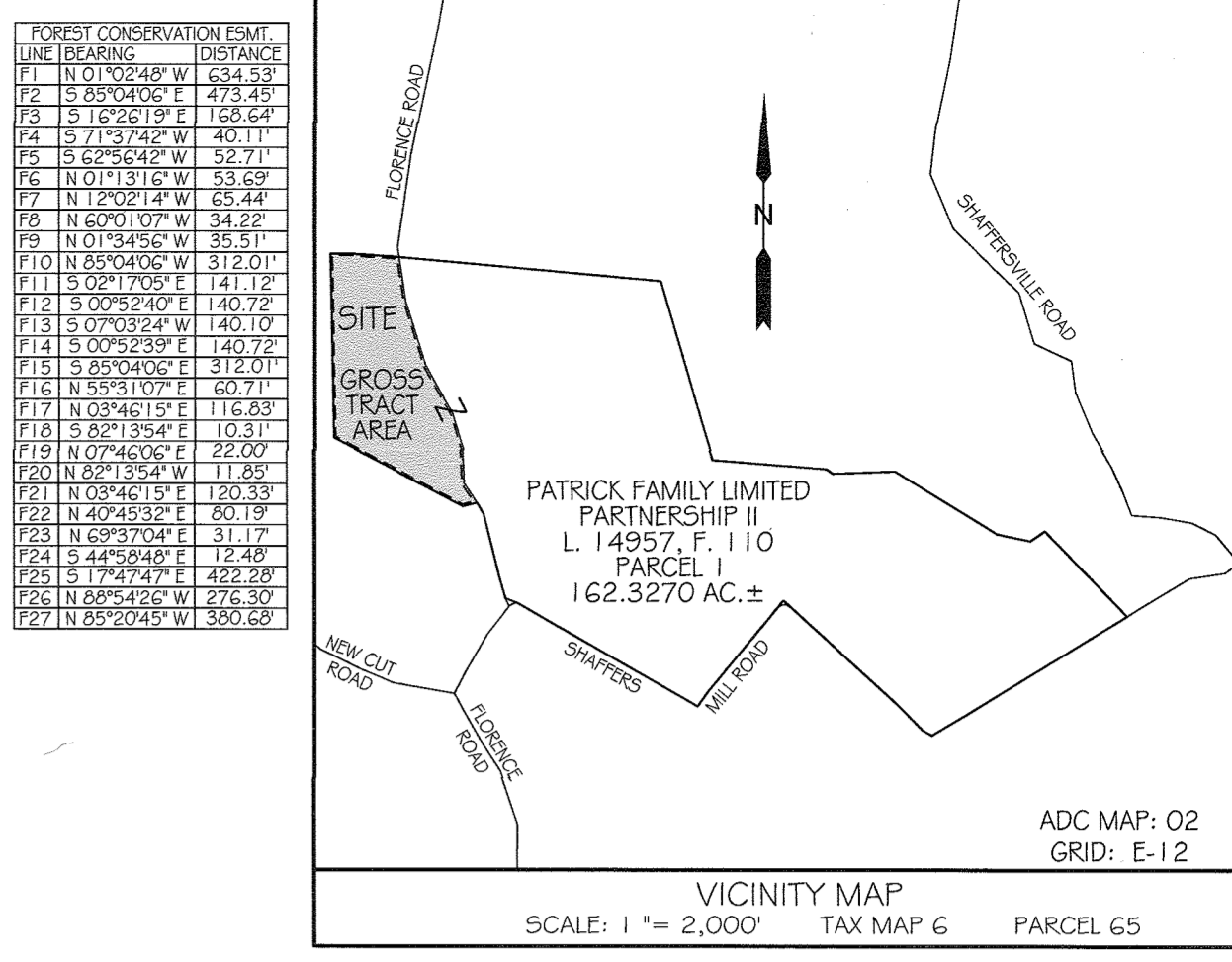
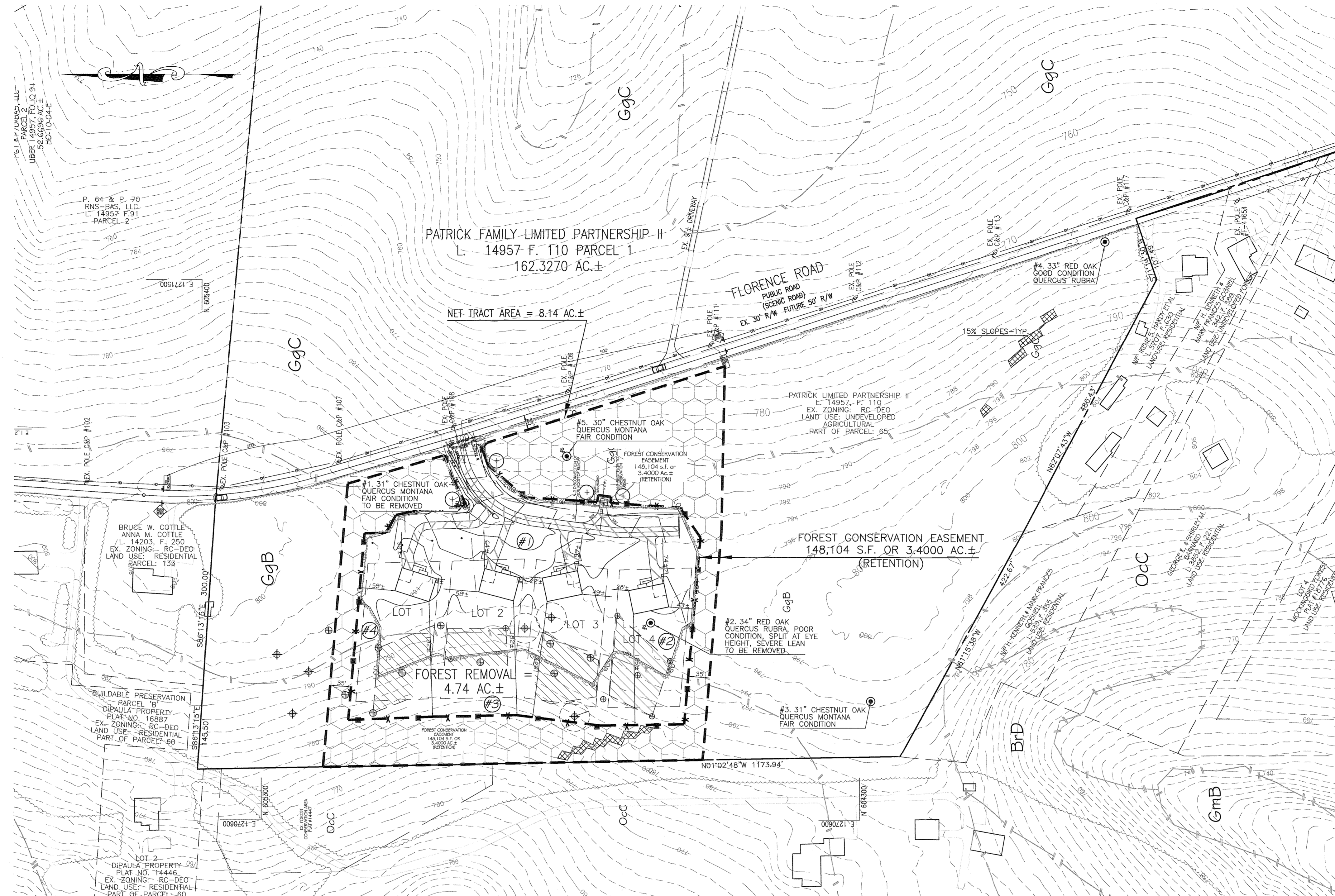
SPECIMEN MITIGATION PLANTING

SOIL BOUNDARY

SOIL SYMBOL

FOREST PROTECTION FENCING

FOREST PROTECTION SIGNAGE



- GENERAL NOTES:
- OWNER: PATRICK FAMILY LIMITED PARTNERSHIP II DEED REFERENCE: LIBER 14957 AT FOLIO 110 DATE: MAY 30, 2013 GRANTOR: DORIS S. DONALDSON & DOROTHY E. WARFIELD, PERSONAL REPRESENTATIVES OF THE ESTATE OF CALVIN M. MURRAY, DECEASED
 - TAX MAP: 6 GRID: 17 PARCEL: 65
 - NEAREST POTABLE WATER SUPPLY: MT. AIRY DISTANCE: 6.6 MILES ±.
 - THE SUBJECT PROPERTY IS NOT LOCATED IN SPECIAL FLOOD HAZARD AREA PER NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 240270010D, EFFECTIVE NOVEMBER 6, 2013.
 - ON-SITE TOPOGRAPHY & PLANIMETRIC FEATURES SHOWN HEREON TAKEN FROM COPYRIGHTED GIS DATA FROM HOWARD COUNTY AND SUPPLEMENTED WITH FIELD LOCATIONS BY VANMAR ASSOCIATES, INC. CONTOUR INTERVAL IS 2 FEET. VERTICAL DATUM IS NAVD83.
 - THE BASIS OF BEARINGS FOR THIS PLAN IS THE MARYLAND COORDINATE SYSTEM (NAD83/11) PER HOWARD COUNTY SURVEY CONTROL STATIONS: HO.CO.#06FA N.606.746.173 E. 1.271.284.367 HO.CO.#06IA N.602.649.518 E. 1.271.163.310 DISTANCES SHOWN HEREON ARE GROUND DISTANCES.
 - THERE ARE NO WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THE PROPERTY BOUNDARY UNLESS OTHERWISE SHOWN HEREON.
 - THE EXISTING WELLS SHOWN ON THIS PLAN HAVE BEEN FIELD LOCATED BY VANMAR ASSOCIATES OR TAKEN FROM AVAILABLE RECORDS AND ACCURATELY SHOWN.
 - SOIL TYPE: GLENELG LOAM (GgB, GgC), OCCOQUAN LOAM (Occ)
 - THE SUBJECT PROPERTY IS ZONED RC-DEO PER THE 1/06/13 COMPREHENSIVE ZONING REGULATIONS. THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE OCTOBER 7, 2007.
 - THERE ARE NO HISTORIC SITES OR CEMETERIES ON THIS PROPERTY.
 - NO ENVIRONMENTAL FEATURES OTHER THAN FOREST EXISTS WITHIN THE LOT. NO RARE, THREATENED, OR ENDANGERED SPECIES WERE OBSERVED WITHIN THE NET TRACT.
 - SPECIMEN TREES 1 & 2 ARE APPROVED FOR REMOVAL BY ALTERNATIVE COMPLIANCE GRANTED WF-19-007, AUGUST 20, 2018. SEE GENERAL NOTE #15, SHEET 1 FOR CONDITIONS OF APPROVAL.
 - THERE ARE NO WETLANDS ON THE SITE BASED ON FIELD INSPECTION. FOREST CONSERVATION NOTES:
 - AREA OF FLOOD PLAIN: 0.0 AC ±
 - NO 100 YEAR FLOOD PLAIN IS SHOWN ON THE FEMA MAPPING OF THE SITE. SEE GENERAL NOTE #4, THIS SHEET.
 - NO STEEP SLOPES WITHIN THE NET TRACT. NO RARE, THREATENED, OR ENDANGERED SPECIES WERE OBSERVED WITHIN THE NET TRACT. A CONFIRMATORY LETTER HAS BEEN REQUESTED FROM MARYLAND DEPARTMENT OF NATURAL RESOURCES.
 - WATERSHED: BRIGHTON DAM, #02131108.
 - THE OBLIGATION OF 3.40 ACRES IS TO BE MET BY ON-SITE RETENTION OF 3.40 ACRES IN A FOREST CONSERVATION EASEMENT PER SECTION 16.1205(a)(5) OF THE SUBDIVISION REGULATIONS.

FOREST CONSERVATION WORKSHEET

Project Name: Patrick Family Ltd. Partnership Date: 9.19.18

NET TRACT AREA:

A. Total tract area	=	8.14
B. Area within 100 year floodplain	=	0.00
C. Area to remain in agricultural production	=	0.00
D. Net tract area	=	8.14

LAND USE CATEGORY: (from table 3.2.1, page 40, Manual)

Input the number "1" under the appropriate land use zoning, and limit to only one entry.

ARA	MDR	IDA	HDR	MPD	CA
0	1				

E. Afforestation Threshold: 20% x D = 1.60
F. Conservation Threshold: 25% x D = 2.00

EXISTING FOREST COVER:

G. Existing forest cover (excluding floodplain)	=	8.14
H. Area of forest above afforestation threshold	=	6.50
I. Area of forest above conservation threshold	=	6.10

BREAK EVEN POINT (BEP):

J. Forest retention above threshold with no mitigation (BEP)	=	3.20
K. Clearing permitted without mitigation	=	4.90

PROPOSED FOREST CLEARING:

L. Total area of forest to be cleared	=	4.74
M. Total area of forest to be retained	=	3.40

PLANTING REQUIREMENTS:

N. Reforestation for clearing above conservation threshold	=	1.20
P. Reforestation for clearing below conservation threshold	=	0.00
Q. Credit for retention above conservation threshold	=	1.40
R. Total reforestation required	=	0.00
S. Total afforestation required	=	0.00
T. Total reforestation and afforestation required	=	0.00

SOIL LEGEND

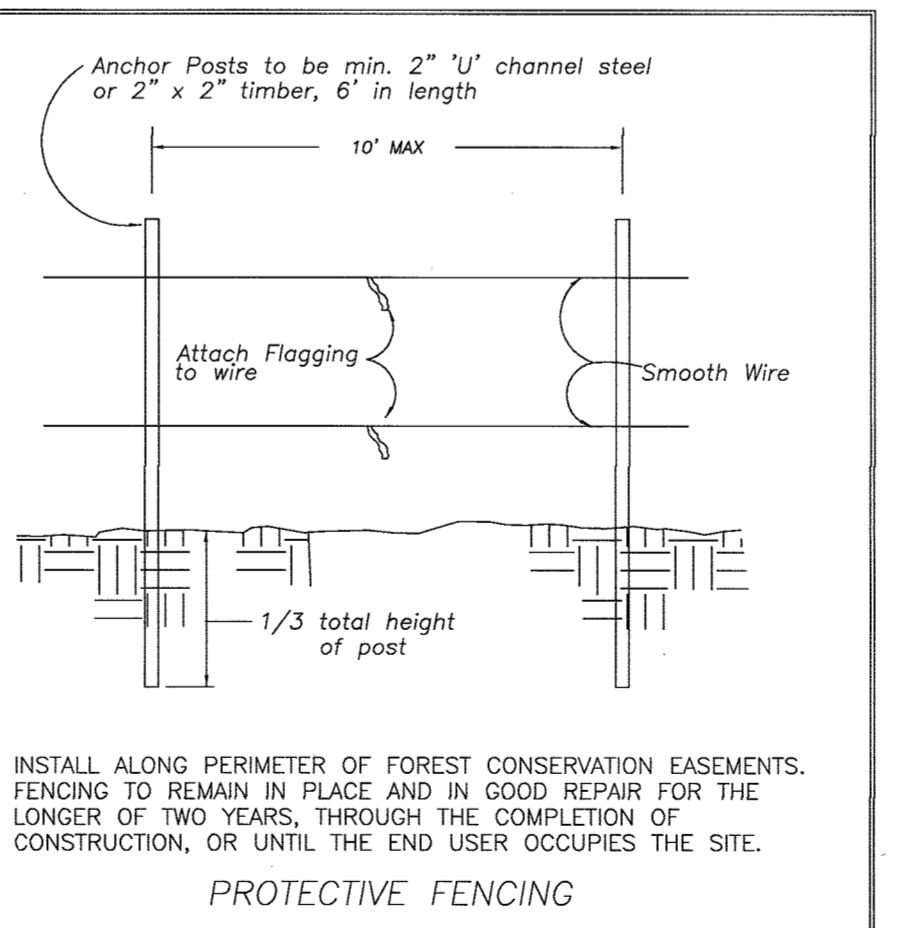
MAP SYMBOL	MAPPING UNIT	HYDROLOGIC SOIL GROUP	HYDRIC COMPONENTS	Kw	SLOPE
GgB	GLENELG LOAM	B	NO	0.20	3-6%
GgC	GLENELG LOAM	B	NO	0.20	6-15%
Occ	OCCOQUAN LOAM	B	NO	0.20	6-15%

SPECIMEN TREE TABLE

KEY	NAME	SIZE	CONDITION
#1	CHESTNUT OAK; Quercus Montana	31'	FAIR-TO BE REMOVED
#2	RED OAK; Quercus rubra	34'	POOR-TO BE REMOVED
#3	CHESTNUT OAK; Quercus Montana	31'	FAIR
#4	RED OAK; Quercus Rubra	33'	GOOD
#5	CHESTNUT OAK; Quercus Montana	30'	FAIR

SCHEDULE "A" PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS				ADJACENT TO PERIMETER PROPERTIES			
	(1)A	(2)A	(3)A	(4)A	(1)A	(2)A	(3)A	(4)A
LANDSCAPE TYPE								
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	560'	390'	570'	350'				
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	EX. FOREST TO REMAIN 560'	EX. FOREST TO REMAIN 390'	EX. FOREST TO REMAIN 570'	EX. FOREST TO REMAIN 350'				
CREDIT FOR OTHER LANDSCAPING (SHADE TREES, EVERGREEN TREES, SHRUBS)	0	0	0	0	0	0	0	0
NUMBER OF PLANTS REQUIRED (SHADE TREES, EVERGREEN TREES, SHRUBS)	0	0	0	0	0	0	0	0
NUMBER OF PLANTS PROVIDED (SHADE TREES, EVERGREEN TREES, SHRUBS) (2:1 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	0	0	0	0	0	0	0	0



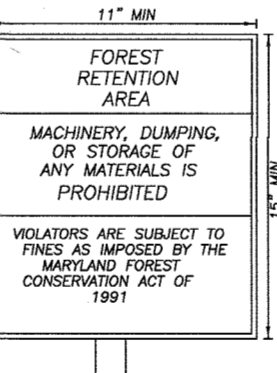
INSTALL ALONG PERIMETER OF FOREST CONSERVATION EASEMENTS. FENCING TO REMAIN IN PLACE AND IN GOOD REPAIR FOR THE LONGER OF TWO YEARS, THROUGH THE COMPLETION OF CONSTRUCTION, OR UNTIL THE END USER OCCUPIES THE SITE.

PROTECTIVE FENCING

ON-SITE FOREST CONSERVATION EASEMENT NOTE:
THE FOREST CONSERVATION EASEMENTS SHOWN HEREON WERE ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENTS. ANY UNAUTHORIZED ACTIVITIES THAT RESULT IN ADDITIONAL CLEARING, OR THAT AFFECT PROPOSED PLANTING/PRETENTION AREAS SHOWN ON THE FOREST CONSERVATION PLAN MAY RESULT IN A REQUEST FOR RECALCULATION OF FOREST CONSERVATION REQUIREMENTS AND DESIGNATION OF ADDITIONAL PLANTING/PRETENTION AREAS. IT IS THE OBLIGATION OF THE FOREST CONSERVATION PROGRAM. ANY FUTURE REVISIONS, DEVELOPMENT, OR CHANGE IN LAND USE MAY BE SUBJECT TO ADDITIONAL REQUIREMENTS OF THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

LANDSCAPE NOTES

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- NO PERIMETER PLANTINGS ARE REQUIRED.



SPECIMEN MITIGATION SCHEDULE PER WP-19-007

SYMBOL	COMMON NAME	BOTANICAL NAME	QUAN	SIZE	COMMENTS	SPACING
(+)	PLATANUS OCCIDENTALIS	American Sycamore	4	2.5" CAL. B&B	AS SHOWN	

TO BE INSPECTED WITH THE FOREST CONSERVATION INSPECTION.

EXHIBIT 3-2 FOREST STAND ANALYSIS TABLE

Applicant: Patrick Family Limited Partnership II Project Name: Patrick Family Limited Partnership II Submission No.:

KEY	A. TYPE OF COMMUNITY	B. AREA	C. SOIL INFORMATION	D. EXISTING VEGETATION (Dominant Species and Approx. %)	E. STAND CHARACTERISTICS	F. FOREST AREA IN SENSITIVE ENVIRONMENTS (Acres)	G. HABITAT VALUE
			1. Soil Types 2. Typical forest cover for soil type 3. Woodland Suitability Index		1. Size (Diam) 2. Age 3. General Conditions		
F-1	CHESTNUT OAK	19.55 ac.	GgB GgC Occ	Hardwood 58	Oak 95% 18-24" 10-15 yrs Good	0%	Good

APPROVED

HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Keith Steinhilber 1-03-19
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chris Edmund 12-28-18
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

DATE: 07/23/18, 09/21/18, 10/09/18

REVISIONS: COMMENTS, COMMENTS, COMMENTS

SCALE: 1" = 100'

OWNER: PATRICK FAMILY LTD. PART. II, 1621 FLORENCE ROAD, MT. AIRY, MD. 21771 (410) 489-7900

PROFESSIONAL CERTIFICATION:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional landscape architect under the laws of the State of Maryland, License No. 5629, Expiration Date: 08-16-2019.

STATE OF MARYLAND
LANDSCAPE ARCHITECT
12/5/18

SUPPLEMENTAL PLAN
FINAL FOREST CONSERVATION / LANDSCAPE PLAN
LOTS 1 THRU 4
PATRICK FAMILY LIMITED PARTNERSHIP II
LIBER 14957 AT FOLIO 110

TAX MAP: 6 ELECTION DISTRICT: No. 4 SCALE: 1" = 100'
GRID NO: 17 HOWARD COUNTY, MARYLAND MARCH, 2018
PARCEL NO: 65 EX. ZONING: RC-DEO SHEET 4 OF 4

PREVIOUS FILE NUMBERS: ECP-18-008, HO-07-01-E, WP-07-026, WP-19-007
RELATED FILE NUMBERS: F-19-029, F-19-030 & WP-19-008.

VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Main Street Mount Airy, Maryland 21771
(301) 829-2890 (301) 831-5015 (410) 549-2751
vanmar.com Fax (301) 831-5603 ©Copyright, Latest Date Shown

F-18-085