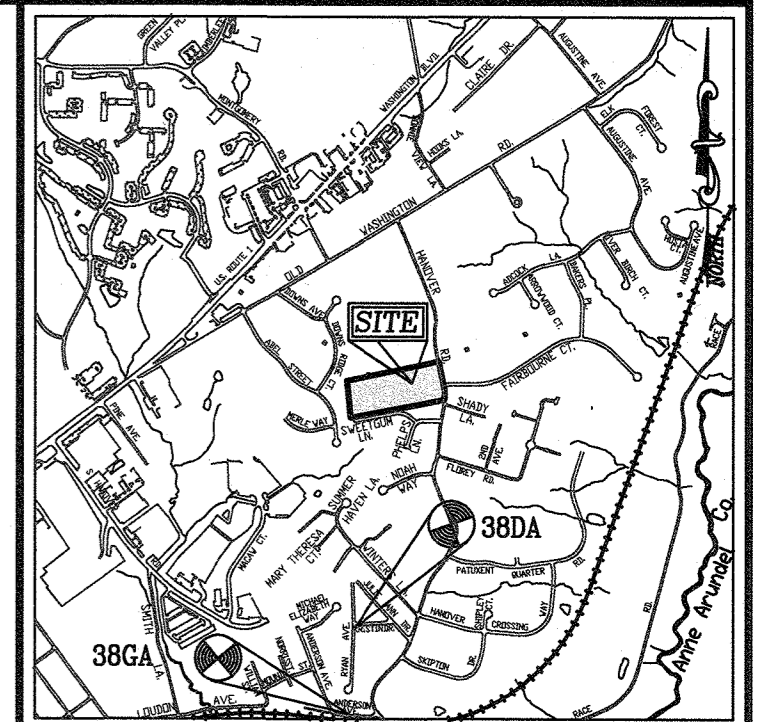


PRELIMINARY PLAN GRACE MEADOWS

LOTS 1 - 18 AND OPEN SPACE LOTS 19 - 29
A SUBDIVISION OF TAX MAP 38 - PARCEL 731
HOWARD COUNTY, MD

BENCHMARKS
HOWARD COUNTY BENCHMARK - 38DA
N 529044.94 E 1350855.03 ELEV.: 337.61
HOWARD COUNTY BENCHMARK - 38GA
N 530494.49 E 1350872.35 ELEV.: 312.28



SHEET INDEX		SHEET NO.
COVER SHEET	DESCRIPTION	
	PRELIMINARY SITE LAYOUT	1 OF 11
	PRELIMINARY ROAD PROFILES AND SITE DETAILS	2 OF 11
	PRELIMINARY GRADING, SOIL EROSION AND SEDIMENT CONTROL PLAN	3 OF 11
	PRELIMINARY STORM DRAIN DRAINAGE AREA MAP	4 OF 11
	PRELIMINARY STORM DRAIN DRAINAGE AREA MAP	5 OF 11
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	PRELIMINARY LANDSCAPE PLAN, NOTES & DETAILS	7 OF 11
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	PRELIMINARY FOREST WATER MANAGEMENT DRAINAGE AREA MAP	9 OF 11
	PRELIMINARY HANOVER ROAD IMPROVEMENTS & CROSS SECTIONS	10-11 OF 11

VICINITY MAP
SCALE: 1"=2,000'
ADC MAP COORDINATE: PAGE: 35 BLOCK: E3

LEGEND

- ===== EXISTING CURB AND GUTTER
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- EX. WETLAND BUFFER
- EX. STREAM
- EX. STREAM BUFFER
- LOT LINES

MINIMUM LOT SIZE CHART

LOT	GROSS AREA	PIPESTEM AREA	NET AREA	MIN. LOT SIZE
1	7,200 SF	N/A	7,200 SF	7,200 SF
2	7,200 SF	N/A	7,200 SF	7,200 SF
3	7,371 SF	N/A	7,371 SF	7,200 SF
4	11,964 SF	3,251 SF	8,713 SF	7,200 SF
5	7,475 SF	N/A	7,475 SF	7,200 SF
6	7,243 SF	N/A	7,243 SF	7,200 SF
7	7,370 SF	N/A	7,370 SF	7,200 SF
8	7,240 SF	N/A	7,240 SF	7,200 SF
9	8,168 SF	893 SF	7,275 SF	7,200 SF
10	10,371 SF	2,494 SF	7,877 SF	7,200 SF
11	7,825 SF	593 SF	7,332 SF	7,200 SF
12	14,428 SF	N/A	14,428 SF	7,200 SF
13	9,786 SF	2,428 SF	7,358 SF	7,200 SF
14	10,724 SF	2,742 SF	7,982 SF	7,200 SF
15	11,439 SF	3,055 SF	8,384 SF	7,200 SF
16	12,234 SF	2,843 SF	9,391 SF	7,200 SF
17	10,388 SF	3,078 SF	7,310 SF	7,200 SF
18	9,945 SF	2,361 SF	7,584 SF	7,200 SF

APFO ALLOCATIONS

ALLOCATION YEAR	TOTAL NO. OF ALLOCATIONS	TOTAL NO. OF CREDITS	TOTALS
2021	17	1	18

MODERATE INCOME HOUSING UNITS (MIHU) ALLOCATION EXEMPTIONS TRACKING

Total Number of Lots/Units Proposed	18
Number of MIHU Required	10% OR 2 UNITS
Number of MIHU Provided Onsite (exempt from APFO allocations)	0
Number of APFO Allocations Required (remaining lots/units)	17 UNITS *
MIHU Fee-in-Lieu (indicate lot/unit numbers)	LOTS 1-17**

* ONE CREDIT FOR THE EXISTING HOUSE TO BE REMOVED
** ACTUAL UNITS MAY DIFFER

OWNER/DEVELOPER
GRACE TAYLOR SCHUTT
6132 HANOVER ROAD
HANOVER, MD 21076
443-463-6760

NO.	REVISION	DATE

**PRELIMINARY PLAN
COVER SHEET
GRACE MEADOWS**
LOTS 1 - 18 AND OPEN SPACE LOTS 19 - 29
A SUBDIVISION OF TAX MAP 38 - PARCEL 731

TAX MAP 38 BLOCK 09
1ST ELECTION DISTRICT

ZONED R-12
PARCEL 731
HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
+
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 03-27-2024.

DESIGN BY: RHW
DRAWN BY: IHV/KG
CHECKED BY: RHW
DATE: JANUARY 2020
SCALE: AS SHOWN
W.O. NO.: 40077

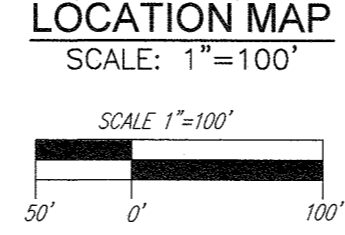
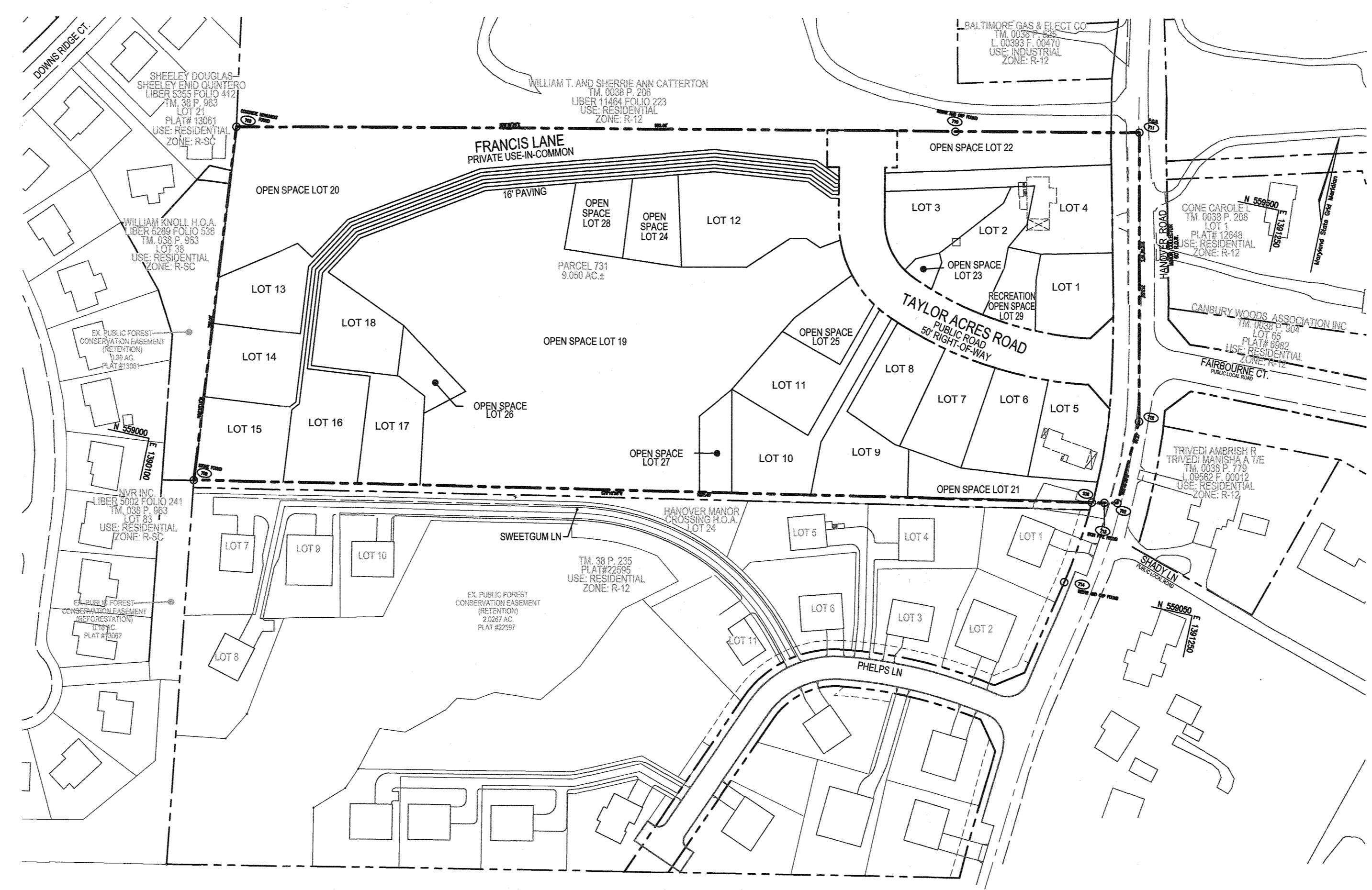
1 SHEET OF 11

GENERAL NOTES

- PROJECT BACKGROUND:
LOCATION: TAX MAP 38, BLOCK 9, PARCELS 731
ZONING: R-12
SUBDIVISION: GRACE MEADOWS
SECTION/AREA: N/A
ELECTION DISTRICT: 1
TOTAL TRACT AREA: 9.05 AC.
NUMBER OF PROPOSED LOTS: 18 SFD / 11 O.S. LOTS
NET AREA OF PROJECT: 8.54 AC.
AREA OF PROPOSED LOTS: 3.87 AC.
AREA OF EX. BEE R/W: 0.86 AC.*
AREA OF R/W DEDICATION: 0.27 AC.*
AREA OF PROPOSED ROAD R/W: 0.54 AC.
OPEN SPACE REQUIRED: 3.24 AC. (SEE OPEN SPACE TABULATION)
OPEN SPACE PROVIDED: 4.37 AC. (3.64 CREDITED)
PUBLIC WATER & SEWER: EXTENSION OF EXISTING WATER & SEWER CONTRACTS 14-4348-D, 44-0906-D, AND 650-S
DPZ REFERENCES: ECP-19-008, HPC-19-23, S-19-002, WP-19-117
*AREAS OVERLAP.
- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON A TOPOGRAPHIC SURVEY PREPARED BY VOGEL ENGINEERING & TIMMONS GROUP, PERFORMED IN FEBRUARY, 2018. OFFSITE TOPOGRAPHY ARE FROM SDP-14-012 AND HOWARD COUNTY GIS.
- THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PREPARED BY VOGEL ENGINEERING & TIMMONS GROUP, DATED FEBRUARY, 2018.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 380A AND 380A WERE USED FOR THIS PROJECT.
- THE SUBJECT PROPERTY IS ZONED R-12 IN ACCORDANCE WITH THE 10/6/2013 COMPREHENSIVE ZONING PLAN AND IS SUBJECT TO THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE 10/2/03 PER COUNCIL BILL 75-2003.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- WATER FOR THIS PROJECT IS TO BE PUBLIC SERVICE CONNECTION FROM CONTRACTS NO.44-0906-D AND 14-4348-D.
- SEWER FOR THIS PROJECT IS TO BE PUBLIC SERVICE CONNECTION FROM CONTRACT NO. 650-S AND 14-4348-D.
- EXISTING UTILITIES LOCATED FROM TOPOGRAPHIC SURVEY AND AS-BUILT DRAWINGS. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE.
- NO FLOODPLAIN IS LOCATED ONSITE.
- STEEP SLOPES OVER 20,000 SF CONTIGUOUS ARE LOCATED ONSITE.
- FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL A PORTION OF THE REQUIREMENTS OF SECTION 16.1200 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY FOREST CONSERVATION MANUAL. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- TOTAL FOREST CONSERVATION OBLIGATION OF THIS PROJECT TO BE FULFILLED BY:
1) ESTABLISHING 2.5 ACRES OF FOREST RETENTION EASEMENTS ON OPEN SPACE LOTS 19 & 20.
2) THE PURCHASE OF THE EQUIVALENT 0.4 ACRES OF REFORESTATION CREDIT IN AN APPROVED FOREST BANK TO BE IDENTIFIED UNDER THE FUTURE FINAL PLAN REVIEW.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. A FINANCIAL SURETY IN THE AMOUNT OF \$19,500 FOR THE REQUIRED LANDSCAPING (REQUIRED 42 SHADE TREES \$12,600, 10 EVERGREEN TREES \$1,500, 18 SPECIMEN TREE REPLACEMENT \$5,400) SHALL BE POSTED WITH THE FINAL DEVELOPERS AGREEMENT.
- PUBLIC STREET TREES ARE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 16.124(a)(1) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL. FINANCIAL SURETY (\$9,900) SHALL BE COLLECTED AS PART OF THIS FINAL PLAN HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS COST ESTIMATE FOR THE REQUIRED 33 STREET TREES.
- A WETLAND AND FOREST STAND DELINEATION PLAN WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, SEPTEMBER 25, 2018, AND APPROVED AS PART OF SKETCH PLAN SUBMISSION S-19-002.
-A LARGE WETLAND/ INTERMITTENT STREAM SYSTEM IS PRESENT NEAR THE CENTER OF THE SITE.
-TWELVE (12) SPECIMEN TREES WERE FOUND ONSITE. THIS PLAN CALLS FOR THE REMOVAL OF 9 OF THOSE TREES.
REFER TO GENERAL NOTE 33.
- IN ACCORDANCE WITH THE WETLAND, FOREST STAND DELINEATION AND PRELIMINARY FOREST CONSERVATION PLAN REPORT, PREPARED BY ECO-SCIENCE PROFESSIONALS AND DATED SEPTEMBER 25, 2018, NO RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED ON THE PROPERTY.
- 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 EASEMENT AREAS.
REFER TO NOTE 19.
- NECESSARY DISTURBANCE APPROVAL IN ACCORDANCE WITH SECTION 16.116(C) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS WILL BE REQUIRED AT FINAL PLAN STAGE FOR THE PROPOSED IMPACTS TO WETLANDS, STREAMS AND THEIR BUFFERS FOR THE SEWER CONNECTION AND SWM OUTFALL.
- GEOTECHNICAL INVESTIGATIONS SHALL BE COMPLETED AS PART OF THIS PLAN.
- A NOISE STUDY IS NOT REQUIRED.
- HANOVER ROAD IS CLASSIFIED AS A MINOR COLLECTOR AND IS NOT A SCENIC ROAD.
- TAYLOR ACRES ROAD IS A PUBLIC ACCESS PLACE AND FRANCIS LANE IS A PRIVATE USE-IN-COMMON DRIVEWAY.
- THERE ARE 2 EXISTING HOMES ON THE PROPERTY TO BE REMOVED. THE HOUSE AT 6150 HANOVER ROAD (TO BE REMOVED) IS LISTED ON THE HISTORIC SITES INVENTORY AS HO-791, THE TAYLOR HOUSE, AND DATES TO THE 1970s.
-THIS PLAN CAME TO THE HISTORIC PRESERVATION COMMISSION ON MAY 1, 2019 FOR ADVISORY COMMENTS AS CASE HPC-19-23.
-TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL GROUNDS OR CEMETERIES LOCATED ON THE SUBJECT PROPERTY OR THE COUNTY'S CEMETERY SITE MAP.
- THE PROPOSED UNITS SHALL HAVE AN AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM.
- STORMWATER MANAGEMENT FOR THE PROJECT IS PROVIDED BY THE USE OF MICRO-SCALE PRACTICES IN ACCORDANCE WITH ENVIRONMENTAL SITE DESIGN CRITERIA. MICRO-SCALE PRACTICES INCLUDE: MICRO-BIORETENTION (M-6), RAIN GARDENS (M-7) AND DRYWELLS (M-5). THESE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
- THE PRE-SUBMISSION COMMUNITY MEETING WAS HELD FOR THIS PROJECT AT THE ELKRIKGE BRANCH HOWARD COUNTY LIBRARY SYSTEM ON SEPTEMBER 18, 2018.
- THE ENVIRONMENTAL CONCERN PLAN (ECP) WAS APPROVED ON SEPTEMBER 4, 2019.
- THE SKETCH PLAN (S-19-002) WAS APPROVED ON JUNE 25, 2019.
- IN ACCORDANCE WITH SECTION 109.0.E OF THE 10/06/13 COMPREHENSIVE ZONING REGULATIONS, THIS SUBDIVISION IS SUBJECT TO MODERATE INCOME HOUSING UNITS. A MIHU AGREEMENT AND MIHU COVENANTS WILL BE REQUIRED IN ACCORDANCE WITH SECTION 13.402 OF THE HOWARD COUNTY CODE. THE MIHU REQUIREMENTS FOR THIS SUBDIVISION WILL BE 2 UNITS (10% OF 18 UNITS).
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
A. WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE).
B. SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MIN).
C. GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% CHANGE AND MINIMUM OF 45-FOOT DEPTH TURNING RADII.
D. STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
E. DRAINAGE ELEMENTS-CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
F. STRUCTURE CLEARANCES - MINIMUM 12 FEET.
G. MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
- TRAFFIC CONTROL DEVICES:
A. THE R1-(STOP) SIGN AND STREET NAME SIGN (SNS) ASSEMBLY FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETE.
B. 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.
C. ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MDMUTCD).
D. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL PERFORATED ("QUICK PUNCH"), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. THE 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.
- AN ALTERNATIVE COMPLIANCE PETITION TO SECTION 16.1200(a)(4)(w), "LOT DESIGN", SECTION 16.121(a)(1), "ACCESS AND FRONTAGE", AND SECTION 16.1205(a)(7), "ON-SITE FOREST RETENTION", FILED AS WP-19-117, WAS APPROVED ON JUNE 20, 2019. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
1. ACCESS TO OPEN SPACE LOT 24 SHALL BE PROVIDED BY THE USE-IN-COMMON ACCESS EASEMENT FOR LOTS 13-18 AND BY THE PROPOSED PUBLIC DRAINAGE & UTILITY FRONTAGE ON LOT 12. A NOTE SHALL BE ADDED TO THE SKETCH PLAN (S-19-002) AND THE FINAL PLAT INDICATING THAT HOWARD COUNTY WILL NOT BE RESPONSIBLE FOR MAINTENANCE OF THE SHARED DRIVEWAY WITHIN THE USE-IN-COMMON ACCESS EASEMENT.
2. THE MINIMUM PUBLIC ROAD FRONTAGE IS HEREBY REDUCED TO 22.9' FOR OPEN SPACE LOT 21 AND 35.8' FOR OPEN SPACE LOT 23, AS REQUESTED.
3. THE MINIMUM PUBLIC ROAD FRONTAGE FOR OPEN SPACE LOTS 24, 26, 27 & 28 IS HEREBY REDUCED TO ZERO, AS REQUESTED. A PRIVATE ACCESS EASEMENT SHALL BE PROVIDED FOR THESE LOTS ON THE SKETCH PLAN AND FINAL PLAT. THE EASEMENT AGREEMENTS FOR THE PROPOSED USE-IN-COMMON ACCESS EASEMENTS SHALL INCLUDE LANGUAGE REFERRING ACCESS FOR MAINTENANCE OF THE STORMWATER MANAGEMENT FACILITIES.
4. SIGNAGE AND/OR BOLLARDS SHALL BE INSTALLED TO DELINEATE THE ACCESS FOR OPEN SPACE LOTS 24, 26 AND 27. DETAILS SHALL BE PROVIDED ON THE FINAL ROAD CONSTRUCTION PLAN.
5. OPEN SPACE LOTS 19, 20, 22, 25 & 29 SHALL MEET THE MINIMUM PUBLIC ROAD FRONTAGE REQUIREMENTS IN ACCORDANCE WITH SECTION 16.121(a).
6. THE REMOVAL OF NINE SPECIMEN TREES (SF # 1-6, 8, 10 & 11) IS PERMITTED AS SHOWN ON THE PLAN EXHIBIT. THE REMOVAL OF ANY ADDITIONAL SPECIMEN TREE IS NOT PERMITTED UNDER THIS ALTERNATIVE COMPLIANCE REQUEST.
7. THE DEVELOPER SHALL PLANT EIGHTEEN (18) MINIMUM-CALIPER NATIVE SHADE TREES ONSITE IN ADDITION TO THE REQUIRED PERIMETER LANDSCAPING TO MITIGATE THE REMOVAL OF THE NINE SPECIMEN TREES. IT IS RECOMMENDED THAT THE TREES BE PLANTED WITHIN THE OPEN SPACE LOTS TO ENSURE LONG-TERM PROTECTION. REFERENCES THE ADDITIONAL TREES ON S-19-002 AND INCLUDE PLANTING DETAILS ON ALL SUBSEQUENT SUBDIVISION AND DEVELOPMENT PLANS. THESE TREES WILL BE BONDED ALONG WITH THE REQUIRED PERIMETER LANDSCAPING AS PART OF THE FINAL SUBDIVISION PLAN.
34. HOWARD COUNTY WILL NOT BE RESPONSIBLE FOR THE MAINTENANCE OF THE SHARED DRIVEWAYS WITHIN THE USE-IN COMMON ACCESS EASEMENTS, PER CONDITION #1 OF WP-19-117.
35. OPEN SPACE SIGNAGE AND/OR BOLLARDS, AND ASSOCIATED DETAILS TO BE PROVIDED ON THE FINAL ROAD CONSTRUCTION PLAN, PER CONDITION #4 OF WP-19-117.
36. A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPER/OWNER'S EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5751 FOR DETAILS AND COST ESTIMATE.
37. ON THE APPROACH SIDE OF A STOP SIGN, NO STREET TREE CAN BE PLANTED WITHIN 30 FT OF THE STOP SIGN.
39. UTILIZE HOWARD COUNTY STANDARD DETAIL NO. R-6.05 FOR THE PROPOSED DRIVEWAY ENTRANCES FOR LOTS 1-4 AND DETAIL NO. R-6.03 FOR LOTS 6-18.

COORDINATE TABLE

218	559147.1888	1391117.6060
702	559152.3628	1391145.0076
708	558965.8170	1390157.0595
709	559350.2639	1390122.2694
710	559509.4681	1390888.3837
711	559550.1626	1391084.1999
712	559243.5270	1391149.3997
713	559149.7250	1391130.9867
714	559056.4242	1391106.2676



SITE ANALYSIS DATA CHART

- A. TOTAL PROJECT AREA: 9.05 AC.
- B. NET AREA (TOTAL-FLOODPLAIN-STEEP SLOPES): 8.54 AC.
- C. AREA OF WETLANDS AND WETLAND BUFFERS: 1.84 AC.
- D. AREA OF FLOODPLAIN: 0.00 AC.
- E. AREA OF FOREST: 6.70 AC. (REFER TO FSD)
- F. AREA OF MODERATE SLOPES (15% TO 24.99%): 1.01 AC.
- G. AREA OF STEEP SLOPES (25% OR GREATER): 0.51 AC. (WITHIN BOUNDARY)
- H. ERODIBLE SOILS: 9.05 AC.
- I. LIMIT OF DISTURBED AREA: 6.50 AC.
- J. PROPOSED USES FOR SITE AND STRUCTURES: RESIDENTIAL, 7.11 AC. (OPEN AND ENVIRONMENTAL), 84,385 SF OR 1.94 AC.
- K. GREEN OPEN AREA: 6.50 AC.
- L. PROPOSED IMPERVIOUS AREA: 84,385 SF OR 1.94 AC.
- M. PRESENT ZONING DESIGNATION: R-12
- N. OPEN SPACE REQUIRED: SEE TABULATION
- O. TOTAL NUMBER OF UNITS ALLOWED: 35
(9.05 AC. - 3.24 AC.(REQ. O.S.) = 5.81 AC. (5.81 AC. / 7,200 SF = 35 UNITS)
- P. TOTAL NUMBER OF UNIT PROPOSED: 18
- Q. MIHU REQUIREMENTS: SEE GENERAL NOTE 30 & TRACKING CHART
- R. DPZ FILE REFERENCES: SEE GENERAL NOTE 1

OPEN SPACE LOT OWNERSHIP

LOT	OWNERSHIP
19	RECREATION AND PARKS
20	RECREATION AND PARKS
21	HOA
22	HOA
23	HOA
24	HOA
25	HOA
26	HOA
27	HOA
28	HOA
29	HOA

RECREATION OPEN SPACE TABULATION:

RECREATION OPEN SPACE REQUIRED PER SECTION 16.121(A)(4)(w)
GRACE MEADOWS - SINGLE FAMILY HOMES (SFD)
= 200 SF/UNIT x 18 UNITS = 3,600 SF
TOTAL RECREATION OPEN SPACE REQUIRED = 3,600 SF
TOTAL RECREATION OPEN SPACE TO BE PROVIDED FOR GRACE MEADOWS
LAND AREA: 3.600 SF
OPEN SPACE LOT 29 = 3,602 SF

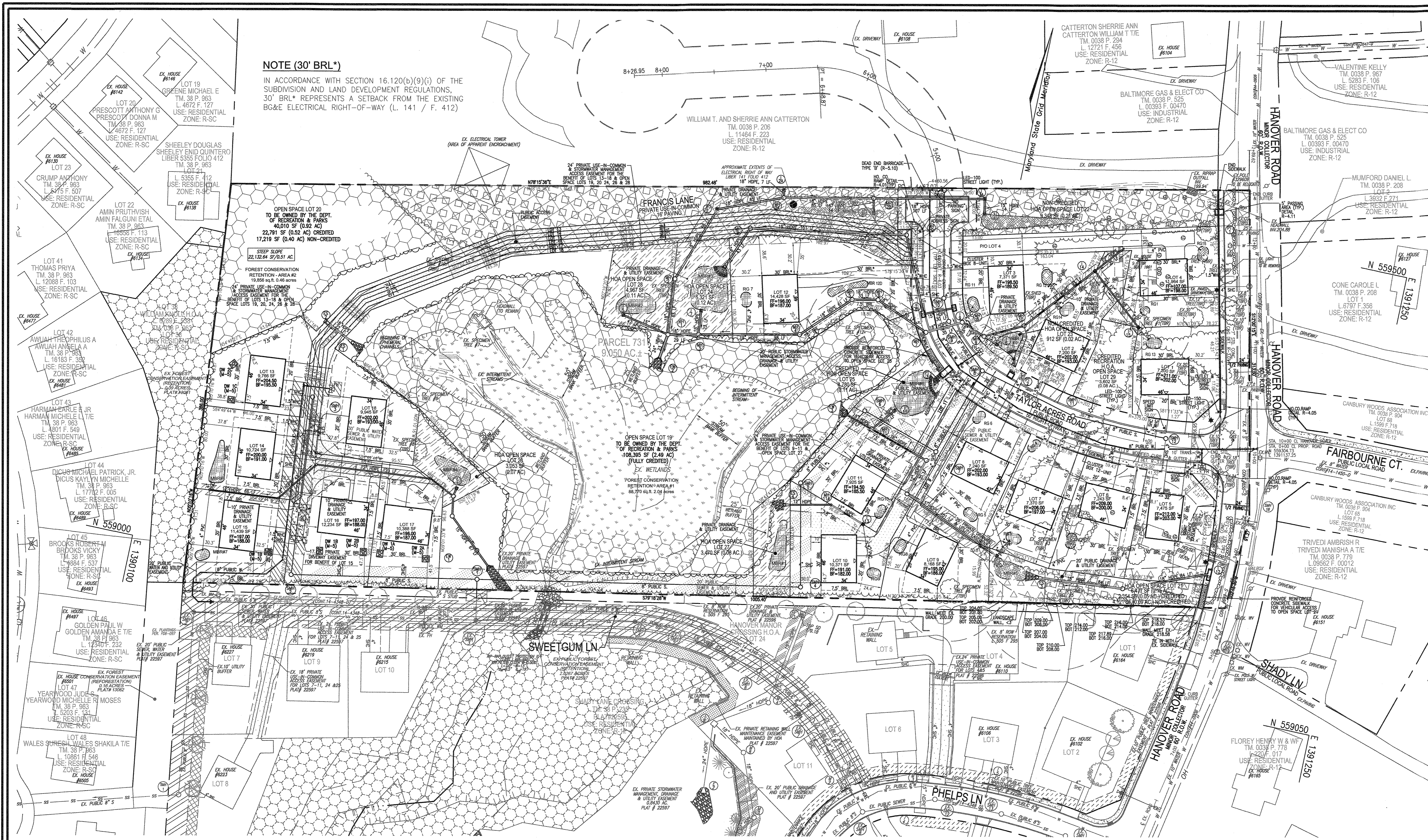
PARKING TABULATION:

TOTAL NUMBER OF DWELLING UNITS PROPOSED: 18
SINGLE FAMILY DETACHED (SFD) = 18 LOTS
1. OFF-STREET PARKING SPACES REQUIRED: 2 SPACES PER UNIT
18 x 2 = 36 SPACES REQUIRED
PARKING SPACES PROVIDED:
SFD = 2 GARAGE / 2 DRIVEWAY
2 SPACES IN GARAGE = 36 SPACES (FOR 18 UNITS)
2 SPACES ON DRIVEWAY = 36 SPACES (FOR 18 UNITS)
TOTAL OFF-STREET PARKING SPACES PROVIDED: = 72 SPACES
OFF-STREET
2. VISITOR PARKING REQUIRED:
SFD - 18 UNITS @ 0.5 SPACES PER UNIT
18 x 0.5 = 9 SPACES REQUIRED
-REFER TO 36 OFF-STREET REQUIRED FOR SFD

OPEN SPACE TABULATION:
IN ACCORDANCE WITH SECTION 16.121(A)(2) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS THE OPEN SPACE REQUIREMENTS FOR THIS R-12 PROJECT IS 40% OF GROSS AREA WHEN USING THE OPTIONAL MINIMUM LOT SIZE OF 7,200 SQUARE FEET
(9.05 AC. GROSS AREA - 0.96 A.C. ELECTRICAL ROW) 8.09 AC. x 40%
OPEN SPACE PROVIDED IS 4.37 ACRES:
CREDITED 3.64 ACRES+
NON-CREDITED 0.73 ACRES+

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

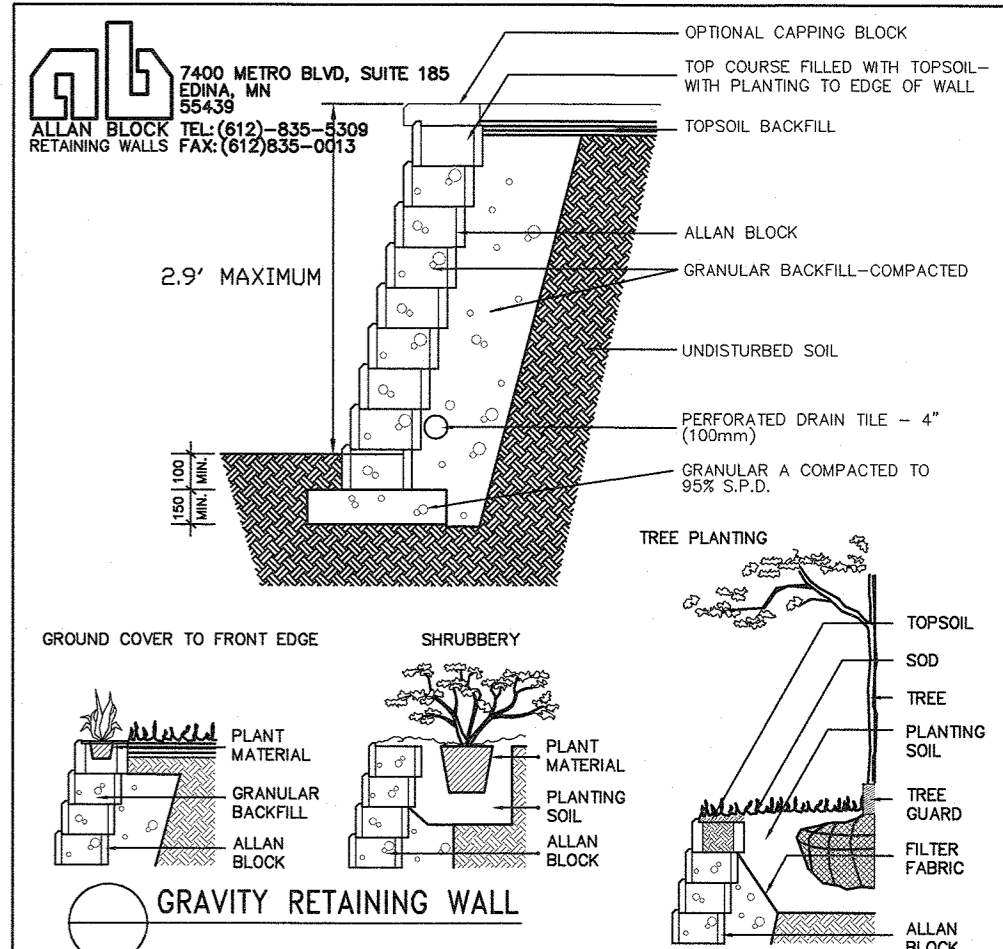
PLANNING DIRECTOR: [Signature]
DATE: 2-3-2020



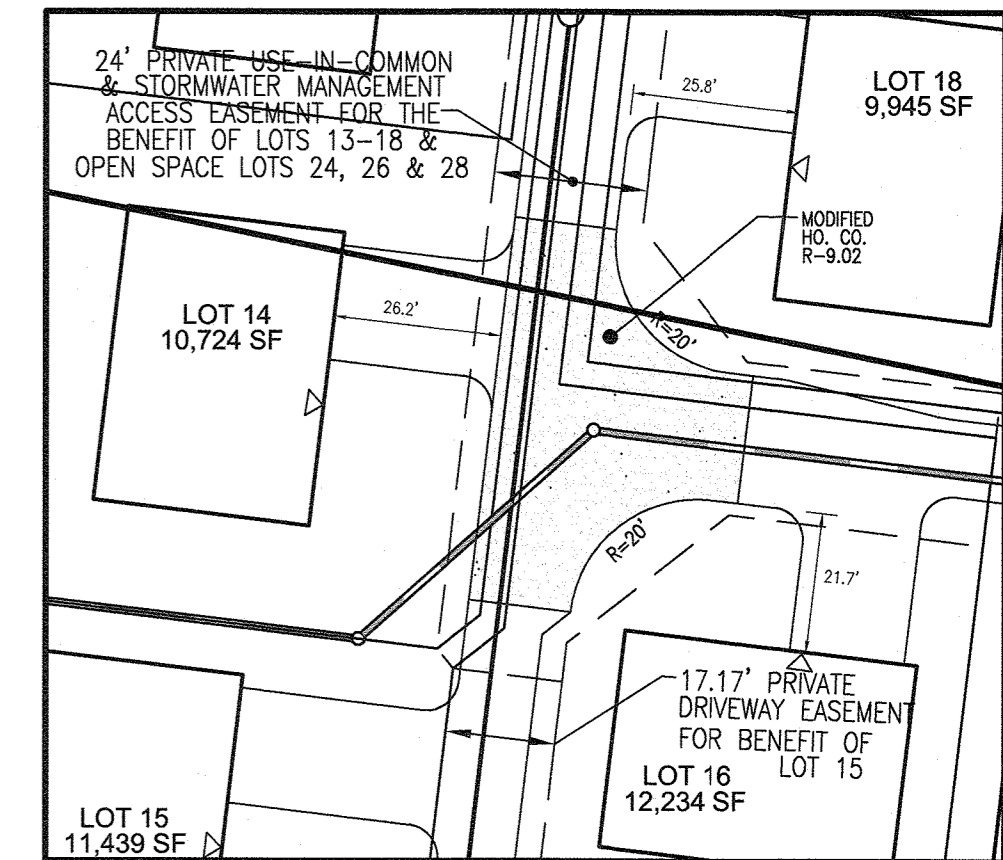
NOTE (30' BRL*)

IN ACCORDANCE WITH SECTION 16.120(b)(9)(i) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, 30' BRL* REPRESENTS A SETBACK FROM THE EXISTING BG&E ELECTRICAL RIGHT-OF-WAY (L. 141 / F. 412)

TYP. LANDSCAPE WALL OR EQUAL



- GRAVITY RETAINING WALL**
- SPECIFICATIONS:**
1. EXCAVATE AREA TO LINE AND GRADES AS SHOWN ON CONSTRUCTION DRAWINGS
 2. SUBGRADE TO BE FIRM AND UNDISTURBED AND COMPACTED TO 95% S.P.D.
 3. BASE MATERIAL SHALL BE GRANULAR A COMPACTED TO 95% S.P.D. AND GRADED TO PROVIDE LEVEL HARD SURFACE ON WHICH TO PLACE THE FIRST COURSE OF UNITS. MIN. THICKNESS - 6" (150mm)
 4. PLACE FIRST COURSE A MINIMUM OF 4" (100mm) BELOW FINISHED GRADE, WITH THE BASED UP FINISH OUT AND THE FRONT EDGES TIGHT TOGETHER. FILL CAVITIES WITH SAND OR CLEAR CRUSHED STONE AND COMPACT. SWEEP CLEAN AND CHECK THE UNITS FOR LEVEL AND ALIGNMENT. BACKFILL FRONT AND BACK OF ENTIRE BASE ROW TO FINISH LOOK IN PLACE.
 5. INSTALL SUBSEQUENT COURSES IN SIMILAR FASHION PROVIDING A MIN. 3" (76mm) OVERLAP OF SEAMS AND A MIN. OF 12" (305mm) GRANULAR BACKFILL.
 6. ALLAN BLOCKS COME IN 3 STYLES - STANDARD BLOCK, ANGLE BLOCK, AND CORNER BLOCK AS WELL AS A STANDARD CAPPING STONE. THE BLOCKS HAVE A COMPRESSIVE STRENGTH OF OVER 4000 PSI (280MPa)
 7. A WIDE VARIETY OF DESIGNS CAN BE ACHIEVED INCLUDING ROSE AND OUTSIDE CORNERS, CURVES AND STEPS. BLOCKS COME IN 5 STANDARD COLORS-NATURAL, BUFF, BROWN, EARTH TONE, SMOKE BLEND.
 8. WALLS HIGHER THAN 6' REQUIRE GEOTECHS OR REBAR AND MASONRY CONSTRUCTION-CONSULT MANSF.



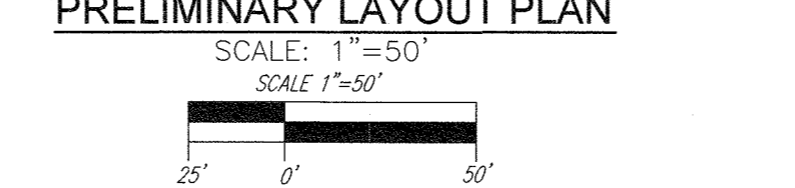
OWNER/DEVELOPER
 GRACE TAYLOR SCHUTT
 6132 HANOVER ROAD
 HANOVER, MD 21076
 443-463-6760

ADJOINER INFORMATION FOR SHADY LANE CROSSING

LOT NO.	STREET ADDRESS	OWNERS	TAX MAP/PARCEL	LIBER/FOLIO	USE	ZONING
1	6164 HANOVER ROAD	ADEOSUN ADEDOTUN AFOJARIN, ADEOSUN BETTY LANDU	38/235	16022/196	RES	R-12
2	6100 PHELPS LANE	TREICH BRIAN P., TREICH SARAH M.	38/235	16298/204	RES/COMM	R-12
3	6106 PHELPS LANE	NADKAR AMOL, SANKARANARAYANAN SOMWYA	38/235	16190/286	RES	R-12
4	6110 PHELPS LANE	OH JUNG WHAN THOMAS, OH CECILIA H.	38/235	16190/310	RES	R-12
5	6114 PHELPS LANE	SAVKO ANDREA, PHALEN LUCAS	38/235	16315/006	RES	R-12
6	6118 PHELPS LANE	MEHERET TEMESGEN B.	38/235	16022/298	RES	R-12
7	6227 SWEETGUM LANE	JOHN RAJESH DAVID, RAJESH JEENWASANTHA P.	38/235	16199/305	RES	R-12
8	6223 SWEETGUM LANE	AQUINO RAPHAEL ULACAN, AQUINO CARLA SUE	38/235	16406/048	RES	R-12
9	6219 SWEETGUM LANE	PARMAR ANKIT M., PARMAR MANIPALSIKH M.	38/235	16088/050	RES	R-12
10	6215 SWEETGUM LANE	ALU FNU MOHAMMED EHSAN, PATTAN SHAHEEN	38/235	16655/416	RES	R-12
11	6205 SWEETGUM LANE	TON QUAN	38/235	16555/445	RES	R-12
24	SWEETGUM LANE	HANOVER MANOR CROSSING HOMEOWNERS ASSOC. INC.	38/235	15368/295	OPEN SPACE	R-12

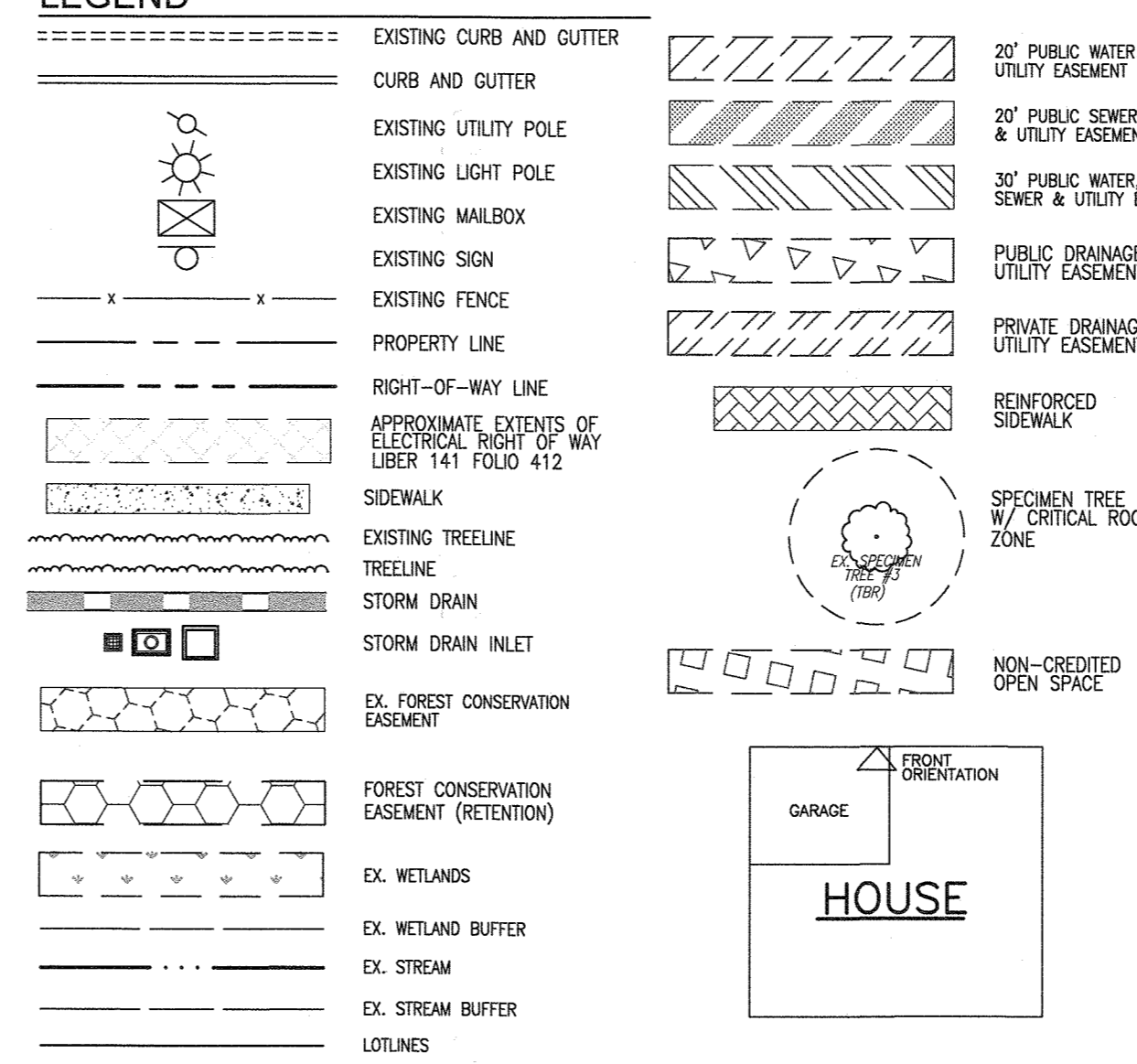
SIGNAGE LOCATION CHART

ROAD NAME	STATION	OFFSET	TYPE
TAYLOR ACRES ROAD	0+52.49	16.4 LT	R1-1 STOP SIGN
TAYLOR ACRES ROAD	0+33.2	36.4 RT	STREET NAME SIGN
TAYLOR ACRES ROAD	0+33.2	36.4 RT	"NO OUTLET" SIGN
TAYLOR ACRES ROAD	0+85.71	17 RT	R2-1 SPEED LIMIT SIGN
TAYLOR ACRES ROAD	2+85.95	16 LT	UIC ADDRESS SIGN
TAYLOR ACRES ROAD	4+27.08	16.5 LT	UIC ADDRESS SIGN
TAYLOR ACRES ROAD	4+60.56	0.0	R7-1 "NO PARKING" SIGN



STREET LIGHT LOCATIONS

ROAD NAME	STATION	OFFSET	FIXTURE/POLE TYPE
HANOVER ROAD	114+55.6	32.4 LT	150 WATT LED PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
HANOVER ROAD	8+85.6	32.4 LT	150 WATT LED PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
TAYLOR ACRES ROAD	0+39.56	27.88 LT	150 WATT LED PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
TAYLOR ACRES ROAD	1+61.65	17.7 RT	150 WATT LED PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
TAYLOR ACRES ROAD	2+94.2	16.5 LT	150 WATT LED PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
TAYLOR ACRES ROAD	4+60.56	0.0	150 WATT LED PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE



TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY

DATE: 2-3-2020

- NOTES:**
1. FOR STREET TREE LOCATIONS, REFER TO SHEET 7.
 2. ALL STREET TREES AND/OR SIGN SHALL BE LOCATED 5' MIN. FROM PROPOSED DRAINAGE, UTILITY STRUCTURE.
 3. THERE SHOULD BE A MINIMUM OF 20' BETWEEN STREET LIGHTS AND STREET TREES.
 4. IN THE DIRECTION FACING A TRAFFIC CONTROL SIGN:
 - 1) THERE SHALL BE A MINIMUM OF 40' BETWEEN THE SIGN FACE AND CLOSEST TREE FOR ALL STOP SIGNS.
 - 2) THERE SHALL BE A MINIMUM OF 35' BETWEEN THE SIGN FACE AND CLOSEST TREE FOR ALL SIGNS OTHER THAN A STOP SIGN.
 5. REFER TO SHEET 3 FOR PROPOSED CENTRAL MAIL DELIVERY BOX (CMB) LOCATIONS. FINAL LOCATION SHALL BE AS DIRECTED BY THE US POSTAL SERVICE.
 6. HANDICAP RAMPS ARE STANDARD R-4.01.

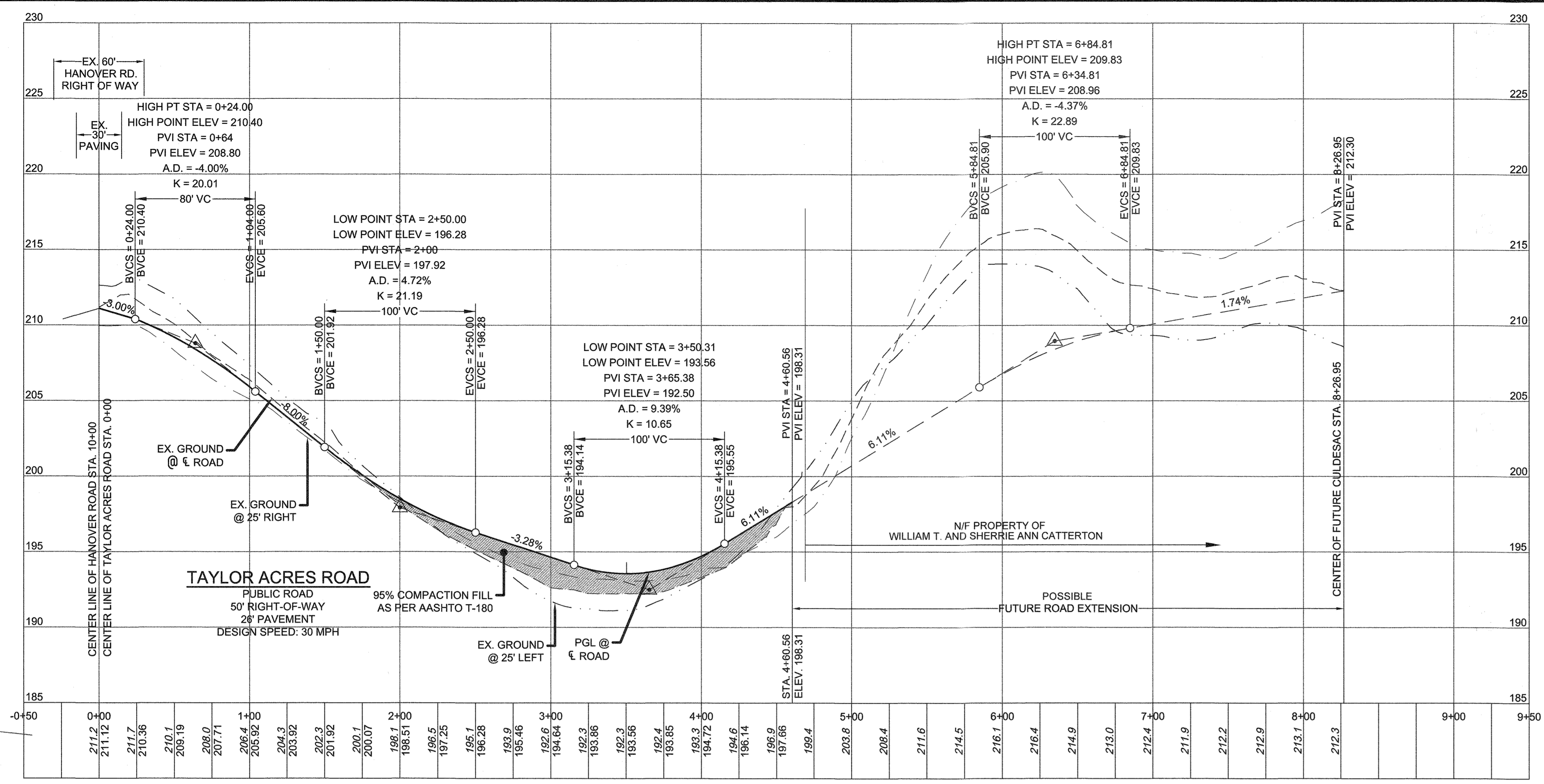
PRELIMINARY PLAN
PRELIMINARY LAYOUT PLAN
GRACE MEADOWS
 LOTS 1, 18 AND OPEN SPACE LOTS 19 - 29
 A SUBDIVISION OF TAX MAP 38 - PARCEL 731

VOGEL ENGINEERING
 TIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

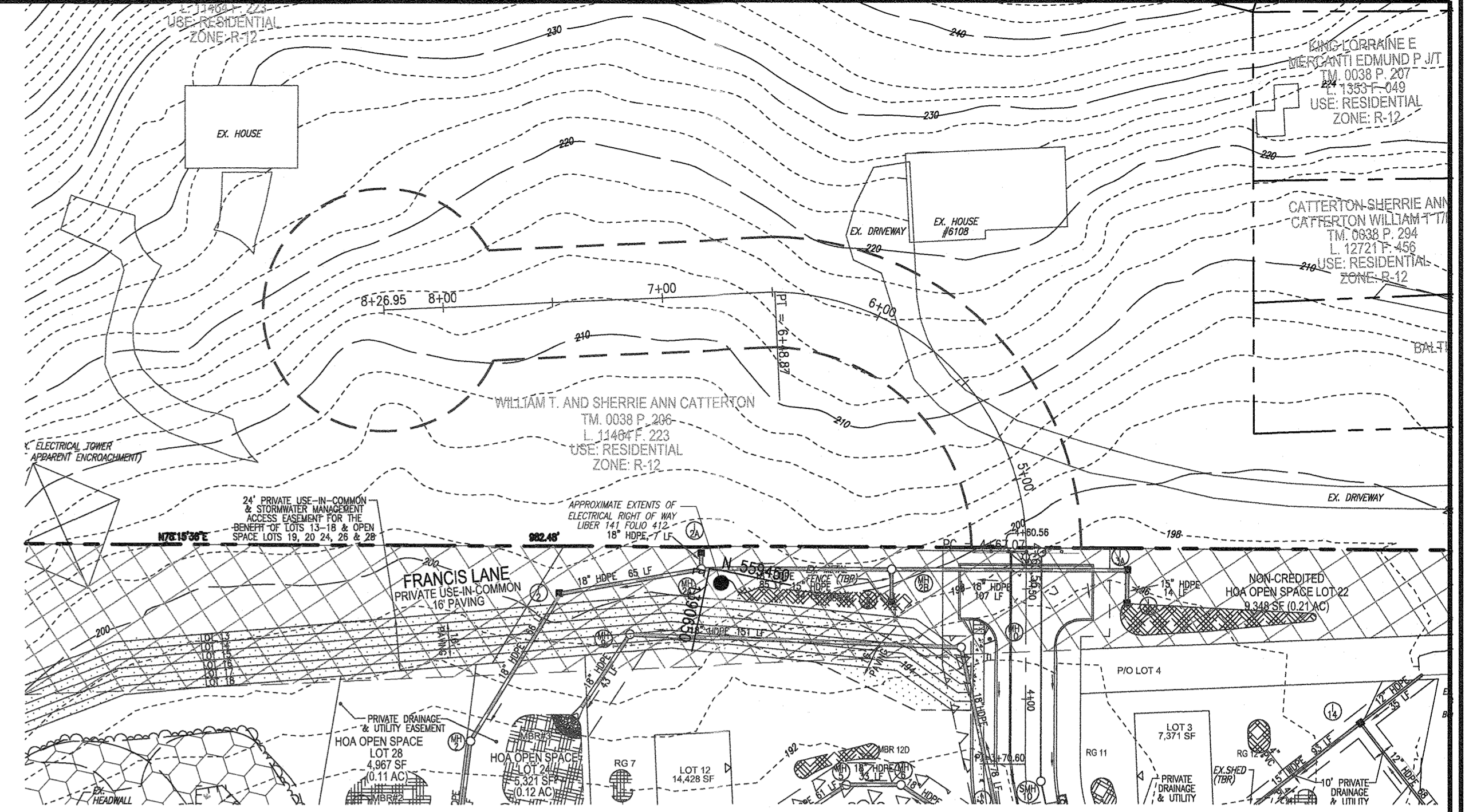
PROFESSIONAL CERTIFICATE

DESIGN BY: RHH/KVC
 DRAWN BY: IH/KG
 CHECKED BY: RHH
 DATE: JANUARY 2020
 SCALE: AS SHOWN
 W.O. NO.: 40077

2 SHEET OF 11



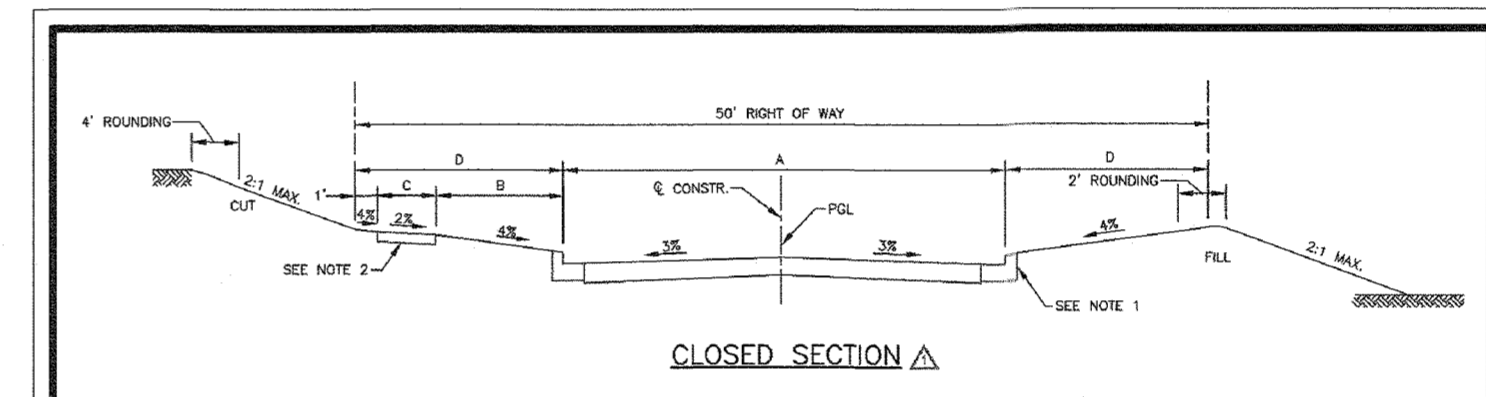
TAYLOR ACRES ROAD - PROFILE
SCALE: 1"=50' HORZ.
1"=5' VERT.



**TAYLOR ACRES ROAD
POSSIBLE FUTURE ROAD EXTENSION**
SCALE: 1"=50'

LEGEND

- EXISTING CURB & GUTTER
- PROPOSED CURB & GUTTER
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- MICRO-BIORETENTION
- PROPOSED SIDEWALK
- EXISTING TREELINE
- PROPOSED TREELINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EX. FOREST CONSERVATION EASEMENT
- APPROXIMATE EXTENTS OF ELECTRICAL RIGHT OF WAY (SEE FOLIO 412)
- ACCESS EASEMENTS
- EX. WETLANDS
- EX. WETLAND BUFFER
- EX. STREAM BUFFER
- PRIVATE DRAINAGE & UTILITY EASEMENT



NOTES:

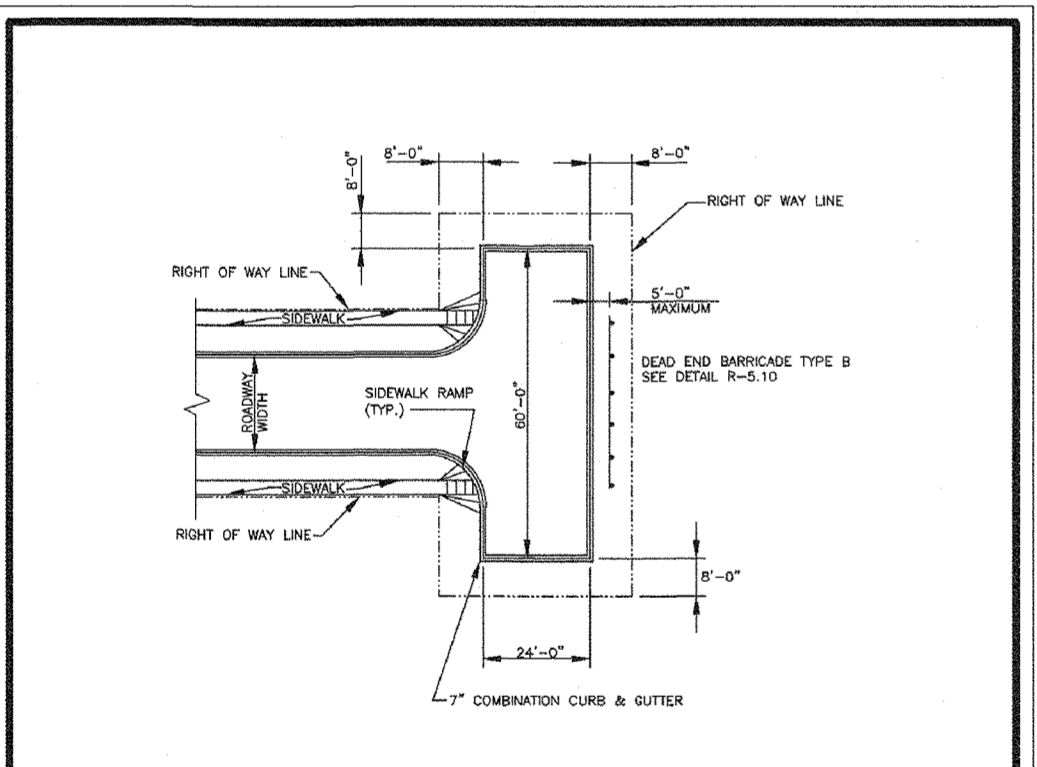
- TYPE OF CURB WAIVES (MODIFIED COMBINATION CURB & GUTTER OR COMBINATION CURB & GUTTER - SEE SECTION MANUAL VOLUME II FOR CRITERIA).
- 4" CONCRETE SIDEWALK AS REQUIRED BY SUB-DIVISION REGULATIONS.
- 4'-0" SIDEWALK REQUIRES A PASSING AREA (SEE DETAIL R-6.01).
- SEE R-3.05 FOR WHERE SIDEWALK IS AGAINST CURB.

CLASSIFICATION	A	B	C	D	PROPOSED SIDEWALK
MINOR COLLECTOR 3000 ADT	28"	4"	11"	P-3	
ACCESS STREET 1500 ADT	24"	4"	13"	P-2	
ACCESS PLACE 200 ADT	24"	4"	13"	P-2	

*HOMESHALES, CONDOMINIUM / APARTMENT DEVELOPMENTS REQUIRE 20" MINIMUM FINISH WIDTH (P-2 FINISH SECTION)

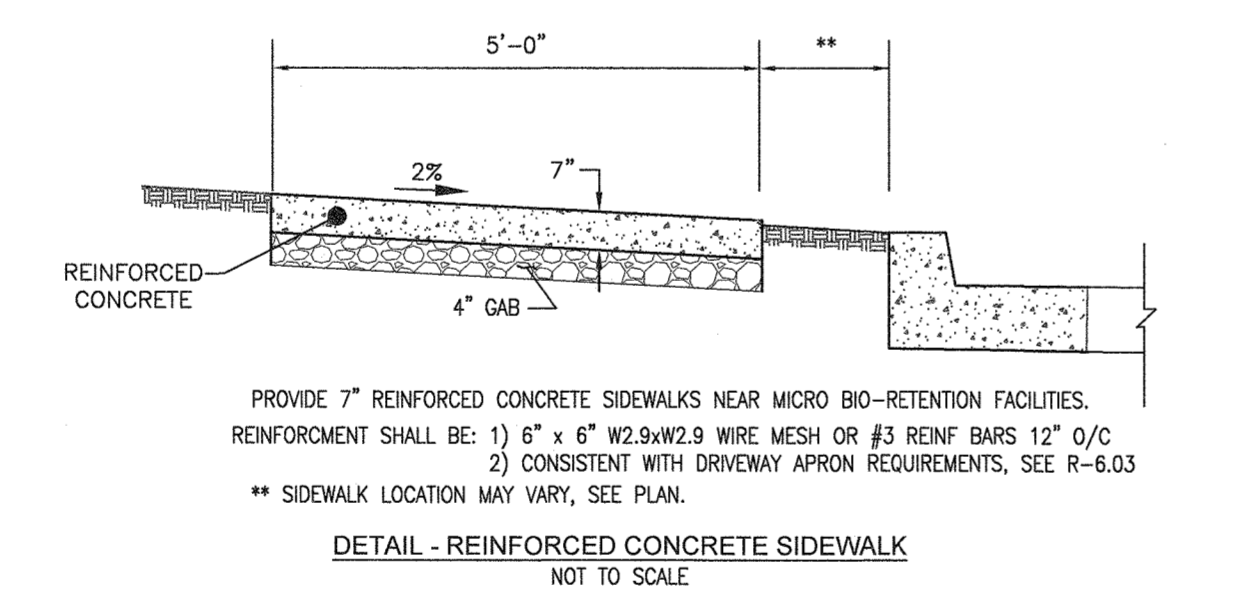
TYPICAL SECTIONS - RESIDENTIAL STREETS
Access Place, Access Streets, Minor Collector
(Closed Section)
Detail R-1.02

OWNER/DEVELOPER
GRACE TAYLOR SCHUTT
6132 HANOVER ROAD
HANOVER, MD 21076
443-463-6760



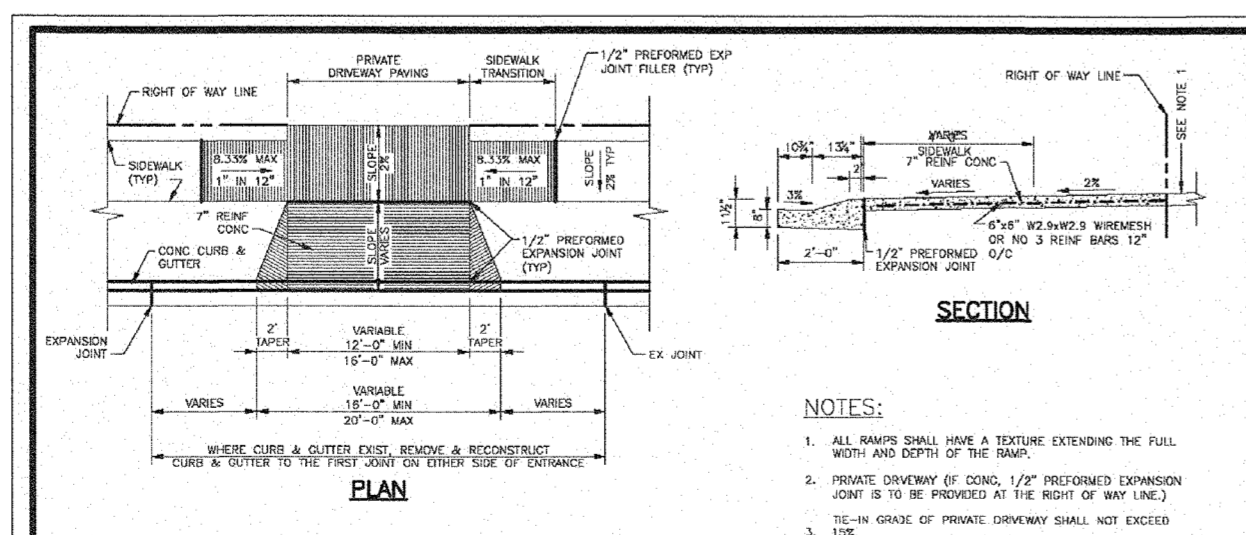
- NOTES:**
- PERMANENT TEE SHALL ONLY BE INSTALLED ON RESIDENTIAL STREETS WITH LESS THAN 200 ADT.
 - THE LENGTH OF THE BARRICADE IS TO EQUAL THE WIDTH OF THE ROADWAY.
 - INSTALL SIGNS R7-1 (1) "NO PARKING", R7-4 "NO STOPPING", R7-4 (1) "NO STOPPING" AS DIRECTED BY DPM.
 - INSTALL SIGNS (M-1) (2) "END OF ROAD BARRICADE" BEHIND BARRICADE. SIGNS TO BE INSTALLED 12' APART, MINIMUM 2 SIGNS PER TEE TURN-AROUND.
 - THERE SHALL BE NO DRIVEWAYS ALONG THE TEE TURN-AROUND.

Howard County, Maryland
Department of Public Works
Permanent
TEE TURN-AROUND
(<200 ADT)
Detail R-5.05



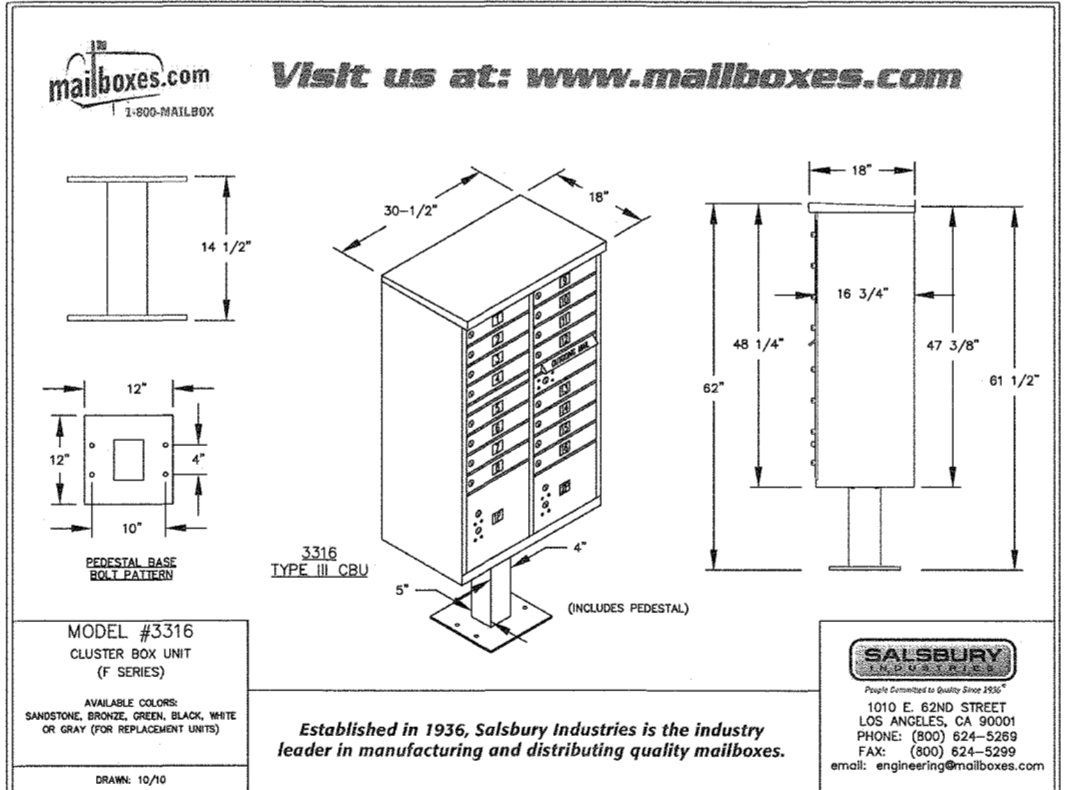
PROVIDE 7" REINFORCED CONCRETE SIDEWALKS NEAR MICRO BIO-RETENTION FACILITIES. REINFORCEMENT SHALL BE: 1) 6" x 6" W2.9/W2.9 WIRE MESH OR #3 REIN BARS 12" O/C 2) CONSISTENT WITH DRIVEWAY APRON REQUIREMENTS, SEE R-6.03
** SIDEWALK LOCATION MAY VARY, SEE PLAN.

DETAIL - REINFORCED CONCRETE SIDEWALK
NOT TO SCALE



- NOTES:**
- ALL WALKS SHALL HAVE A TEXTURE EXTENDING THE FULL WIDTH AND DEPTH OF THE WALK.
 - PRIVATE DRIVEWAY OR DRIVE, 1/2" PRECAST CONCRETE JOINT IS TO BE PROVIDED AT THE RIGHT OF WAY LINE.
 - 1/2" PRECAST CONCRETE DRIVEWAY JOINT SHALL NOT EXCEED 12".
 - DRIVEWAY JOINTS TO SIDEWALK MUST BE SLOPED TO WEIR RAMP.
 - 1/2" PRECAST CONCRETE JOINTS TO SIDEWALK SHALL BE 12" MAX.
 - 1/2" PRECAST CONCRETE JOINTS TO SIDEWALK SHALL BE 12" MAX.

Howard County, Maryland
Department of Public Works
Permanent
RESIDENTIAL DRIVEWAY ENTRANCE
Modified Combination Curb and Gutter
Sidewalk Setback from Curb
Detail R-6.03



SALSBUURY INDUSTRIES MANUFACTURES CBU'S THAT ARE OFFICIALLY LICENSED BY THE U.S.P.S. SALSBUURY 3300 SERIES CLUSTER BOX UNITS ARE MANUFACTURED TO U.S.P.S. "T" SPECIFICATIONS. THEY ARE AN OFFICIALLY LICENSED PRODUCT OF THE U.S. POSTAL SERVICE FOR CENTRALIZED MAIL DELIVERY. LICENSE NUMBER 10C5EQ-08-B-0026
TYPICAL CENTRAL MAIL DELIVERY BOX (CBU) OR APPROVED EQUAL

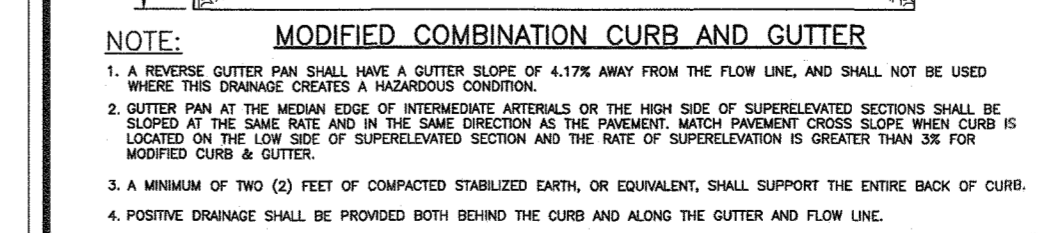
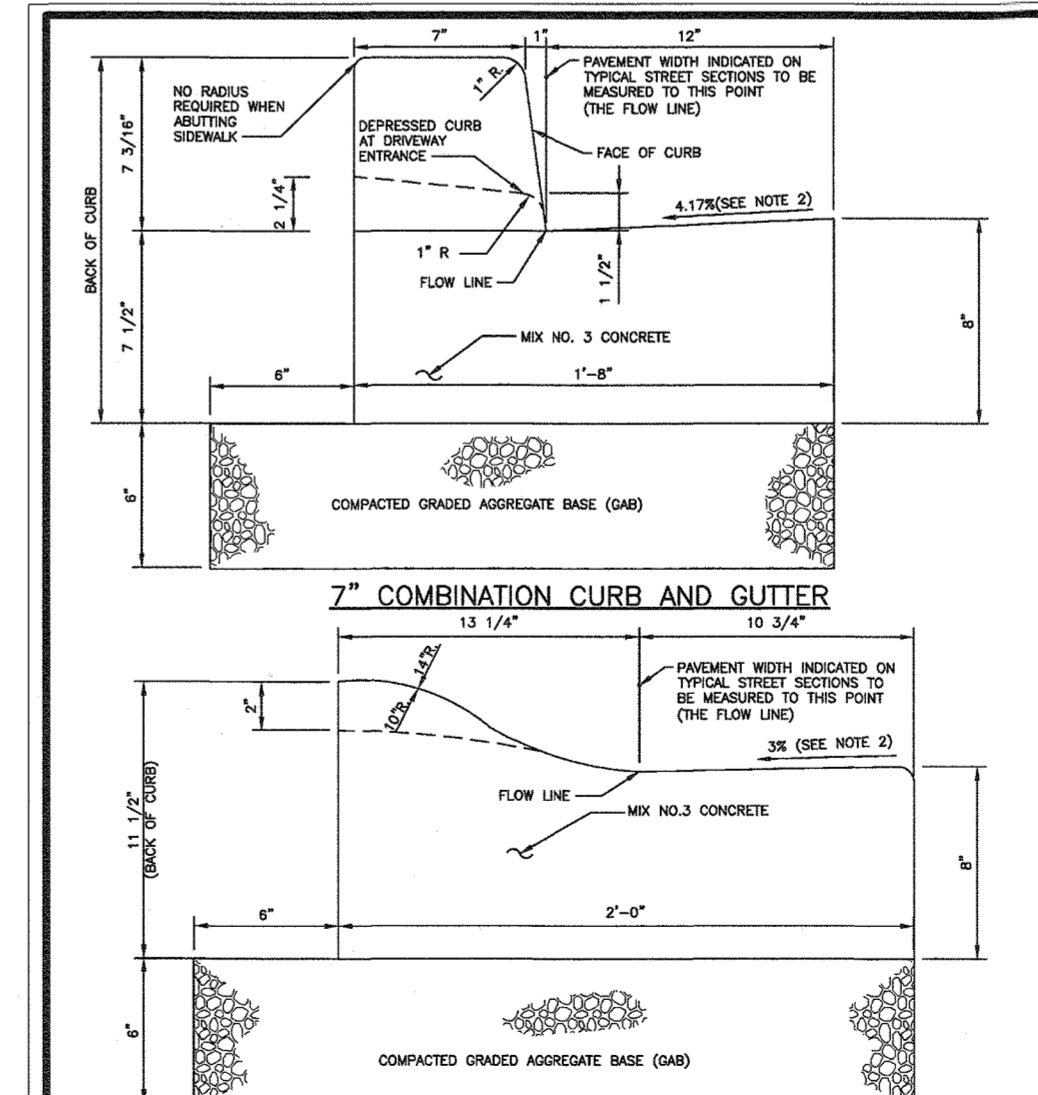
- CBU BOX LOCATIONS:** SUBJECT TO CHANGE
- ONE 12 UNIT "CLUSTER BOX UNIT" HAS BEEN PLACED NEAR LOT 6/7 COMMON PROPERTY LINE TO SERVE LOTS 1-12.
 - ONE 8 UNIT "CLUSTER BOX UNIT" HAS BEEN PLACED AT USE-IN-COMMON DRIVE/TAYLOR ACRES ROAD INTERSECTION TO SERVE LOTS 13-18.

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIALS (INCHES)	CALIFORNIA BEARING RATIO (CBR)		3 TO <4>		3 TO <4>		3 TO <4>	
			1.5	1.5	1.5	1.5	1.5	1.5		
P-1	PARKING DRIVE, RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 3 HEAVY TRUCKS PER DAY	SUPERPAVE ASPHALT MIX FINAL SURFACE (2.5" MIN. PG 64-225, LEVEL 1 (ESAL))	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
		SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE (2.0")	NA	NA	NA	NA	NA	NA	NA	NA
		SUPERPAVE ASPHALT MIX BASE (2.0")	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
		GRADED AGGREGATE BASE (GAB) (4.0")	8.0	7.0	5.0	4.0	4.0	4.0	4.0	4.0
P-2	PARKING DRIVE, RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 12 HEAVY TRUCKS PER DAY	SUPERPAVE ASPHALT MIX FINAL SURFACE (2.5" MIN. PG 64-225, LEVEL 1 (ESAL))	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
		SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE (2.0")	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
		SUPERPAVE ASPHALT MIX BASE (2.0")	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
		GRADED AGGREGATE BASE (GAB) (4.0")	8.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0
P-3	PARKING DRIVE, RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 12 HEAVY TRUCKS PER DAY	SUPERPAVE ASPHALT MIX FINAL SURFACE (2.5" MIN. PG 64-225, LEVEL 1 (ESAL))	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
		SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE (2.0")	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
		SUPERPAVE ASPHALT MIX BASE (2.0")	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
		GRADED AGGREGATE BASE (GAB) (4.0")	10.0	6.0	3.0	4.0	4.0	4.0	4.0	4.0
P-4	MINOR COLLECTORS	SUPERPAVE ASPHALT MIX FINAL SURFACE (2.5" MIN. PG 64-225, LEVEL 1 (ESAL))	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
		SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE (2.0")	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
		SUPERPAVE ASPHALT MIX BASE (2.0")	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0
		GRADED AGGREGATE BASE (GAB) (4.0")	13.0	7.0	4.0	4.0	4.0	4.0	4.0	4.0

NOTES:

- HEAVY TRUCKS ARE DEFINED AS THOSE WITH SIX (6) WHEELS OR MORE INCLUDING GARAGE TRUCKS.
- SUPERPAVE ASPHALT MIX LAYERS SHALL BE PLACED ON APPROPRIATE COMPACTED LIFT THICKNESS: 19.0 MM BASE (2.0" MIN. TO 1.0" MAX.), 12.5 MM SURFACE (1.0" MIN. TO 1.0" MAX.) AND 9.5 MM SURFACE (1.0" MIN. TO 0.2" MAX.)
- GRADED AGGREGATE BASE (GAB) TO BE PLACED AND COMPACTED IN 4" MAX. COMPACTED THICKNESS LAYERS.
- THE INTERMEDIATE SURFACE COURSE LAYERS FOR COMMERCIAL/INDUSTRIAL ENTRANCE APPROVE WITHIN THE COURSE OF PLACING THE INTERMEDIATE SURFACE COURSE LAYERS FOR COMMERCIAL/INDUSTRIAL ENTRANCE APPROVE WITHIN THE COURSE OF PLACING THE INTERMEDIATE SURFACE COURSE LAYERS.
- IN USE OF PLACING THE INTERMEDIATE SURFACE COURSE LAYERS FOR COMMERCIAL/INDUSTRIAL ENTRANCE APPROVE WITHIN THE COURSE OF PLACING THE INTERMEDIATE SURFACE COURSE LAYERS.
- THE CONSTRUCTION ENGINEER SHALL VERIFY THE FINISH SECTION, ROAD CLASSIFICATION AND CURB VALUE FOR EACH HOUSING.

Howard County, Maryland
Department of Public Works
Permanent
PAVING SECTIONS
P-1 to P-4
Detail R-2.01



7" COMBINATION CURB AND GUTTER
Detail R-3.01

**PRELIMINARY PLAN
PRELIMINARY ROAD PROFILE
AND SITE DETAILS**
GRACE MEADOWS
LOTS 1-18 AND OPEN SPACE LOTS 19-29
A SUBDIVISION OF TAX MAP 38 - PARCEL 731
ZONED R-12
PARCEL 731
HOWARD COUNTY, MARYLAND

TAX MAP 38 BLOCK 09
1ST ELECTION DISTRICT
VOGEL ENGINEERING
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2020

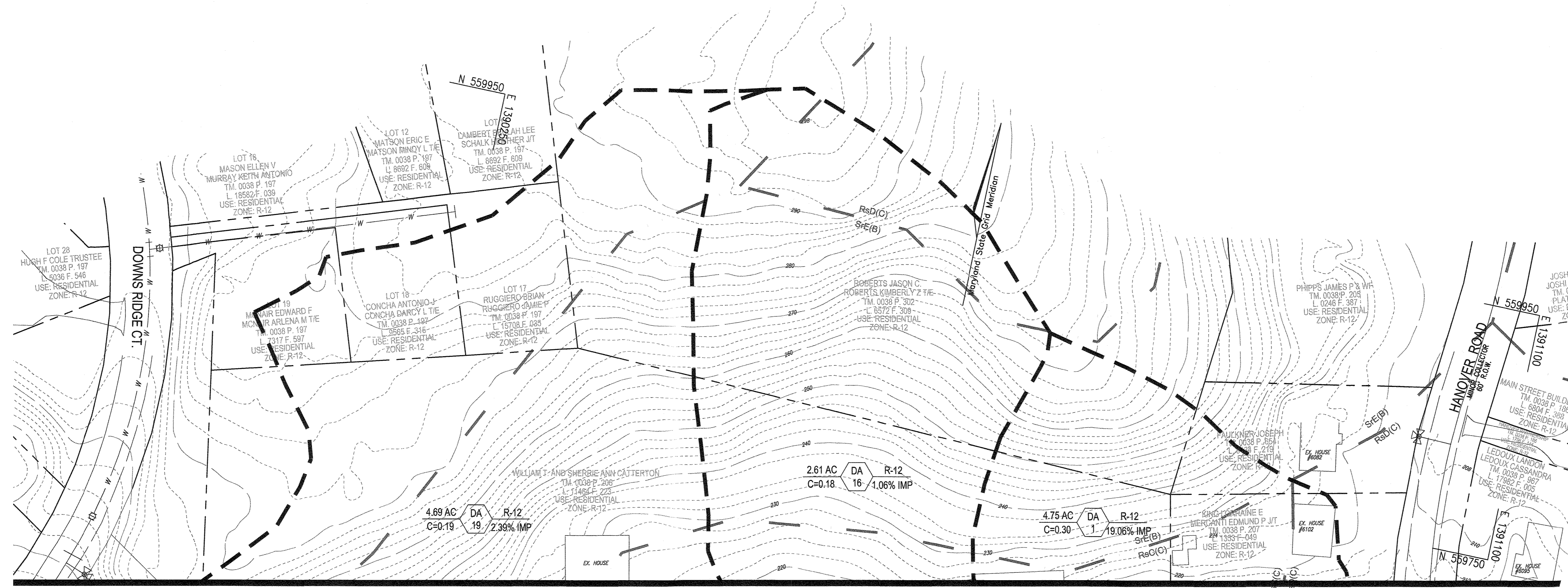
DESIGN BY: RHV
DRAWN BY: IH/KGV
CHECKED BY: RHV
DATE: JANUARY 2020
SCALE: AS SHOWN
W.O. NO.: 40077

ROBERT H. VOGEL, PE No.16193

3 SHEET OF 11

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR
DATE: 2-3-2020



LEGEND

- - - - - EXISTING CONTOUR
- - - - - CONTOURS
- + 402.85
- + 402.80
- == EXISTING CURB AND GUTTER
- == EXISTING CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- SS EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- - - - - EXISTING FENCE
- - - - - PROPERTY LINE
- - - - - RIGHT-OF-WAY LINE
- M1B2 SOILS BOUNDARY
- M1D3 SOILS BOUNDARY

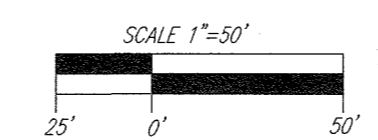
DRAINAGE AREA **INLET** **ZONING**

C FACTOR **#** **% IMPERVIOUS**

MATCHLINE SEE SHEET 5

MATCHLINE SEE SHEET 5

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



OWNER/DEVELOPER
GRACE TAYLOR SCHUTT
6132 HANOVER ROAD
HANOVER, MD 21076
443-463-6760

NO.	REVISION	DATE

PRELIMINARY PLAN
STORM DRAIN
DRAINAGE AREA MAP
GRACE MEADOWS
LOTS 1 - 18 AND OPEN SPACE LOTS 19 - 29
A SUBDIVISION OF TAX MAP 38 - PARCEL 731
TAX MAP 38 BLOCK 09
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
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DESIGN BY: RHV
DRAWN BY: IH/KG
CHECKED BY: RHV
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SCALE: AS SHOWN
W.O. NO.: 40077

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ROBERT H. VOGEL, PE No.16193

MAPPED SOILS TYPES

SYMBOL NAME / DESCRIPTION	GROUP	HYDRIC	Kw	CR% SLOPE	PERCENT
Fo FALLSNETON SANDY LOAM, 0 TO 2 PERCENT SLOPES	D	YES	0.24	NO	NO
Rnc RUSSETT FINE SANDY LOAM, 5 TO 10 PERCENT SLOPES	C	NO	0.43	YES	YES
Rnd RUSSETT FINE SANDY LOAM, 10 TO 15 PERCENT SLOPES	C	NO	0.43	YES	YES
RuG RUSSETT AND BELTSVILLE SOILS, 5 TO 10 PERCENT SLOPES	C	NO	0.43	YES	YES
SPE SASSAPARA AND CROOM SOILS, 15 TO 25 PERCENT SLOPES	B	NO	0.32	YES	YES
SrD SASSAPARA AND CROOM SOILS, 10 TO 15 PERCENT SLOPES	B	NO	0.37	YES	YES
Ucd URBAN LAND-CHILLUM-BELTSVILLE COMPLEX, 5 TO 15 PERCENT SLOPES	C	NO	-	NO	NO

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

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

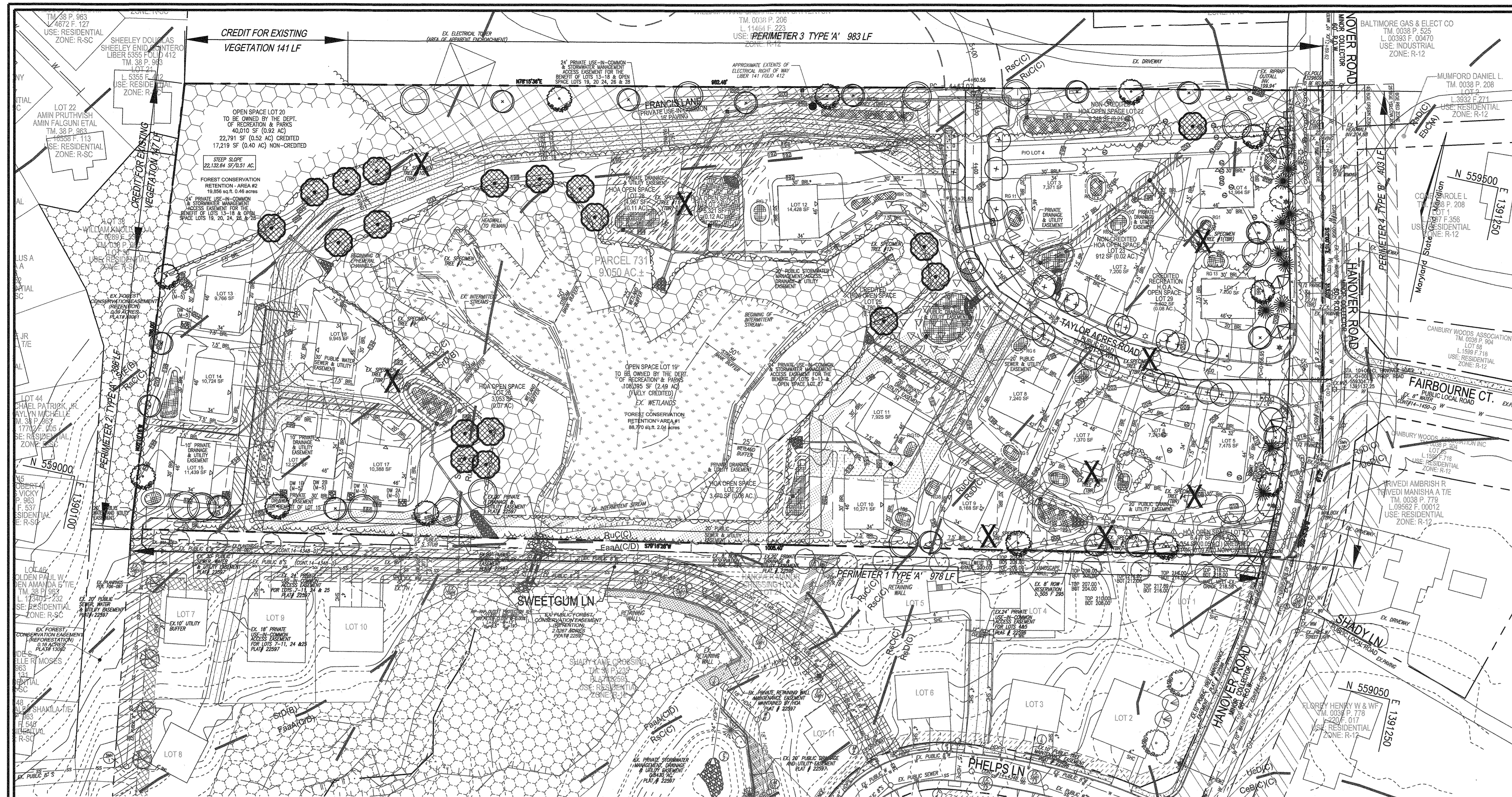
1. SOURCE: HOWARD SOIL CONSERVATION DISTRICT WEBSITE: https://soils.wvnet.edu/468744_36646118874926200035008809.pdf DOCUMENTS PULLDOWN - SHOWN HERE - DOCUMENT TITLED "C FACTOR (C) 4-7" AND THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE'S WEB SOIL SURVEY, CONSULTED ON DECEMBER 20, 2014. AVAILABLE ON-LINE AT <HTTP://WEBSOILSURVEY.NRCS.USDA.GOV/APP/HOME.PAGE.HTML>.

2. HYDRIC SOILS INFORMATION ADAPTED FROM THE NATIONAL HYDRIC SOILS LIST, AT <HTTP://SOILS.USDA.GOV/USE/HYDRIC/>, CONSULTED ON DECEMBER 20, 2014.

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

Alan G...
PLANNING DIRECTOR

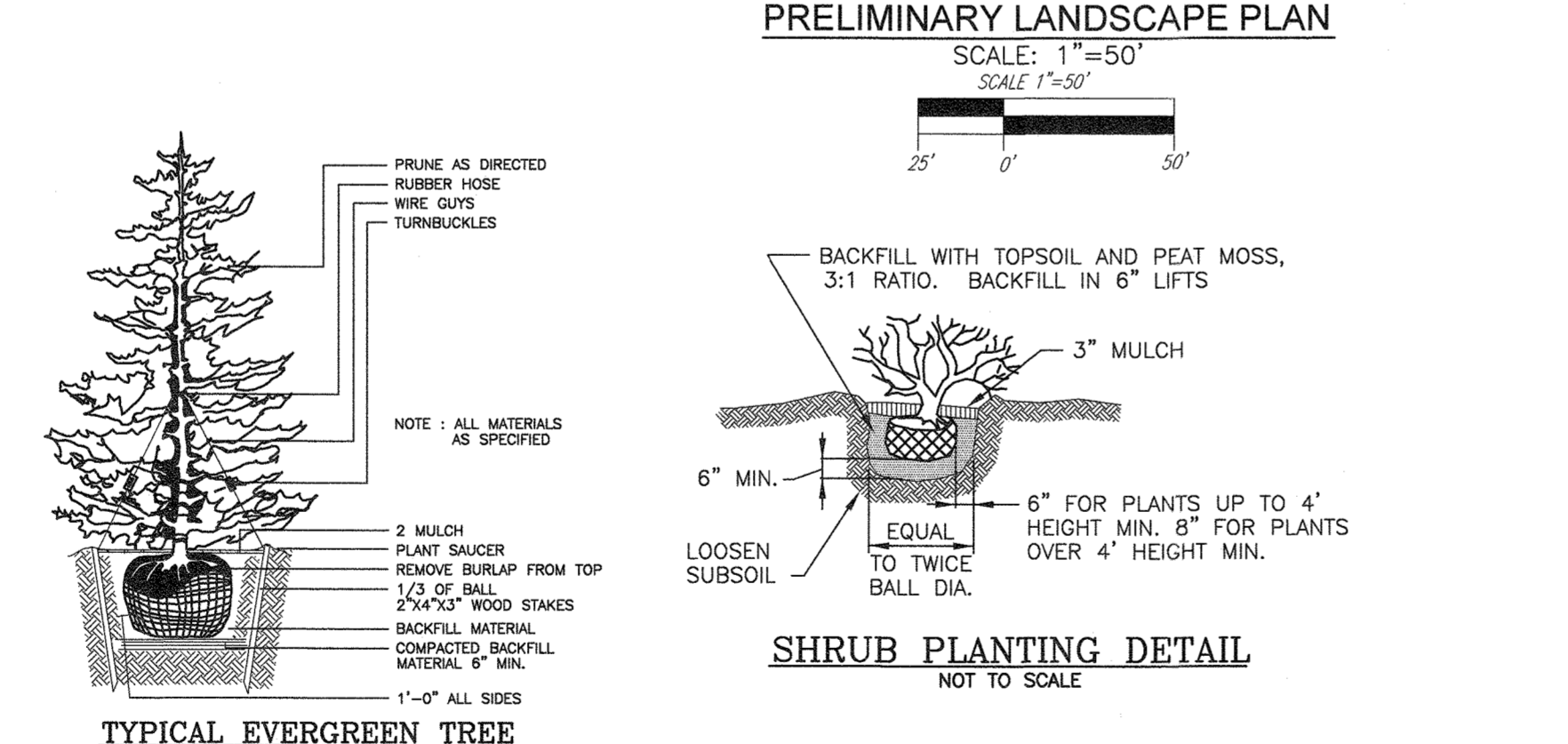
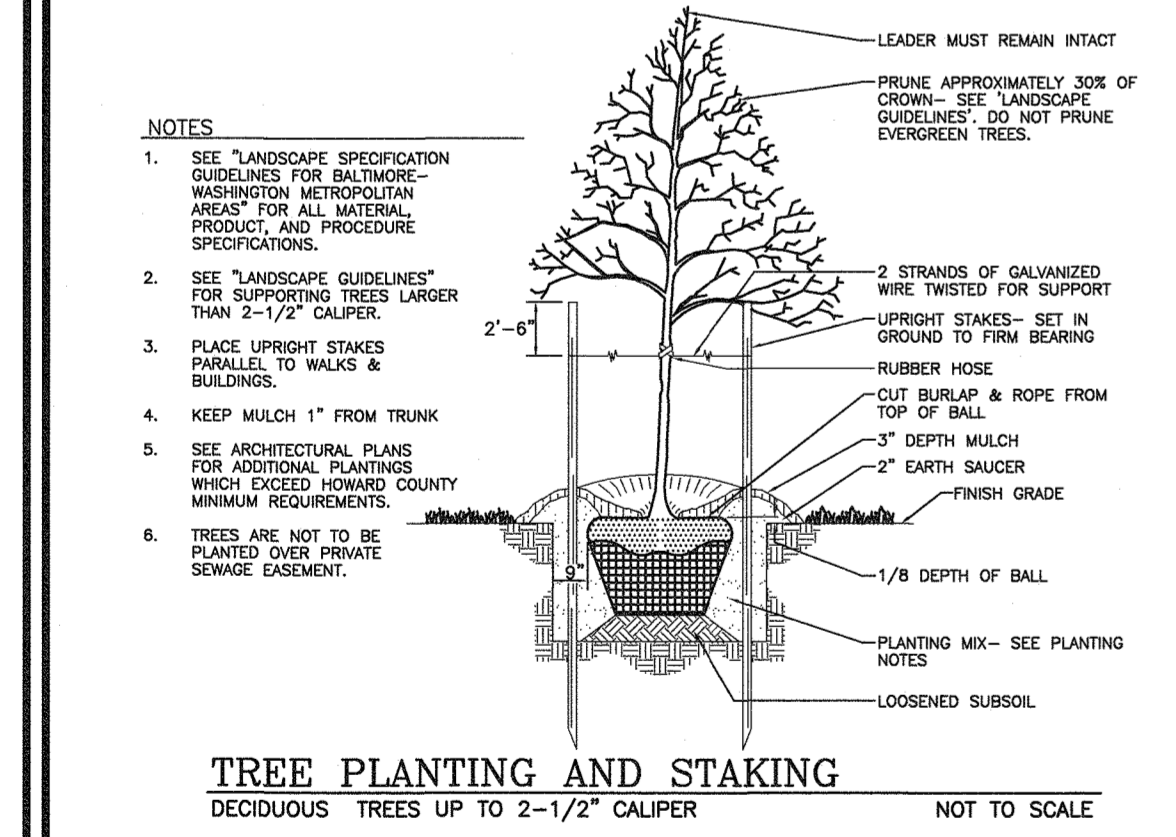
2-3-2020
DATE



LEGEND

EXISTING CURB AND GUTTER	20' PUBLIC WATER & UTILITY EASEMENT
EXISTING UTILITY POLE	20' PUBLIC SEWER & UTILITY EASEMENT
EXISTING MAILBOX	30' PUBLIC WATER, SEWER & UTILITY EASEMENT
EXISTING SIGN	PUBLIC DRAINAGE & UTILITY EASEMENT
EXISTING FENCE	PRIVATE DRAINAGE & UTILITY EASEMENT
PROPERTY LINE	
RIGHT-OF-WAY LINE	
APPROXIMATE EXTENTS OF ELECTRICAL RIGHT OF WAY LIBER 141 FOLIO 412	EXISTING SPECIMEN TREE TO BE REMOVED
SIDEWALK	EXISTING TREES (FIELD LOCATED)
EXISTING TREELINE	
TREELINE	
STORM DRAIN	PERIMETER OR STREET TREE - PLANTING OBLIGATION
STORM DRAIN INLET	
EX. FOREST CONSERVATION EASEMENT	SPECIMEN TREE REPLACEMENT PLANTINGS WP-19-117
EX. WETLANDS	
EX. WETLAND BUFFER	
EX. STREAM	
EX. STREAM BUFFER	
SOILS BOUNDARY	
LOT LINES	BCE "GREEN ZONE" TREE HEIGHT LIMITED (TREE HEIGHT 25' MAX.)
	BCE "YELLOW ZONE" TREE HEIGHT LIMITED (TREE HEIGHT 35'-40' MAX.)
	FOREST CONSERVATION EASEMENT (RETENTION)

- ### LANDSCAPE NOTES
- AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.
 - THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED. MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
 - SHOULD ANY TREE DESIGNATED FOR PRESERVATION FOR WHICH LANDSCAPING CREDIT IS GIVEN, DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR WITH A TREE WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD, AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE HOWARD COUNTY LANDSCAPE MANUAL.
 - PLANTINGS SHOWN HEREON ARE THE RESPONSIBILITY OF THE DEVELOPER TO INSTALL DURING THE CONSTRUCTION OF THE FINAL PLAN.
 - SURETY FOR THE PROPOSED LANDSCAPING SHALL BE BASED ON THE NUMBER OF PLANTINGS REQUIRED.



GENERAL NOTES

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. A FINANCIAL SURETY IN THE AMOUNT OF \$19,500 FOR THE REQUIRED LANDSCAPING (REQUIRED 42 SHADE TREES \$12,600, 10 EVERGREEN TREES \$1,500, 18 SPECIMEN TREE REPLACEMENT \$5,400) SHALL BE POSTED WITH THE FINAL DEVELOPERS AGREEMENT.
- PUBLIC STREET TREES ARE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 16.124(e)(1) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL. FINANCIAL SURETY (\$9,900) SHALL BE COLLECTED WITH THE DEPARTMENT OF PUBLIC WORKS COST ESTIMATE FOR THE REQUIRED 33 STREET TREES.

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR: [Signature] DATE: 2-3-2020

PRELIMINARY LANDSCAPE PLAN

SCALE: 1"=50'

PERIMETER 1 TYPE A' 978 LF

PERIMETER 2 TYPE A' 493 LF

PERIMETER 3 TYPE A' 983 LF

MAPPED SOIL TYPES

SYMBOL	NAME / DESCRIPTION	GROUP	HYDRIC	Kw	PERCENT SLOPE	PERCENT SLOPE
Fb	FALLSTON SANDY LOAM, 0 TO 2 PERCENT SLOPES	D	YES	0.24	NO	
Rnc	RUSSETT FINE SANDY LOAM, 5 TO 10 PERCENT SLOPES	C	NO	0.43	YES	
Rhd	RUSSETT FINE SANDY LOAM, 10 TO 15 PERCENT SLOPES	C	NO	0.43	YES	
Ruc	RUSSETT AND BELTSVILLE SOILS, 5 TO 10 PERCENT SLOPES	C	NO	0.43	YES	
Sfc	SASPARAS AND CROOK SOILS, 15 TO 25 PERCENT SLOPES	B	NO	0.32	YES	
Sfd	SASPARAS AND CROOK SOILS, 10 TO 15 PERCENT SLOPES	B	NO	0.37	YES	
Ucd	URBAN LAND-CHILLUM-BELTSVILLE COMPLEX, 5 TO 15 PERCENT SLOPES	C	NO	-	NO	

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

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

SPECIMEN TREE REPLACEMENT CALCULATIONS

NUMBER TO BE REMOVED	NUMBER REPLACEMENT TREES REQUIRED	NO. PROVIDED
9	18	18

REFER TO WP 19-117
3" CALIPER NATIVE SHADE TREES REQUIRED

Specimen Tree Chart

Key (Dw)	Species	Size (in. dbh)	Chz (feet radius)	Comments
1	Tulip poplar	31.5	47.25	TO BE REMOVED
2	Red maple	32	48	TO BE REMOVED
3	English walnut	42.5	63.75	poor, severe trunk rot TO BE REMOVED
4	Chestnut oak	50.5	75.75	fair, storm damage TO BE REMOVED
5	Chestnut oak	51	76.5	fair, storm damage, trunk rot TO BE REMOVED
6	Chestnut oak	33.5/31	50.25	twin stems at base TO BE REMOVED
7	White oak	31	46.5	
8	White oak	34	51	poor trunk rot TO BE REMOVED
9	Tulip poplar	31	46.5	
10	Black oak	37	55.5	
11	Tulip poplar	34.5	51.75	
12	Tulip poplar	37.5	56.25	

SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS AND PERIMETER PROPERTIES				TOTAL
	A	A	A	B	
PERIMETER FRONTAGE DESIGNATION	978	386	983	403	
LANDSCAPE TYPE					
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER					
CREDIT FOR EXISTING VEGETATION (YES/NO LINEAR FEET)	NO	YES	NO	NO	
CREDIT FOR WALL, FENCE OR BERM (YES/NO LINEAR FEET)	NO	NO	NO	NO	
NUMBER OF PLANTS REQUIRED	978	238	842	403	
EVERGREEN TREES	180	10	140	10	42
SHRUBS	-	-	-	-	-
NUMBER OF PLANTS PROVIDED	16	4	14	8	42
SHADE TREES	-	-	-	-	-
EVERGREEN TREES	-	-	-	-	-
SHRUBS (1:1 SUBSTITUTION)	-	-	-	-	-
EX. SPECIMEN TREES TO REMAIN	-	-	-	-	-
DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED					

STREET TREE CALCULATIONS

STREET NAME	LINEAR FEET	NO. REQUIRED	NO. PROVIDED
HANOVER ROAD	40340	10	10
TAYLOR ACRES ROAD	92240	23	23

PUBLIC STREET TREES ARE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 16.124(e)(1) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL.

STREET TREE NOTES:

- WHEN THE DISTANCE BETWEEN THE CURB AND SIDEWALK IS 6 FEET OR GREATER, TREES SHALL BE LOCATED WITHIN THE RIGHT OF WAY AND SHALL BE CENTERED BETWEEN THE CURB AND THE SIDEWALK.
- WHEN THE DISTANCE BETWEEN THE CURB AND THE SIDEWALK IS LESS THAN 6 FEET, AND WHERE TREES ARE PLANTED CLOSER THAN 3 FEET TO THE SIDEWALK, A BIOLOGIC ROOT INHIBITOR BARRIER OR PHYSICAL CONTAINER BARRIER SHALL BE REQUIRED.
- WHEN THE DISTANCE BETWEEN THE CURB AND THE SIDEWALK IS LESS THAN 6 FEET, TREES MAY BE PLANTED 3 FEET FROM THE SIDEWALK IN THE DIRECTION AWAY FROM THE ROAD. A 10 FOOT WIDE TREE MAINTENANCE EASEMENT SHALL BE REQUIRED IF THE RIGHT OF WAY IS LIMITED.
- TREES SHALL BE PLACED A MINIMUM OF 30 FEET FROM ALL SIGNS AND INTERSECTIONS WHEN PLANTED BETWEEN SIDEWALK AND CURB, AND BE LOCATED WITH CONSIDERATION OF UNDERGROUND UTILITIES AND STRUCTURES. STREET TREES MAY NOT BE PLANTED WITHIN 5 FEET OF A DRAIN INLET STRUCTURE, 5 FEET OF AN OPEN SPACE ACCESS STRIP, OR 10 FEET OF A DRIVEWAY.

NOTES:

- IN THE DIRECTION FACING A TRAFFIC CONTROL SIGN:
 - THERE SHALL BE A MINIMUM OF 40' BETWEEN THE SIGN FACE AND CLOSEST TREE FOR ALL STOP SIGNS.
 - THERE SHALL BE A MINIMUM OF 35' BETWEEN THE SIGN FACE AND CLOSEST TREE FOR ALL SIGNS OTHER THAN A STOP SIGN.
 - A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT ANY TREE.

OWNER/DEVELOPER
GRACE TAYLOR SCHUTT
6132 HANOVER ROAD
HANOVER, MD 21076
443-463-6760

PRELIMINARY PLAN

PRELIMINARY LANDSCAPE PLAN, NOTES & DETAILS

GRACE MEADOWS

LOTS 1 - 18 AND OPEN SPACE LOTS 19 - 21
A SUBDIVISION OF TAX MAP 38 - PARCEL 731

TAX MAP 38 BLOCK 09
1ST ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

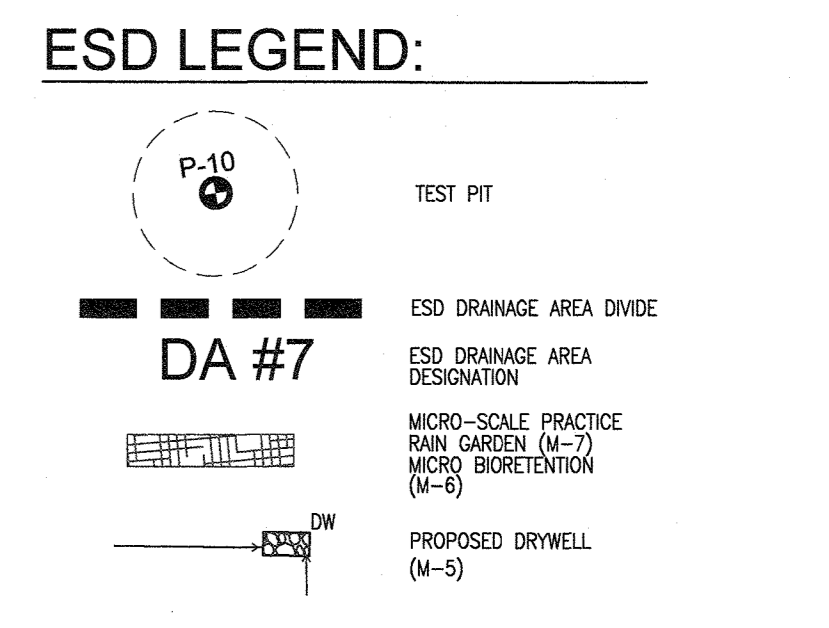
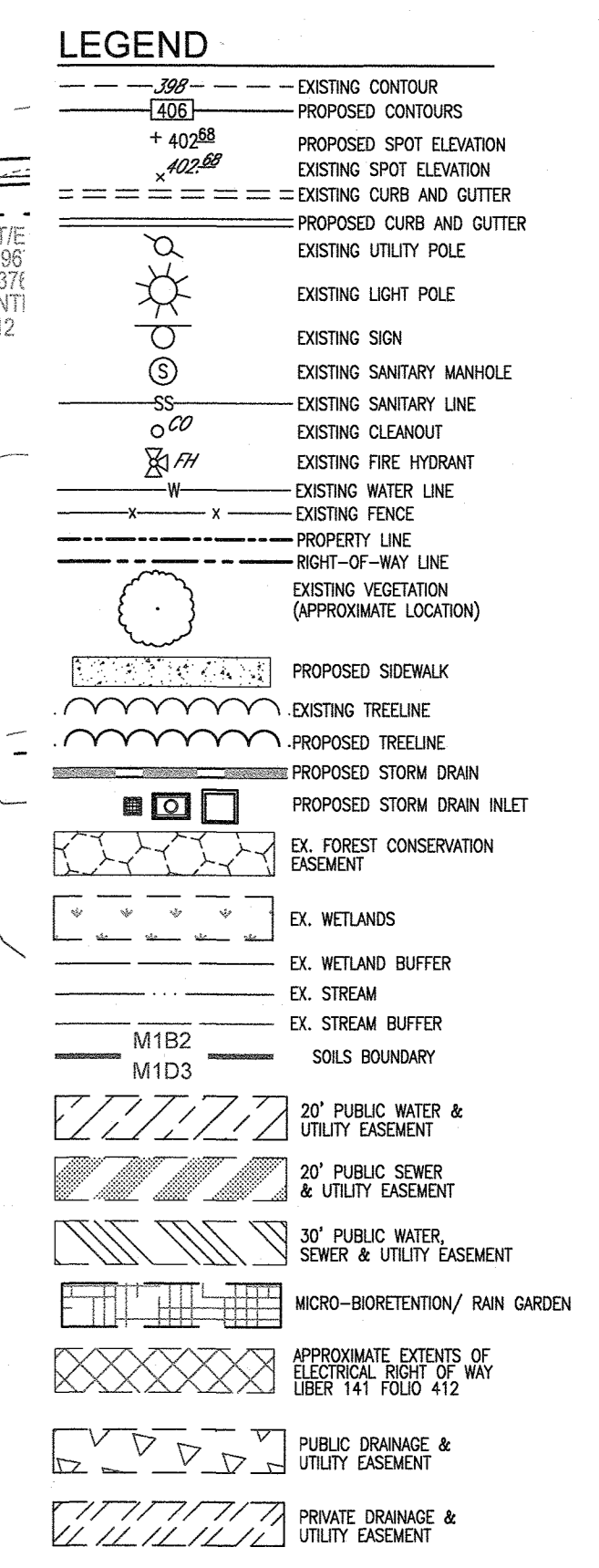
TIMMONS GROUP

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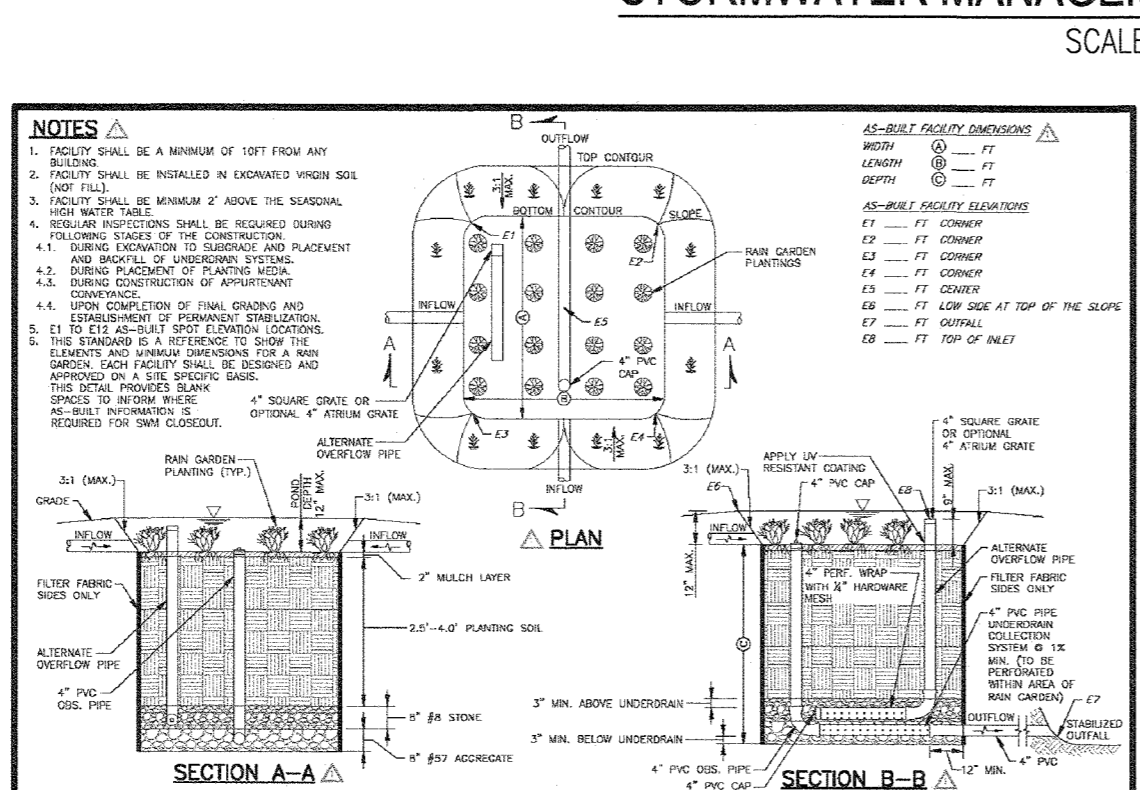
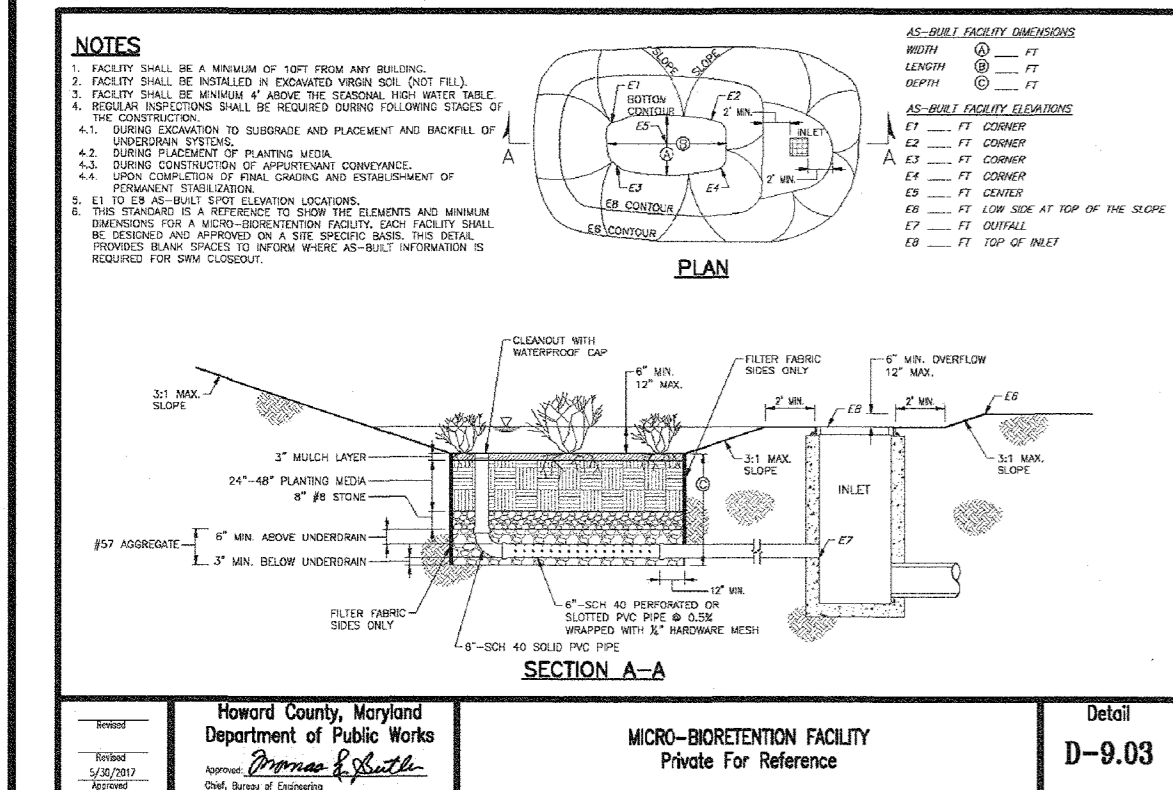
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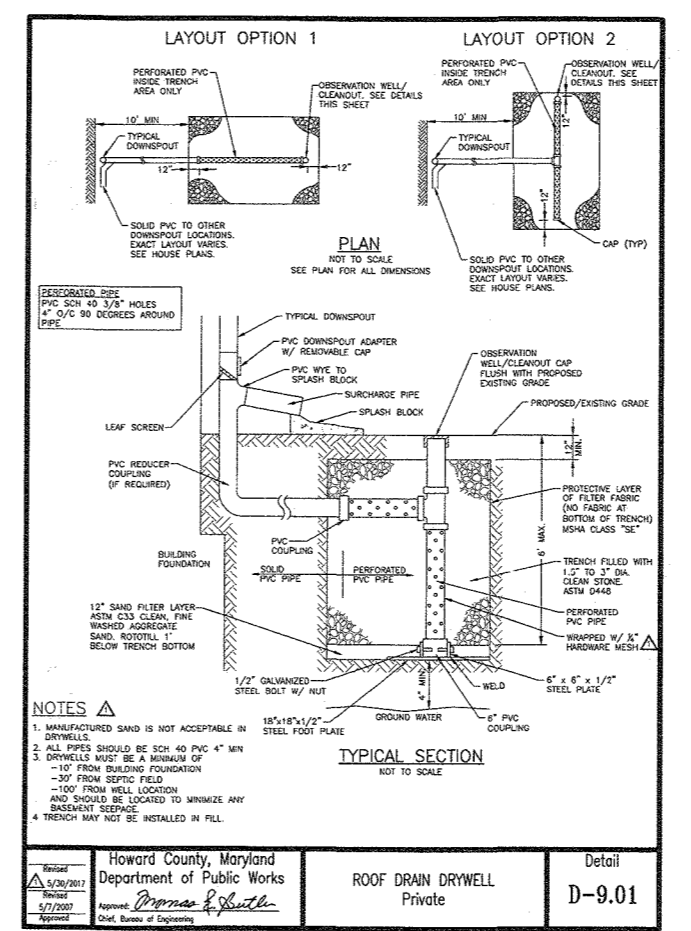
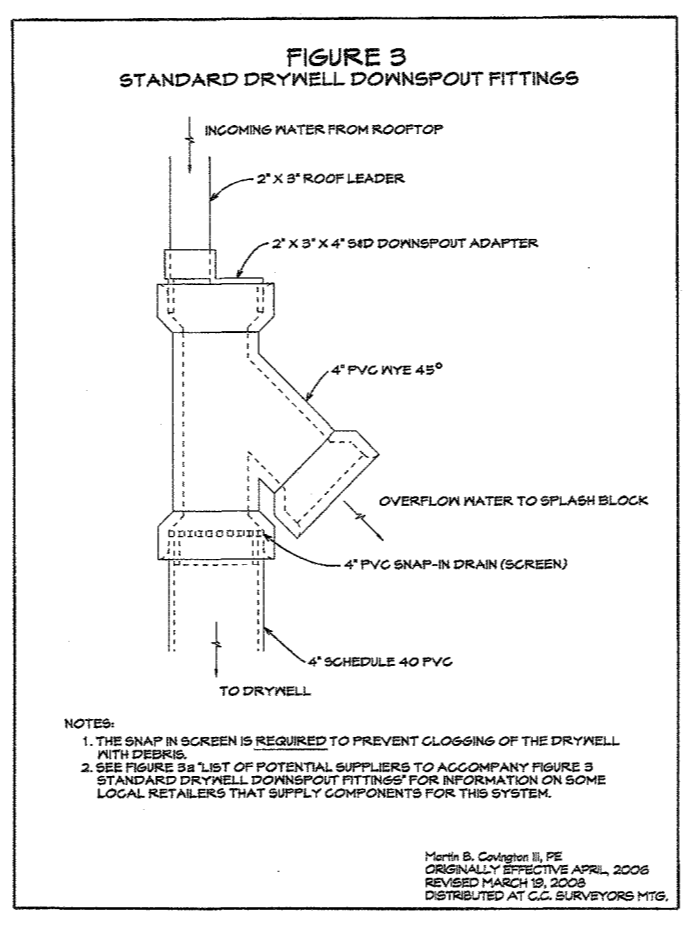
OWNER/DEVELOPER
 GRACE TAYLOR SCHUTT
 6132 HANOVER ROAD
 HANOVER, MD 21076
 443-463-6760

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



OPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-3), MICRO-BIORETENTION (M-6), RAIN GARDENS (M-7), BIORETENTION SWALE (M-8), AND ENHANCED FILTERS (M-9)

1. 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 PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUME II, TABLE A-4.1 AND 2.
2. 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.
3. 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.
4. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.



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

1. THE MONITORING WELLS AND STRUCTURES SHALL BE INSPECTED ON A QUARTERLY BASIS AND AFTER EVERY LARGE STORM EVENT. WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS SHALL BE RECORDED OVER A PERIOD OF SEVERAL DAYS TO INSURE FRENCH DRAINAGE.
2. A LOG BOOK SHALL BE MAINTAINED TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
3. WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN THE 72 HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.
4. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
5. 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.

MAPPED SOILS TYPES

SYMBOL NAME / DESCRIPTION	GROUP	HYDRIC	Kw	CR% SLOPE
Fo FALLSTON SANDY LOAM, 0 TO 2 PERCENT SLOPES	D	YES	0.24	NO
RaC RUSSETT FINE SANDY LOAM, 5 TO 10 PERCENT SLOPES	C	NO	0.43	YES
RmD RUSSETT FINE SANDY LOAM, 10 TO 15 PERCENT SLOPES	C	NO	0.43	YES
RuC RUSSETT AND BELLEVILLE SOILS, 5 TO 10 PERCENT SLOPES	C	NO	0.43	YES
SfE SASAPRAS AND OGDON SOILS, 15 TO 25 PERCENT SLOPES	B	NO	0.32	YES
SfD SASAPRAS AND OGDON SOILS, 10 TO 15 PERCENT SLOPES	B	NO	0.37	YES
LcD1 URBAN LAND-CHILLING-BELLEVILLE COMPLEX, 5 TO 15 PERCENT SLOPES	C	NO	NO	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY.
 NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.
 1. SOURCE: HOWARD SOIL CONSERVATION DISTRICT WEBSITE: <http://www.howardsoil.com> AND <http://www.howardsoil.com/documents/mapping-soil-shares.html>.
 2. SOURCE: HOWARD SOIL CONSERVATION DISTRICT WEBSITE: <http://www.howardsoil.com> AND <http://www.howardsoil.com/documents/mapping-soil-shares.html>.
 3. SOURCE: HOWARD SOIL CONSERVATION DISTRICT WEBSITE: <http://www.howardsoil.com> AND <http://www.howardsoil.com/documents/mapping-soil-shares.html>.
 4. SOURCE: HOWARD SOIL CONSERVATION DISTRICT WEBSITE: <http://www.howardsoil.com> AND <http://www.howardsoil.com/documents/mapping-soil-shares.html>.

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

PLANNING DIRECTOR: [Signature]
 DATE: 2-3-2020

NO. REVISION DATE

PRELIMINARY PLAN
STORMWATER MANAGEMENT
DRAINAGE AREA MAP
GRACE MEADOWS
 LOTS 1-18 AND OPEN SPACE LOTS 19-23
 A SUBDIVISION OF TAX MAP 38-PARCEL 731

TAX MAP 38 BLOCK 09
 1ST ELECTION DISTRICT

ZONED R-12
 PARCEL 731
 HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

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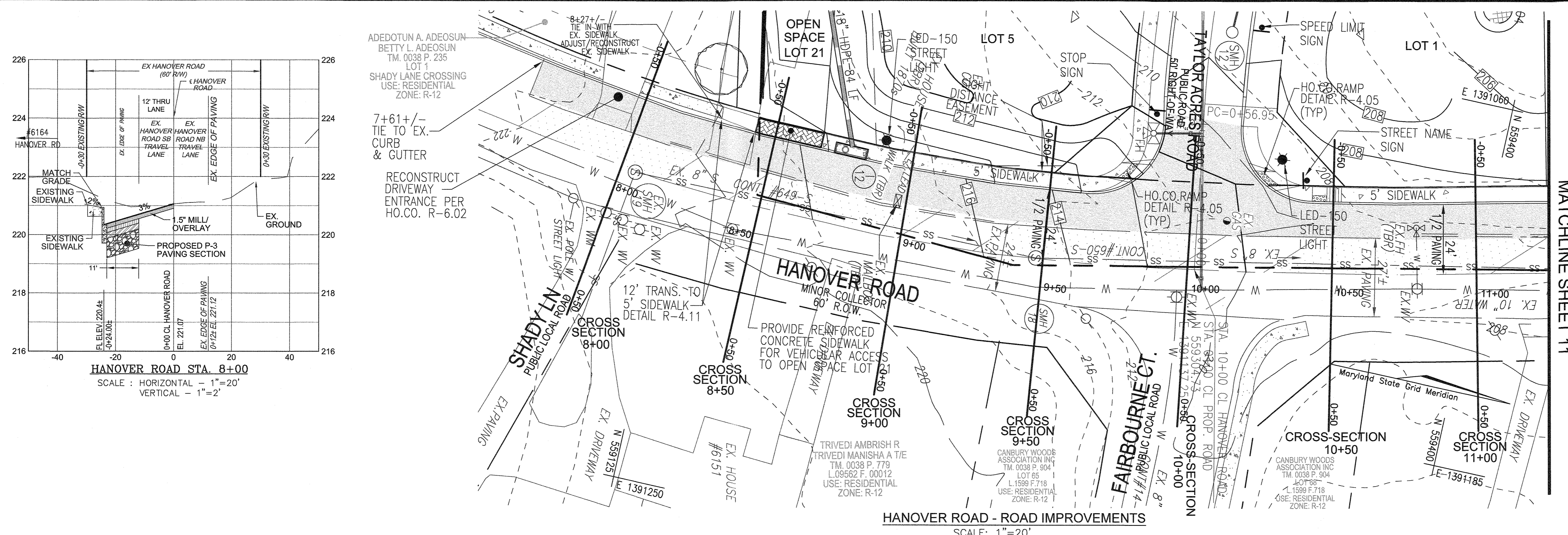
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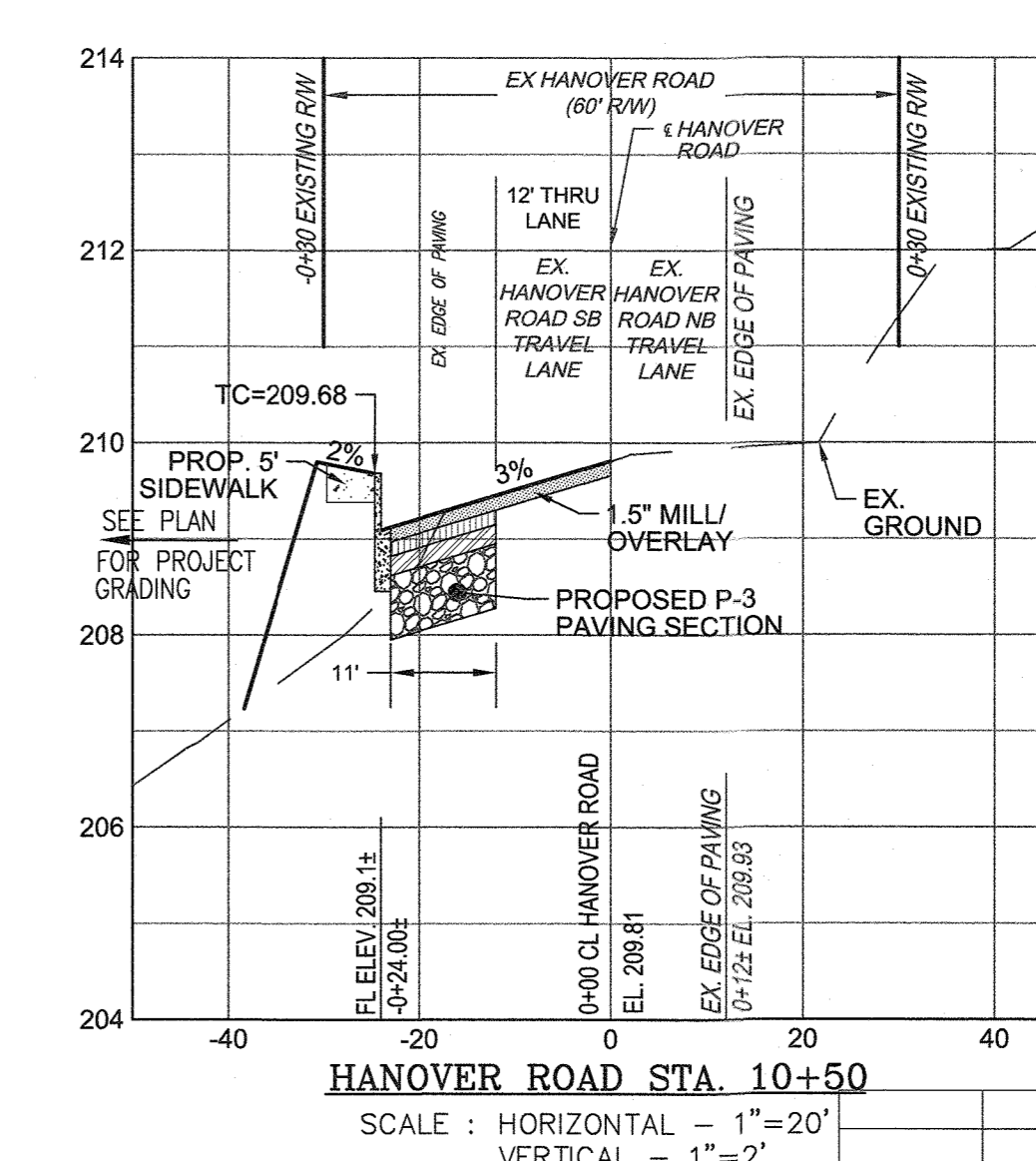
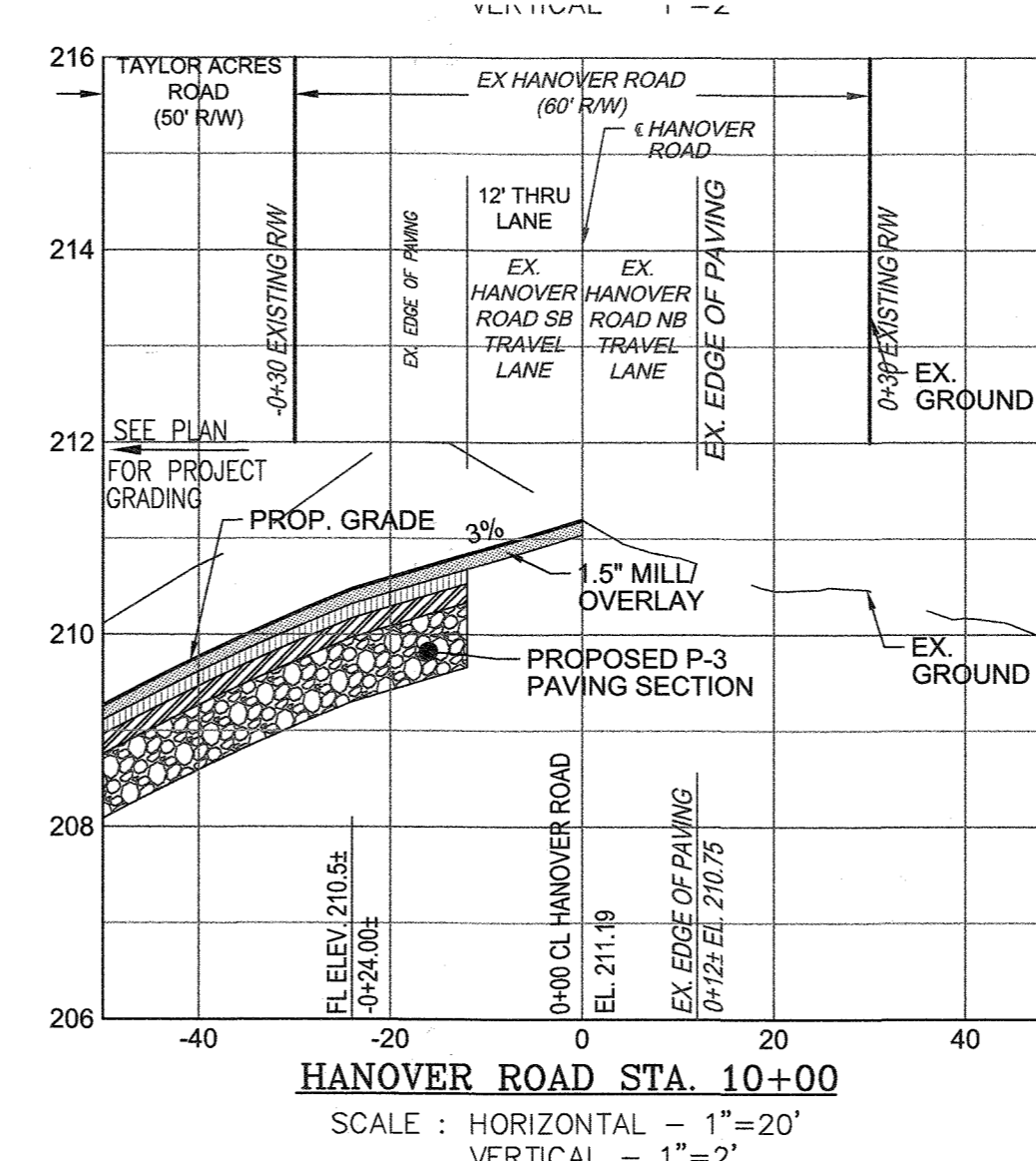
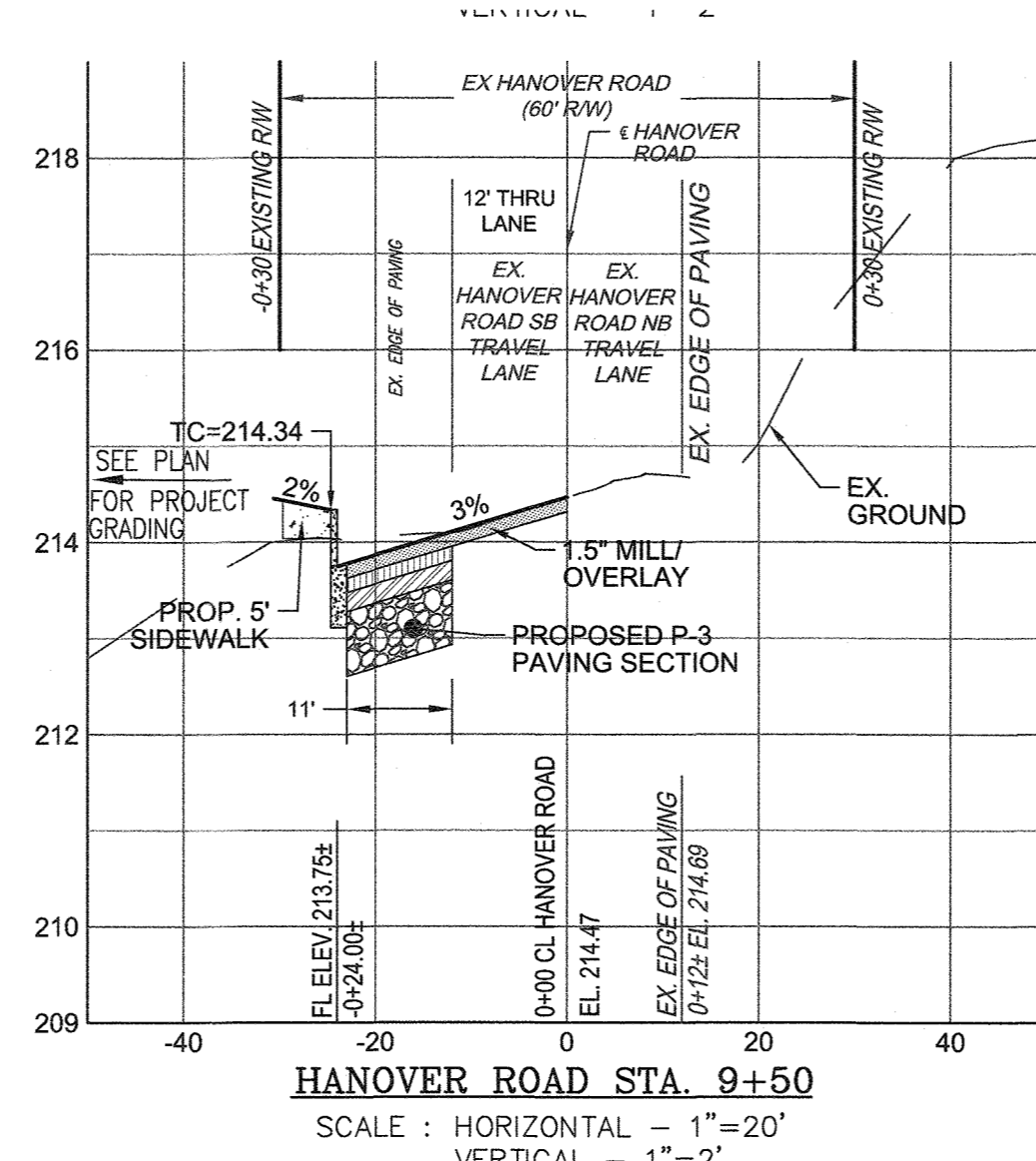
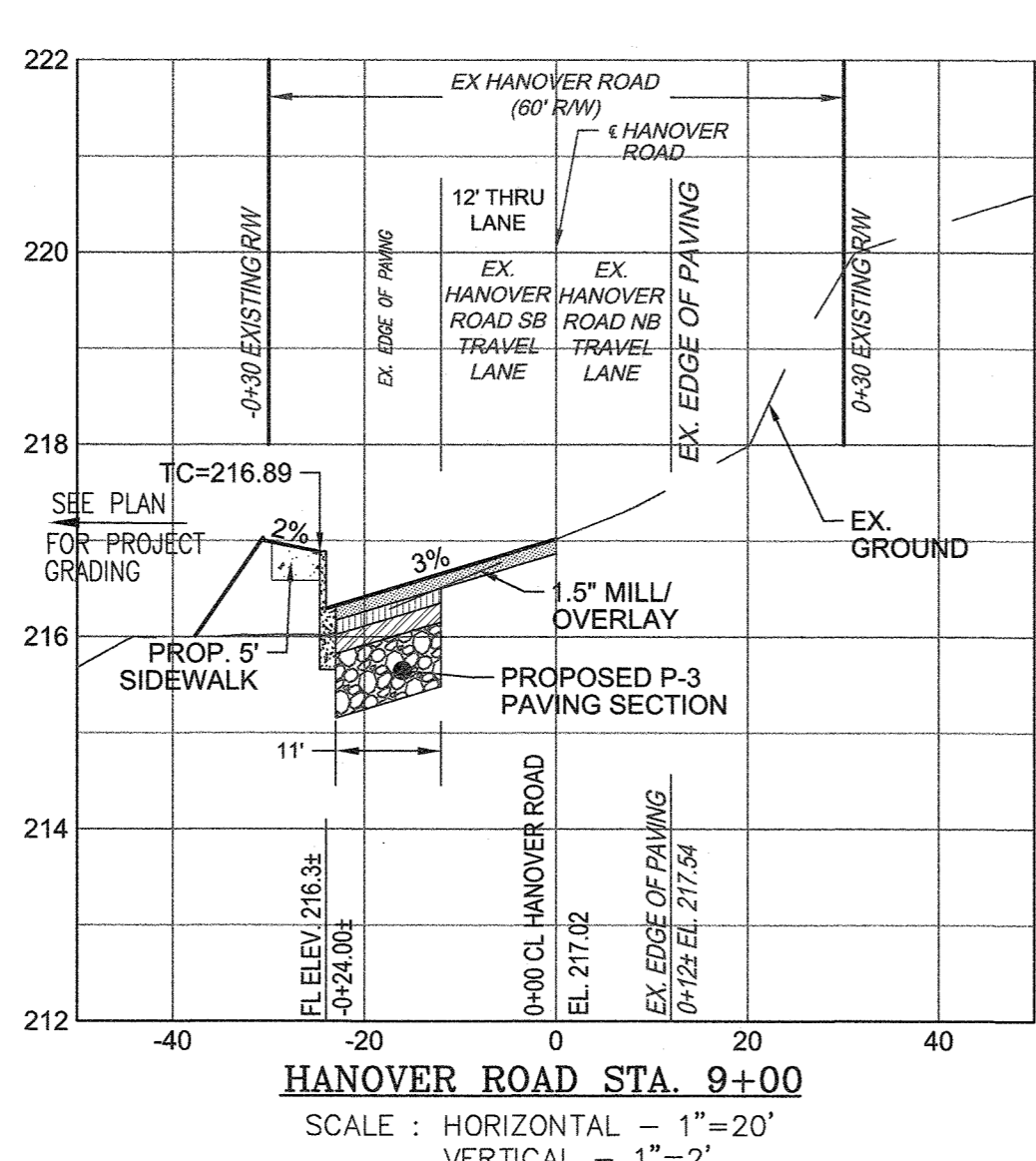
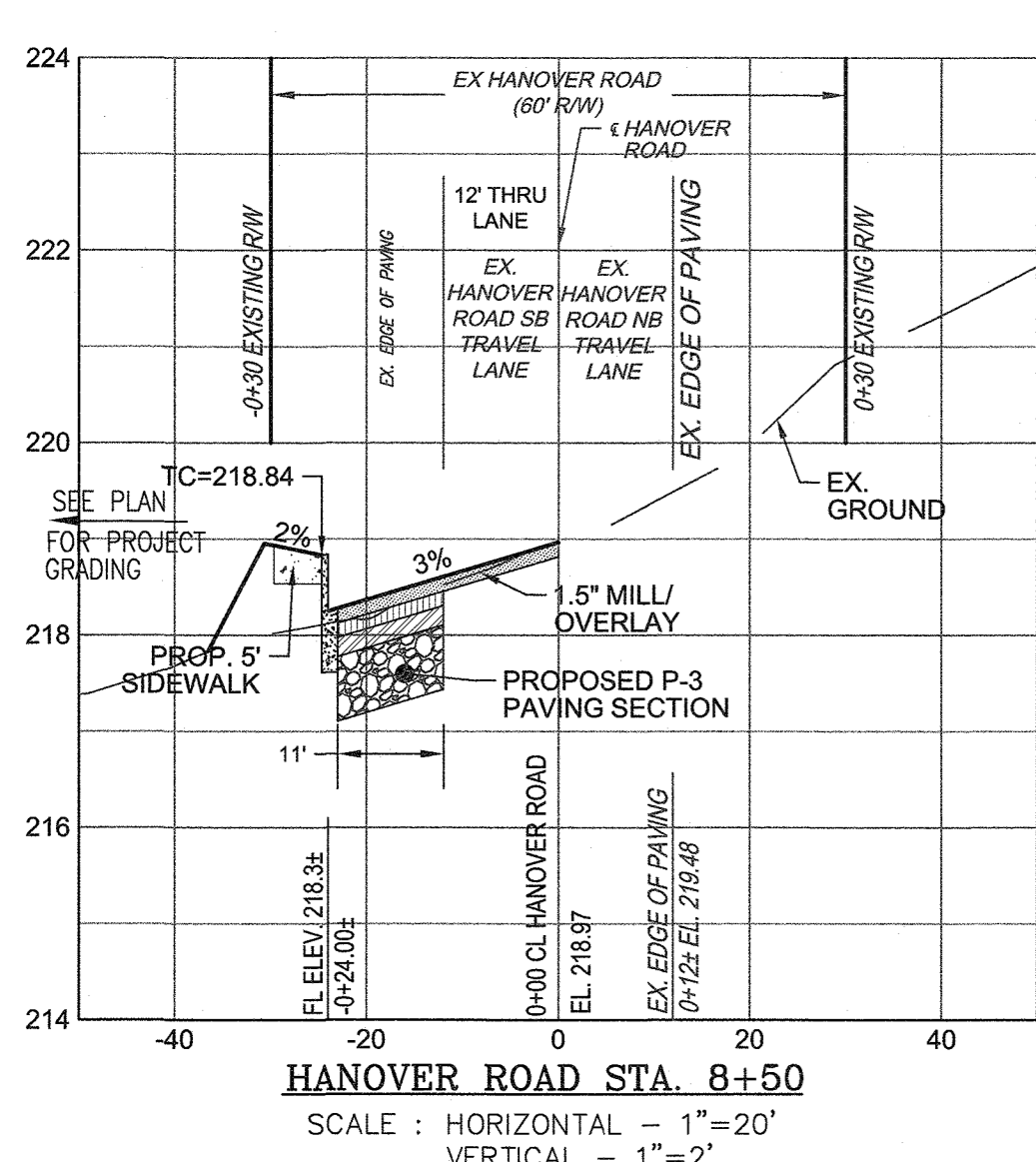
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ROBERT H. VOGEL, PE, No.16193

9 SHEET OF 11



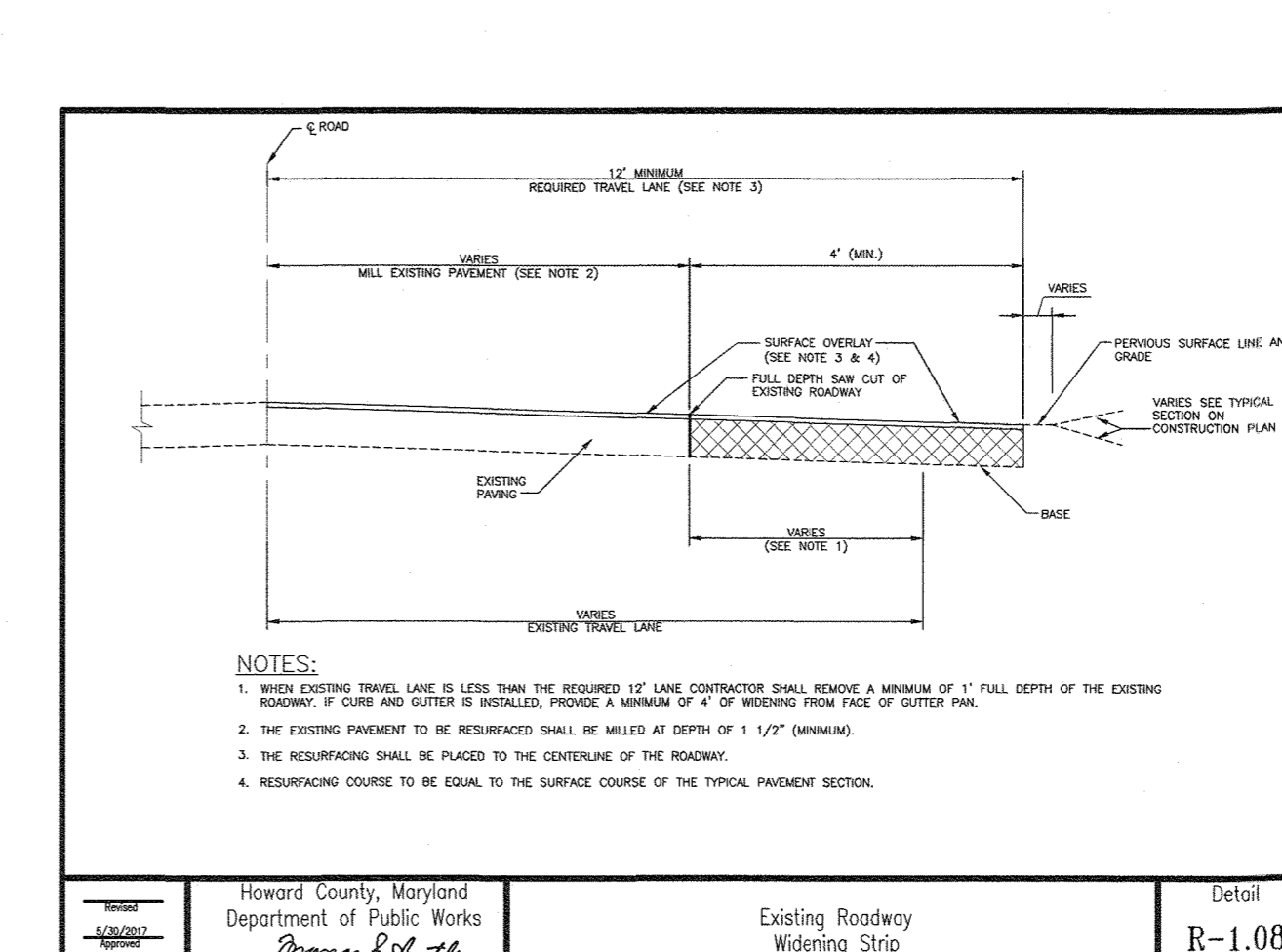
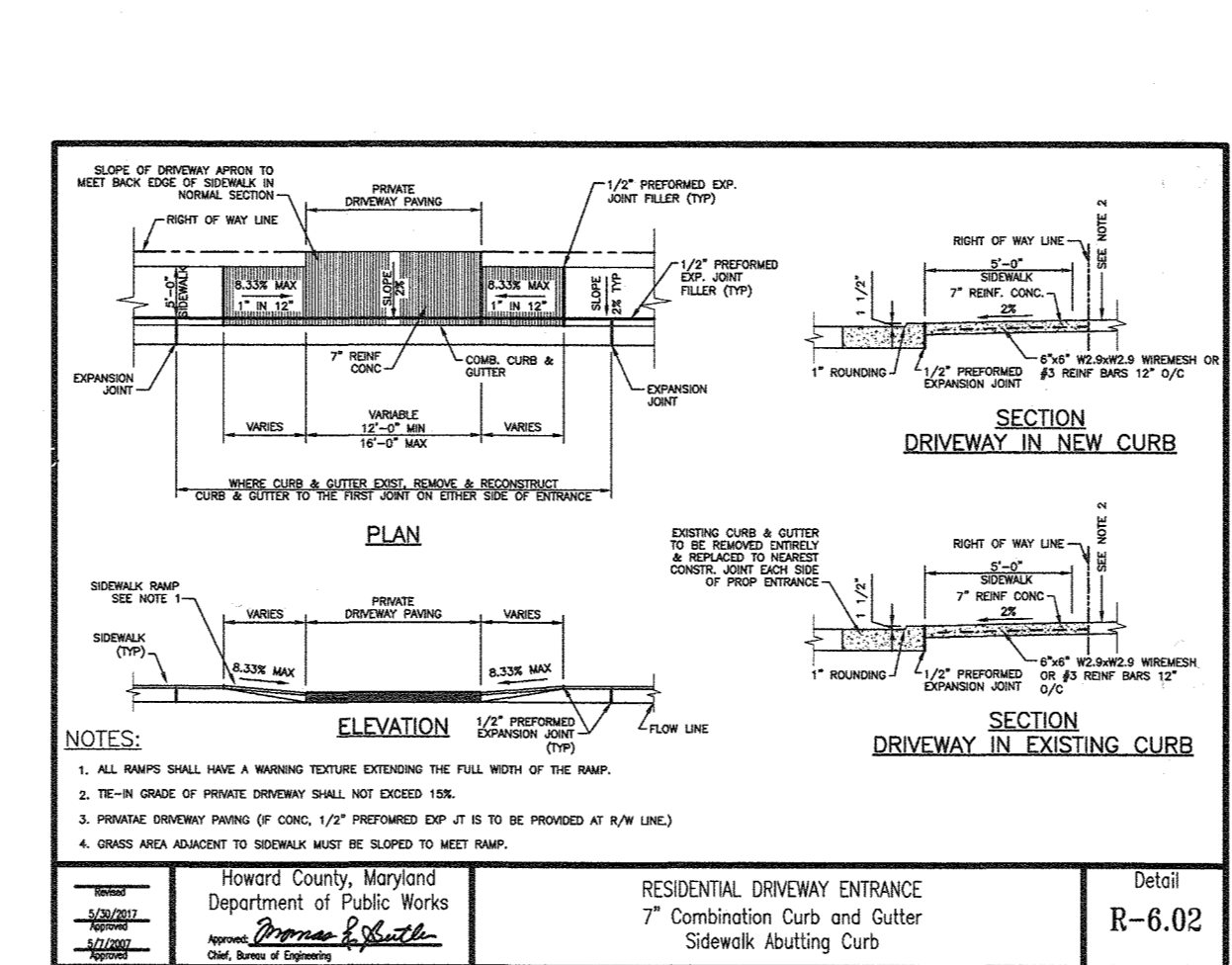
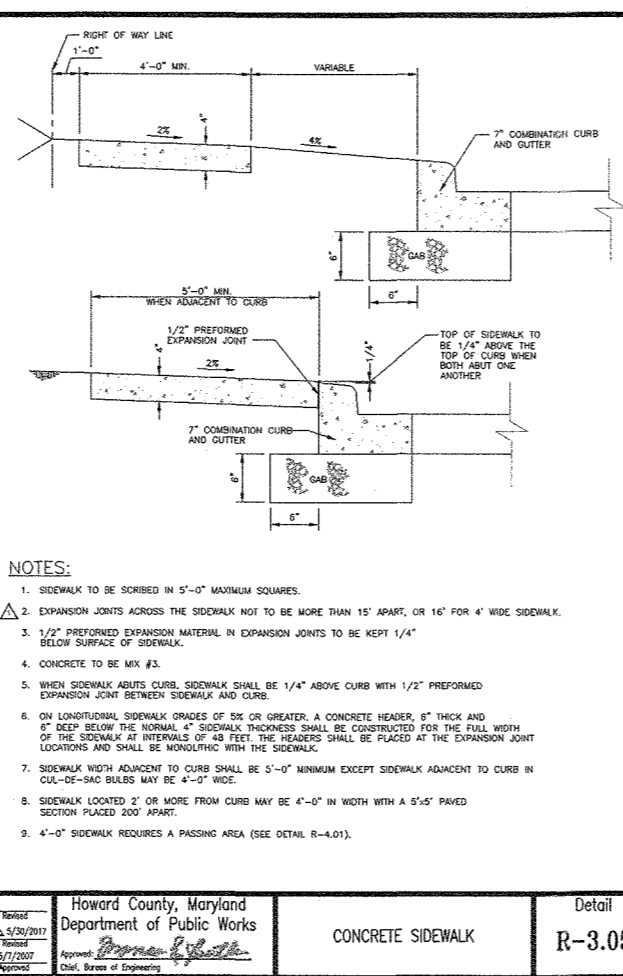
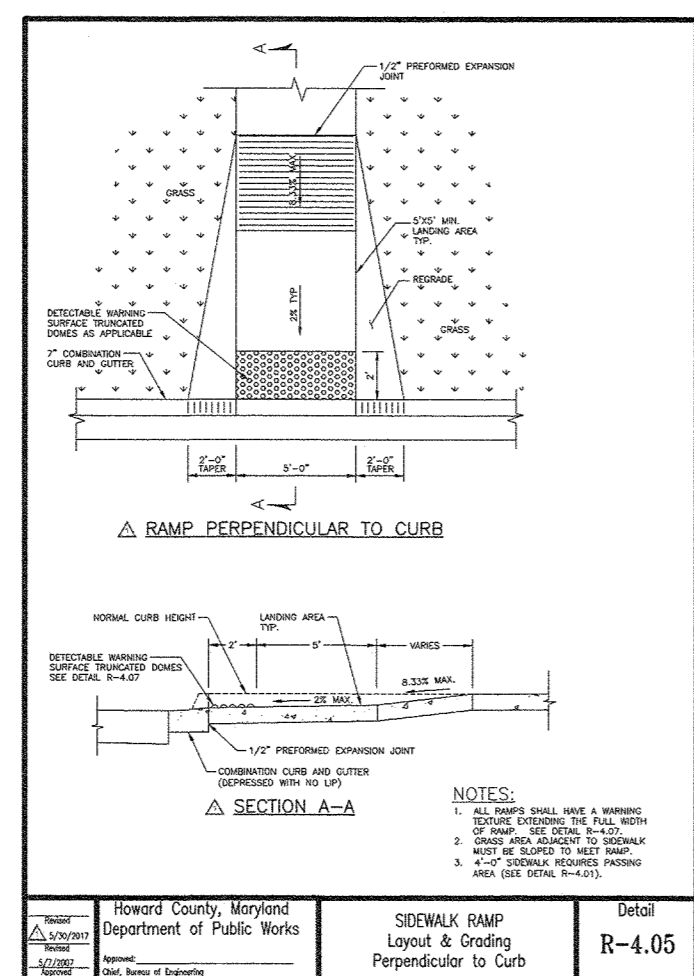
LEGEND	
	EXISTING CONTOUR
	PROPOSED CONTOUR
	EXISTING SPOT ELEVATION
	EXISTING CURB AND GUTTER
	PROPOSED CURB AND GUTTER
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING MAILBOX
	EXISTING SIGN
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY LINE
	EXISTING WATER LINE
	EXISTING FENCE
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	MICRO-BORE TRENCH
	PROPOSED SIDEWALK
	EXISTING TREELINE
	PROPOSED TREELINE
	PROPOSED STORM DRAIN
	PROPOSED STORM DRAIN INLET
	EX. FOREST CONSERVATION EASEMENT
	APPROXIMATE EXTENT OF ELECTRICAL RIGHT OF WAY UNDER 141 F.O.D. 412
	ACCESS EASEMENTS
	20' PUBLIC WATER & UTILITY EASEMENT
	20' PUBLIC SEWER & UTILITY EASEMENT
	30' PUBLIC WATER, SEWER & UTILITY EASEMENT
	EX. WETLANDS
	EX. WETLAND BUFFER
	EX. STREAM
	EX. STREAM BUFFER
	PUBLIC DRAINAGE & UTILITY EASEMENT
	PRIVATE DRAINAGE & UTILITY EASEMENT
	NON-CREDITED OPEN SPACE
	FULL DEPTH PAVEMENT SECTION REQUIRED
	REFER TO TYPICAL SECTION
	GRINDING, RE'D. 2" MILL, VARIABLE DEPTH WEDGE/LEVEL AND RESURFACING REFER TO TYPICAL SECTION



PAVEMENT CONSTRUCTION LOCATION		
TYPE OF CONSTRUCTION	START STATION	FINISH STATION
FULL DEPTH PAVEMENT	7+61	12+53.5
MILL & OVERLAY	7+61	12+53.5

REFER TO PLAN LEGEND AND PLAN VIEW HATCH

HANOVER ROAD PAVING (P-3) REPAIR SECTION - OR EQUAL	
	1.5" SUPERPAVE ASPHALT MIX FINAL SURFACE 9.5MM, PG 64-22S, LEVEL 1 (ESA)
	1.5" SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE 9.5MM, PG 64-22S, LEVEL 1 (ESA)
	2.0" SUPERPAVE ASPHALT MIX BASE 19.0MM, PG 64-22S, LEVEL 1 (ESA)
	10" GRADED AGGREGATE BASE (GAB)



TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR: [Signature]
DATE: 2-3-2020

OWNER/DEVELOPER
GRACE TAYLOR SCHUTT
6132 HANOVER ROAD
HANOVER, MD 21076
443-463-6760

NO.	REVISION	DATE

PRELIMINARY PLAN
HANOVER ROAD - ROAD IMPROVEMENTS & CROSS SECTIONS

GRACE MEADOWS
LOTS 1-18 AND OPEN SPACE LOTS 19-29
A SUBDIVISION OF TAX MAP 38 - PARCEL 731

TAX MAP 38 BLOCK 09
1ST ELECTION DISTRICT

ZONED R-12
PARCEL 731
HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
TIMMONS GROUP

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P: 410.461.7666 F: 410.461.8961 www.timmons.com

DESIGN BY: RHY
DRAWN BY: IH/KC
CHECKED BY: RHY
DATE: JANUARY 2020
SCALE: AS SHOWN
W.O. NO.: 40077

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 09-27-2020

ROBERT H. VOGEL, PE No. 16193

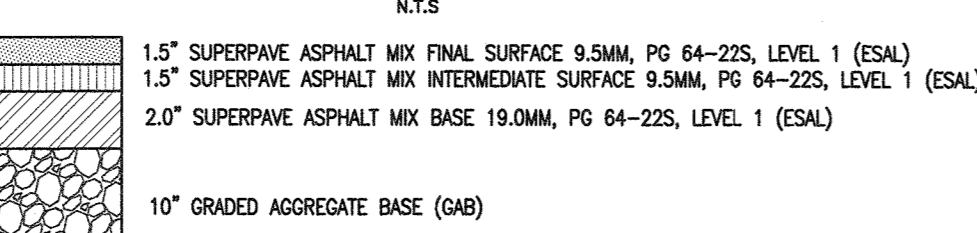
10 SHEET OF 11

PAVEMENT CONSTRUCTION LOCATION

TYPE OF CONSTRUCTION	START STATION	FINISH STATION
FULL DEPTH PAVEMENT	7+61	12+53.5
MILL & OVERLAY	7+61	12+53.5

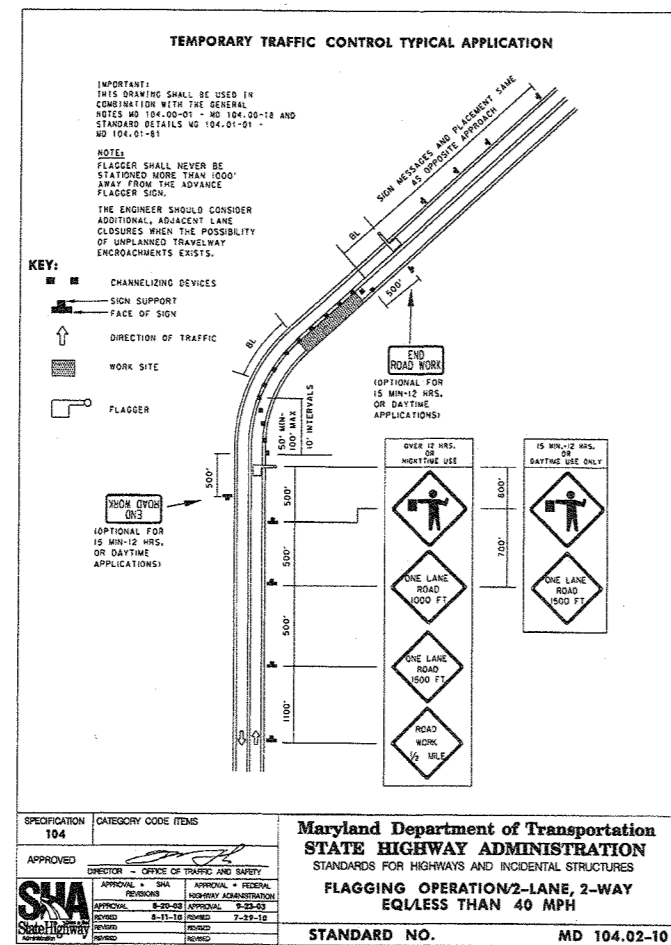
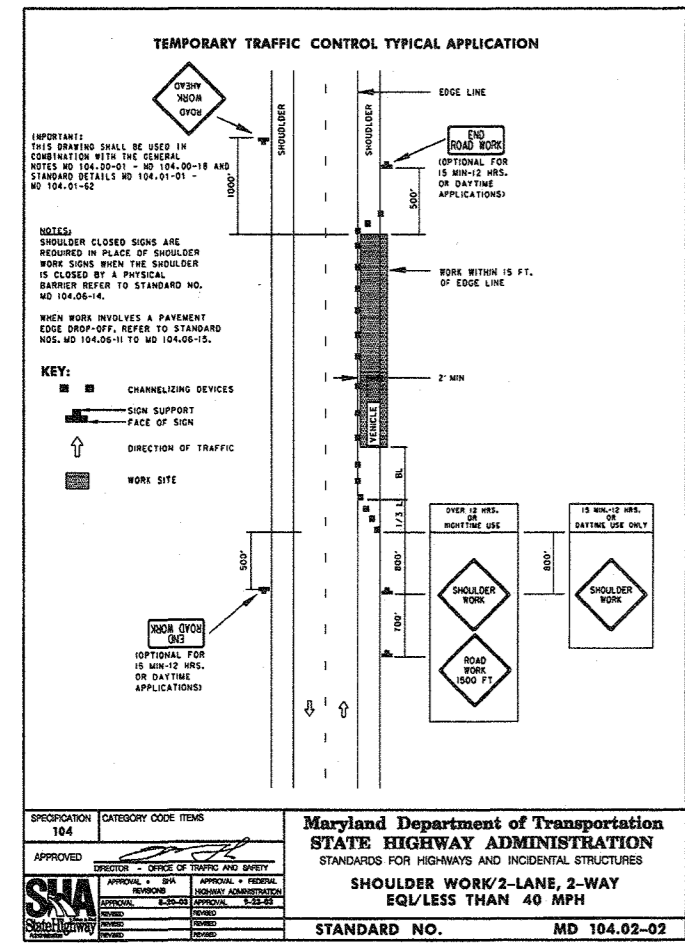
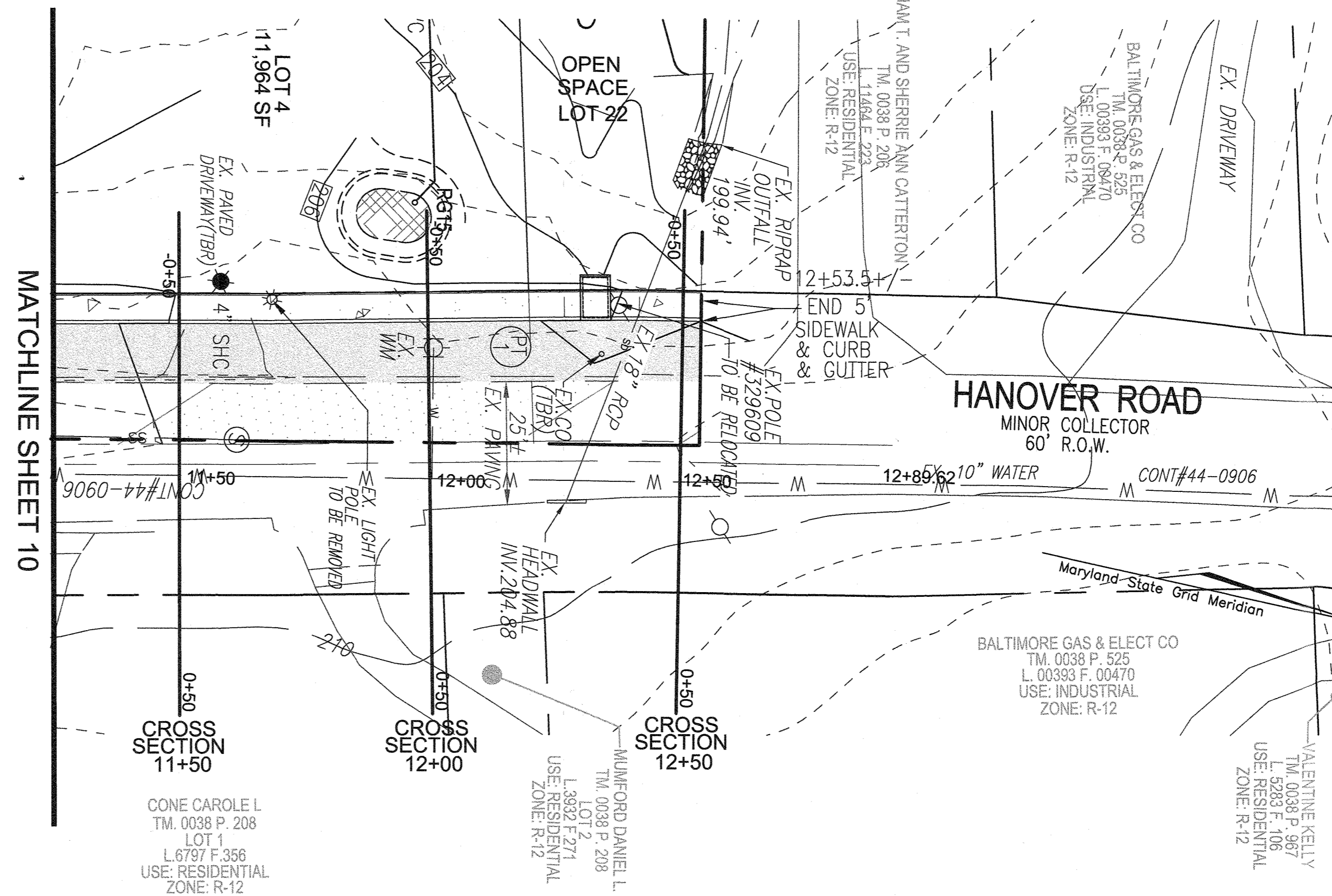
REFER TO PLAN LEGEND AND PLAN VIEW HATCH

HANOVER ROAD PAVING (P-3) REPAIR SECTION - OR EQUAL



HANOVER ROAD - ROAD IMPROVEMENTS

SCALE: 1"=20'

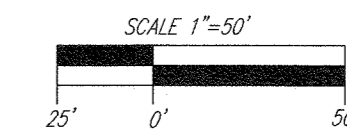
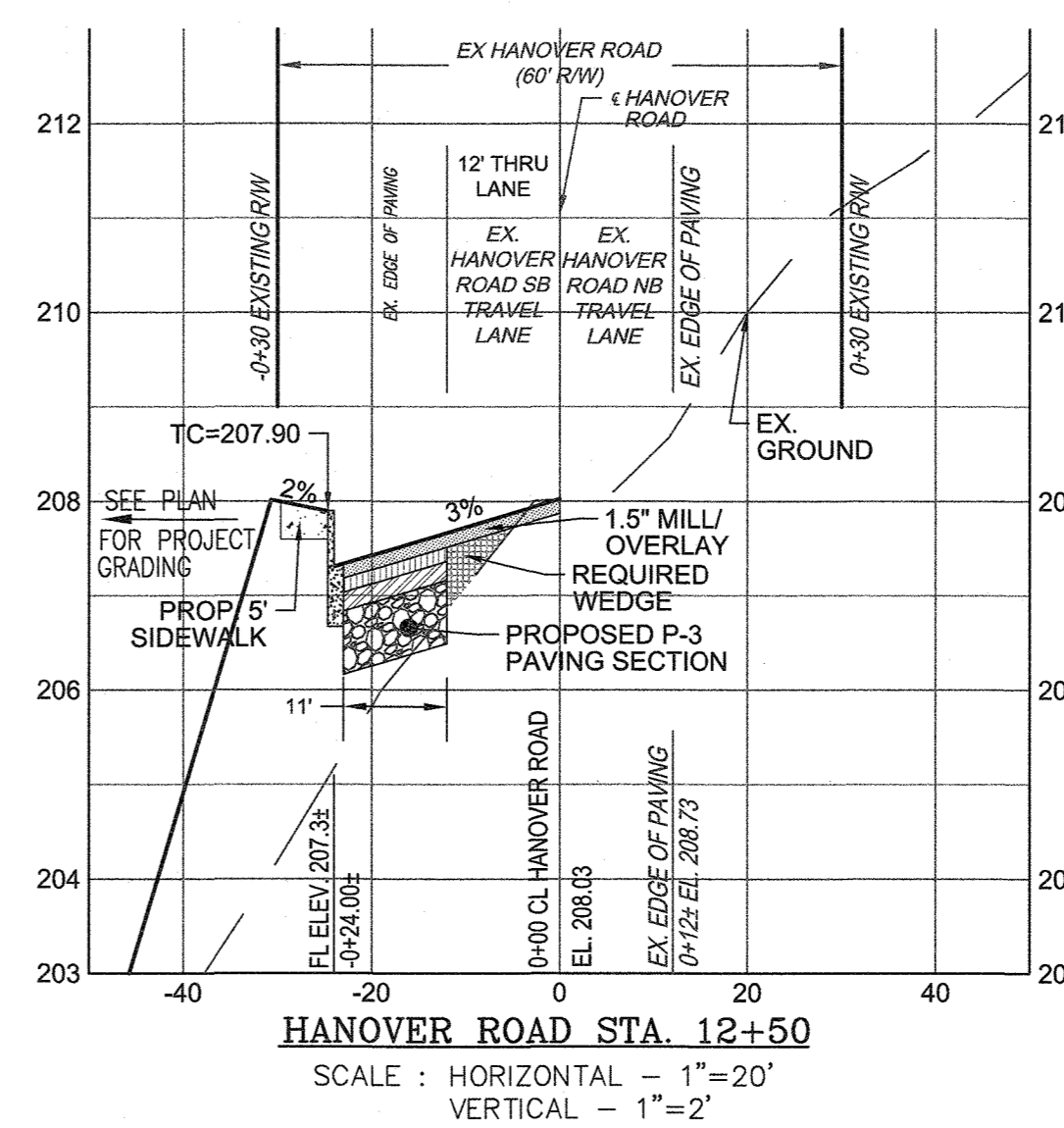
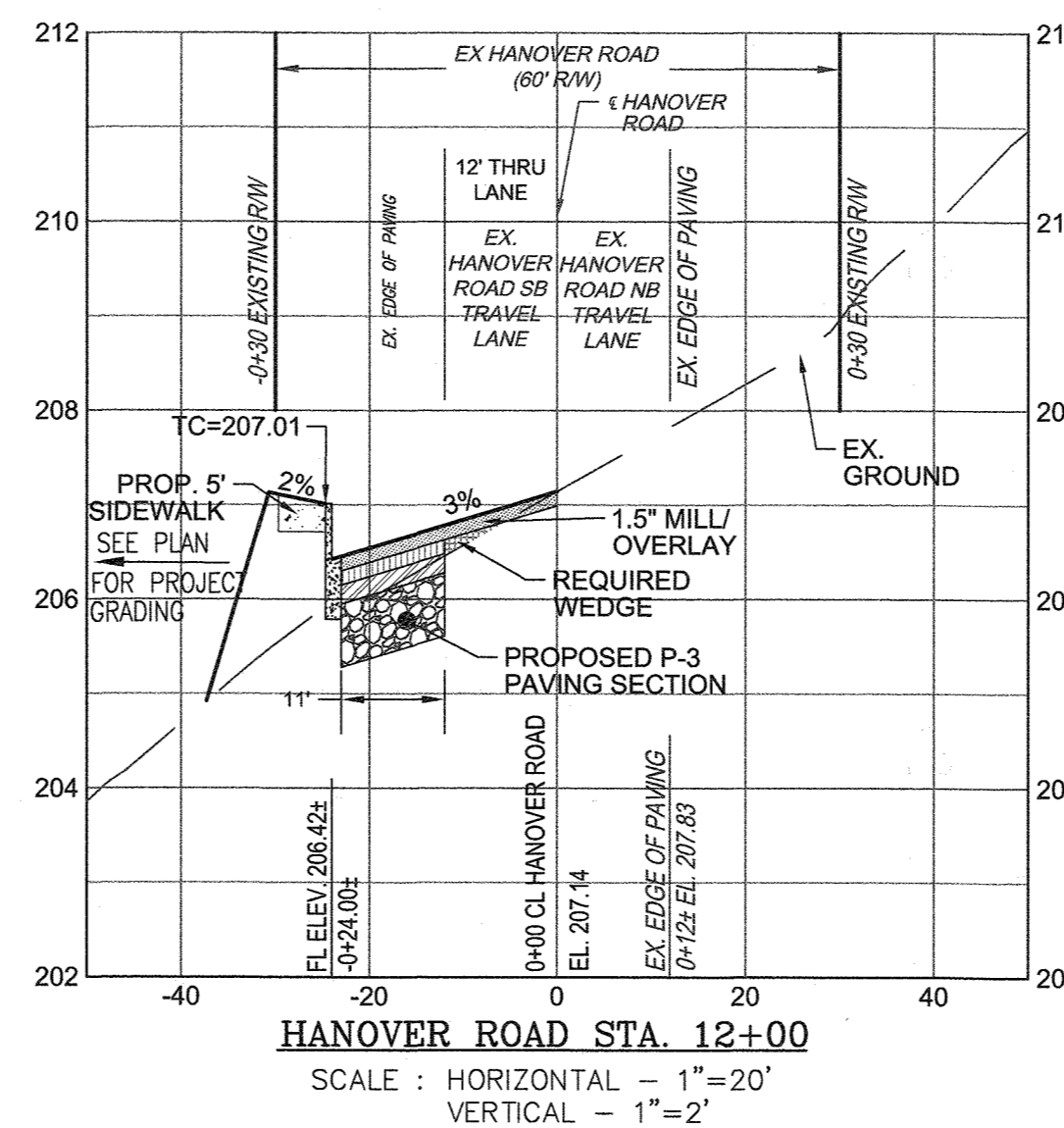
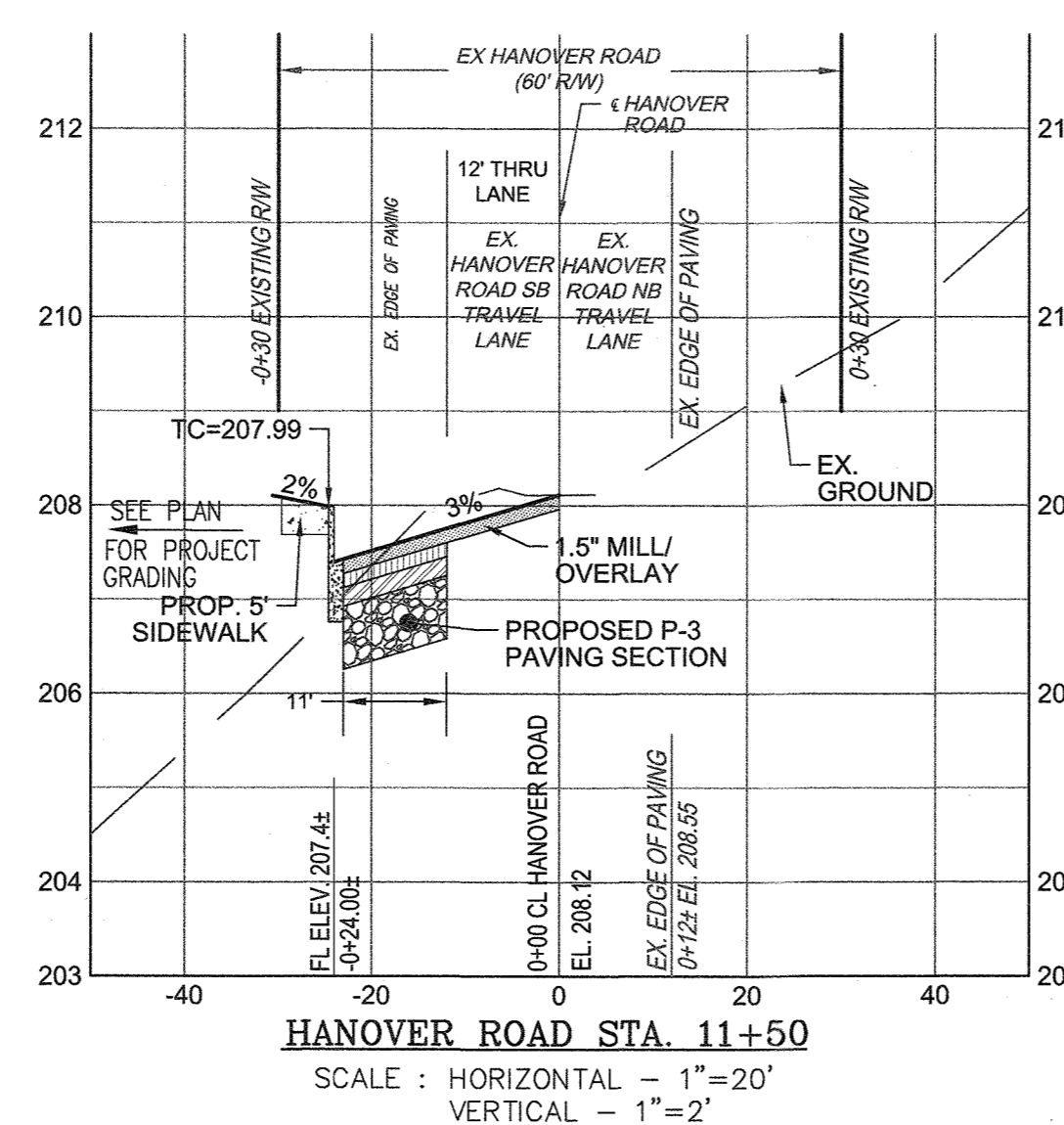
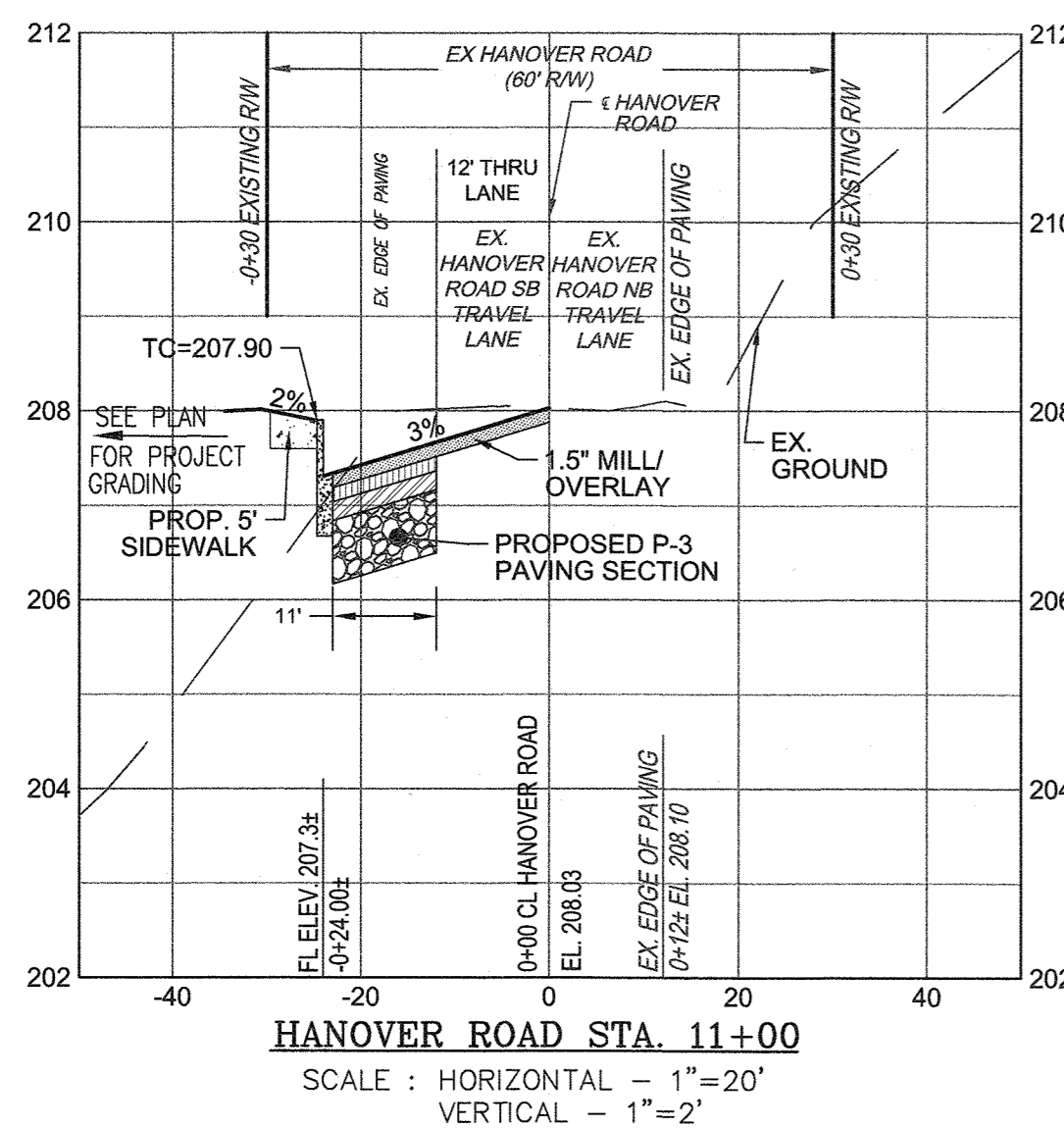


HANOVER ROAD TYPICAL WORK ZONE TRAFFIC CONTROL DETAILS

ALL WORK WITHIN THE HANOVER ROAD PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE STANDARD MARYLAND STATE HIGHWAY ADMINISTRATION DETAILS: MD 104.02-02 & MD 104.02-10 OR AS DIRECTED BY THE HOWARD COUNTY - TRAFFIC ENGINEERING DIVISION.

LEGEND

	EXISTING CONTOUR
	PROPOSED CONTOUR
	EXISTING SPOT ELEVATION
	EXISTING CURB AND GUTTER
	PROPOSED CURB AND GUTTER
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING MAILBOX
	EXISTING SIGN
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY LINE
	EXISTING CLEANOUT
	EXISTING FIRE HYDRANT
	EXISTING WATER LINE
	EXISTING FENCE
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	MICRO-BORE RETENTION
	PROPOSED SIDEWALK
	EXISTING TREELINE
	PROPOSED TREELINE
	PROPOSED STORM DRAIN
	PROPOSED STORM DRAIN INLET
	EX FOREST CONSERVATION EASEMENT
	APPROXIMATE EXTENTS OF ELECTRICAL RIGHT OF WAY
	ACCESS EASEMENTS
	20' PUBLIC WATER & UTILITY EASEMENT
	20' PUBLIC SEWER & UTILITY EASEMENT
	30' PUBLIC WATER, SEWER & UTILITY EASEMENT
	EX WETLANDS
	EX WETLAND BUFFER
	EX STREAM
	EX STREAM BUFFER
	PUBLIC DRAINAGE & UTILITY EASEMENT
	PRIVATE DRAINAGE & UTILITY EASEMENT
	NON-CREDITED OPEN SPACE
	FULL DEPTH PAVEMENT SECTION REQUIRED
	REFER TO TYPICAL SECTION
	GRINDING, REQ'D. 2" MILL, VARIABLE DEPTH WEDGE/LEVEL AND RESURFACING
	REFER TO TYPICAL SECTION



OWNER/DEVELOPER
GRACE TAYLOR SCHUTT
6132 HANOVER ROAD
HANOVER, MD 21076
443-463-6760

NO.	REVISION	DATE

PRELIMINARY PLAN
HANOVER ROAD - ROAD IMPROVEMENTS & CROSS SECTIONS
GRACE MEADOWS
LOTS 1 - 18 AND OPEN SPACE LOTS 18 - 29
A SUBDIVISION OF TAX MAP 38 - PARCEL 731
ZONED R-12
TAX MAP 38 BLOCK 09
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 16193 EXPIRATION DATE 07-27-2020

DESIGN BY: RHV
DRAWN BY: IH/KG
CHECKED BY: RHV
DATE: JANUARY 2020
SCALE: AS SHOWN
W.O. NO.: 40077

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

[Signature]
PLANNING DIRECTOR

2-3-2020
DATE