

GENERAL NOTES

- 1. PROJECT BACKGROUND: SUBDIVISION NAME: BEECHWOOD MANOR... 2. THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON A TOPOGRAPHIC SURVEY... 3. THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY... 4. TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO CEMETERIES OR GRAVE SITES... 5. THERE IS AN EXISTING HOME ON PARCEL 1... 6. THE HOME TO BE REMOVED IS NOT LISTED ON THE HISTORIC SITES INVENTORY... 7. STORM WATER MANAGEMENT TO BE PROVIDED FOR THIS DEVELOPMENT... 8. WATER FOR THIS PROJECT IS TO BE PUBLIC EXTENSIONS OF CONTRACT NO. 24-4849-D... 9. SEWER FOR THIS PROJECT IS TO BE PUBLIC EXTENSIONS OF CONTRACT NO. 20-3253... 10. THE SUBJECT PROPERTY IS ZONED "R-SC" IN ACCORDANCE WITH THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN... 11. EXISTING UTILITIES ARE BASED ON HOWARD COUNTY GIS AND FIELD SURVEYS... 12. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL... 13. NO FLOODPLAIN IS LOCATED ON SITE... 14. NO STEEP SLOPES OVER 20.000 SF OF CONTIGUOUS ARE LOCATED ON SITE... 15. A FOREST STAND DELINEATION AND ENVIRONMENTAL RESOURCES ASSESSMENT WAS PERFORMED BY JOHN CANOLES OF ECO-SCIENCE PROFESSIONALS, INC. DATED AUGUST 2017... 16. FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL A PORTION OF THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS... 17. FINANCIAL SURETY SHALL BE POSTED WITH THE FUTURE FINAL PLAN... 18. THERE ARE NO WETLANDS, STREAMS OR BUFFERS WITHIN THE LIMIT OF DISTURBANCE... 19. BOLTON FARM LANE IS A... 20. SFA LOTS 21-31 WILL HAVE DIRECT FRONTAGE ON EXISTING TWIN FAWN TRAIL & RIVER HILL ROAD... 21. DRIVEWAYS(S) SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT... 22. THE PRE-SUBMISSION COMMUNITY MEETING WAS HELD FOR THIS PROJECT ON JANUARY 10, 2018... 23. IN ACCORDANCE WITH SECTION 16.121(A)(2) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS... 24. IN ACCORDANCE WITH SECTION 16.121(A)(4) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS... 25. THE ENVIRONMENTAL CONCEPT PLAN (ECP-18-010) WAS APPROVED ON APRIL 5, 2018... 26. THE SKETCH PLAN (S-18-002) WAS APPROVED ON JULY 24, 2018... 27. THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP, INC., DATED JANUARY 19, 2018... 28. THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT... 29. THE PROPOSED SITE SHALL HAVE AN AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM... 30. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS... 31. PUBLIC STREET TREES ARE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 16.124(E)(1) OF THE SUBDIVISION REGULATIONS... 32. FINANCIAL SURETY (\$9,900) SHALL BE POSTED AS PART OF THE FINAL PLAN... 33. OFF-STREET PARKING TO INCLUDE GARAGE SPACES, DRIVEWAY AND PARKING PADS... 34. ALL WATER CONNECTIONS SHALL BE 1.5" WITH 1" OUTSIDE METER SETTINGS... 35. IN ACCORDANCE WITH SECTION 112.1.F OF THE 10/06/13 COMPREHENSIVE ZONING REGULATIONS... 36. A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED... 37. CERTIFIED TEST PITS TO VERIFY THE LOCATIONS OF GROUNDWATER AND/OR ROCK OPEN TEST PITS WERE OBSERVED BY TRINITY HOMES OCTOBER 2021... 38. IN ACCORDANCE WITH SECTION 16.119(A)(B) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS... 39. THIS PROJECT IS SUBJECT TO A DESIGN MANUAL WAIVER... 40. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS... 41. THE EXISTING WELL AND/OR SEPTIC SYSTEMS MUST BE PROPERLY ABANDONED... 42. TRAFFIC CONTROL DEVICES... 43. THE FOLLOWING STANDARDS (CONSTRUCTION AND TEMPORARY TRAFFIC CONTROL) ARE REQUIRED... 44. ON THE APPROACH SIDE OF THE STOP SIGN, NO STREET TREE SHALL BE PLANTED WITHIN 30 FT OF THE STOP SIGN... 45. TO INSURE EMERGENCY VEHICULAR ACCESSIBILITY AND ORDERLY TRAFFIC FLOW... 46. ALONG BOLTON FARM LANE (STA 0+25 TO STA +100) BOTH SIDES OF THE STREET... 47. THE DEPARTMENT OF PUBLIC WORKS - TRAFFIC DIVISION RESERVES THE RIGHT TO INSTALL NO PARKING RESTRICTIONS... 48. SITE DEVELOPMENT WITH ROAD AND HOUSES DESIGN BLOCKS NATURAL SWALE - STORMWATER PATHWAY... 49. A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT...

NOTES:

- 1. ALL WATER CONNECTIONS SHALL BE 1-1/2" WITH 1" OUTSIDE METER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD COUNTY DETAILS W-3.28 OUTSIDE METER SETTINGS.

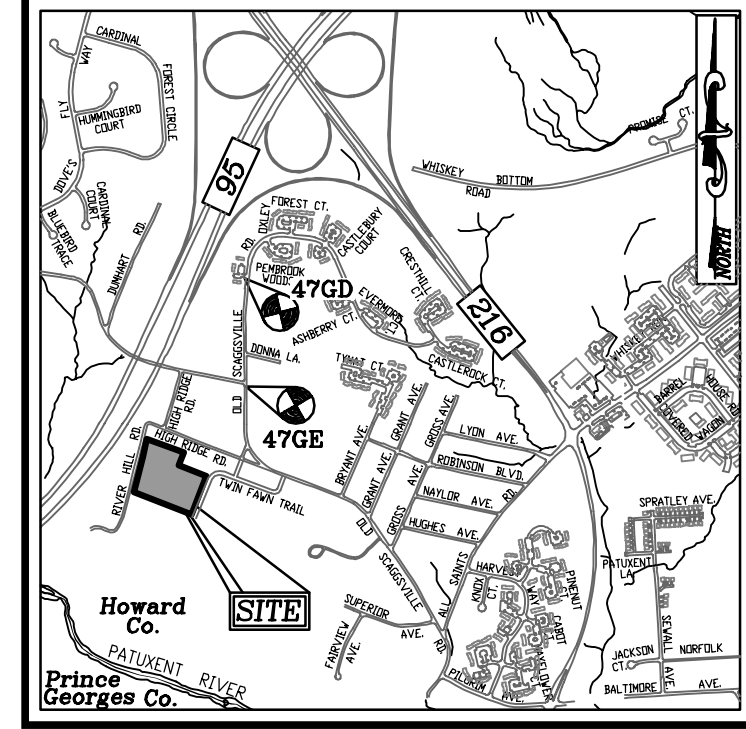
PRELIMINARY PLAN BEECHWOOD MANOR LOTS 1-31 AND OPEN SPACE LOTS 32-34 9111 RIVER HILL ROAD LAUREL, MD 20723

COORDINATE TABLE

Table with 3 columns: Point #, Northing, Easting. Contains coordinate data for points 115 through 504.

BENCHMARKS

HOWARD COUNTY BENCHMARK 476C (CONC. MON.) N 529044.94 E 1350855.03 ELEV. 335.74... HOWARD COUNTY BENCHMARK 476D (CONC. MON.) N 530494.42 E 1350872.37 ELEV. 312.28...



VICINITY MAP SCALE: 1"=200' ADC MAP: PAGE: 39 GRID: F7

SHEET INDEX

Table with 3 columns: DESCRIPTION, SHEET NO., SHEET NO. Contains index for sheets 1 through 11, including Cover Sheet, Preliminary Site Layout Plan, etc.

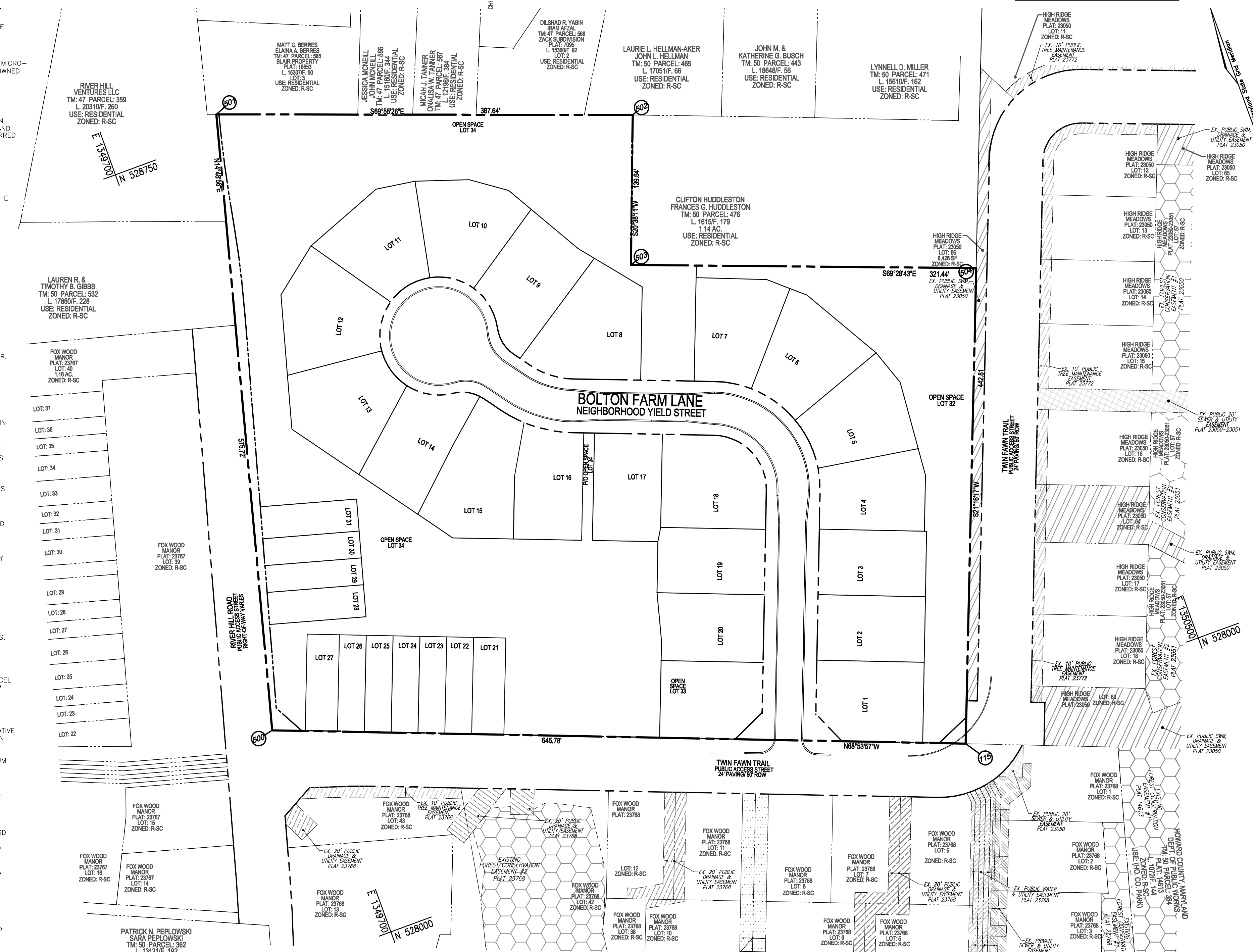
LEGEND:

- PROPERTY LINE (solid line)
RIGHT-OF-WAY LINE (dashed line)
ADJACENT PROPERTY LINE (dotted line)
EXISTING EDGE OF PAVING (line with dashes)
EXISTING CURB AND GUTTER (line with dots)
EXISTING TREELINE (line with wavy marks)
PROPOSED CURB AND GUTTER (line with wavy marks)

Summary of findings for APFO Traffic Analysis: A. Date of report: JANUARY 19, 2018. B. Date of Count(s): DECEMBER 7, 2017. C. Report submitted as part of Plan number: S-18-002. D. Provide statement that schools were in session on that date(s)...

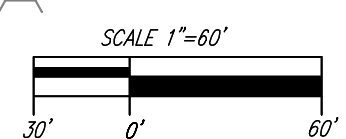
Moderate Income Housing Units (MIHU) Allocation Exemptions Tracking table with columns for Total Number of Lots/Units Proposed, Number of MIHU Required, etc.

OWNER: ROBERT LEE BOLTON, C/O WILLIAM A. BOLTON. DEVELOPER: TRINITY QUALITY HOMES, LLC, 3675 PARK AVE, SUITE 301, ELLICOTT CITY, MD 211043.



LOCATION MAP

SCALE: 1"=60'



PARKING TABULATION:

SINGLE FAMILY ATTACHED (SFA) = 11 LOTS
SINGLE FAMILY DETACHED (SFD) = 20 LOTS
TOTAL NUMBER OF DWELLING UNITS PROPOSED = 31

- 1. OFF-STREET PARKING REQUIRED: 2 SPACES PER UNIT = 31 x 2 = 62
2. VISITOR PARKING REQUIRED: SFA - 11 UNITS @ 0.5 SPACES PER UNIT... SFD - 20 UNITS @ 0.5 SPACES PER UNIT...

RECREATION OPEN SPACE TABULATION:

RECREATION OPEN SPACE REQUIRED PER SECTION 16.121(A)(4)(v) BEECHWOOD MANOR - SINGLE FAMILY HOMES SFD = 300 SF/UNIT X 20 UNITS = 6,000 SF...

RECREATION OPEN SPACE PROVIDED FOR BEECHWOOD MANOR: P/O OPEN SPACE 34 = 8,128 SF PLUS AMENITIES: BENCHES: 4 X 200 = 800 SF...

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-SC PROJECT IS 25% OF GROSS AREA (7.97 AC. GROSS AREA x 25% = 1.99 AC.)...

SITE ANALYSIS DATA CHART

A. TOTAL PROJECT AREA: 7.97 AC +/-
B. AREA OF PLAN SUBMISSION: 7.97 AC.
C. AREA OF WETLANDS AND BUFFERS: 0.00 AC +/-
D. AREA OF FLOODPLAIN: 0.00 AC +/-
E. AREA OF FOREST: 0.00 AC (REFER TO FSD)
F. AREA OF STEEP SLOPES (15% & GREATER): 0.0 S.F. OR 0.0 AC.
G. ERODIBLE SOILS: 0.0 AC +/-
H. LIMIT OF DISTURBED AREA: 6.5 AC +/-

TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY. Includes signature of Amy Gowan and date 12/13/2022.

PRELIMINARY PLAN COVER SHEET BEECHWOOD MANOR LOTS 1-31 AND OPEN SPACE LOTS 32-34 A SUBDIVISION OF TAX MAP 50 - PARCEL 1. Includes project details, owner/developer info, and Timmons Group logo.

**SIGNAGE LOCATION CHART**

ROAD NAME	STATION	OFFSET	TYPE
BOLTON FARM LANE	0+79.2	17.0 RT	R2-1 SPEED LIMIT SIGN
BOLTON FARM LANE	0+28.2	19.0 LT	R1-1 STOP SIGN
BOLTON FARM LANE	0+16.3	37.5 RT	STREET NAME SIGN
BOLTON FARM LANE	0+16.3	37.5 RT	"NO OUTLET" SIGN
BOLTON FARM LANE	0+99.01	17.06 LT	NO PARKING R-8-3a
BOLTON FARM LANE	0+91.9	16.9 RT	NO PARKING R-8-3a
BOLTON FARM LANE	0+28.2	19.00LT	NO PARKING R-8-3a
BOLTON FARM LANE	0+32.9	17.08 RT	NO PARKING R-8-3a
BOLTON FARM LANE	2+83.5	17.5L	NO PARKING R-8-3a
BOLTON FARM LANE	4+00	16.9L	NO PARKING R-8-3a

- TRAFFIC CONTROL DEVICES:**
- THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410-313-2430) PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES.
  - ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (UNIFORMS).
  - ALL SIGN POST USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, ("CLOCK 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 "CLOCK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON THE TOP OF EACH POST.

**FOREST CONSERVATION EASEMENT EDGE NOTE**  
 DISTANCE BETWEEN LOT LINES AND FOREST CONSERVATION EASEMENTS SHALL BE 35' BETWEEN SIDE AND REAR LOT LINES AND THE FOREST CONSERVATION EASEMENT PLANTINGS AT THE REAR OF LOTS 4-6 & 9-12 SHALL PLANT LARGER MATURE STOCK ALONG THE FOREST CONSERVATION EASEMENT EDGE. FINAL PLAN SHALL PROVIDE FURTHER DETAIL.

**STREET LIGHT LOCATIONS**

ROAD NAME	STATION	OFFSET	FIXTURE/POLE TYPE
BOLTON FARM LANE	0+20.20	26.9 RT	100 WATT LED PREMIER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE
BOLTON FARM LANE	1+60.59	19.52 LT	100 WATT LED PREMIER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE
BOLTON FARM LANE	3+10.94	16.55 RT	100 WATT LED PREMIER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE
BOLTON FARM LANE	4+87.47	20.20 LT	100 WATT LED PREMIER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE
BOLTON FARM LANE	6+44.61	50.12 LT	100 WATT LED PREMIER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE
TWIN FAWN TRAIL	18+83.31	16.52 RT	100 WATT LED PREMIER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE
RIVER HILL ROAD	1+19.02	16.28 RT	100 WATT LED PREMIER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE
RIVER HILL ROAD	2+77.69	15.88 RT	100 WATT LED PREMIER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE

TENTATIVELY APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY

DocuSigned by:  
 Amy Granan  
 1842000470C04D

12/13/2022

PLANNING DIRECTOR DATE



**LEGEND:**

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING EDGE OF PAVING
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING SANITARY LINE
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EX. WETLAND BUFFER
- EX. STREAM
- EX. STREAM BUFFER
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING SPECIMEN TREES
- EXISTING WOOD FENCE
- EXISTING METAL FENCE
- EXISTING STREET LIGHT
- PROPOSED STREET LIGHT
- STORM DRAIN
- MBR
- RG
- EX. PUBLIC DRAINAGE & UTILITY EASEMENT (PLAT 23768)
- EX. PUBLIC TREE MAINTENANCE EASEMENT (PLATS 23772 & 23768)
- EX. FOREST CONSERVATION EASEMENT (PLATS 14613, 23050-23051 & 23768)
- EX. PRIVATE USE-IN-COMMON ACCESS EASEMENT (PLAT 23768)
- EX. PUBLIC WATER & UTILITY EASEMENT (PLAT 23768)
- EX. PRIVATE SEWER & UTILITY EASEMENT (PLAT 23768)
- EX. PUBLIC SEWER & UTILITY EASEMENT (PLATS 23050-23051)
- EX. WETLANDS
- SFS X
- SPECIMEN TREE REMOVAL
- PRIVATE DRAINAGE & UTILITY EASEMENT
- PUBLIC SIM. DRAINAGE & UTILITY EASEMENT
- PRIVATE SIM. DRAINAGE & UTILITY EASEMENT
- PUBLIC 10' TREE MAINTENANCE EASEMENT
- PUBLIC WATER AND UTILITY EASEMENT
- PROPOSED FOREST CONSERVATION EASEMENT
- PERVIOUS PAVING
- VARIABLE WIDTH PUBLIC SIDEWALK EASEMENT
- HOUSE

**OWNER**  
 ROBERT LEE BOLTON  
 C/O WILLIAM A. BOLTON  
 9111 RIVER HILL ROAD  
 LAUREL, MD 20723-1781  
 (410) 480-0023

**DEVELOPER**  
 TRINITY QUALITY HOMES, LLC  
 3675 PARK AVE., SUITE 301  
 ELLICOTT CITY, MD 21043  
 (410) 480-0023

NO. REVISION DATE

PRELIMINARY PLAN  
 PRELIMINARY SITE LAYOUT PLAN  
**BEECHWOOD MANOR**  
 LOTS 1-31 AND OPEN SPACE LOTS 32-34  
 A SUBDIVISION OF TAX MAP 50 - PARCEL 1

L 1271 / F 186  
 TAX MAP: 50 GRID: 1  
 6TH ELECTION DISTRICT

9111 RIVER HILL ROAD  
 LAUREL, MD 20723

ZONED: R-SC  
 PARCEL: 001

**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 DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 06-27-2024

DESIGN BY: RHV  
 DRAWN BY: VTG  
 CHECKED BY: RHV  
 DATE: OCTOBER 2022  
 SCALE: AS SHOWN  
 W.O. NO.: 17-26

2 SHEET OF 11

**CURVE DATA TABLE**

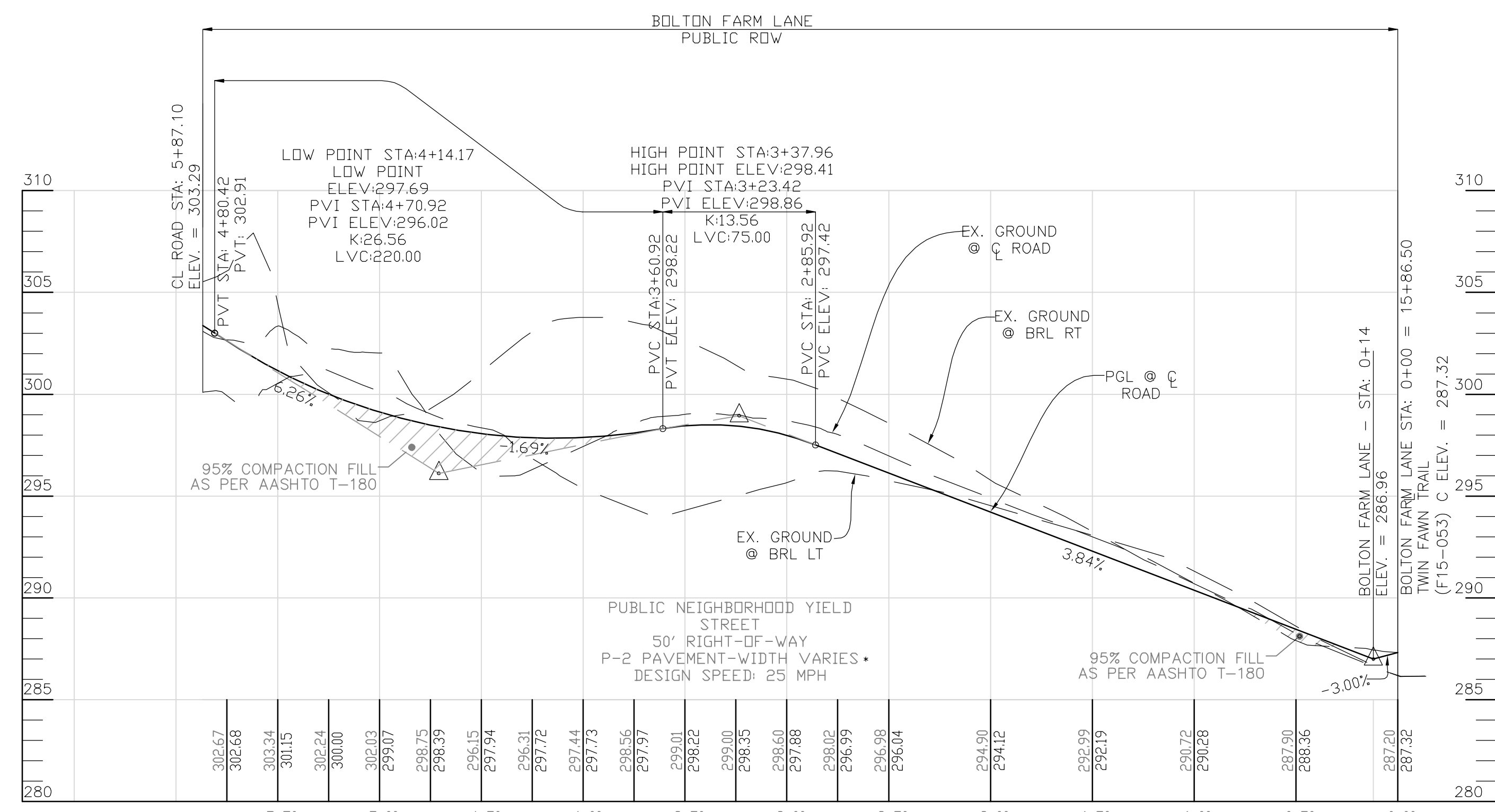
CURVE #	CURVE	ARC	RADIUS	TANGENT	DELTA	CHORD
C-1	2+58.10 - 3+75.97	117.87'	75.00'	75.06'	90°02'42"	N23°56'52"W 106.11'
C-2	5+07.10 - 5+64.65	57.55'	100.00'	29.60'	32°58'35"	N52°28'55"W 56.76'
C-3	LP0+00 - LP0+31.91	31.91'	35.00'	17.16'	52°13'47"	S62°06'30"E 30.81'
C-4	LP0+31.91 - LP2+55.32	23.41'	45.00'	34.87'	284°27'32"	N54°00'23"E 55.13'
C-5	LP2+55.32 - LP2+87.22	31.91'	35.00'	17.16'	52°13'47"	N09°52'45"W 30.81'

\* REFER TO DESIGN MANUAL WAIVER APPROVAL JULY 3, 2018 ON SHEET 1 NOTE 40.

PRELIMINARY SITE LAYOUT PLAN

SCALE: 1"=50'

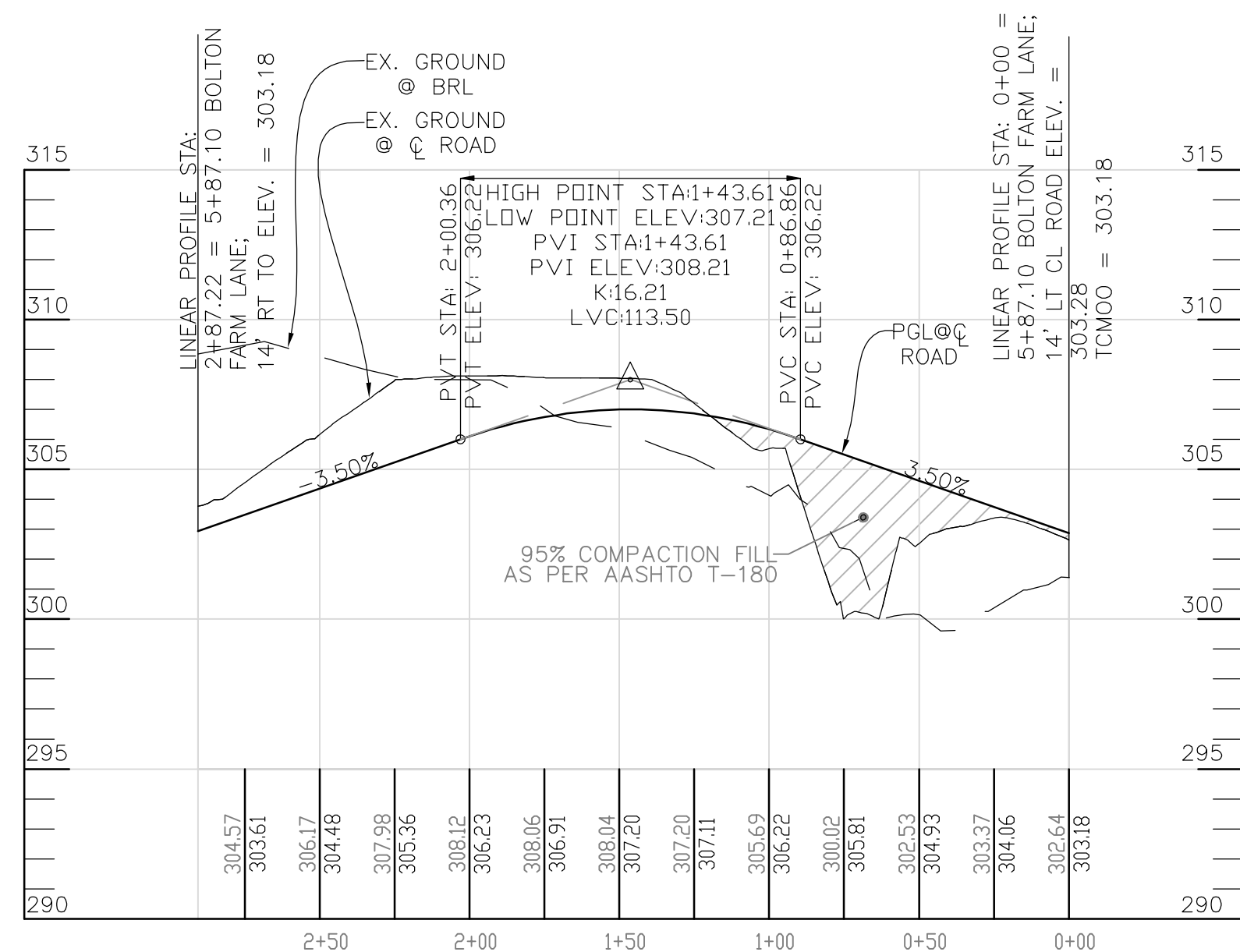
25' 0' 50'



**BOLTON FARM LANE - PROFILE**

SCALE: 1"=50' HORZ.  
1"=5' VERT

\* REFER TO DESIGN MANUAL WAIVER APPROVAL JULY 3, 2018 ON SHEET 1 NOTE 40.



**BOLTON FARM LANE - PROFILE**

SCALE: 1"=50' HORZ.  
1"=5' VERT

ROADWAY INFORMATION CHART					
ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	CL. STA LIMITS	PAVING SECTION
BOLTON FARM LANE	PUBLIC NEIGHBORHOOD YIELD STREET	25 M.P.H.	R-SC	0+00 - 6+50	P-2

CURVE DATA TABLE						
CURVE #	CURVE	ARC	RADIUS	TANGENT	DELTA	CHORD
C-1	2+58.10 - 3+75.97	117.87'	75.00'	75.06'	90°02'42"	N23°56'52" W 106.11'
C-2	5+07.10 - 5+64.65	57.55'	100.00'	29.60'	32°58'35"	N52°28'55" W 56.76'
C-3	LP0+00 - LP0+31.91	31.91'	35.00'	17.16'	52°13'47"	S62°06'30" E 30.81'
C-4	LP0+31.91 - LP2+55.32	223.41'	45.00'	34.87'	284°27'32"	N54°00'23" E 55.13'
C-5	LP2+55.32 - LP2+87.22	31.91'	35.00'	17.16'	52°13'47"	N09°52'45" W 30.81'

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

DocuSigned by:  
Amy Goman  
12/13/2022

PLANNING DIRECTOR DATE

SECTION NUMBER	ROAD AND STREET CLASSIFICATION / TYPE	PAVEMENT MATERIAL (INCHES)	MIN. SUPERPAVE ASPHALT MIX WITH COARSEST SAND WITH US	3 TO 4.75 TO 4.75	4.75 TO 7.5 TO 4.75	7.5 TO 11.25 TO 4.75	11.25 TO 15.0 TO 4.75
P-1	RESIDENTIAL AND NON-RESIDENTIAL PARKING DRIVE ALLEYS	SUPERPAVE ASPHALT MIX FINAL SURFACE 1.5 IN. PG 54-225, LEVEL 1 (ESA)	1.5	1.5	1.5	1.5	1.5
P-2	ALLEY	SUPERPAVE ASPHALT MIX FINAL SURFACE 1.5 IN. PG 54-225, LEVEL 1 (ESA)	1.5	1.5	1.5	1.5	1.5
P-3	DEVELOPMENT STREET	SUPERPAVE ASPHALT MIX FINAL SURFACE 1.5 IN. PG 54-225, LEVEL 1 (ESA)	1.5	1.5	1.5	1.5	1.5
P-4	NEIGHBORHOOD STREET	SUPERPAVE ASPHALT MIX FINAL SURFACE 1.5 IN. PG 54-225, LEVEL 1 (ESA)	1.5	1.5	1.5	1.5	1.5

**NOTES:**

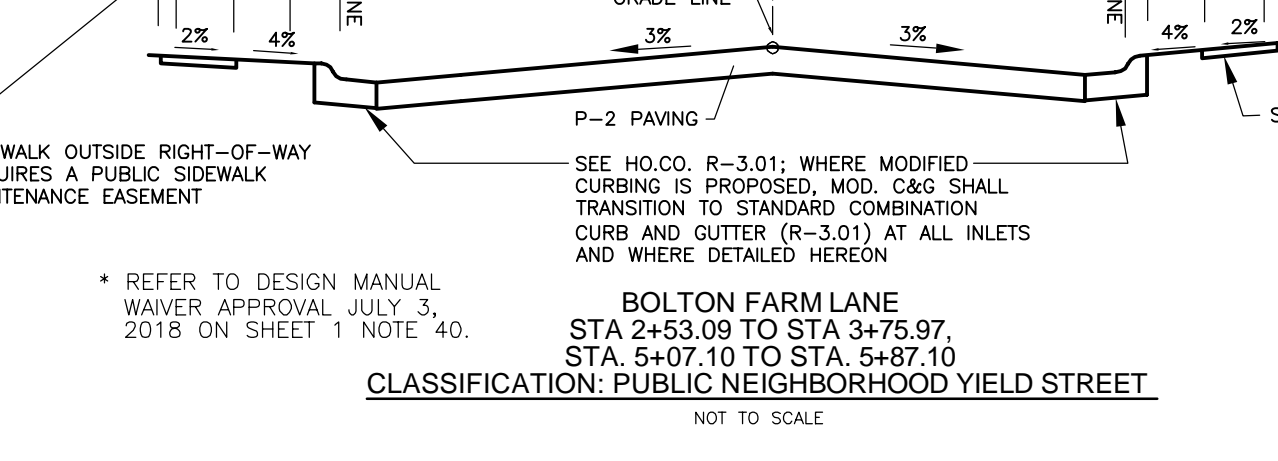
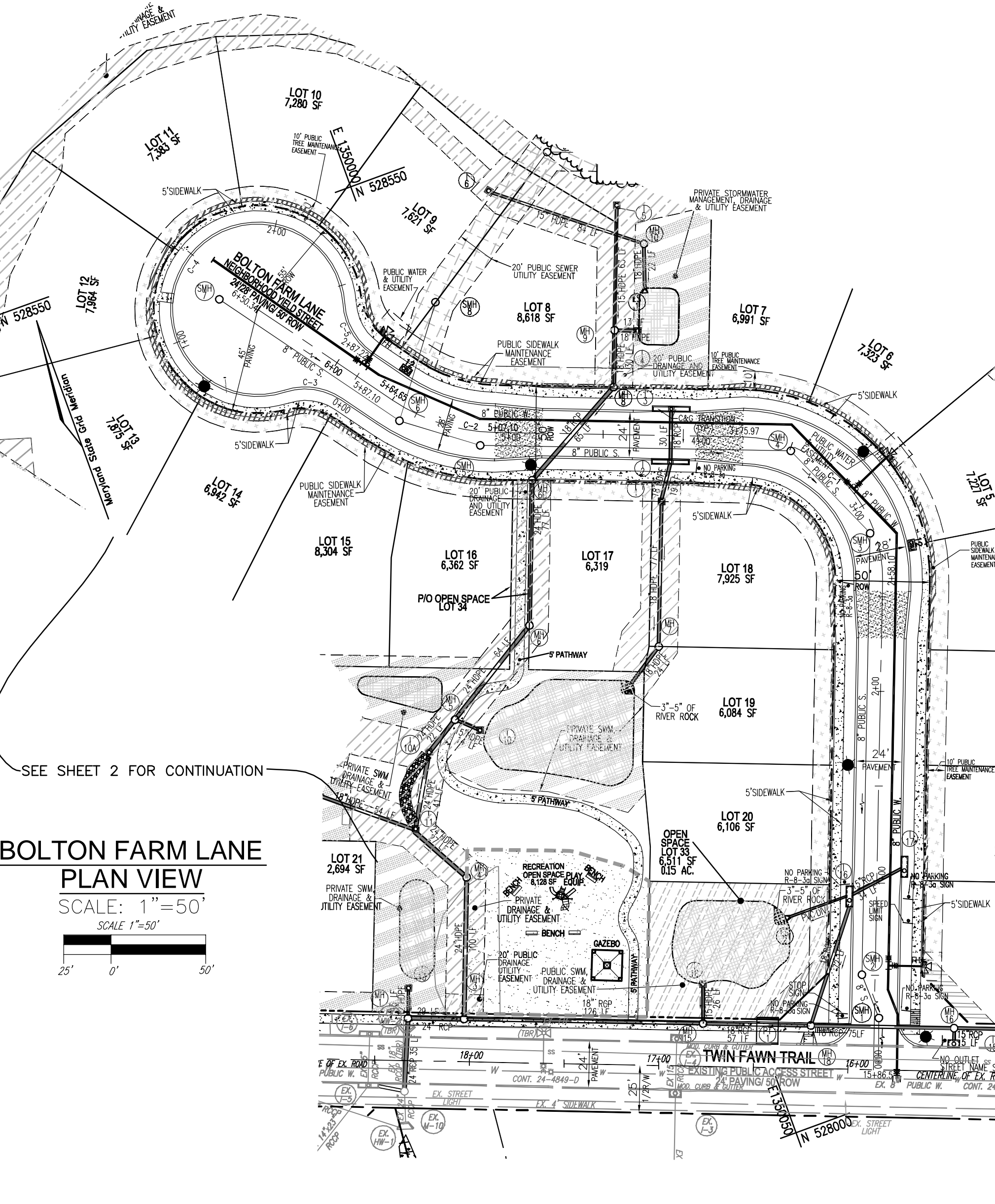
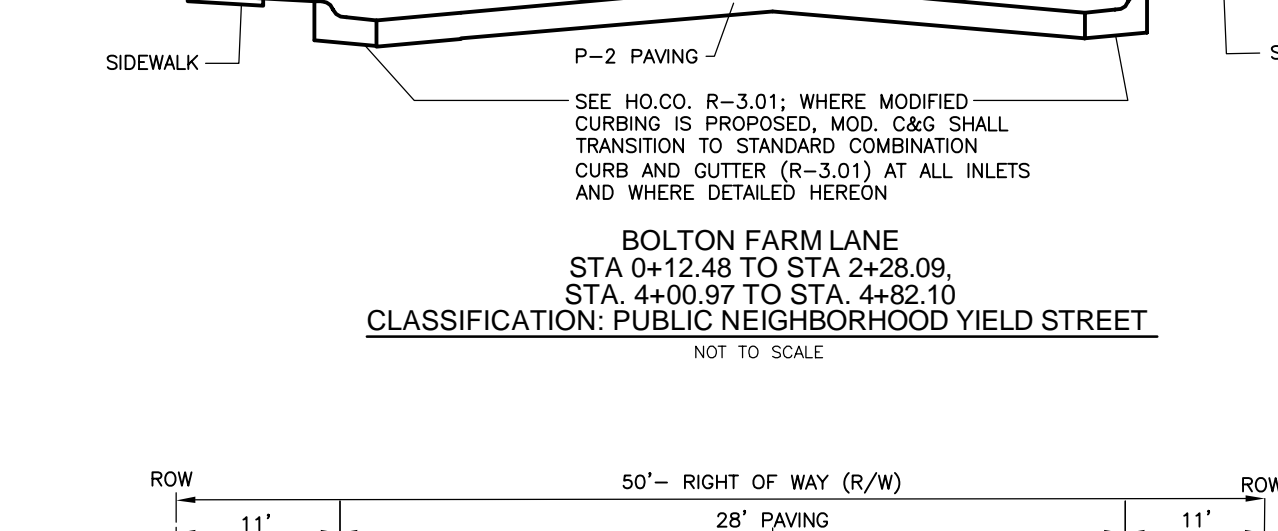
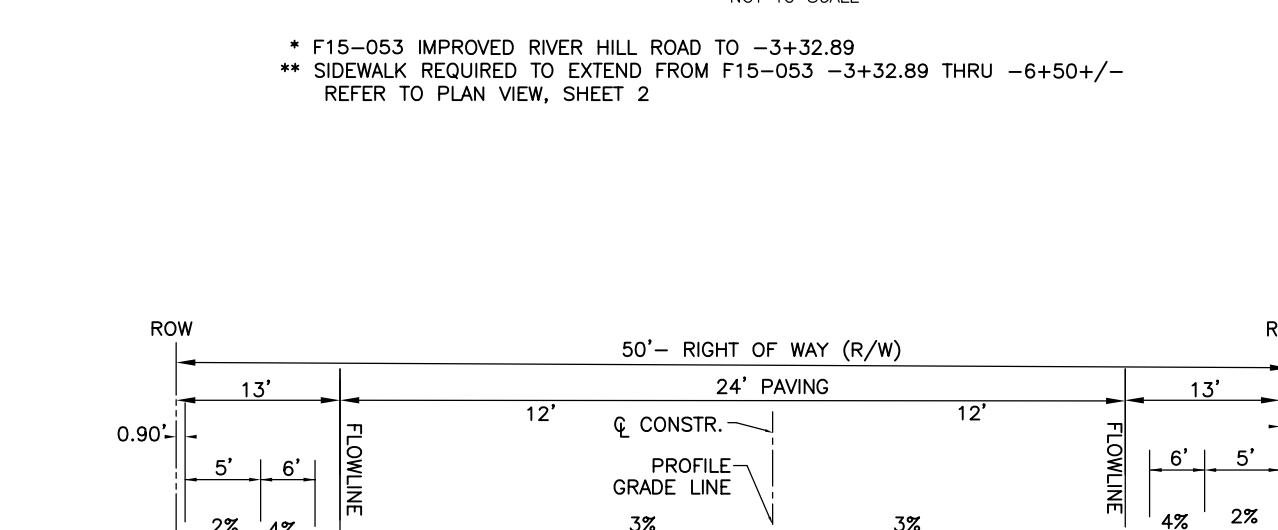
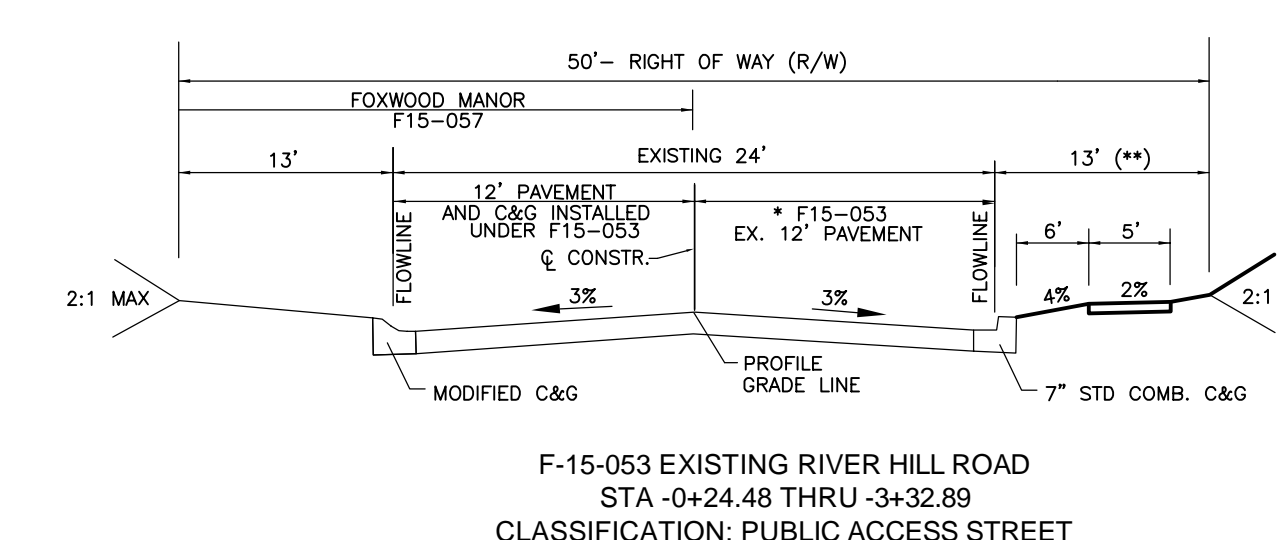
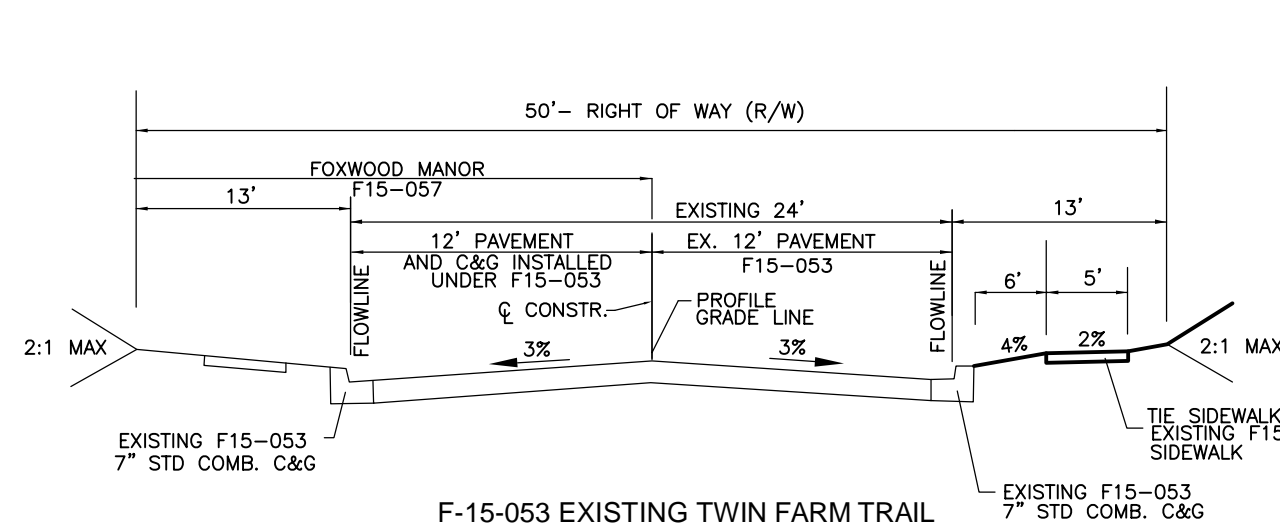
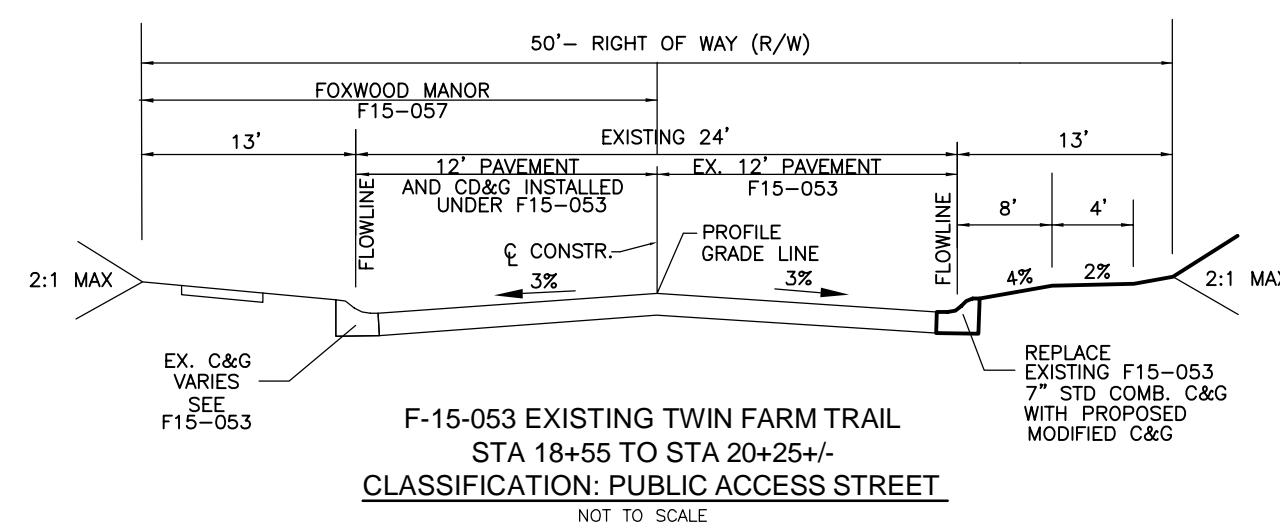
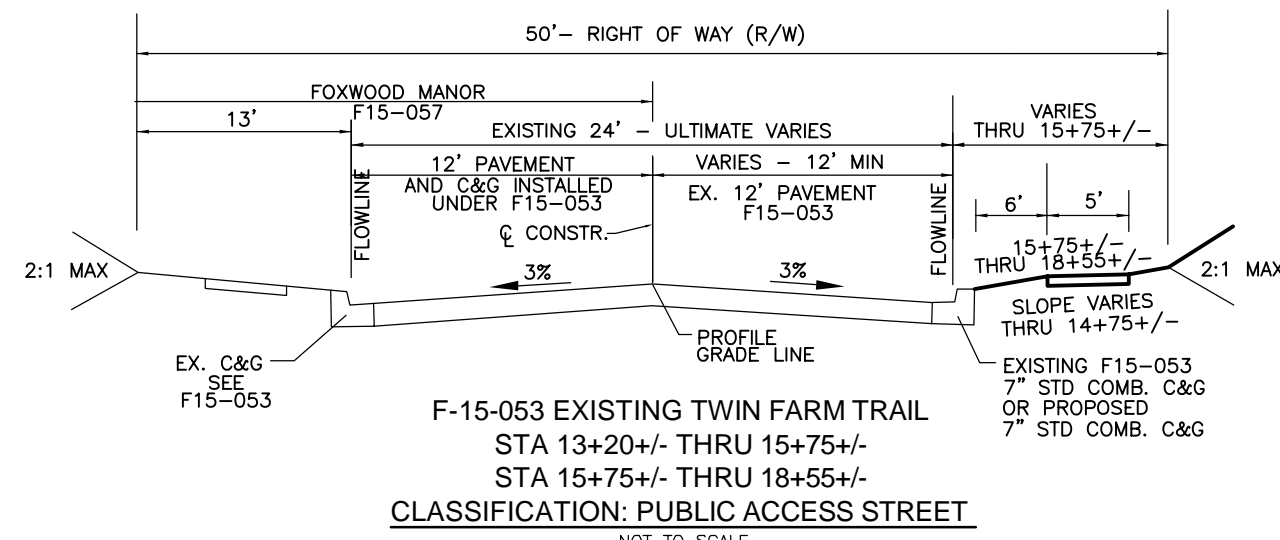
- HEAVY TRUCKS ARE DEFINED AS THOSE WITH 10,000 LB OR MORE INCLUDING GARAGE TRUCKS.
- SUPERPAVE ASPHALT MIX LAYERS SHALL BE PLACED IN APPROPRIATE COMPACTED LIFT THICKNESS. 1.5 IN. MIN. BASE LIFT MIN. TO 4.75 IN. MAX. 1.5 IN. TO 3.0 IN. MAX. AND 3.0 IN. TO 4.75 IN. MAX. SURFACE LIFT MIN. TO 3.0 IN. MAX.
- THE INTERMEDIATE SURFACE COURSE LAYERS SHALL BE PLACED IN APPROPRIATE COMPACTED LIFT THICKNESS, AND IS TO BE PLACED IN APPROPRIATE COMPACTED LIFT THICKNESS.
- IN LIEU OF PLACING THE INTERMEDIATE SURFACE COURSE LAYERS FOR COMPACTION/ADJUSTIVE PURPOSES WITHIN THE COURSE BENCH-MARKING LAYERS ARE NOT REQUIRED. THE THICKNESS OF THE INTERMEDIATE TREATMENT LAYER CAN BE ADDED TO THE REQUIRED THICKNESS OF THE BASE ASPHALT LAYER.
- THE CONSTRUCTION CONTRACTOR SHALL SUBMIT THE PAVING SECTION, ROAD CLASSIFICATION AND CURB VALUE FOR EACH ROADWAY.

Howards County, Maryland  
Department of Public Works  
Approved: *[Signature]*  
Chief, Office of Engineering

Detail  
R-2.01

**LEGEND:**

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING EDGE OF PAVING
- EXISTING WOOD FENCE
- EXISTING METAL FENCE
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- STORM DRAIN
- MICRO-BORENTION FACILITY (M-6)
- RAIN GARDEN STRUCTURE (M-7)
- PUBLIC SWM, DRAINAGE & UTILITY EASEMENT
- PUBLIC 10' TREE MAINTENANCE EASEMENT
- PAVEMENT WIDTH TRANSITION AREA



**NOTES:**

- SHEET 7 FOR STREET TREE LOCATIONS.
- ALL STREET TREES AND/OR SIGN SHALL BE LOCATED 5' MIN. FROM PROPOSED DRAINAGE, UTILITY STRUCTURE.
- THERE SHOULD BE A MINIMUM OF 20' BETWEEN STREET LIGHTS AND STREET TREES.
- IN THE DIRECTION FACING A TRAFFIC CONTROL SIGN:
  - THERE SHALL BE A MINIMUM OF 30' BETWEEN THE SIGN FACE AND CLOSEST TREE FOR ALL STOP SIGNS.
  - THERE SHALL BE A MINIMUM OF 30' BETWEEN THE SIGN FACE AND CLOSEST TREE FOR ALL SIGNS OTHER THAN A STOP SIGN.
  - SEE SHEET 4 FOR PAVING SECTION AND ROAD DETAILS.

**OWNER**  
ROBERT LEE BOLTON  
C/O WILLIAM A. BOLTON  
9111 RIVER HILL ROAD  
LAUREL, MD 20723-1781  
(410) 480-0023

**DEVELOPER**  
TRINITY QUALITY HOMES, LLC  
3675 PARK AVE., SUITE 301  
ELLCOTT CITY, MD 21043  
(410) 480-0023

NO.	REVISION	DATE

PRELIMINARY PLAN  
BOLTON FARM LANE  
ROAD PLAN & PROFILE

**BEECHWOOD MANOR**  
LOTS 1-31 AND OPEN SPACE LOTS 32-34  
A SUBDIVISION OF TAX MAP 50 - PARCEL 1

L. 1271 / F. 186  
TAX MAP: 50 GRIB-1  
8TH ELECTION DISTRICT

9111 RIVER HILL ROAD  
LAUREL, MD 20723

ZONED: R-SC  
PARCEL: 001  
HOWARD COUNTY, MARYLAND

**VOGEL ENGINEERING**  
**TIMMONS GROUP**

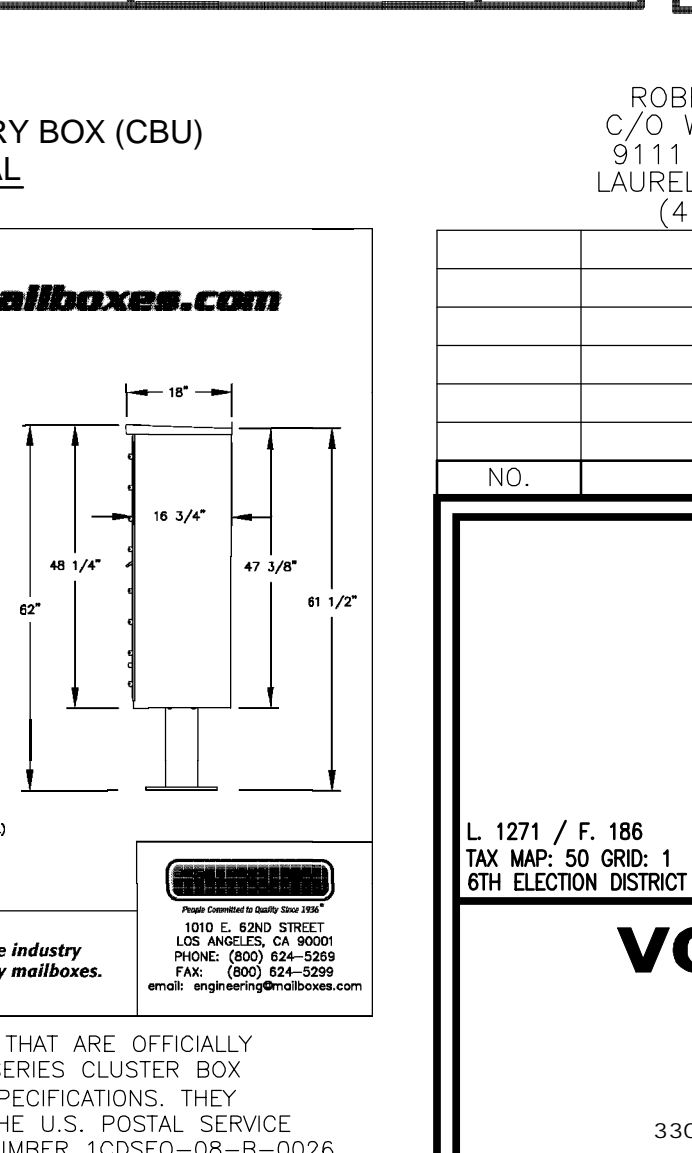
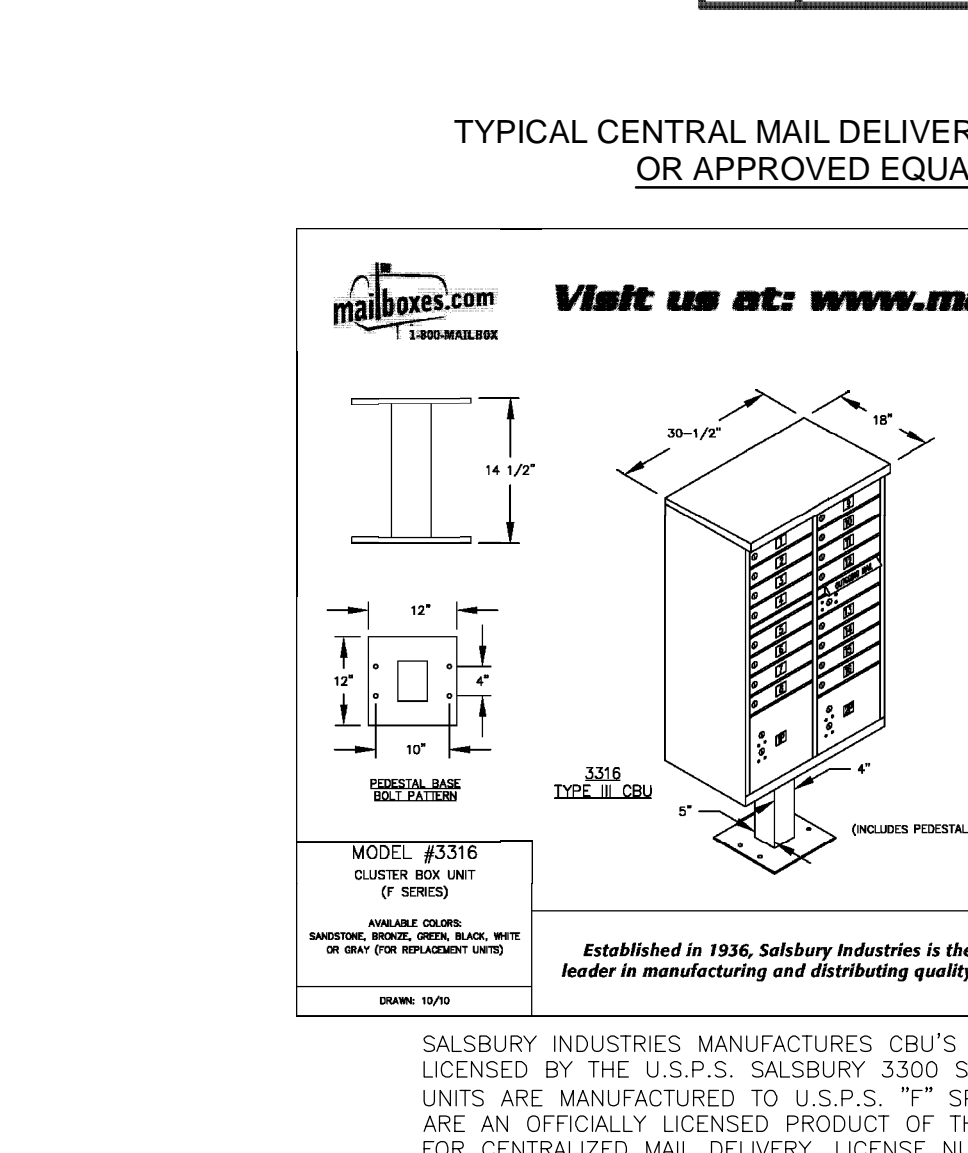
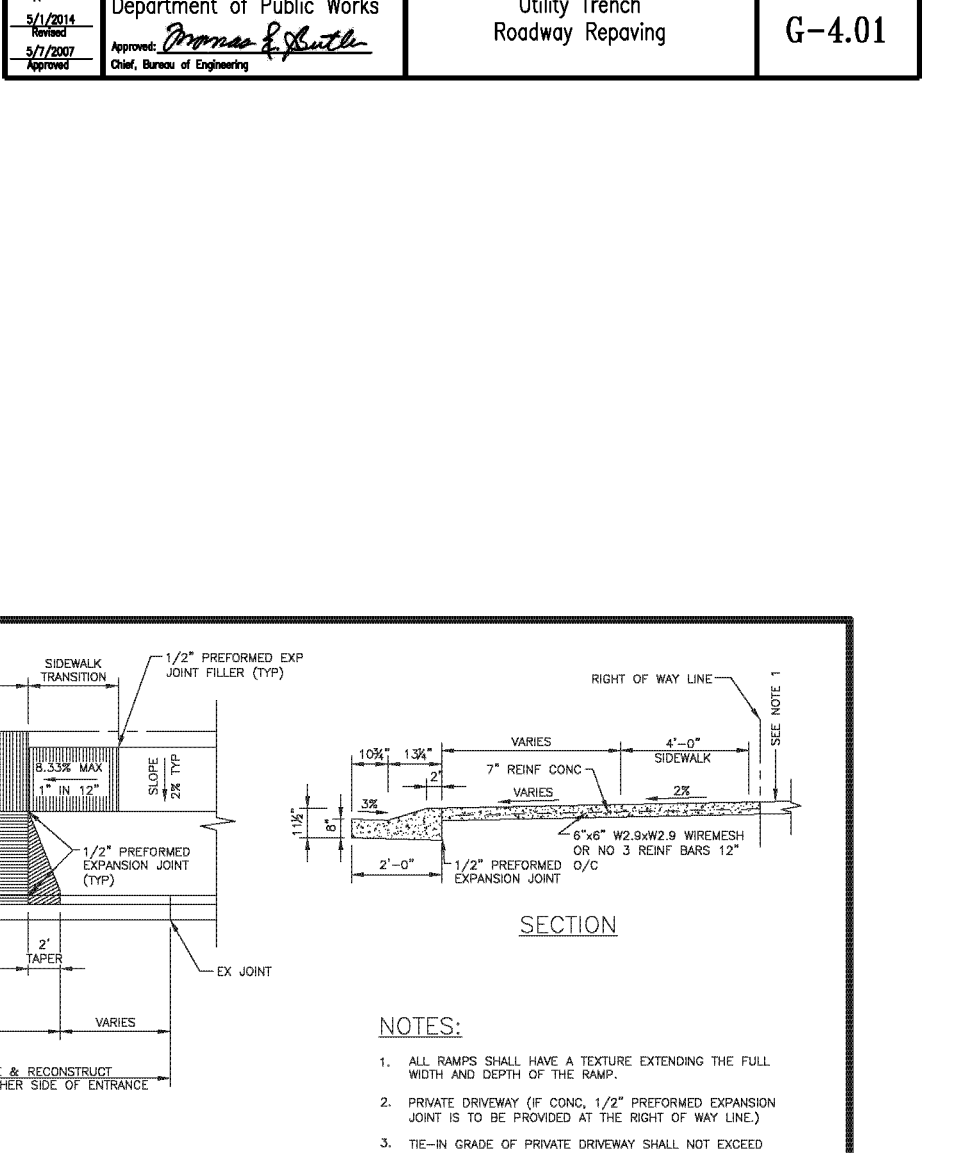
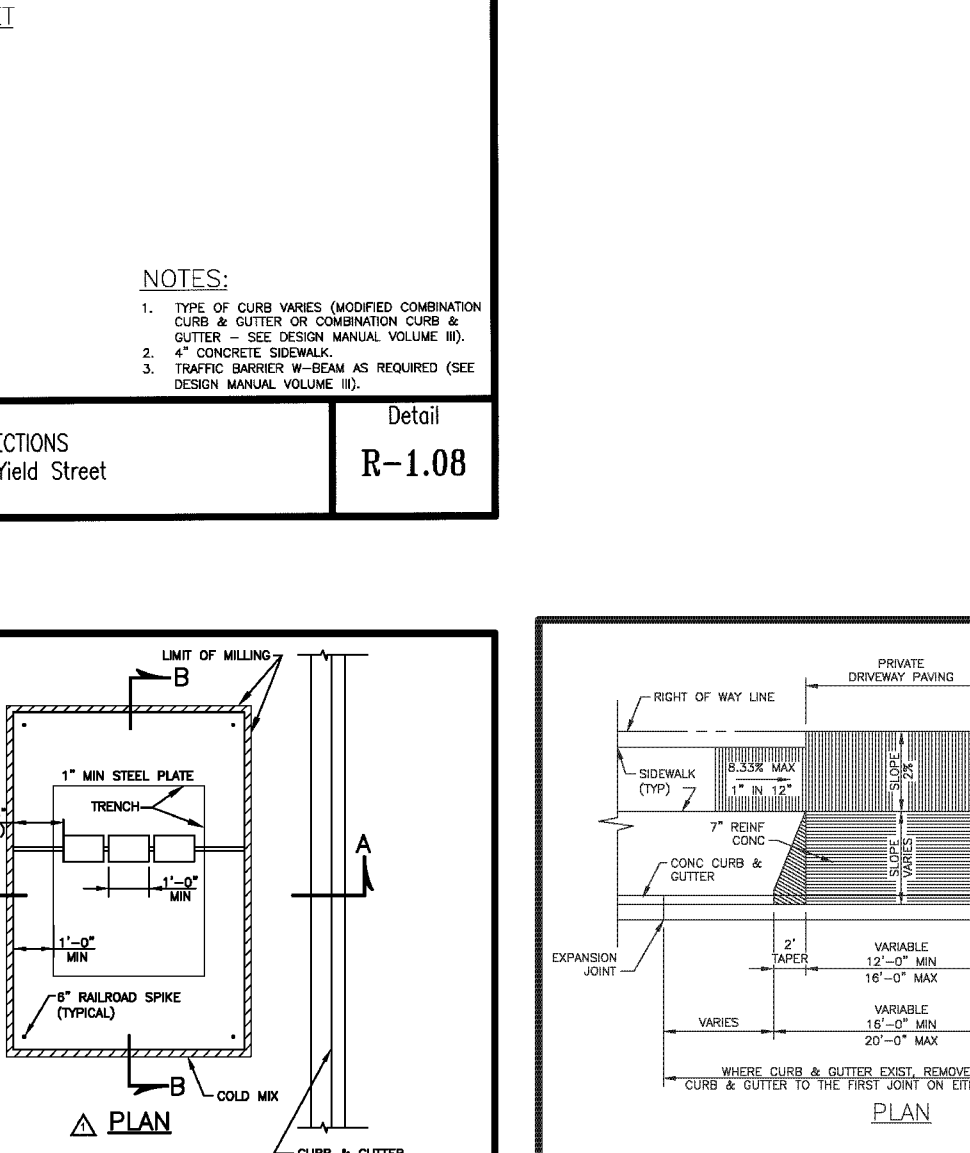
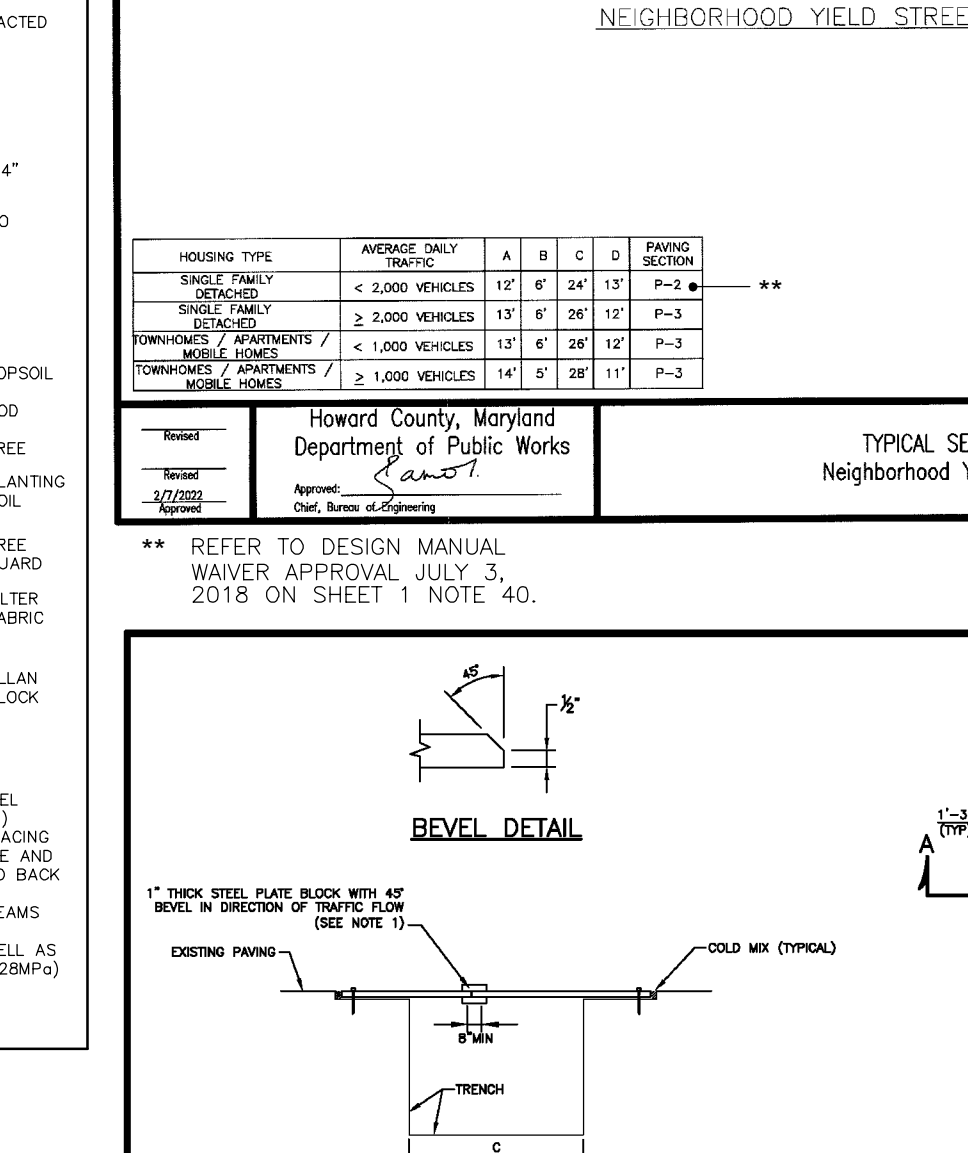
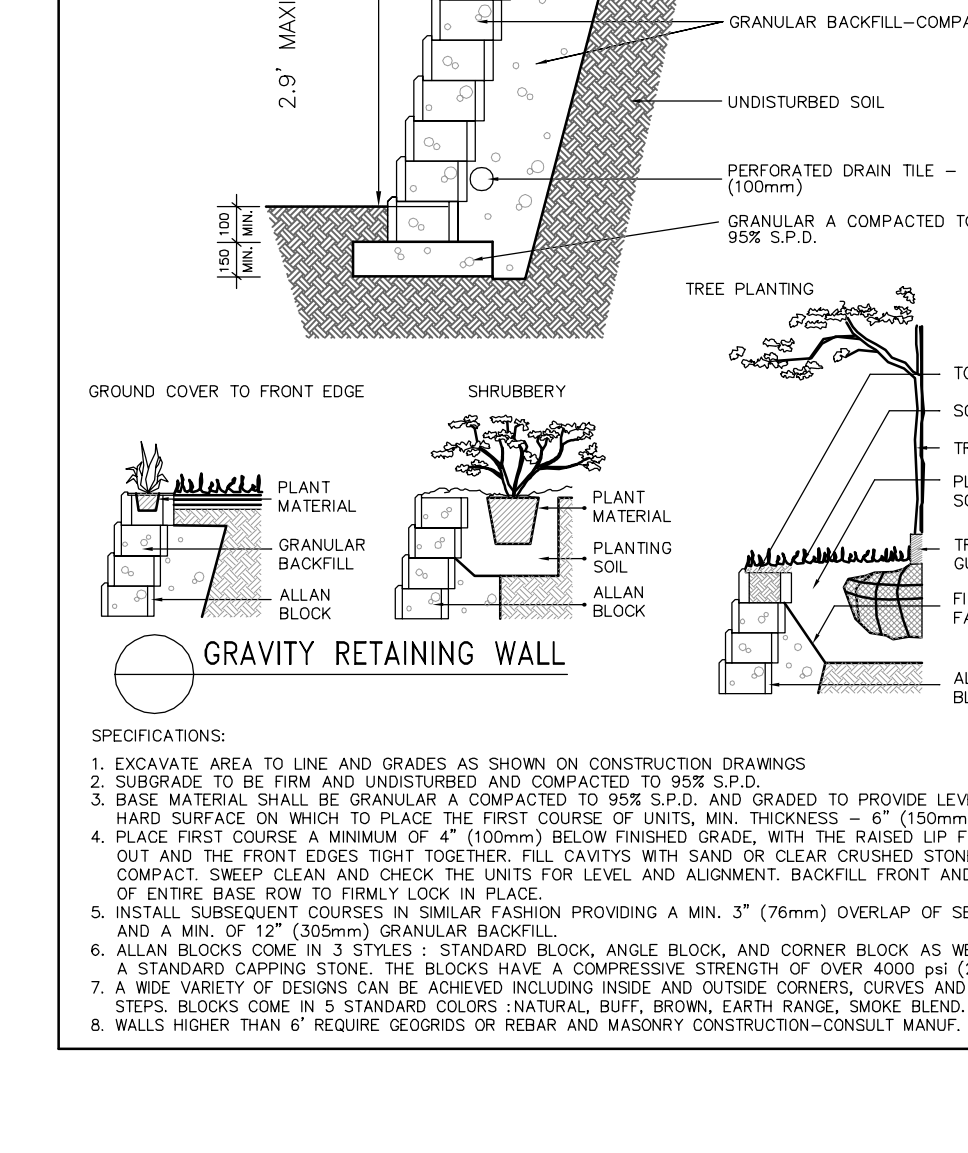
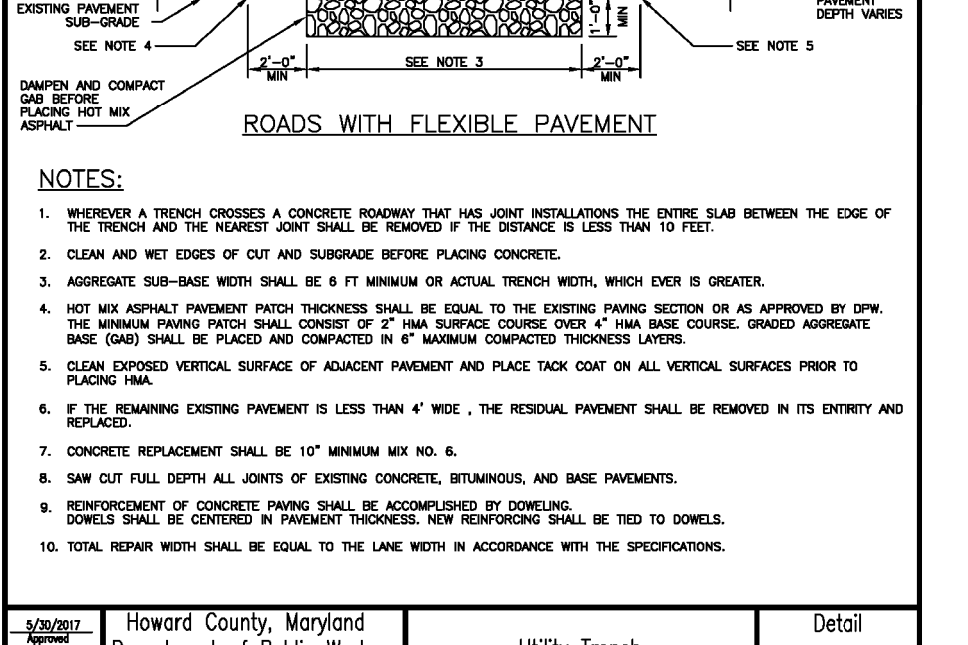
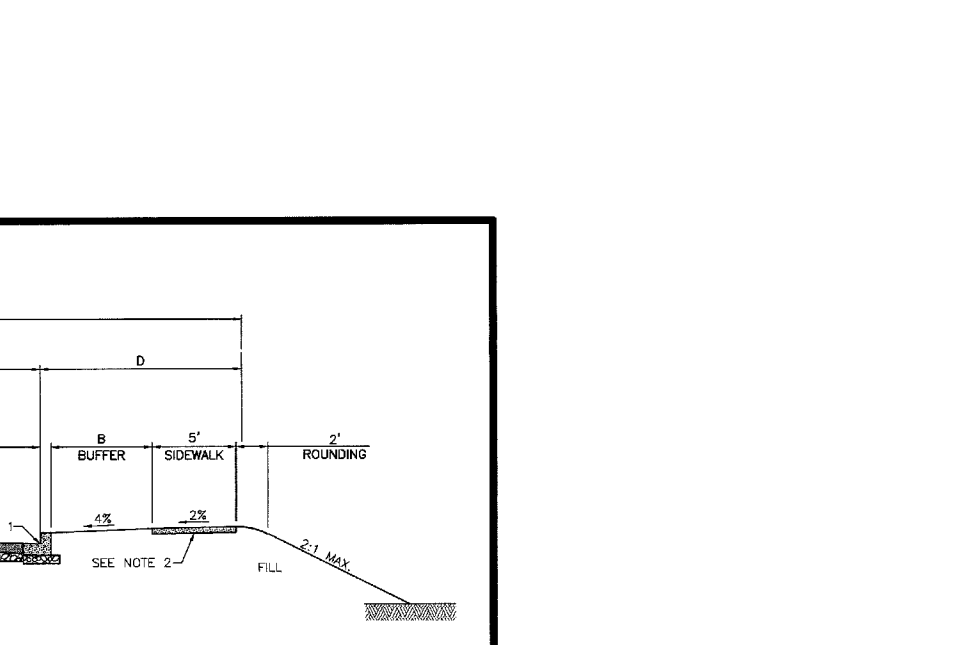
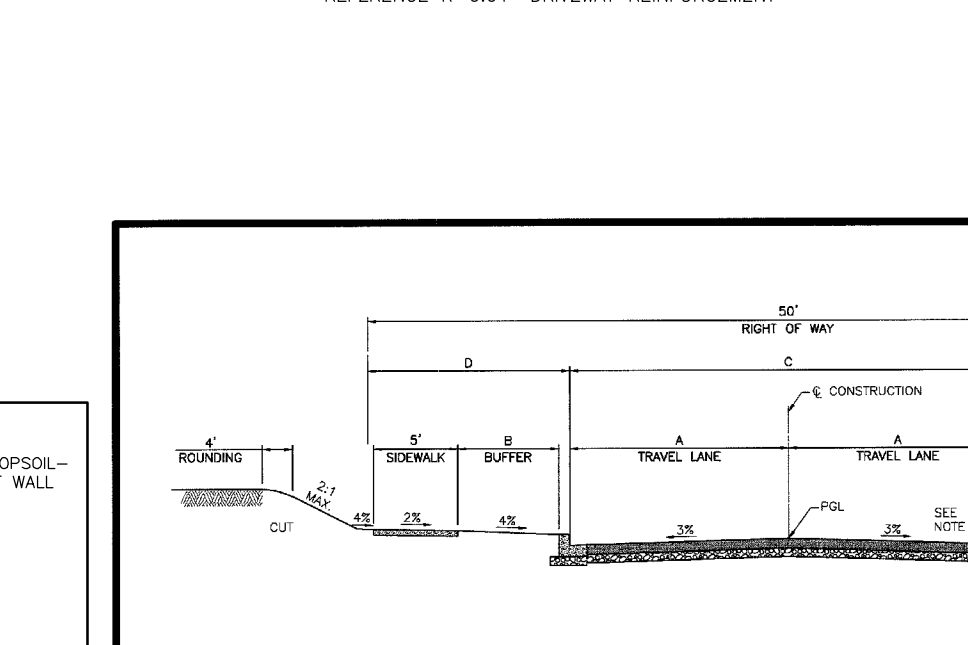
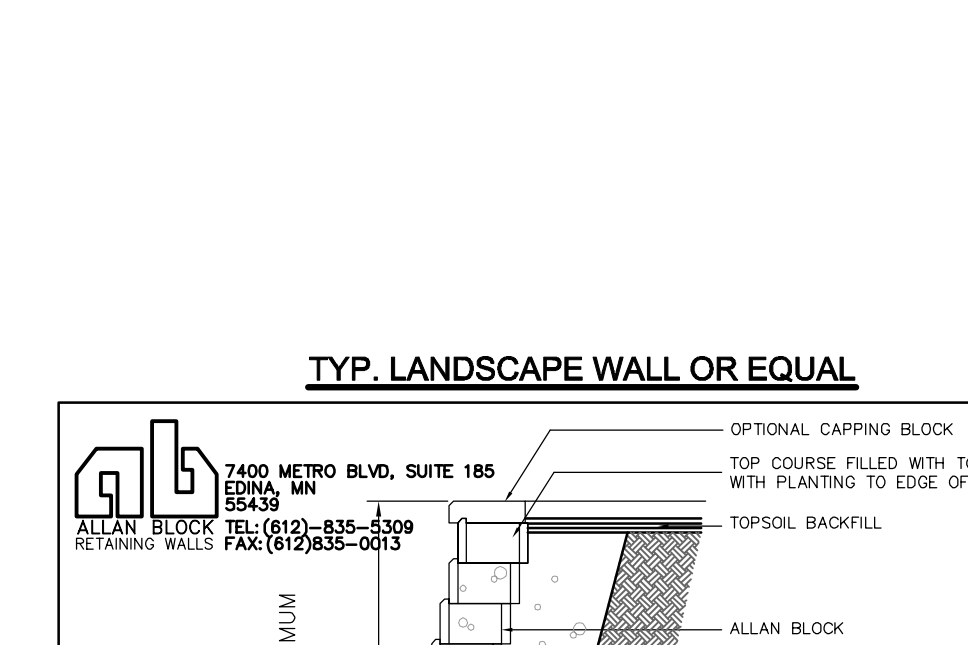
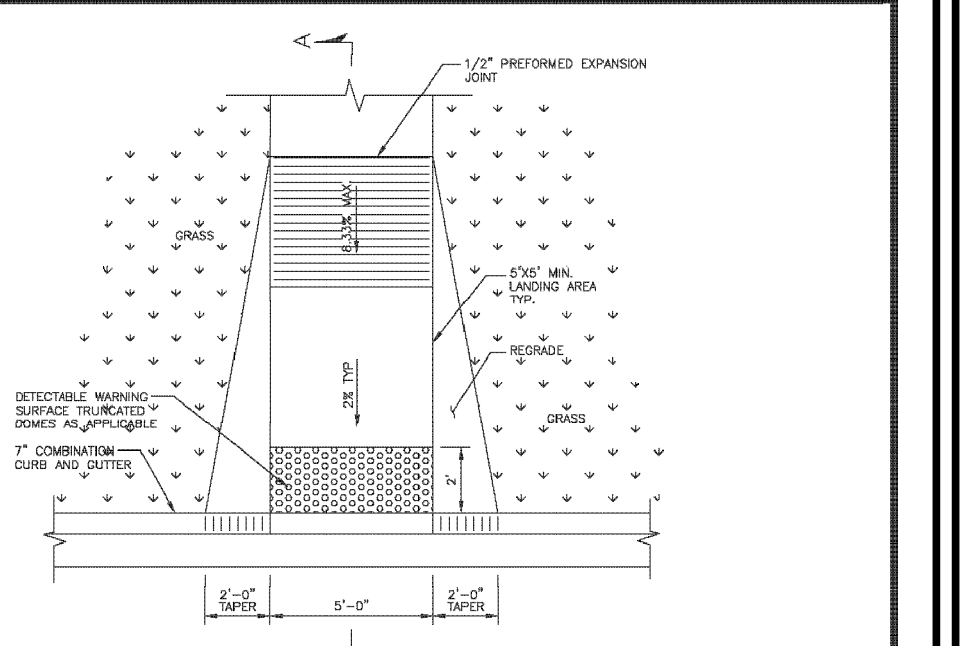
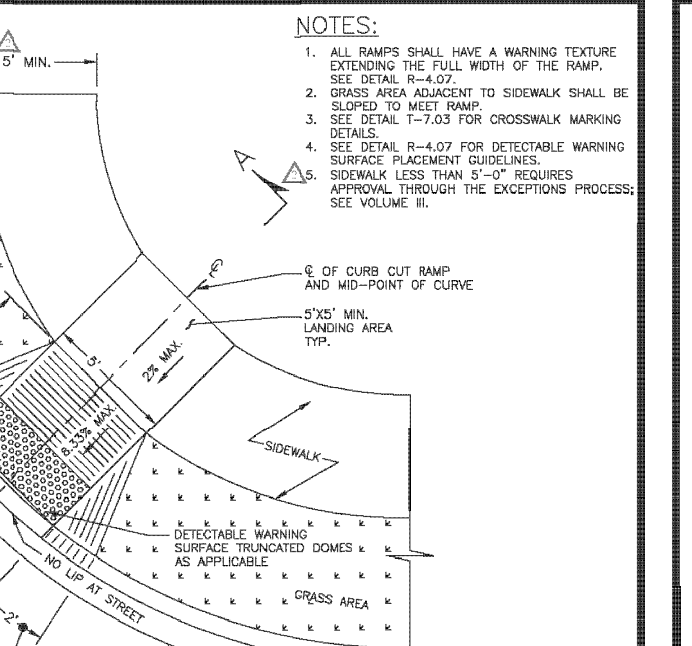
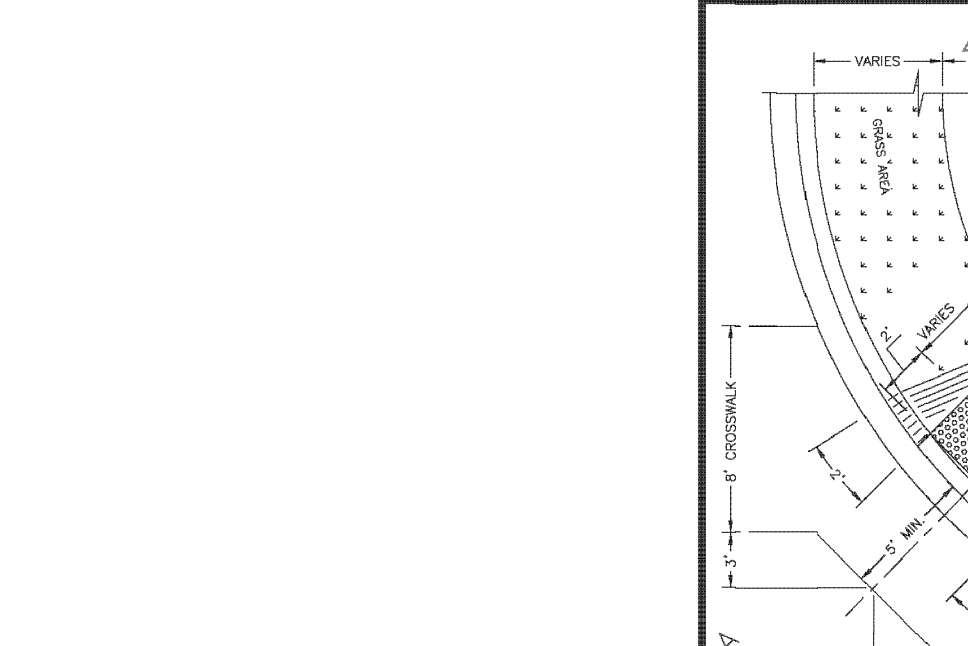
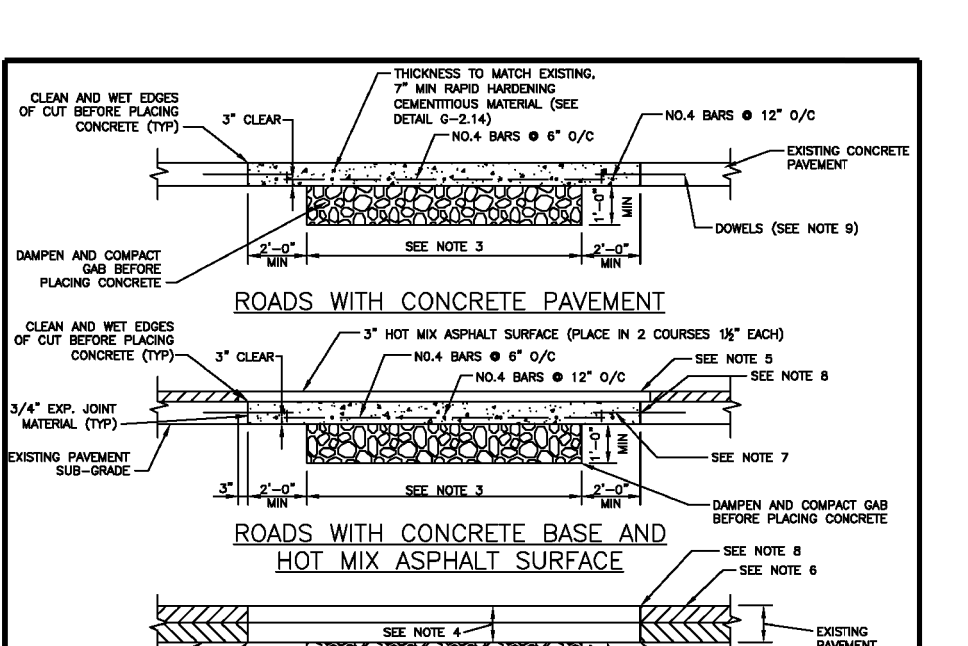
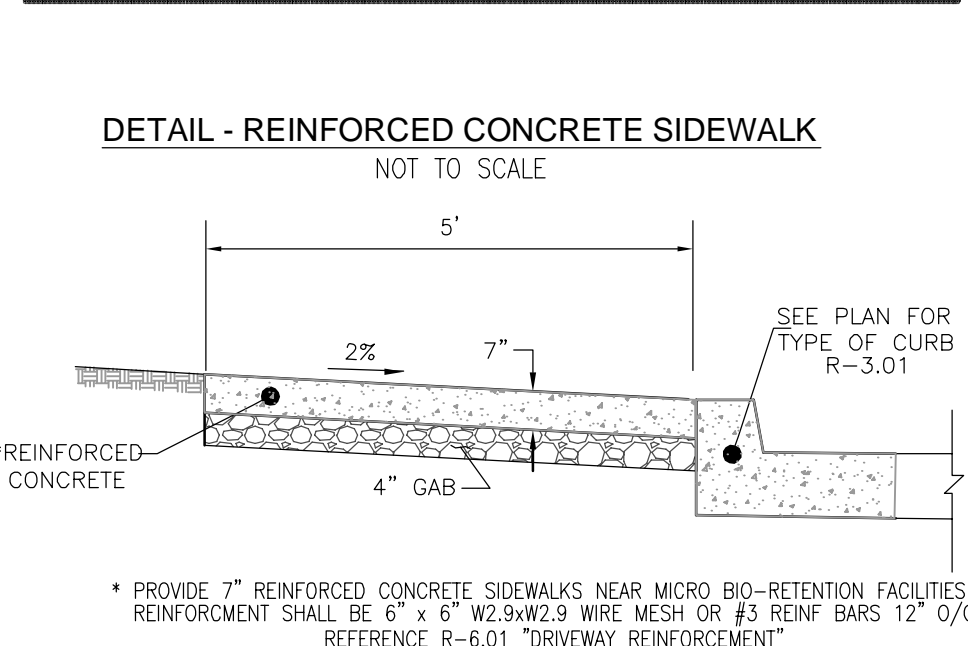
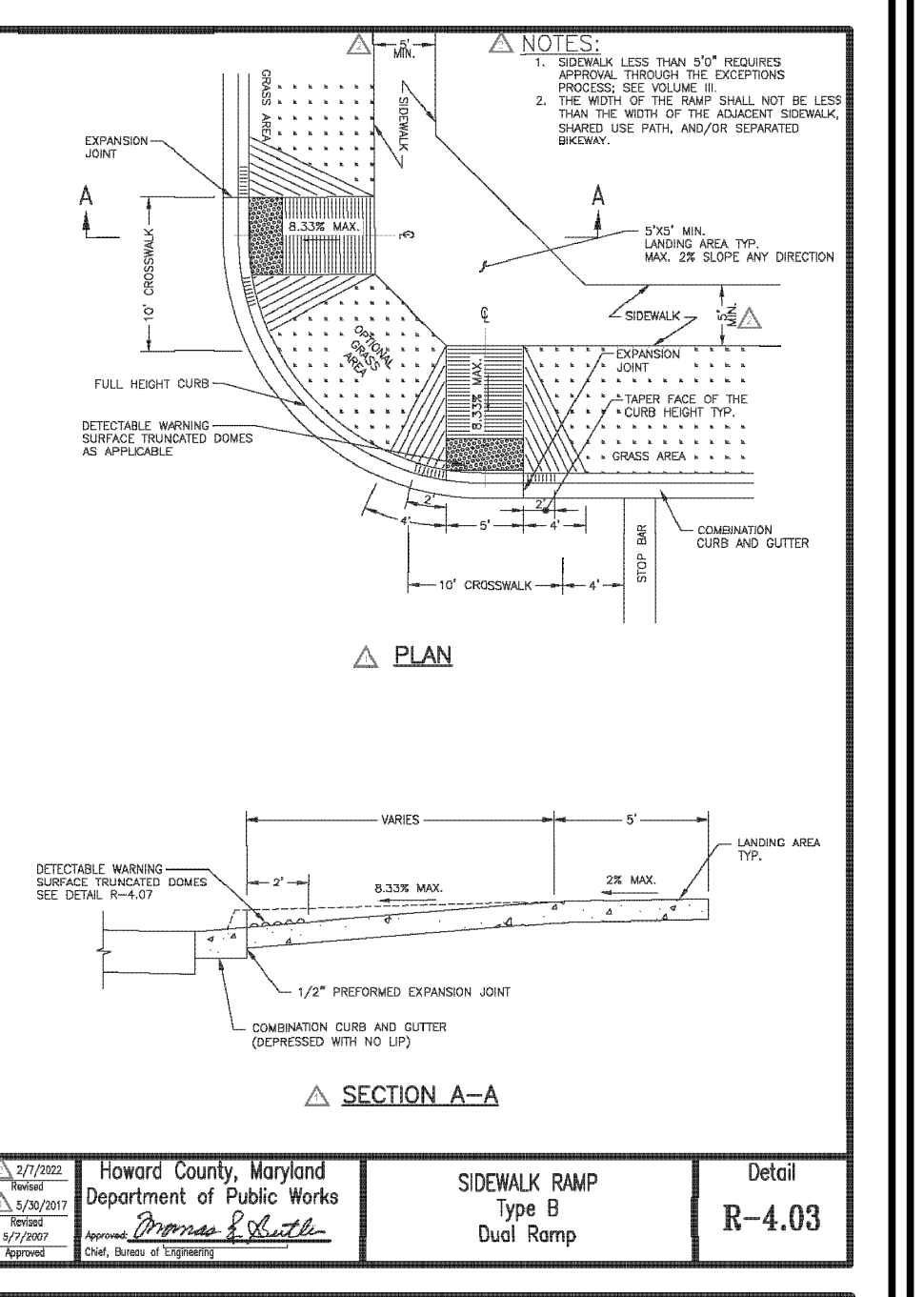
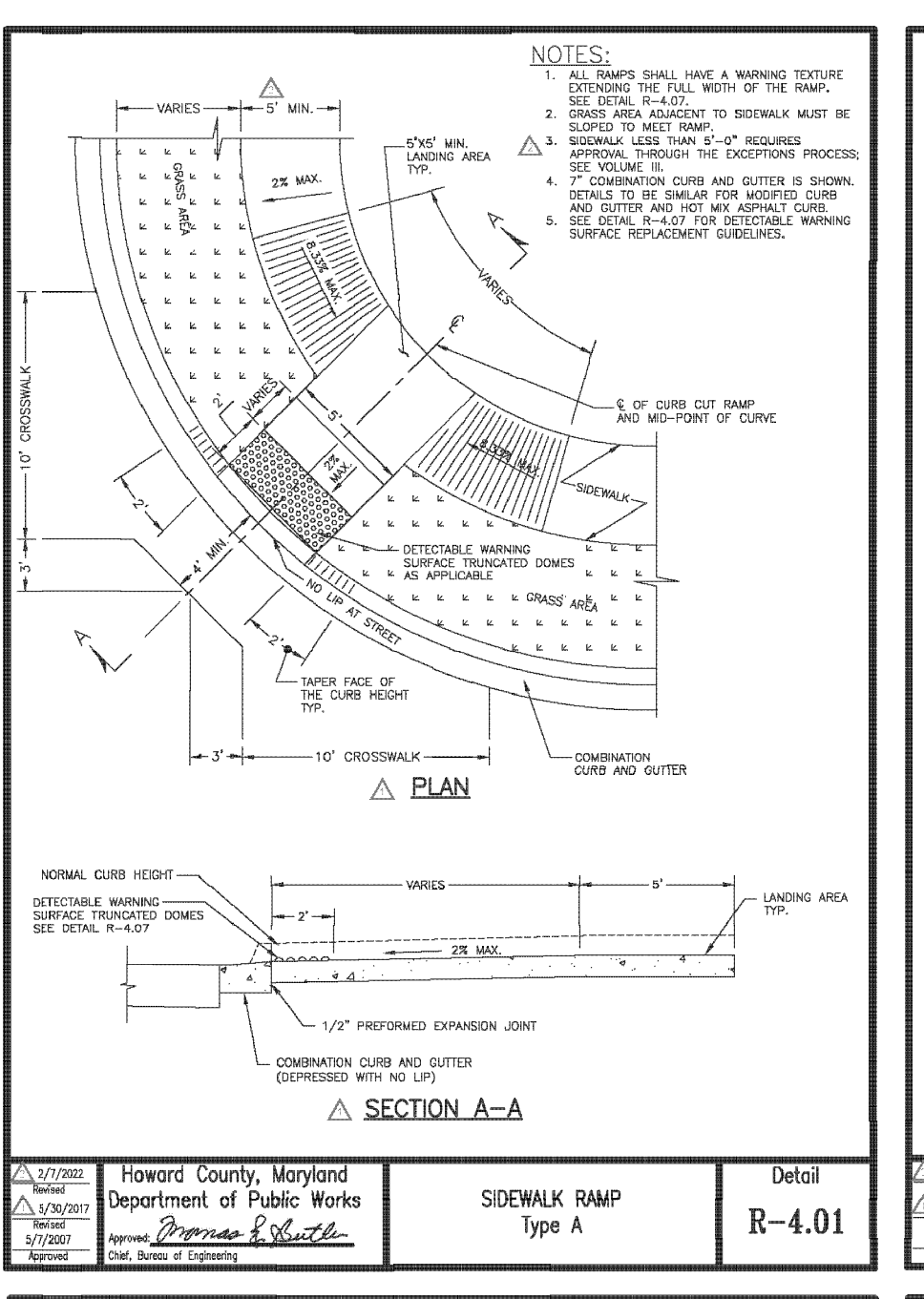
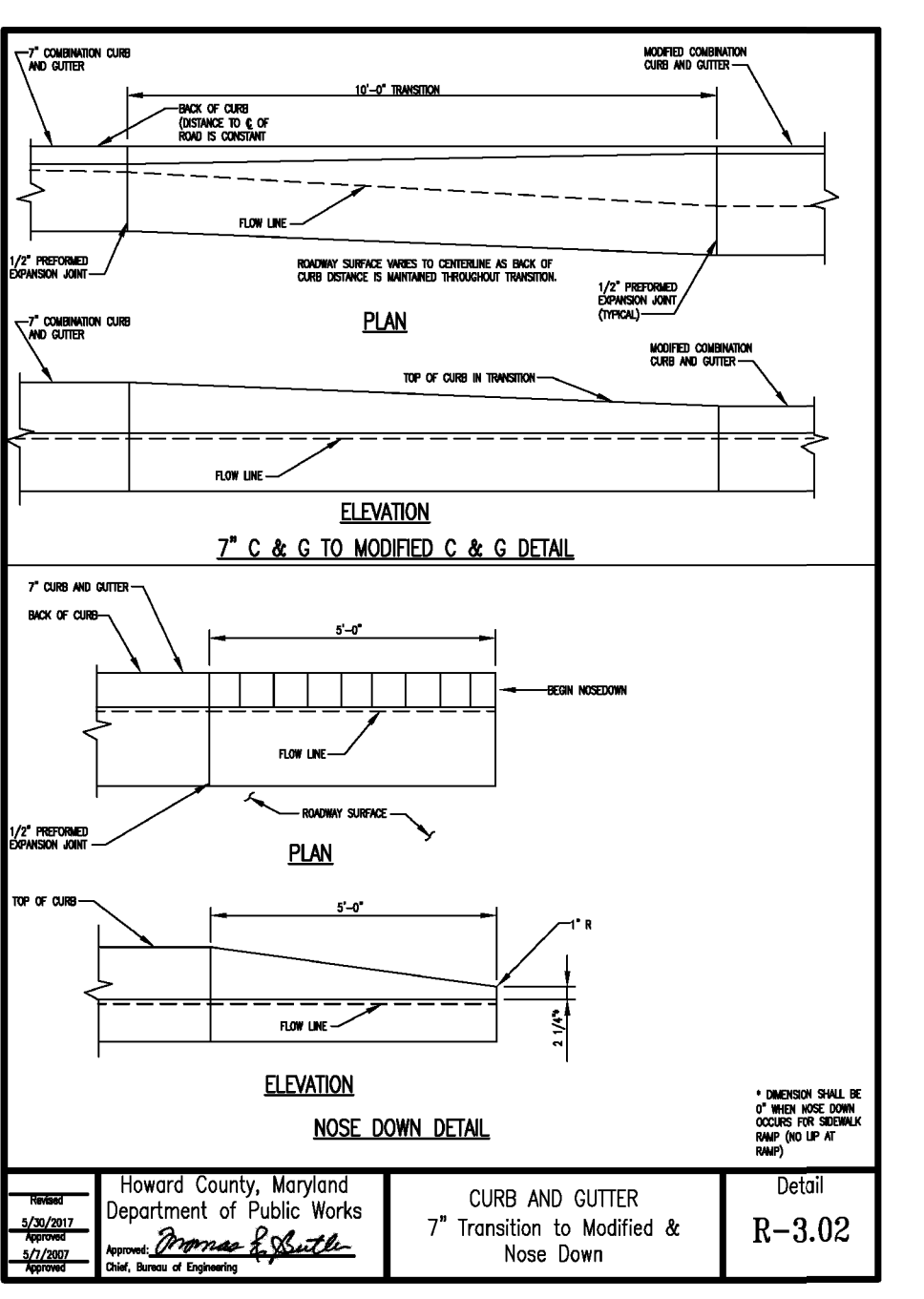
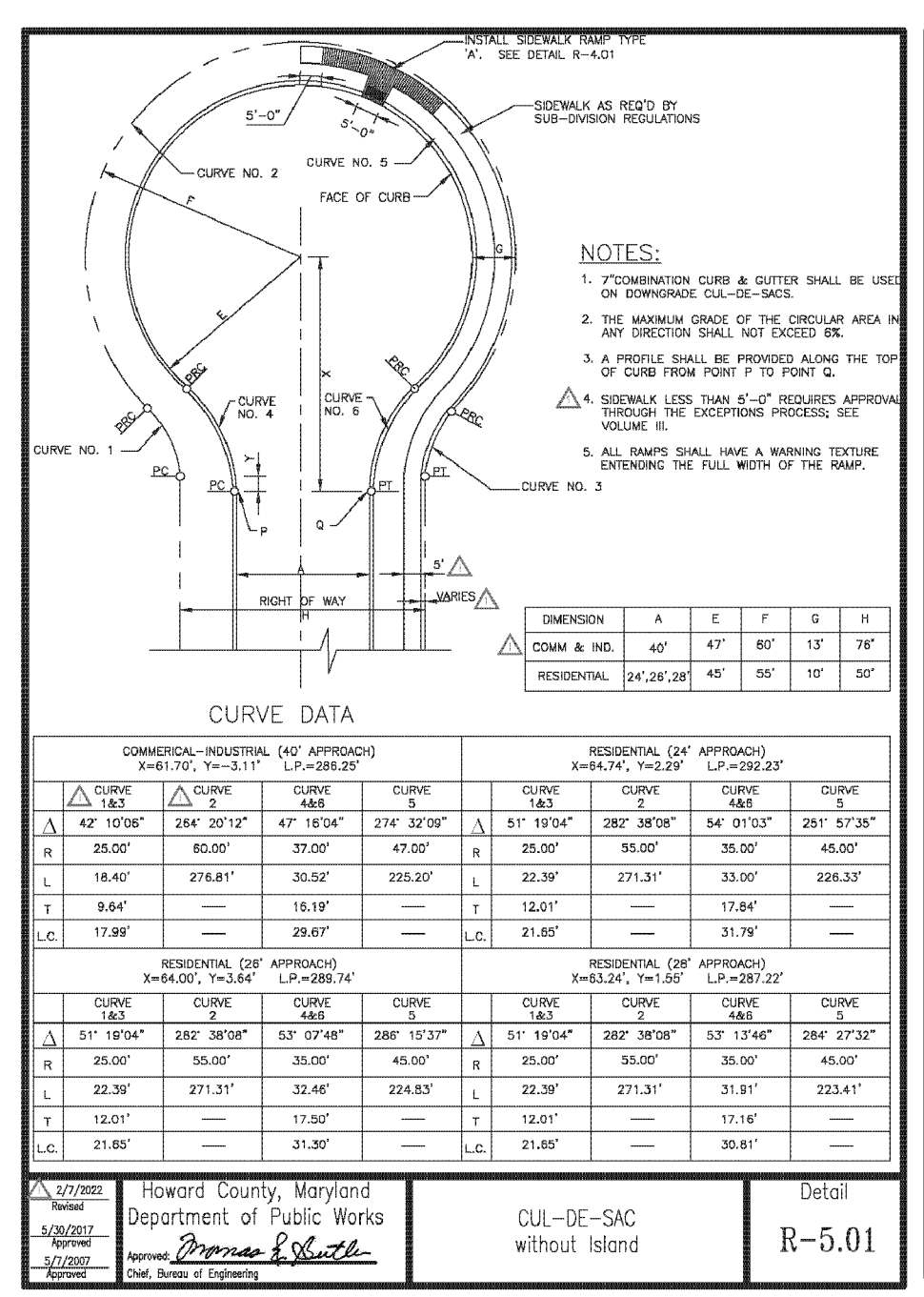
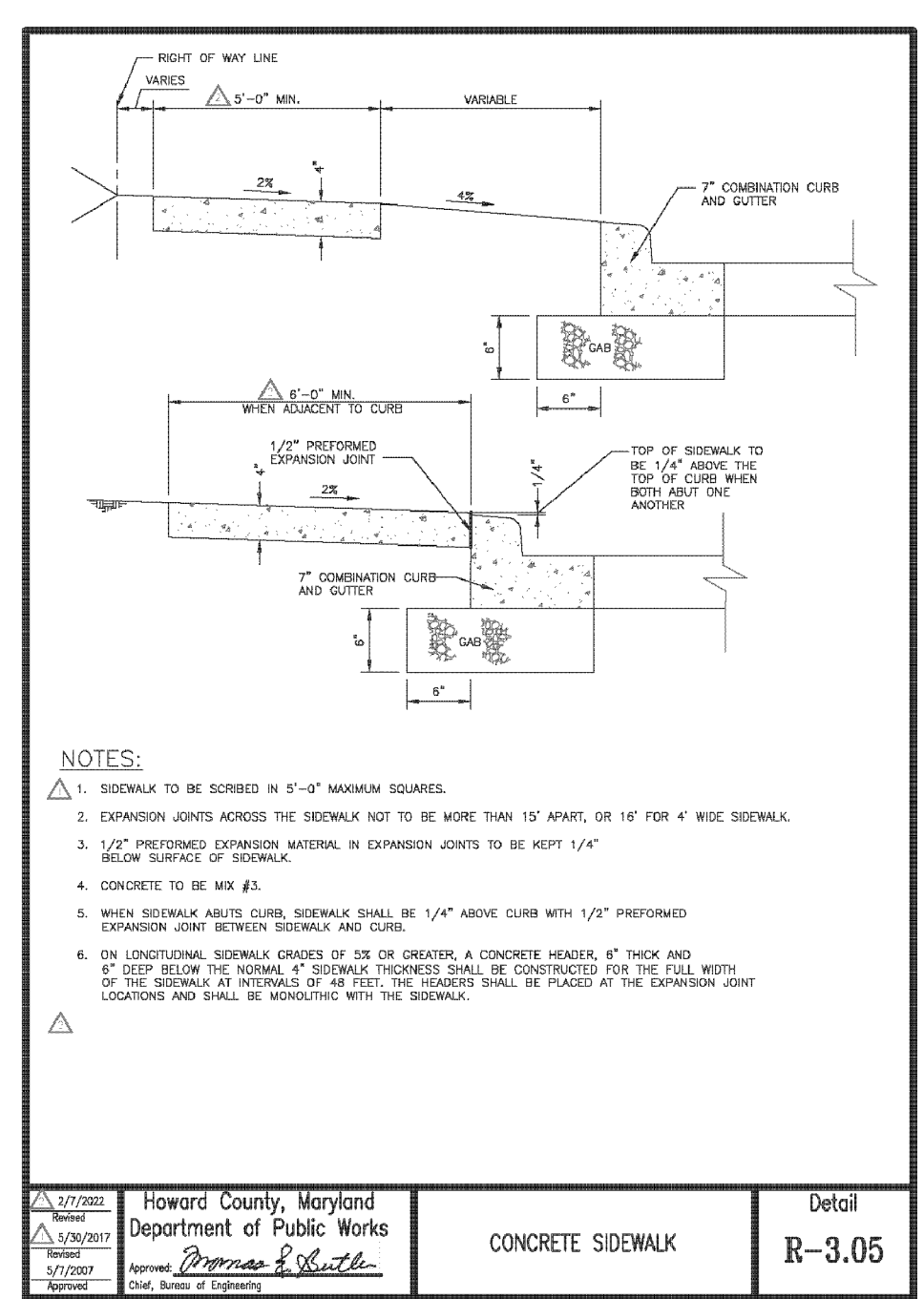
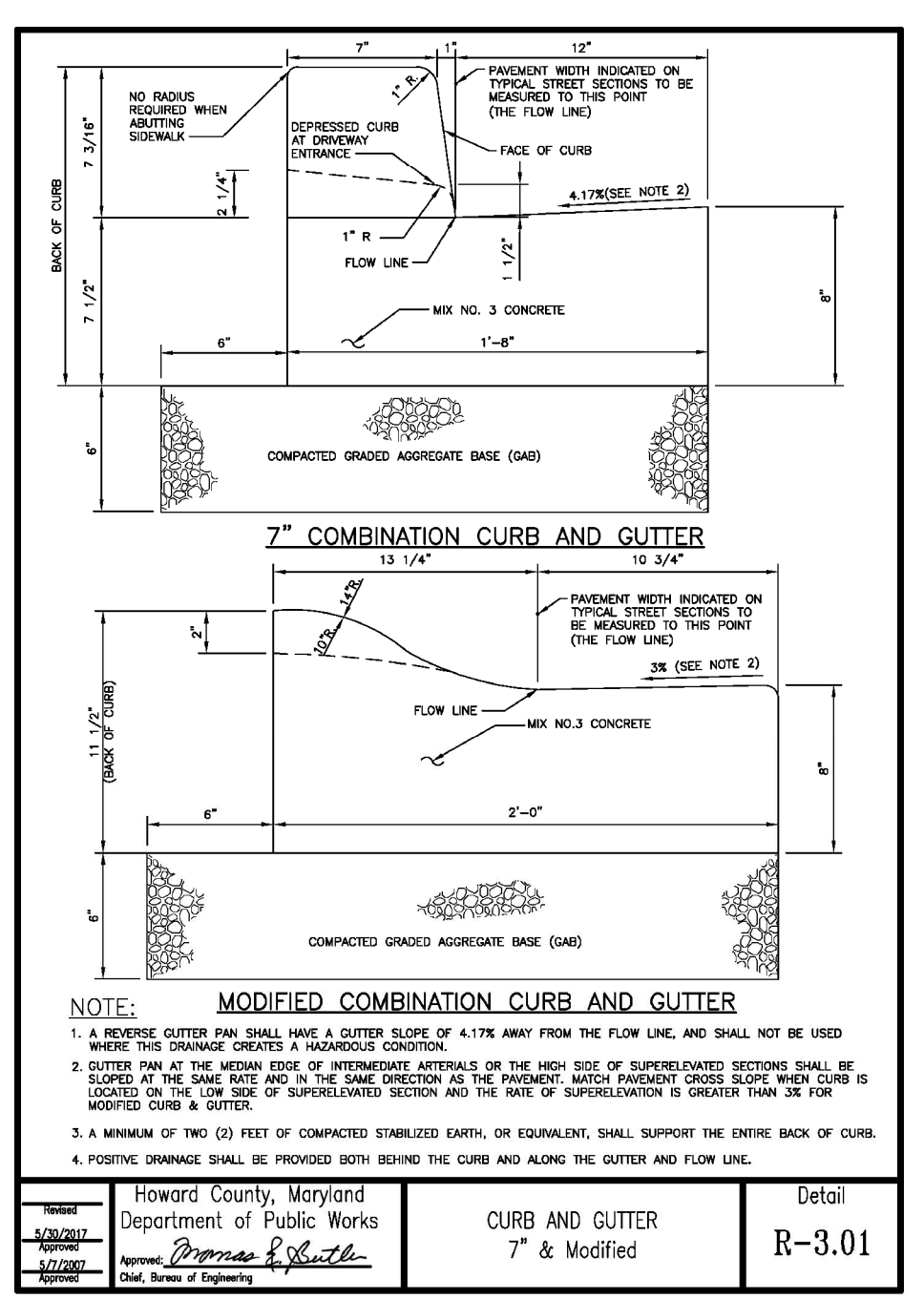
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043  
P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE

DESIGN BY: \_\_\_\_\_  
DRAWN BY: VTC  
CHECKED BY: RHV  
DATE: OCTOBER 2022  
SCALE: AS SHOWN  
W.O. NO.: 17-26

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 08-27-2024

3 SHEET OF 11

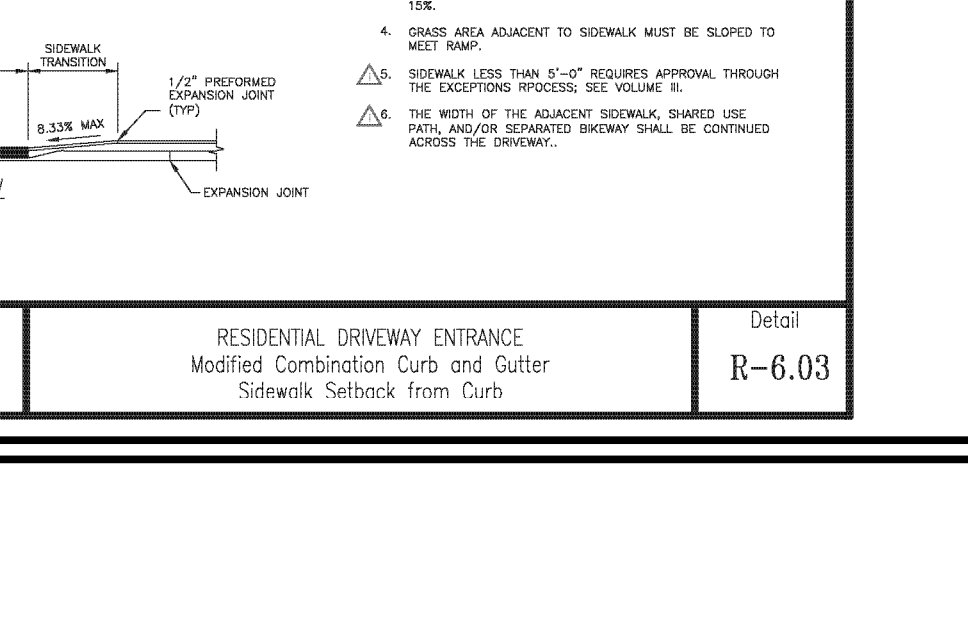
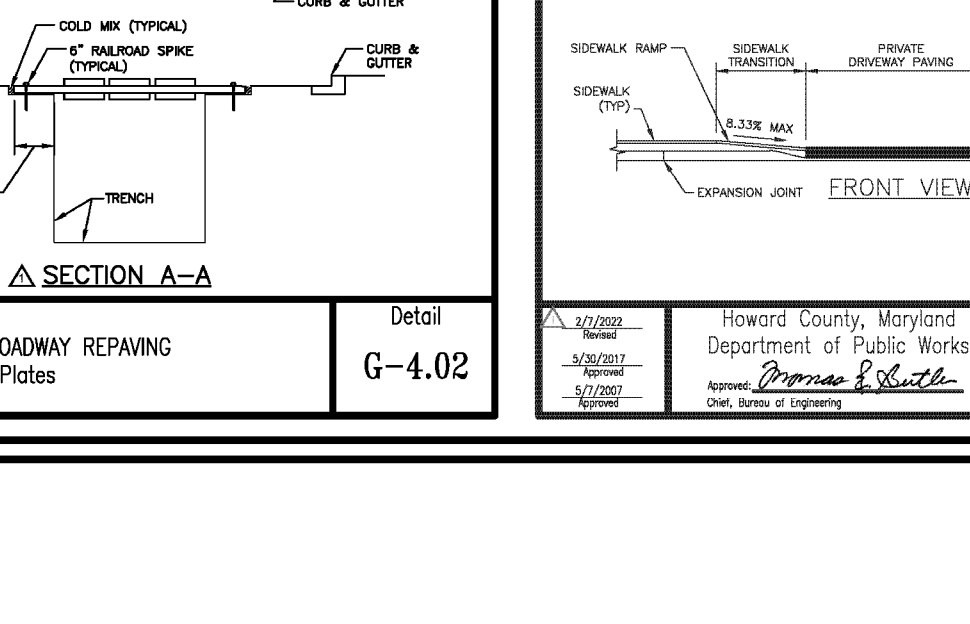
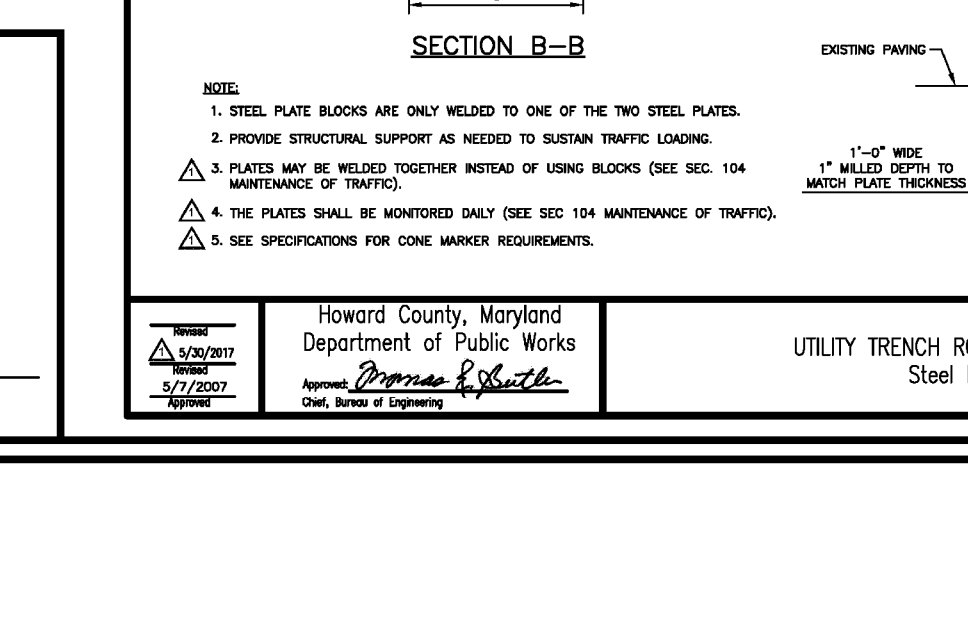


TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY

Designed by: Amy Gowan

12/13/2022

PLANNING DIRECTOR DATE



CBU BOX LOCATIONS: SUBJECT TO CHANGE

TWIN FARM TRAIL

- ONE 12 UNIT "CLUSTER BOX UNIT" HAS BEEN PLACED NEAR LOT 27 TO SERVE LOTS 21 - 31
- ONE 12 UNIT "CLUSTER BOX UNIT" HAS BEEN PLACED NEAR LOT 4/5 TO SERVE LOTS 1 - 7 & 18 - 20
- BOLTON FARM LANE
- ONE 12 UNIT "CLUSTER BOX UNIT" HAS BEEN PLACED NEAR LOT 9 TO SERVE LOTS 8 - 17

PRELIMINARY PLAN ROAD DETAILS

**BEECHWOOD MANOR**

LOTS 1-31 AND OPEN SPACE LOTS 32-34

A SUBDIVISION OF TAX MAP 50 - PARCEL 1

L 1271 / F 186

TAX MAP: 50 GRID: 1

6TH ELECTION DISTRICT

9111 RIVER HILL ROAD

LAUREL, MD 20723

ZONED: R-SC

PARCEL: 001

**VOGEL ENGINEERING**

**TIMMONS GROUP**

3300 NORTH RIDGE ROAD, SUITE T10, ELLICOTT CITY, MD 21043

P: 410.461.7666 F: 410.461.8961 www.timmons.com

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DESIGN BY: \_\_\_\_\_

DRAWN BY: \_\_\_\_\_

CHECKED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

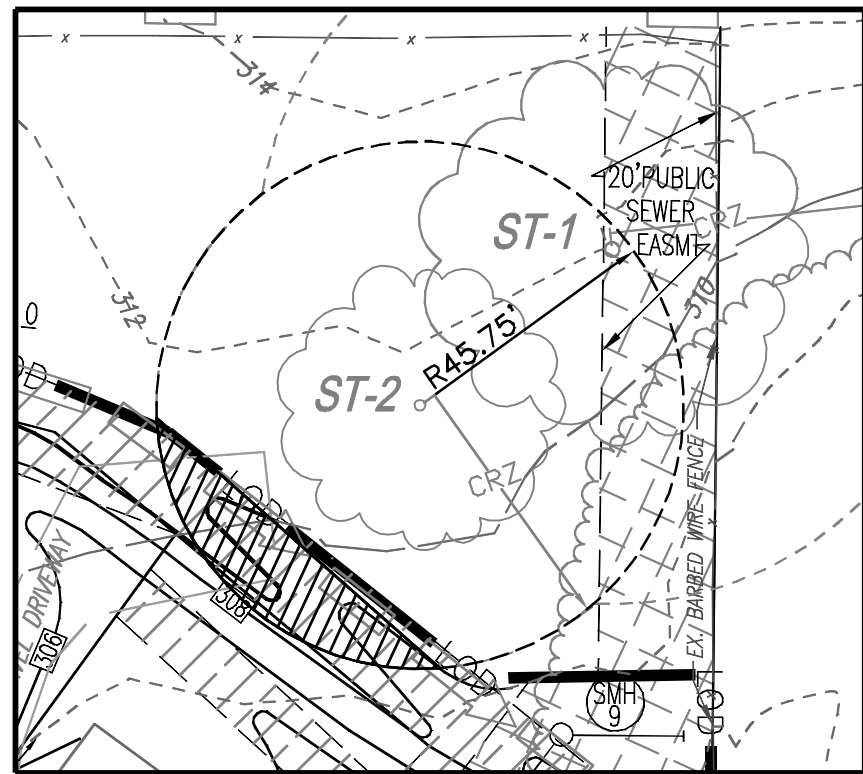
SCALE: AS SHOWN

W.O. NO.: 17-26

4 SHEET OF 11

**HSCD NOTES:**

- APPROVAL OF THIS PRELIMINARY GRADING PLAN BY THE HOWARD COUNTY CONSERVATION DISTRICT DOES NOT GRANT APPROVAL OF THE PROPOSED SEDIMENT CONTROL SCHEME.
1. THE FINAL PLAN SHALL INCLUDE A SEQUENCE OF CONSTRUCTION WHICH SHALL DETAIL SEDIMENT & EROSION CONTROLS AND PHASING (IF APPLICABLE). THE PROJECT SHALL ADDRESS ANY TEMPORARY STORMWATER MANAGEMENT REQUIREMENTS.
  2. THE FINAL PLAN SUBMISSION SHALL PROVIDE A DRAINAGE AREA MAP SPECIFIC TO CHOSEN SEDIMENT CONTROLS.
  3. THE FINAL PLAN SUBMISSION SHALL PROVIDE COMPUTATIONS TO VERIFY VELOCITIES ALONG DIKES, SWALES AND AT DIKES OUTLET LOCATIONS.



CRITICAL ROOT ZONE AREA CRZ OF ST-2 = 6575 SF  
 PROPOSED DISTURBANCE = 656 SF = 10% OF CRZ

NOTE: LOCATE STOCKPILE AS SHOWN HEREON OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED.

SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR/ERODIBLE
CSB	CHILLUM LOAM, 2 TO 5 PERCENT SLOPES	C	24 NO
CSB	GLENNIC LOAM, 3 TO 8 PERCENT SLOPES	B	24 NO

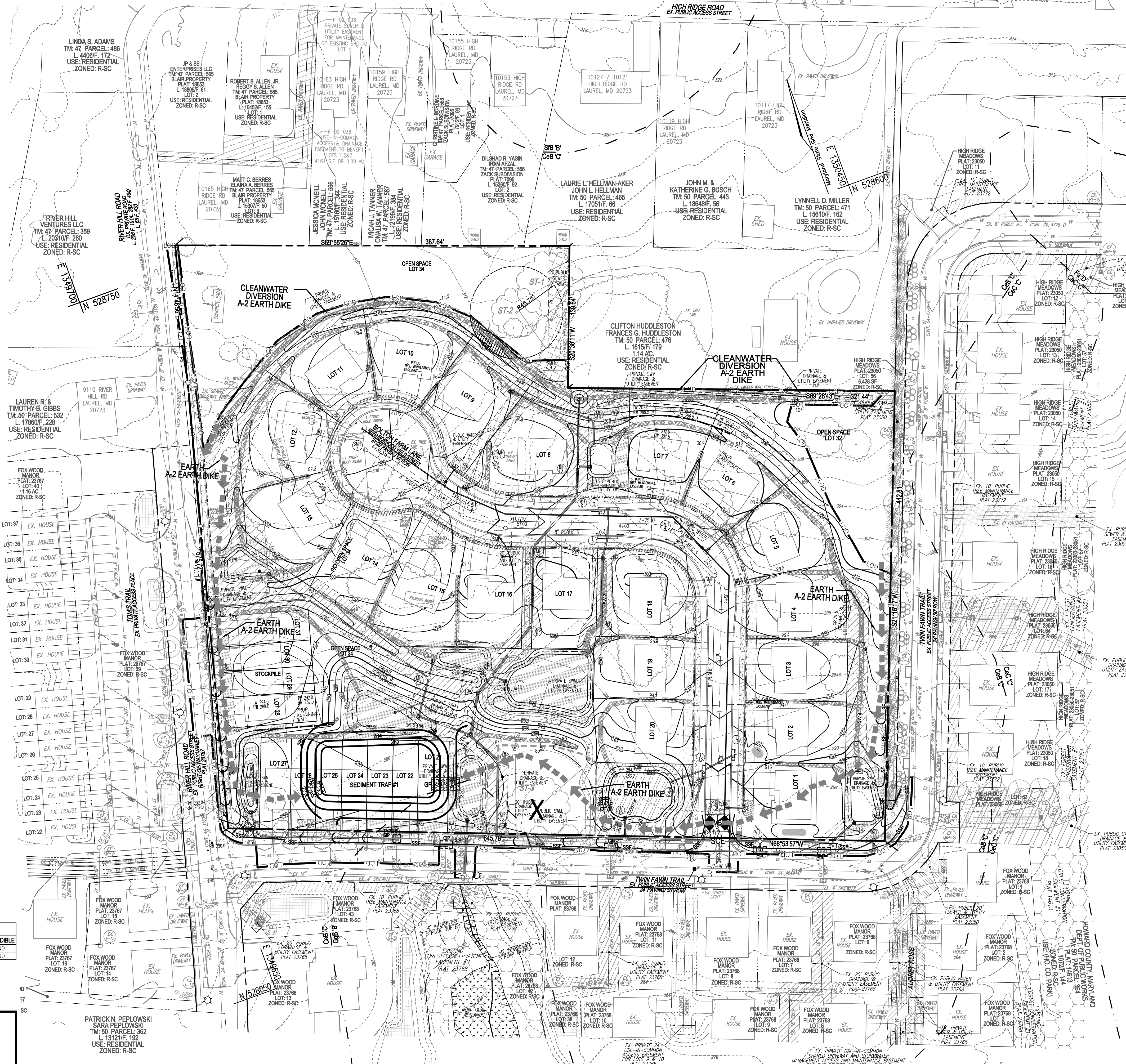
NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT

TENTATIVELY APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY

DocuSign by:  
 Amy Groman

12/13/2022

PLANNING DIRECTOR DATE



**LEGEND:**

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT OF PAWING
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING SPECIMEN TREES
- EXISTING WOOD FENCE
- EXISTING METAL FENCE
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING SANITARY LINE
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EX. WETLAND BUFFER
- EX. STREAM
- EX. STREAM BUFFER
- STORM DRAIN
- EX. PUBLIC DRAINAGE & UTILITY EASEMENT (PLAT 23768)
- EX. PUBLIC TREE MAINTENANCE EASEMENT (PLATS 23772 & 23768)
- EX. FOREST CONSERVATION EASEMENT (PLATS 14613, 23050-23051 & 23768)
- EX. PRIVATE USE-IN-COMMON ACCESS EASEMENT (PLAT 23768)
- EX. PUBLIC WATER & UTILITY EASEMENT (PLAT 23768)
- EX. PRIVATE SEWER & UTILITY EASEMENT (PLATS 23768)
- EX. PUBLIC SEWER & UTILITY EASEMENT (PLATS 23050-23051)
- PRIVATE DRAINAGE & UTILITY EASEMENT
- PUBLIC SWM, DRAINAGE & UTILITY EASEMENT
- PRIVATE SWM, DRAINAGE & UTILITY EASEMENT
- PUBLIC 10' TREE MAINTENANCE EASEMENT
- PUBLIC WATER AND UTILITY EASEMENT
- VARIABLE WIDTH PUBLIC SIDEWALK EASEMENT
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- SOILS
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- LOD
- LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- SILT FENCE
- SPECIMEN TREE REMOVAL
- CLEAN WATER DIVERSION DIKE
- EARTH DIKE
- GABION PROTECTION
- TEMPORARY SOIL STABILIZATION MATTING CHANNEL APPLICATION
- MOUNTABLE BERM

**OWNER**  
 ROBERT LEE BOLTON  
 C/O WILLIAM A. BOLTON  
 9111 RIVER HILL ROAD  
 LAUREL, MD 20723-1781  
 (410) 480-0023

**DEVELOPER**  
 TRINITY QUALITY HOMES, LLC  
 3675 PARK AVE., SUITE 301  
 ELLICOTT CITY, MD 21043  
 (410) 480-0023

NO.	REVISION	DATE

PRELIMINARY PLAN  
 PRELIMINARY SOILS MAP, GRADING PLAN  
 SOIL EROSION AND SEDIMENT CONTROL PLAN  
**BEECHWOOD MANOR**  
 LOTS 1-31 AND OPEN SPACE LOTS 32-34  
 A SUBDIVISION OF TAX MAP 50 - PARCEL 1

L. 1271 / F. 188  
 TAX MAP 50 GRID: 1  
 6TH ELECTION DISTRICT

9111 RIVER HILL ROAD  
 LAUREL, MD 20723

ZONED: R-SC  
 PARCEL: 001

**VOGEL ENGINEERING**  
  
**TIMMONS GROUP**  
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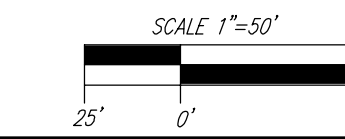
PROFESSIONAL CERTIFICATE

DESIGN BY: R.V.H.  
 DRAWN BY: V.T.G.  
 CHECKED BY: R.V.H.  
 DATE: OCTOBER 2022  
 SCALE: AS SHOWN  
 W.O. NO.: 17-26

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: 09-27-2024

5 SHEET OF 11

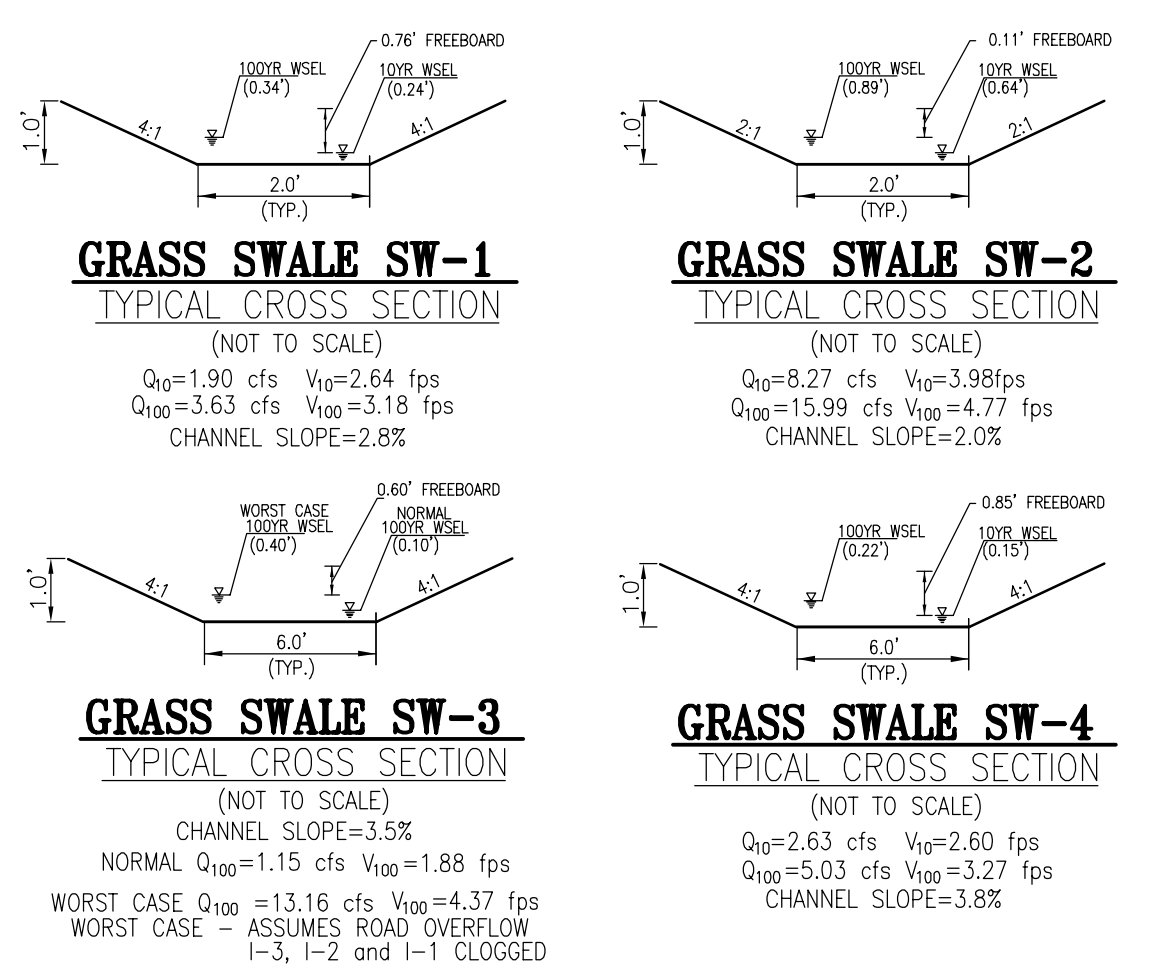
PRELIMINARY SOILS MAP, GRADING PLAN  
 SOIL EROSION AND SEDIMENT CONTROL PLAN  
 SCALE: 1" = 50'



DRAINAGE AREAS TO STORM DRAIN STRUCTURES					
AREA ID	AREA	C FACTOR		IMPERVIOUS AREA	
		SO. FT	AC	SO. FT	AC
I-1	1060	0.02	0.24	0	0.00
I-2	29665	0.68	0.67	20485	0.47
I-3	28560	0.66	0.56	14965	0.34
I-4	15910	0.37	0.31	1858	0.04
I-5	111463	2.56	0.38	72451	1.66
I-6	7840	0.18	0.41	2076	0.05
I-7	19870	0.46	0.34	3135	0.07
I-8	29971	0.69	0.36	4747	0.11
I-9	14100	0.32	0.34	2185	0.05
I-10	75162	1.73	0.55	38085	0.87
I-11	43500	1.00	0.28	2500	0.06
I-12	2724	0.06	0.57	1500	0.03
I-13	2881	0.07	0.67	2000	0.05
I-14	45029	1.03	0.30	4460	0.10
I-15	7841	0.18	0.59	4485	0.10
I-16	13064	0.30	0.65	8768	0.20
I-17	17106	0.39	0.64	10750	0.25
I-18	15058	0.35	0.40	3980	0.09
PT1	3951	0.09	0.64	2420	0.06

### LEGEND:

	PROPERTY LINE		RIGHT-OF-WAY LINE		ADJACENT PROPERTY LINE		EXISTING EDGE OF PAVING		EXISTING TREELINE		PROPOSED TREELINE		EXISTING SPECIMEN TREES		EXISTING WOOD FENCE		EXISTING METAL FENCE		EXISTING CURB AND GUTTER		PROPOSED CURB AND GUTTER		EXISTING SANITARY MANHOLE		EXISTING SANITARY LINE		EXISTING FIRE HYDRANT		EXISTING WATER LINE		EXISTING WETLAND BUFFER		EX. STREAM		EX. STREAM BUFFER		STORM DRAIN		MICRO-BIORETENTION FACILITY (M-6)		RAIN GARDEN STRUCTURE (M-7)		EX. PUBLIC DRAINAGE & UTILITY EASEMENT (PLAT 23768)		EX. PUBLIC TREE MAINTENANCE EASEMENT (PLATS 23772 & 23768)		EX. FOREST CONSERVATION EASEMENT (PLATS 14613, 23050-23051 & 23768)		EX. PRIVATE USE-IN-COMMON ACCESS EASEMENT (PLAT 23768)		EX. PUBLIC WATER & UTILITY EASEMENT (PLAT 23768)		EX. PRIVATE SEWER & UTILITY EASEMENT (PLATS 23768)		EX. PUBLIC SEWER & UTILITY EASEMENT (PLATS 23050-23051)		EX. WETLANDS		EXISTING 10' CONTOUR		EXISTING 2' CONTOUR		SOILS		PROPOSED 10' CONTOUR		PROPOSED 2' CONTOUR		DRAINAGE AREA DIVIDE		DRAINAGE SUBAREA DIVIDE		PROP. DRAINAGE AREA DESIGNATION		EXISTING DRAINAGE AREA DIVIDE		EX. DRAINAGE AREA DESIGNATION
--	---------------	--	-------------------	--	------------------------	--	-------------------------	--	-------------------	--	-------------------	--	-------------------------	--	---------------------	--	----------------------	--	--------------------------	--	--------------------------	--	---------------------------	--	------------------------	--	-----------------------	--	---------------------	--	-------------------------	--	------------	--	-------------------	--	-------------	--	-----------------------------------	--	-----------------------------	--	---	--	--	--	---	--	--	--	--	--	--	--	---	--	--------------	--	----------------------	--	---------------------	--	-------	--	----------------------	--	---------------------	--	----------------------	--	-------------------------	--	---------------------------------	--	-------------------------------	--	-------------------------------



### SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	ERODIBLE
Ch	CHILLUM LOAM, 2 TO 3 PERCENT SLOPES	C	24	NO
Gsb	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B	24	NO

SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE - HOWARD COUNTY SOILS MAP NUMBER 28 - LAUREL NW

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

**OWNER**  
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911 RIVER HILL ROAD  
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**DEVELOPER**  
TRINITY QUALITY HOMES, LLC  
3675 PARK AVE., SUITE 301  
ELLICOTT CITY, MD 21043  
(410) 480-0023

### APPROVED F-15-053 INFORMATION

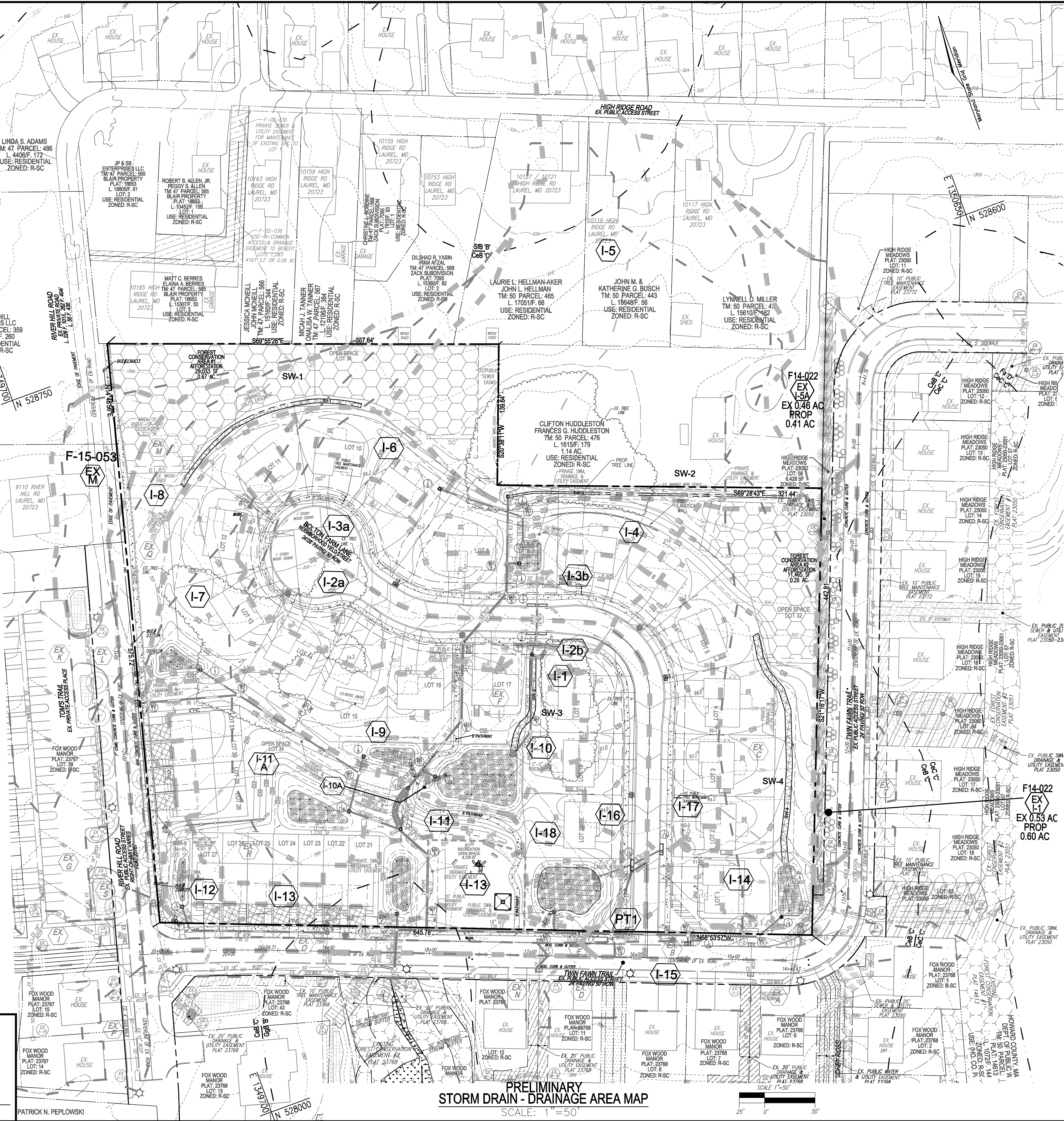
DRAINAGE AREA DATA					
STRUCTURE NO.	DRAINAGE AREA	AREA	'C'	ZONED	% IMP.
I-1	A	0.33 AC.	0.64	R-SC	61%
I-2	B	0.10 AC.	0.47	R-SC	40%
S-5	C	1.28 AC.	0.17	R-SC	2%
I-3	D	0.11 AC.	0.58	R-SC	50%
I-4	E	0.03 AC.	0.95	R-SC	100%
HW-2	F	6.51 AC.	0.29	R-SC	4%
I-9	G	0.22 AC.	0.70	R-SC	69%
I-15	H	0.23 AC.	0.42	R-SC	34%
I-8	I	0.06 AC.	0.29	R-SC	17%
I-7	J	0.72 AC.	0.29	R-SC	12%
I-16 (FUTURE)	K	0.35 AC.	0.75	R-SC	75%
I-11	L	0.10 AC.	0.61	R-SC	58%
I-12	M	0.44 AC.	0.37	R-SC	27%
I-5	N	0.26 AC.	0.81	R-SC	82%
I-6	O	0.13 AC.	0.95	R-SC	100%
I-13	P	0.12 AC.	0.61	R-SC	58%
I-7	Q	0.71 AC.	0.33	R-SC	12%
I-14	R	1.20 AC.	0.17	R-SC	2%
I-10	S	0.16 AC.	0.57	R-SC	52%
I-17	T	0.22 AC.	0.84	R-SC	75%

F-15-53 AREA 1 STRUCTURE LETTER	F-15-53 DA NUMBER	F-15-53 DA ACRES	P-22-001 DA NUMBER	P-22-001 DA ACRES	NOTES
A	1	0.33	NOT APPLICABLE		
B	2	0.10	0.18		(1) ADDED I-15 DRAINAGE AREA REDUCED, ADDED I-18
S-5	3	1.28	0.01		
D	3	0.11	NOT APPLICABLE		DRAINAGE AREA UNCHANGED, ADDED PT-1
E	4	0.03	0.03		
F	HW-2	6.51	NOT APPLICABLE		HW REPLACED W/ MANHOLE
G	9	0.22	NOT APPLICABLE		
H	15	0.23	NOT APPLICABLE		
I	8	0.06	NOT APPLICABLE		
J	7	0.72	0.19		DRAINAGE AREA REDUCED, ADDED I-8
K	16	0.35	NOT APPLICABLE		
L	11	0.10	NOT APPLICABLE		
M	12	0.44	NOT APPLICABLE		DRAINAGE AREA REDUCED, (1)
N	5	0.26	NOT APPLICABLE		
O	6	0.13	0.13		(3) DRAINAGE AREA INCREASED
P	13	0.12	NOT APPLICABLE		
Q	7	0.71	0.19		DRAINAGE AREA REDUCED, ADDED I-8
R	14	1.20	NOT APPLICABLE		INLET REPLACED W/ MANHOLE
S	10	0.16	NOT APPLICABLE		
T	17	0.20	NOT APPLICABLE		

(1) INACCURATE F-15-053 DA DESIGNATION / COMPUTATION  
(2) SAME DRAINAGE AREA  
(3) REMOVED F-15-053 STRUCTURES HW-2 AND I-14  
NOT APPLICABLE = P-22-001 DOES NOT DRAIN TO THIS AREA/STRUCTURE

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

DocuSigned by:  
Andy Goman  
5845D5D47024D4  
12/13/2022  
PLANNING DIRECTOR  
DATE  
PATRICK N. PEPOWSKI



### PRELIMINARY STORM DRAIN - DRAINAGE AREA MAP

SCALE: 1"=50'

NO.	REVISION	DATE

PRELIMINARY PLAN  
PRELIMINARY STORM DRAIN - DRAINAGE AREA MAP  
**BEECHWOOD MANOR**  
LOTS 1-31 AND OPEN SPACE LOTS 32-34  
A SUBDIVISION OF TAX MAP 50 - PARCEL 1  
L. 1271 / F. 188  
TAX MAP: 50 GRID: 1  
6TH ELECTION DISTRICT  
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ZONED: R-SC  
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DESIGN BY: RHV  
DRAWN BY: VTG  
CHECKED BY: RHV  
DATE: OCTOBER 2022  
SCALE: AS SHOWN  
W.O. NO.: 17-26

6 SHEET OF 11

ROBERT H. VOGEL, PE No. 16183

SPECIMEN TREE CHART					
NO.	SIZE (IN. DBH)	CRZ (FEET RADII)	COMMON NAME	CONDITION	COMMENTS
ST 1	41"	61.5'	SILVER MAPLE	POOR CONDITION, NOTABLE DIEBACK, LIMB DAMAGE	TO REMAIN
ST 2	30.5"	45.75'	SILVER MAPLE	POOR CONDITION, WIRE FENCING EMBEDDED, TWIN STEMS AT BREAST HEIGHT	TO REMAIN
ST 3	38"	57'	SILVER MAPLE	POOR CONDITION, TRUNK ROT NOTED AND WIRE FENCING EMBEDDED IN TRUNK	TO BE REMOVED

THIS PROJECT IS SUBJECT TO WP-18-136. ON JULY 16, 2018, THE PLANNING DIRECTOR APPROVED YOUR REQUEST FOR AN ALTERNATIVE COMPLIANCE OF SECTION 16.1205(A)(7), WHICH IDENTIFIES STATE CHAMPION TREES, TREES 75% OF THE DIAMETER OF STATE CHAMPION TREES, AND TREES 30" IN DIAMETER OR LARGER AS FOREST RETENTION PRIORITIES. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:

1. THE REMOVAL OF SPECIMEN TREE #3 SHALL BE MITIGATED WITH THE PLANTING OF TWO (2) SHADE TREES WITH A MINIMUM 3" CALIPER. THE TREES SHOULD BE A NATIVE SPECIES AND IDENTIFIED FOR SPECIMEN TREE MITIGATION ON THE FINAL LANDSCAPE PLAN.
2. THIS APPROVAL IS ONLY FOR THE REMOVAL OF SPECIMEN TREE #3. REMOVAL OF ADDITIONAL SPECIMEN TREES SHALL NECESSITATE THE SUBMITTAL OF A NEW ALTERNATIVE COMPLIANCE REQUEST.

F-15-053 STREET TREE PLANTING SCHEDULE			
SYM	ROAD NAME	BOTANICAL NAME	SIZE
	TWIN FAWN TRAIL	GLADIATA TRIACANTHOS INERMIS 'IMPERIAL' IMPERIAL THORNLESS HONEYLOCUST	2.5"-3" CAL.
	TWIN FAWN TRAIL	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMBIAN RED MAPLE	2.5"-3" CAL.

**NOTES:**  
 3 EXISTING TREES ALONG TWIN FAWN TRAIL TO BE RELOCATED OR REPLACED IN KIND, TO ENSURE ADEQUATE SIGHT DISTANCE FROM BOLTON FARM LANE  
 8 EXISTING TREES ALONG RIVER HILL RD TO BE RELOCATED OR REPLACED IN KIND TO ACCOMMODATE NEW TOWNHOMES UNITS

**LEGEND:**  
 EXISTING TREES TO BE RELOCATED  
 NEW LOCATION OF THE F-15-053 TREES

**STREET TREE NOTES:**  
 1. 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.  
 2. 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.  
 3. 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 FOOT WAY IS LIMITED.  
 4. 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 GRASS INLET STRUCTURE, 5 FEET OF AN OPEN SPACE ACCESS STRIP, OR 10 FEET OF A DRIVEWAY.

**TRAFFIC CONTROL SIGN NOTES:**  
 1. IN THE DIRECTION FACING A TRAFFIC CONTROL SIGN:  
 A) THERE SHALL BE A MINIMUM OF 30' BETWEEN THE SIGN FACE AND CLOSEST TREE FOR ALL STOP SIGNS.  
 B) THERE SHALL BE A MINIMUM OF 30' BETWEEN THE SIGN FACE AND CLOSEST TREE FOR ALL SIGNS OTHER THAN A STOP SIGN.  
 C) A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.

**NOTES:**  
 1. REFER TO SHEET 9 FOR LANDSCAPE SCHEDULE A, STREET TREE REQUIREMENTS AND LANDSCAPING NOTES AND DETAILS.  
 2. REFER TO SHEET 9 FOR FOREST CONSERVATION COMPUTATIONS, NOTES AND DETAILS.

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

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

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

**SOILS LEGEND**

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	ERODIBLE
C63	CHILLUM LOAM, 2 TO 3 PERCENT SLOPES	C	24	NO
C6B	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B	24	NO

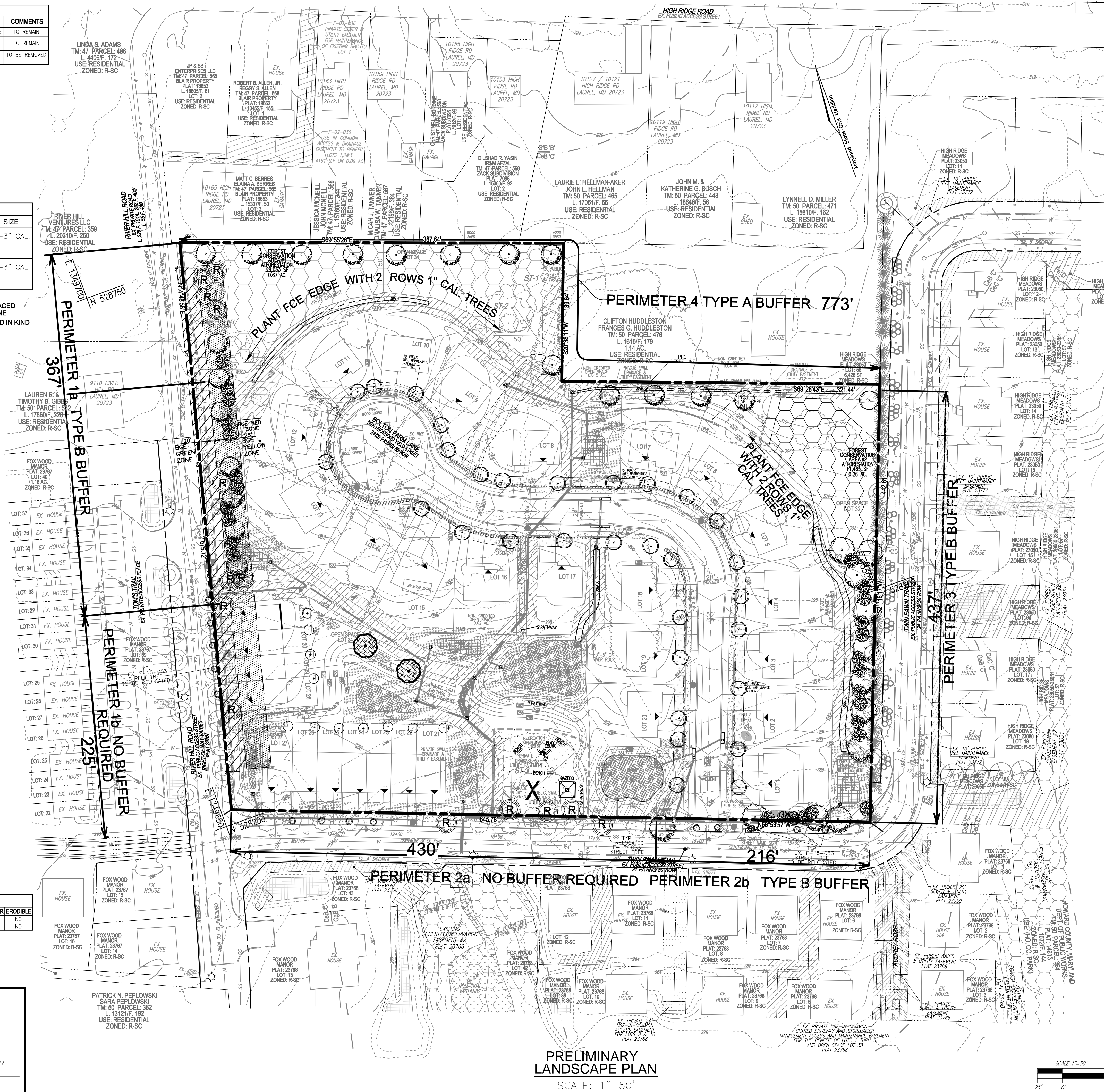
-SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE  
 -HOWARD COUNTY SOILS MAP NUMBER 28 - LAUREL, NW

**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

TENTATIVELY APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY

DocuSigned by:  
  
 Amy Gowan  
 184859284720424  
 PLANNING DIRECTOR

DATE: 12/13/2022



**LEGEND:**

	PROPERTY LINE
	RIGHT-OF-WAY LINE
	ADJACENT PROPERTY LINE
	EXISTING EDGE OF PAVING
	EXISTING TREELINE
	PROPOSED TREELINE
	EXISTING SPECIMEN TREES AND CRITICAL ROOT ZONE
	SPECIMEN TREE TO BE REMOVED
	EXISTING CURB AND GUTTER
	PROPOSED CURB AND GUTTER
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY LINE
	EXISTING FIRE HYDRANT
	EXISTING WATER LINE
	EX. WETLAND BUFFER
	EX. STREAM
	EX. STREAM BUFFER
	EX. PUBLIC DRAINAGE & UTILITY EASEMENT (PLAT 23768)
	EX. FOREST CONSERVATION EASEMENT (PLATS 14613, 23050-23051 & 23768)
	EX. PRIVATE USE-IN-COMMON ACCESS EASEMENT (PLAT 23768)
	EX. PUBLIC WATER & UTILITY EASEMENT (PLATS 23768)
	EX. PRIVATE SEWER & UTILITY EASEMENT (PLATS 23768)
	EX. PUBLIC SEWER & UTILITY EASEMENT (PLATS 23050-23051)
	EXISTING 10' CONTOUR
	EXISTING 2' CONTOUR
	SOILS
	PROPOSED 10' CONTOUR
	PROPOSED 2' CONTOUR
	LIMIT OF DISTURBANCE
	EXISTING VEGETATION (APPROXIMATE LOCATION)
	PERIMETER DESIGNATION / TYPE
	PROPOSED FOREST CONSERVATION EASEMENT (AFFORESTATION)
	BGE GREEN ZONE
	BGE YELLOW ZONE
	PROPOSED SHADE TREES
	PROPOSED EVERGREEN TREES
	PROPOSED STREET TREES
	PROPOSED INTERNAL TREES
	PROPOSED SPECIMEN TREES

**OWNER**  
 ROBERT LEE BOLTON  
 C/O WILLIAM A. BOLTON  
 9111 RIVER HILL ROAD  
 LAUREL, MD 20723-1781  
 (410) 480-0023

**DEVELOPER**  
 TRINITY QUALITY HOMES, LLC  
 3675 PARK AVE., SUITE 301  
 ELLICOTT CITY, MD 21043  
 (410) 480-0023

NO.	REVISION	DATE

PRELIMINARY PLAN  
 PRELIMINARY LANDSCAPE PLAN  
**BEECHWOOD MANOR**  
 LOTS 1-31 AND OPEN SPACE LOTS 32-34  
 A SUBDIVISION OF TAX MAP 50 - PARCEL 1

L 1271 / F. 186  
 TAX MAP: 50 GRID: 1  
 6TH ELECTION DISTRICT

9111 RIVER HILL ROAD  
 LAUREL, MD 20723

ZONED: R-SC  
 PARCEL: 001  
 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

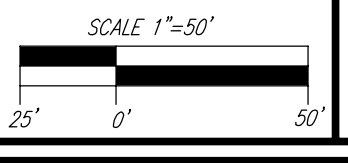
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE MAPS OF THE STATE OF MARYLAND AND LICENSE NO. 16193 EXPIRATION DATE 08-27-2024

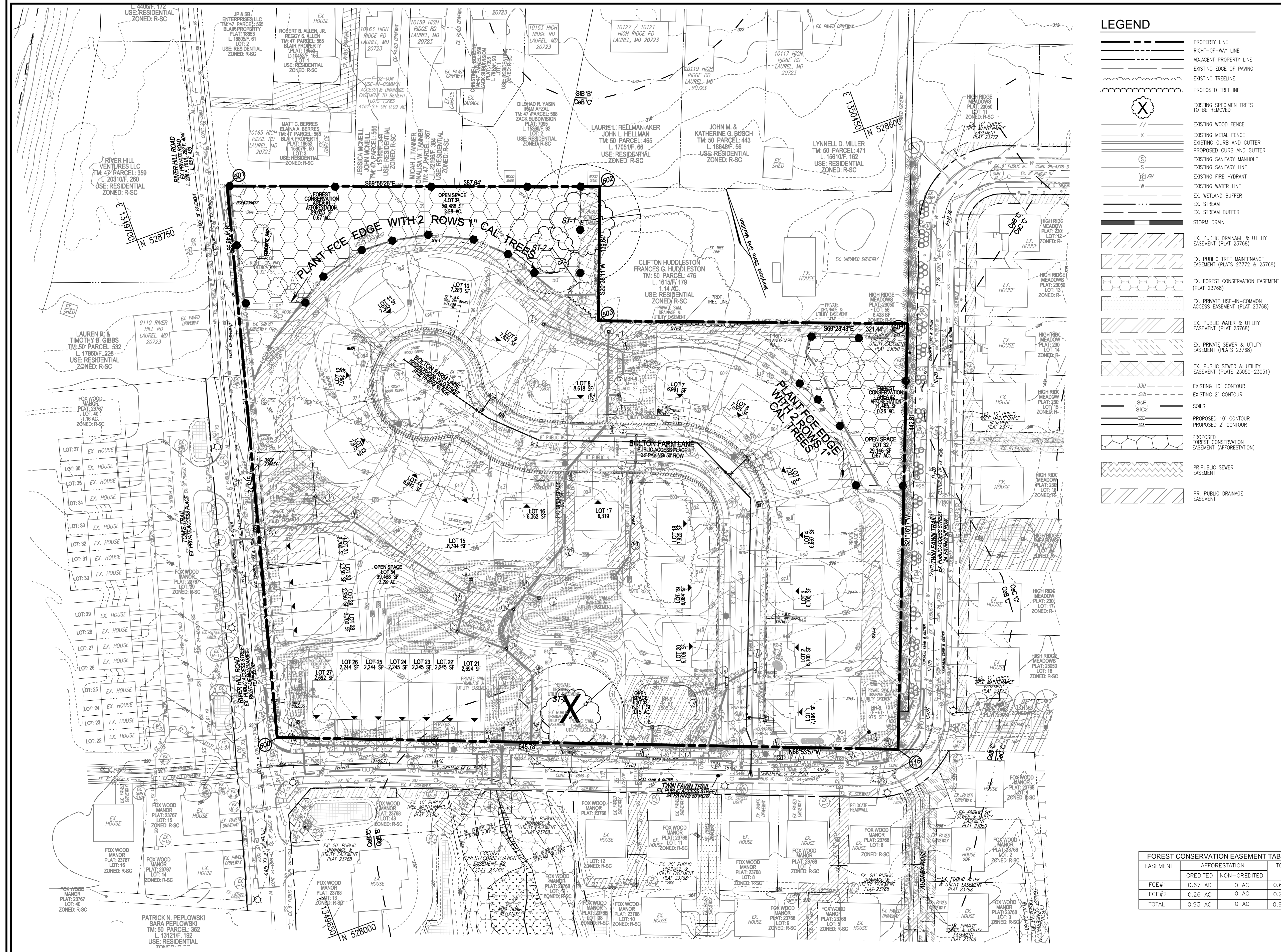
DESIGN BY: RHV  
 DRAWN BY: VTH  
 CHECKED BY: RHG  
 DATE: OCTOBER 2022  
 SCALE: AS SHOWN  
 W.O. NO.: 17-26

7 SHEET OF 11

STATE OF MARYLAND  
 ROBERT H. VOGEL, PE No. 16193

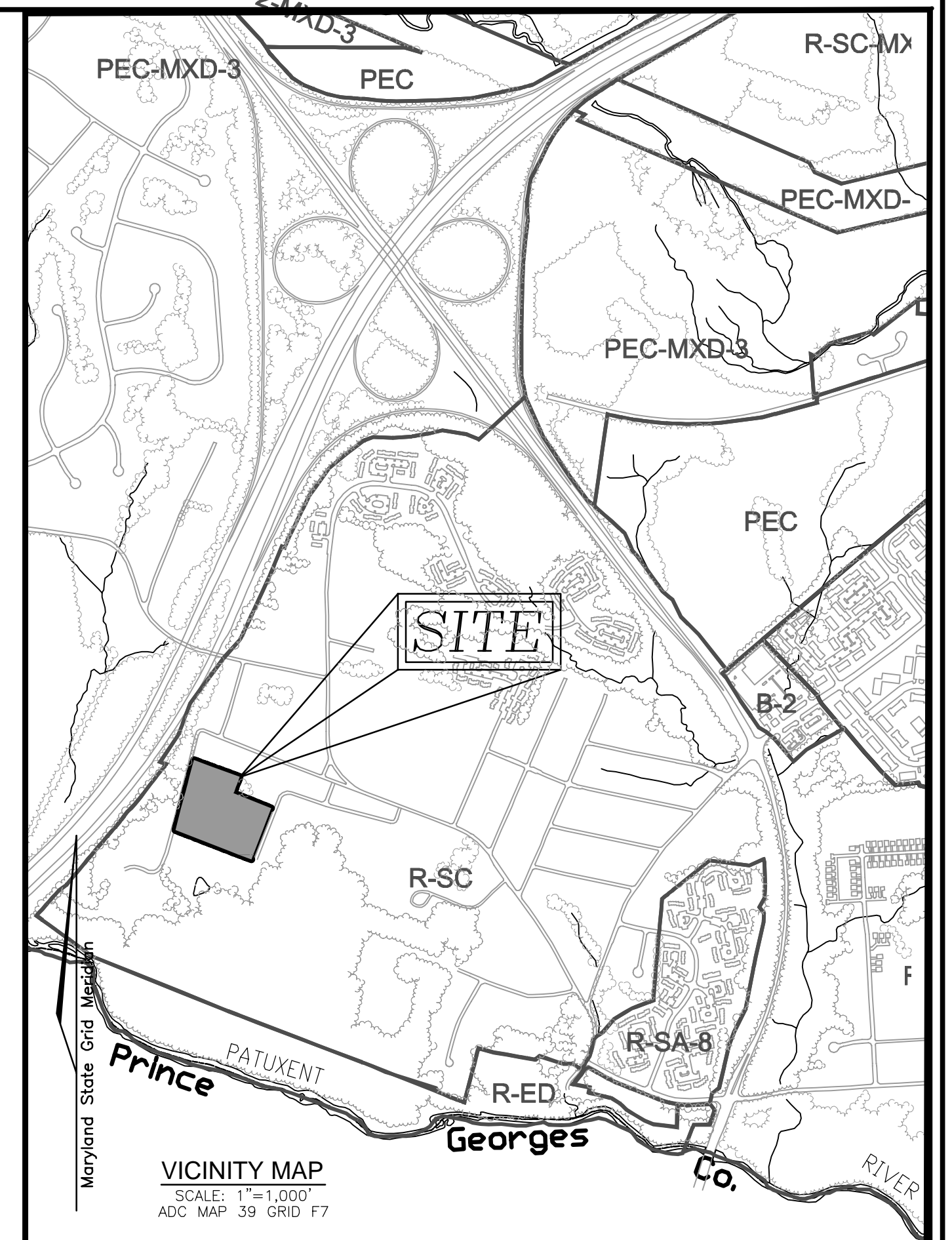
PRELIMINARY LANDSCAPE PLAN  
 SCALE: 1" = 50'





**LEGEND**

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING EDGE OF PAVING
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING SPECIMEN TREES TO BE REMOVED
- EXISTING WOOD FENCE
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EX. WETLAND BUFFER
- EX. STREAM
- EX. STREAM BUFFER
- STORM DRAIN
- EX. PUBLIC DRAINAGE & UTILITY EASEMENT (PLAT 23768)
- EX. PUBLIC TREE MAINTENANCE EASEMENT (PLATS 23772 & 23768)
- EX. FOREST CONSERVATION EASEMENT (PLAT 23768)
- EX. PRIVATE USE-IN-COMMON ACCESS EASEMENT (PLAT 23768)
- EX. PUBLIC WATER & UTILITY EASEMENT (PLAT 23768)
- EX. PRIVATE SEWER & UTILITY EASEMENT (PLATS 23050-23051)
- EX. PUBLIC SEWER & UTILITY EASEMENT (PLAT 23768)
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- SOILS
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED FOREST CONSERVATION EASEMENT (AFFORESTATION)
- PR. PUBLIC SEWER EASEMENT
- PR. PUBLIC DRAINAGE EASEMENT



**GENERAL NOTES**

- WATERSHED NAME: PATUXENT RIVER UPPER  
WATERSHED NUMBER: 2131104
- A. GROSS SITE AREA: 7.97 AC.
  - B. AREA OF 100-YEAR FLOODPLAIN: 7.97 AC.
  - C. AREA OF WETLANDS AND BUFFERS(ONSITE): 0.00 AC.
  - D. AREA OF STREAM AND BUFFERS(ONSITE): 0.00 AC.
  - E. AREA OF > 25% STEEP SLOPES: 0.00 AC.
  - F. EXISTING FOREST: 0.00 AC. (FSD)
  - G. ZONED: R-SC
  - H. EXISTING USE: RESIDENTIAL
  - I. PROPOSED USE: RESIDENTIAL

**OWNER**  
ROBERT LEE BOLTON  
C/O WILLIAM A. BOLTON  
9111 RIVER HILL ROAD  
LAUREL, MD 20723-1781  
(410) 480-0023

**DEVELOPER**  
TRINITY QUALITY HOMES, LLC  
3675 PARK AVE., SUITE 301  
ELLICOTT CITY, MD 21104-3  
(410) 480-0023

**FOREST CONSERVATION EASEMENT TABLE**

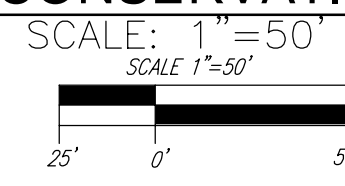
EASEMENT	AFFORESTATION		TOTAL
	CREDITED	NON-CREDITED	
FCE#1	0.67 AC	0 AC	0.67 AC
FCE#2	0.26 AC	0 AC	0.26 AC
TOTAL	0.93 AC	0 AC	0.93 AC

**SOILS LEGEND**

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	ERODIBLE
C8B	CHILLIAM LOAM, 2 TO 5 PERCENT SLOPES	C	24	NO
S8B	CHILLIAM LOAM, 3 TO 8 PERCENT SLOPES	S	24	NO

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

**PRELIMINARY FOREST CONSERVATION PLAN**



TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

DocuSigned by:  
Amy Goman  
158450509470C4D4  
PLANNING DIRECTOR

12/13/2022  
DATE

**PRELIMINARY PLAN**  
**PRELIMINARY FOREST CONSERVATION PLAN**  
**BEECHWOOD MANOR**  
LOTS 1-31 AND OPEN SPACE LOTS 32-34  
A SUBDIVISION OF TAX MAP 50 - PARCEL 1

9111 RIVER HILL ROAD  
LAUREL, MD 20723

ZONED: R-SC  
PARCEL: 001  
HOWARD COUNTY, MARYLAND

**VOGEL ENGINEERING**  
**TIMMONS GROUP**  
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P: 410.461.7666 F: 410.461.8961 www.timmons.com

**PROFESSIONAL CERTIFICATE**

DESIGN BY: RHY  
DRAWN BY: VTG  
CHECKED BY: RHY  
DATE: OCTOBER 2022  
SCALE: AS SHOWN  
W.O. NO.: 17-26

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. 18197  
EXPIRATION DATE: 09-27-2024

8 SHEET OF 11

**Eco-Science Professionals, Inc.**  
CONSULTING ECOLOGISTS  
P.O. BOX 106, ELLEN VILLE, MARYLAND 21037  
Tel: 410-461-7666  
www.ecosciencesolutions.com

**J. Brody McAllister**  
ISA Certified Arborist  
Cert ID: MA0477A  
MD DNR FCA Qualified Professional



# REFORESTATION AND AFFORESTATION PLANTING PLANS

## A. PLANTING PLAN AND METHODS

PLANT SPECIES SELECTION WAS BASED ON OUR KNOWLEDGE REGARDING PLANT COMMUNITIES IN MARYLAND'S PIEDMONT PLATEAU AND INFORMATION PROVIDED IN THE SOIL SURVEY ON TYPICAL VEGETATION FOR THE SOIL TYPE ON THE PLANTING SITE. SPECIES SELECTION WAS ALSO BASED ON OUR KNOWLEDGE OF PLANT AVAILABILITY IN THE NURSERY INDUSTRY.

REFORESTATION AND AFFORESTATION WILL BE ACCOMPLISHED THROUGH A MIXED PLANTING OF WHIPS AND BRANCHED TRANSPLANTS. CONTAINER GROWN STOCK IS RECOMMENDED BUT BAREROOT STOCK MAY BE USED TO HELP CONTROL REFORESTATION AND AFFORESTATION COSTS. IF BAREROOT STOCK IS USED THE ROOT SYSTEMS OF ALL PLANTS WILL BE DIPPED IN AN ANTI-DESICCANT GEL PRIOR TO PLANTING TO IMPROVE MOISTURE RETENTION IN THE ROOT SYSTEMS.

PRIOR TO PLANTING THE PROPOSED FOREST CONSERVATION EASEMENTS ALL MULTIFLORA ROSE IN THE PLANTING AREA SHALL BE REMOVED. REMOVAL OF THE ROSE MAY BE PERFORMED WITH MOWING AND HERBICIDE TREATMENTS. PHYSICAL REMOVAL OF ALL TOP GROWTH FOLLOWING BY A PERIODIC HERBICIDE TREATMENT OF STUMP SPROUTS IS RECOMMENDED. NATIVE TREE AND SHRUB SPECIES OCCURRING WITHIN THE ROSE THICKETS SHOULD BE RETAINED WHEREVER POSSIBLE. HERBICIDES TREATMENTS SHALL OCCUR ON 2 MONTH INTERVALS DURING THE FIRST GROWING SEASON AND ONCE EACH IN THE SPRING AND FALL FOR SUBSEQUENT YEARS. HERBICIDE USED SHALL BE MADE SPECIFICALLY TO ADDRESS WOODY PLANT MATERIAL AND SHALL BE APPLIED AS PER MANUFACTURERS SPECIFICATIONS. CARE SHOULD BE TAKEN NOT TO SPRAY PLANTED TREES OR NATURALLY OCCURRING NATIVE TREE/SHRUB SEEDLINGS. IT IS RECOMMENDED THAT INITIATION OF ROSE REMOVAL BEGIN AT LEAST SIX MONTHS PRIOR TO PLANTING.

## B. PLANTING AND SOIL SPECIFICATIONS

PLANT MATERIAL WILL BE INSTALLED IN ACCORDANCE WITH THE PLANTING DETAIL AND PLANTING SPECIFICATIONS SHOWN ON THE FOREST CONSERVATION PLAN.

AMENDMENTS TO EXISTING SOIL WILL BE IN ACCORDANCE WITH THE PLANTING SPECIFICATIONS SHOWN ON THE FOREST CONSERVATION PLAN. SOIL DISTURBANCE WILL BE LIMITED TO INDIVIDUAL PLANTING LOCATIONS.

## C. MAINTENANCE OF PLANTINGS

FOR INFORMATION REGARDING MAINTENANCE OF THE REFORESTATION AND AFFORESTATION PLANTINGS, SEE SECTION VII B.

## D. GUARANTEE REQUIREMENTS

A 90 PERCENT SURVIVAL RATE OF THE REFORESTATION AND AFFORESTATION PLANTINGS WILL BE REQUIRED AFTER ONE GROWING SEASON. ALL PLANT MATERIAL BELOW THE 90 PERCENT SURVIVAL THRESHOLD WILL BE REPLACED AT THE BEGINNING OF THE SECOND GROWING SEASON. AT THE END OF THE SECOND GROWING SEASON, A 75 PERCENT SURVIVAL RATE WILL BE REQUIRED. ALL PLANT MATERIAL BELOW THE 75 PERCENT SURVIVAL THRESHOLD WILL BE REPLACED BY THE BEGINNING OF THE NEXT GROWING SEASON.

## E. SECURITY FOR REFORESTATION AND AFFORESTATION

SECTION 16-1209 OF THE HOWARD COUNTY FOREST CONSERVATION ACT REQUIRES THAT A DEVELOPER SHALL POST SECURITY (BOND, LETTER OF CREDIT, ETC.) WITH THE COUNTY TO INSURE THAT ALL WORK IS DONE IN ACCORDANCE WITH THE FCP.

## CONSTRUCTION PERIOD PROTECTION PROGRAM

### A. FOREST PROTECTION TECHNIQUES

#### 1. SOIL PROTECTION AREA (CRITICAL ROOT ZONE)

THE SOIL PROTECTION AREA, OR CRITICAL ROOT ZONE, OF A TREE IS THAT PORTION OF THE SOIL COLUMN WHERE MOST OF A TREE'S ROOTS MAY BE FOUND. THE MAJORITY OF ROOTS RESPONSIBLE FOR WATER AND NUTRIENT UPTAKE ARE LOCATED JUST BELOW THE SOIL SURFACE. TEMPORARY FENCING SHALL BE PLACED AROUND THE CRITICAL ROOT ZONE OF THE FOREST IN AREAS WHERE THE FOREST LIMITS OCCUR WITHIN 25 FEET OF THE LIMIT OF DISTURBANCE.

#### 2. FENCING AND SIGNAGE

EXISTING FOREST LIMITS OCCURRING WITHIN 25 FEET OF THE LIMITS OF DISTURBANCE SHALL BE PROTECTED USING TEMPORARY PROTECTIVE FENCING. PERMANENT SIGNAGE SHALL BE PLACED AROUND THE AFFORESTATION AREA PRIOR TO PLANT INSTALLATION, AS SHOWN ON THE PLAN.

### B. PRE-CONSTRUCTION MEETING

UPON STAKING OF LIMITS OF DISTURBANCE A PRE-CONSTRUCTION MEETING WILL BE HELD BETWEEN THE DEVELOPER, CONTRACTOR AND APPROPRIATE COUNTY INSPECTOR. THE PURPOSE OF THE MEETING WILL BE TO VERIFY THAT ALL SEDIMENT CONTROL IS IN ORDER, AND TO NOTIFY THE CONTRACTOR OF POSSIBLE PENALTIES FOR NON-COMPLIANCE WITH THE FCP.

### C. STORAGE FACILITIES/EQUIPMENT CLEANING

ALL EQUIPMENT STORAGE, PARKING, SANITARY FACILITIES, MATERIAL STOCKPILING, ETC. ASSOCIATED WITH CONSTRUCTION OF THE PROJECT WILL BE RESTRICTED TO THOSE AREAS OUTSIDE OF THE PROPOSED FOREST CONSERVATION EASEMENT. CLEANING OF EQUIPMENT WILL BE LIMITED TO AREA WITHIN THE LOD OF THE PROPOSED HOMESITES. WASTEWATER RESULTING FROM EQUIPMENT CLEANING WILL BE CONTROLLED TO PREVENT RUNOFF INTO ENVIRONMENTALLY SENSITIVE AREAS.

### D. SEQUENCE OF CONSTRUCTION

THE FOLLOWING TIMETABLE REPRESENTS THE PROPOSED TIMETABLE FOR DEVELOPMENT. THE ITEMS OUTLINED IN THE FOREST CONSERVATION PLAN WILL BE ENACTED WITHIN TWO (2) YEARS OF SUBDIVISION APPROVAL.

#### BELOW FINAL A PROPOSED SEQUENCE OF CONSTRUCTION.

- 1. INSTALL ALL SIGNAGE AND SEDIMENT CONTROL DEVICES.
2. HOLD PRE-CONSTRUCTION MEETING BETWEEN DEVELOPER, CONTRACTOR AND COUNTY INSPECTOR.
3. BUILD ACCESS ROADS, INSTALL UTILITIES, AND CONSTRUCT HOME. STABILIZE ALL DISTURBED AREAS ACCORDINGLY.
4. BEGIN MULTIFLORA ROSE REMOVAL, AS NEEDED. INSTALL PERMANENT PROTECTIVE SIGNAGE FOR EASEMENTS AND INITIATE PLANTINGS IN ACCORDANCE WITH FOREST CONSERVATION PLAN. PLANTINGS WILL BE COMPLETED WITHIN TWO (2) YEARS OF SUBDIVISION APPROVAL.
5. REMOVE SEDIMENT CONTROL.
6. HOLD POST-CONSTRUCTION MEETING WITH COUNTY INSPECTORS TO ASSURE COMPLIANCE WITH FCP.
7. SUBMIT CERTIFICATION OF INSTALLATION.
8. MONITOR AND MAINTAIN PLANTINGS FOR 2 YEARS.

### E. CONSTRUCTION MONITORING

GEO-TECHNOLOGY ASSOCIATES, INC. OR ANOTHER QUALIFIED PROFESSIONAL DESIGNATED BY THE DEVELOPER, WILL MONITOR CONSTRUCTION OF THE PROJECT TO ENSURE THAT ALL ACTIVITIES ARE IN COMPLIANCE WITH THE FOREST CONSERVATION PLAN.

### F. POST-CONSTRUCTION MEETING

UPON COMPLETION OF CONSTRUCTION, GEO-TECHNOLOGY ASSOCIATES, INC. OR ANOTHER QUALIFIED PROFESSIONAL DESIGNATED BY THE DEVELOPER, WILL NOTIFY THE COUNTY THAT CONSTRUCTION HAS BEEN COMPLETED AND ARRANGE FOR A POST-CONSTRUCTION MEETING TO REVIEW THE PROJECT SITE. THE MEETING WILL ALLOW THE COUNTY INSPECTOR TO VERIFY THAT REFORESTATION / AFFORESTATION PLANTINGS HAVE BEEN INSTALLED.

## POST-CONSTRUCTION MANAGEMENT PLAN

HOWARD COUNTY REQUIRES A TWO YEAR POST-CONSTRUCTION MANAGEMENT PLAN BE PREPARED AS PART OF THE FOREST CONSERVATION PLAN. THE PLAN GOES INTO EFFECT UPON ACCEPTANCE OF THE CONSTRUCTION CERTIFICATION OF COMPLETION BY THE COUNTY. GEO-TECHNOLOGY ASSOCIATES, INC. OR ANOTHER QUALIFIED PROFESSIONAL DESIGNATED BY THE DEVELOPER, WILL BE RESPONSIBLE FOR IMPLEMENTATION OF THE POST-CONSTRUCTION MANAGEMENT PLAN.

THE FOLLOWING ITEMS WILL BE INCORPORATED INTO THE PLAN:

- A. FENCING AND SIGNAGE
PERMANENT SIGNAGE INDICATING THE LIMITS OF THE RETENTION/REFORESTATION/AFFORESTATION AREA SHALL BE MAINTAINED.
B. GENERAL SITE INSPECTIONS/MAINTENANCE OF PLANTINGS
SITE INSPECTIONS WILL BE PERFORMED A MINIMUM OF THREE TIMES DURING THE GROWING SEASON. THE PURPOSE OF THE INSPECTIONS WILL BE TO ASSESS THE HEALTH OF THE REFORESTATION/AFFORESTATION PLANTINGS. APPROPRIATE MEASURES WILL BE TAKEN TO RECTIFY ANY PROBLEMS WHICH MAY ARISE.

- IN ADDITION, MAINTENANCE OF THE REFORESTATION/AFFORESTATION PLANTINGS WILL INVOLVE THE FOLLOWING STEPS:
1. WATERING - ALL PLANT MATERIAL SHALL BE WATERED TWICE A MONTH DURING THE 1ST GROWING SEASON, MORE OR LESS FREQUENTLY DEPENDING ON WEATHER CONDITIONS. DURING THE SECOND GROWING SEASON, ONCE A MONTH DURING MAY-SEPTEMBER, IF NEEDED.
2. REMOVAL OF INVASIVE EXOTIC AND NOXIOUS WEEDS. OLD FIELD SUCCESSIONAL SPECIES WILL BE RETAINED.
3. IDENTIFICATION OF SERIOUS PLANT PESTS AND DISEASES, TREATMENT WITH APPROPRIATE AGENT.
4. PRUNING OF DEAD BRANCHES.
AFTER 12 AND 24 MONTHS, REPLACEMENT OF PLANTS, IF REQUIRED, IN ACCORDANCE WITH THE GUARANTEE REQUIREMENTS SHOWN ON THE FCP.

C. EDUCATION
THE DEVELOPER WILL PROVIDE APPROPRIATE MATERIALS TO PROPERTY OWNERS INCLUDING THE LOCATION AND PURPOSE OF THE REFORESTATION/AFFORESTATION AREA. MATERIALS MAY INCLUDE SITE PLANS AND INFORMATION EXPLAINING THE INTENT OF THE FOREST CONSERVATION PLAN.

D. FINAL INSPECTION
AT THE END OF THE TWO YEAR POST-CONSTRUCTION MANAGEMENT PERIOD, GEO-TECHNOLOGY ASSOCIATES, INC. OR ANOTHER QUALIFIED PROFESSIONAL, WILL SUBMIT TO THE ADMINISTRATOR OF THE HOWARD COUNTY FOREST CONSERVATION PROGRAM CERTIFICATION THAT ALL RETENTION/REFORESTATION/AFFORESTATION REQUIREMENTS HAVE BEEN MET. UPON ACCEPTANCE OF THIS CERTIFICATION, THE COUNTY WILL RELEASE THE DEVELOPER FROM ALL FUTURE OBLIGATIONS AND RELEASE THE DEVELOPER'S BOND.

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

DocuSigned by: Amy Gowan

12/13/2022

PLANNING DIRECTOR DATE

## PLANTING NOTES:

- PLANTING DENSITY BASED SPACING REQUIREMENTS.
- PLANTING MAY BE MADE IN A CURVILINEAR FASHION ALONG CONTOUR. THE PLANTING SHOULD AVOID A GRID APPROACH BUT SHOULD BE SPACED TO FACILITATE MAINTENANCE.
- MULTIFLORA ROSE/HEAVY BRUSH REMOVAL/CONTROL MAY BE REQUIRED PRIOR TO INSTALLATION OF PLANTING.
- ALL WHIPS ARE REQUIRED TO BE INSTALLED WITH TREE SHELTERS PER HOWARD COUNTY FCA REQUIREMENTS.
- PLANTING UNITS DEFINED BY THE SPACING REQUIREMENTS ESTABLISHED IN THE FCA MANUAL. ONE PLANT UNIT IS DEFINED AS 200 1" CALIPER TREES, OR 100 2" CALIPER TREES. BY CONVERSION IT HAS BEEN DETERMINED THAT A SEEDING OR WHIP WITHOUT SHELTER = 1 UNIT, WHIP WITH SHELTER = 2 UNITS, 1" CALIPER TREE = 3.5 UNITS AND 2" CALIPER TREE = 7 UNITS. THE USE OF PLANT UNITS SIMPLIFIES THE PLANT DENSITY CALCULATIONS WHEN MIXING STOCK SIZE.

## PLANTING/SOIL SPECIFICATIONS

- 1. INSTALLATION OF BAREROOT/PLUG PLANT STOCK SHALL TAKE PLACE BETWEEN MARCH 15 - APRIL 20. B&B/CONTAINER STOCK MARCH 15 -MAY 30 OR SEPTEMBER 15 - NOVEMBER 15. FALL PLANTING OF B&B STOCK IS NOT RECOMMENDED.
2. DISTURBED AREAS SHALL BE SEEDED AND STABILIZED AS PER GENERAL CONSTRUCTION PLAN FOR PROJECT. PLANTING AREAS NOT IMPACTED BY SITE GRADING SHALL HAVE NO ADDITIONAL TOPSOIL INSTALLED.
3. BAREROOT PLANTS SHALL BE INSTALLED SO THAT THE TOP OF ROOT MASS IS LEVEL WITH THE TOP OF EXISTING GRADE. ROOTS SHALL BE DIPPED IN AN ANTI-DESICCANT GEL PRIOR TO PLANTING. BACKFILL IN THE PLANTING PITS SHALL CONSIST OF 3 PARTS EXISTING SOIL TO 1 PART PINE FINES OR EQUIVALENT.
4. FERTILIZER SHALL CONSIST OF AGRFORM 22-8-2, OR EQUIVALENT, APPLIED AS PER MANUFACTURERS SPECIFICATIONS, FOR WOODY PLANTS. HERBACEOUS PLANT SHALL BE FERTILIZED WITH OSMOCOTE 8-6-12.
5. PLANT MATERIAL SHALL BE TRANSPORTED TO THE SITE IN A TARPED OR COVERED TRUCK. PLANTS SHALL BE KEPT MOIST PRIOR TO PLANTING.
6. THE CONTRACTOR SHALL REMOVE ALL NON-ORGANIC DEBRIS ASSOCIATED WITH THE PLANTING OPERATION FROM THE SITE.

## SEQUENCE OF CONSTRUCTION

- 1. SEDIMENT CONTROL SHALL BE INSTALLED IN ACCORDANCE WITH GENERAL CONSTRUCTION PLAN FOR SITE.
2. PLANTS SHALL BE INSTALLED AS PER PLANT SCHEDULE AND THE PLANTING/SOIL SPECIFICATIONS FOR THE PROJECT.
3. UPON COMPLETION OF THE PLANTING, SIGNAGE SHALL BE INSTALLED AS SHOWN.
4. PLANTINGS SHALL BE MAINTAINED AND GUARANTEED IN ACCORDANCE WITH THE MAINTENANCE AND GUARANTEE REQUIREMENTS FOR PROJECT.
5. MAINTENANCE OF PLANTINGS
MAINTENANCE OF PLANTINGS SHALL LAST FOR A PERIOD OF TWO YEARS.
2. PLANTINGS MUST RECEIVE 2 GALLONS OF WATER, EITHER THROUGH PRECIPITATION OR WATERING, WEEKLY DURING THE 1ST GROWING SEASON, AS NEEDED. DURING SECOND GROWING SEASON, ONCE A MONTH DURING MAY-SEPTEMBER, IF NEEDED.
3. INVASIVE EXOTICS AND NOXIOUS WEEDS WILL BE REMOVED, AS REQUIRED, FROM PLANTING AREAS MECHANICALLY AND/OR WITH LIMITED HERBICIDE. OLD FIELD SUCCESSIONAL SPECIES WILL BE RETAINED.
4. PLANTS SHALL BE EXAMINED A MINIMUM TWO TIMES DURING THE GROWING SEASON FOR SERIOUS PLANT PESTS AND DISEASES. SERIOUS PROBLEMS WILL BE TREATED WITH THE APPROPRIATE AGENT.
5. DEAD BRANCHES WILL BE PRUNED FROM PLANTINGS.

## GUARANTEE REQUIREMENTS

- 1. A 90 PERCENT SURVIVAL RATE OF THE REFORESTATION PLANTINGS WILL BE REQUIRED AFTER ONE GROWING SEASON. ALL PLANT MATERIAL BELOW THE 90 PERCENT SURVIVAL THRESHOLD WILL BE REPLACED AT THE BEGINNING OF THE SECOND GROWING SEASON. AT THE END OF THE SECOND GROWING SEASON, A 75 PERCENT SURVIVAL RATE WILL BE REQUIRED. ALL PLANT MATERIAL BELOW THE 75 PERCENT SURVIVAL THRESHOLD WILL BE REPLACED BY THE BEGINNING OF THE NEXT GROWING SEASON.

## EDUCATION OF OWNERS

- 1. THE DEVELOPER SHALL PROVIDE EDUCATIONAL INFORMATION TO ALL PROPERTY OWNERS WITHIN THE NEW DEVELOPMENT/HOME ABOUT THE PROPER USE OF FOREST CONSERVATION AREAS.
2. AT THE END OF THE POST-CONSTRUCTION MANAGEMENT AND PROTECTION PERIOD THE DEVELOPER SHALL SUBMIT A CERTIFICATION TO THE COUNTY THAT ALL FOREST CONSERVATION AREAS HAVE REMAINED INTACT OR HAVE BEEN RESTORED TO APPROPRIATE CONDITION, THAT THE STIPULATED SURVIVAL RATES HAVE BEEN ACHIEVED, AND THAT ANY PERMANENT PROTECTION MEASURES REQUIRED BY THE PLAN ARE IN PLACE. UPON REVIEW AND ACCEPTANCE, THE COUNTY WILL INFORM THE DEVELOPER OF THEIR RELEASE THE DEVELOPMENT OF FUTURE OBLIGATIONS RELATED TO THE FOREST CONSERVATION ACT.

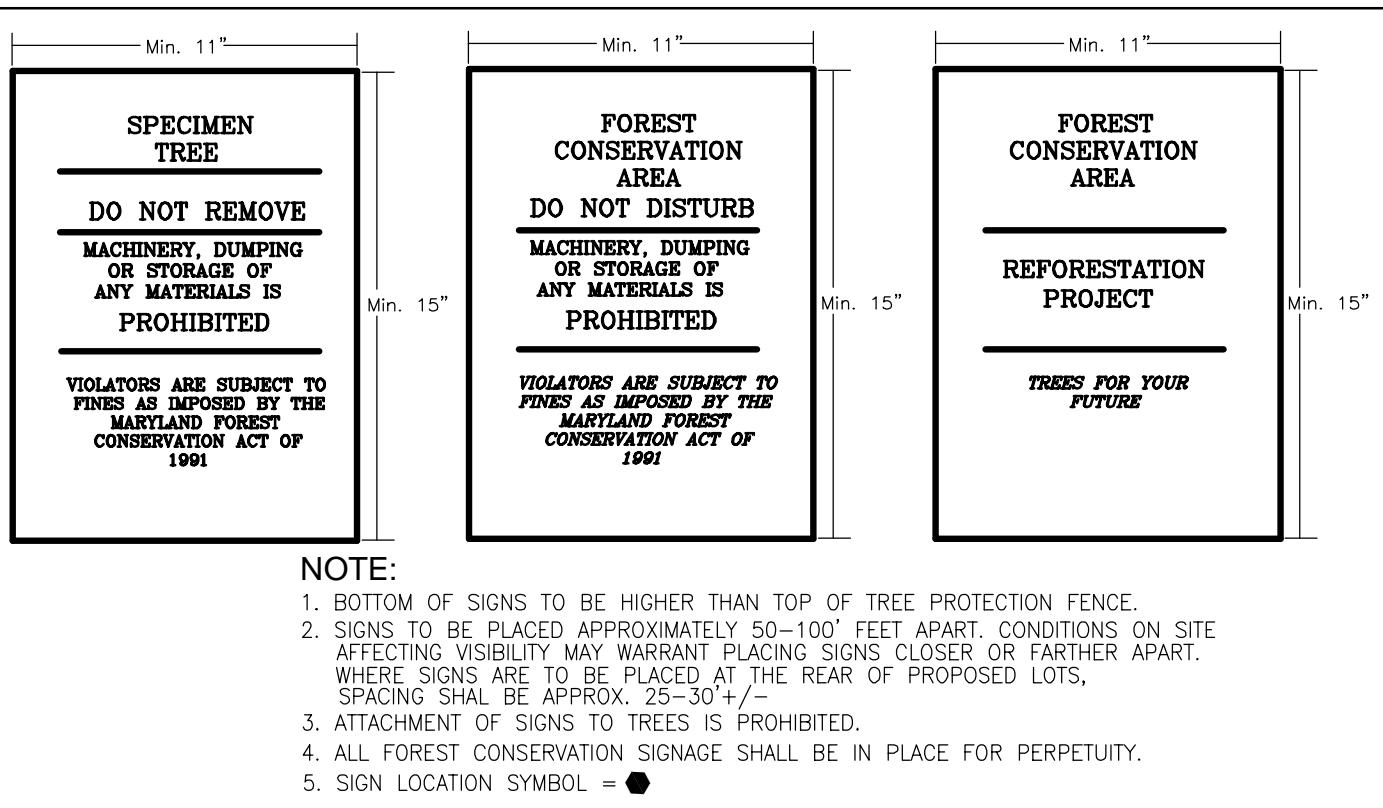
FOREST CONSERVATION WORKSHEET FOR BEECHWOOD MANOR
Net Tract Area: 0.91 ACRES
A. Total (Gross) Tract Area: 7.97
B. Area within 100-year Floodplain: 0.00
C. Other Deductions (Identify): 0.00
D. Net Tract Area: 7.97
Land Use Category: Insert the number "1" under the appropriate land use (limit to only one entry)
Resid. Resid. Resid. Inst./ Retail/Ind./ Mixed Use/ Rural LD Rural MD Suburban Linear Office PUD
0 0 1 0 0 0
E. Afforestation Threshold (Net Tract Area x 15%): 1.20
F. Reforestation Threshold (Net Tract Area x 20%): 1.60
Existing Forest Cover: G=0.00, H=0.00, I=0.00
Break Even Point: J=0.00, K=0.00
Proposed Forest Clearing: L=0.00, M=0.00
Planting Requirements Inside Watershed: N=0.00, P=0.00, Q=0.00, R=0.00, S=1.20, T=1.20, U=0.90, V=0.90
Planting Requirements Outside Watershed: W=1.31, X=0.00, Y=0.10, Z=0.00, AA=0.00, BB=0.00, CC=0.00, DD=0.00
Date:

FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL A PORTION OF THE REQUIREMENTS OF SECTION 16.1202 OF THE HOWARD COUNTY 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. PROVIDING 0.93 ACRES OF AFFORESTATION PLANTING ONSITE ON OPEN SPACE LOTS.
2. THE PURCHASE OF THE EQUIVALENT OF 0.27 ACRES OF AFFORESTATION CREDIT IN AN APPROVED FOREST BANK.

J. Brody McAllister
ISA Certified Arborist
Cert ID: MA6471A
MD DNR FCA Qualified Professional

Eco-Science Professionals, Inc.
CONSULTING ECOLOGISTS
FOL 903 266, CEN 546, NAR 1435 2167



## FOREST CONSERVATION AREA SIGNS

## SEQUENCE OF CONSTRUCTION-FOREST CONSERVATION

PRECONSTRUCTION MEETING / SITE WALK WITH CONTRACTORS AND OTHER RESPONSIBLE PARTIES TO DEFINE PROTECTION MEASURES TO BE UTILIZED AND TO POINT OUT PARTICULAR TREES TO BE SAVED.
STAKE OUT LIMITS OF DISTURBANCE AND TREE PROTECTION FENCING LOCATIONS.
INSTALL TREE PROTECTION FENCING; FENCING TO BE INSPECTED BY THE PROJECT ENGINEER OR THE PROJECT ECOLOGIST AND HOWARD COUNTY PLANNING AND ZONING.
PROCEED WITH TREE REMOVAL AND SITE IMPROVEMENTS AS PER APPROVED SEDIMENT CONTROL PLAN - TO BE INSPECTED BY HOWARD COUNTY PLANNING AND ZONING.
TEMPORARY TREE PROTECTION DEVICES SHALL BE REMOVED AFTER ALL FINISHED GRADING AND UTILITY CONSTRUCTION HAS OCCURRED AND WITH APPROVAL FROM THE HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

Table with columns: EASEMENT, AFFORESTATION, CREDITED, NON-CREDITED, TOTAL. Rows: FCE#1, FCE#2, TOTAL.

## AFFORESTATION TO BE PROVIDED

0.93 ACRES
1" CALIPER TREES
186 TREES @ 200 TREES PER ACRE OR EQUAL

AS REQUIRED, TWO ROWS OF 1" CALIPER TREES SHALL BE PROVIDED ALONG THE FOREST CONSERVATION EASEMENT EDGE CLOSEST TO THE RESIDENTIAL LOTS.

Table with columns: QTY, BOTANICAL NAME, SIZE, SPACING. Lists tree species like Liriodendron tulipifera, Quercus palustris, Nyssa sylvatica, Quercus rubra, Acer rubrum.

NOTE: PLANTINGS SHALL BE FINALIZED BY FINAL PLAN

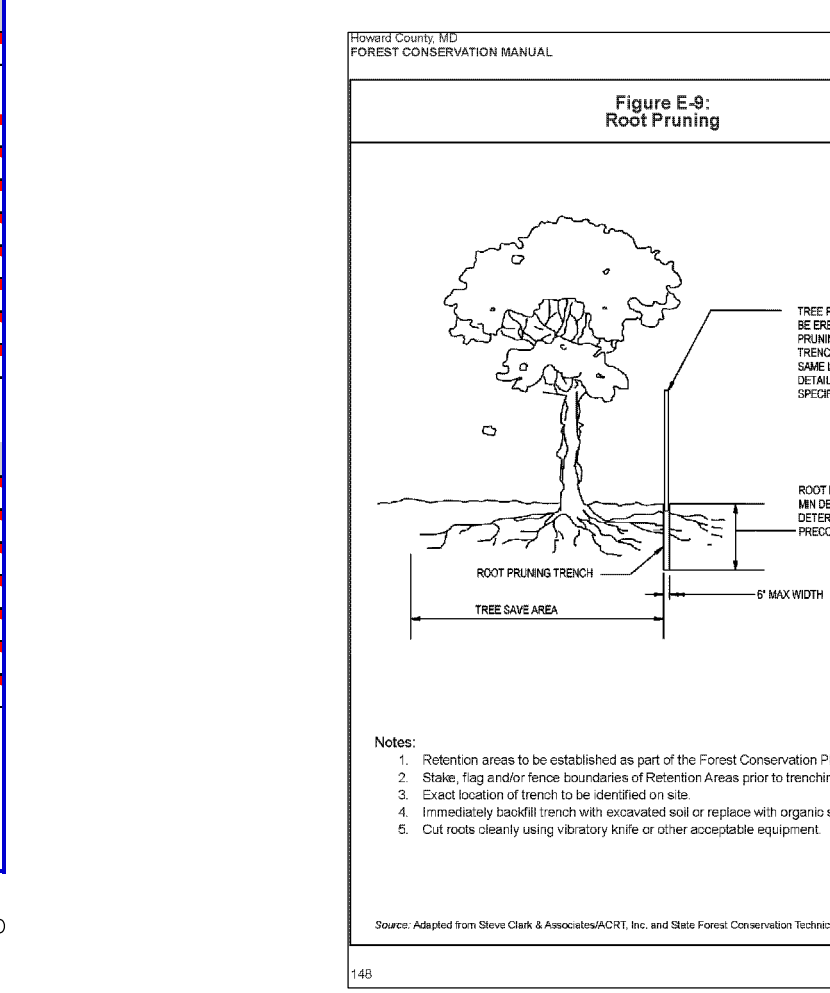


Table with columns: Size, Number Proposed, Percentage Existing, Percentage Remaining. Lists tree species like White Oak, Red Oak, etc.

Table with columns: NO., SIZE, CRZ, COMMON NAME, CONDITION, COMMENTS. Lists specimen trees like Silver Maple.

THIS PROJECT IS SUBJECT TO WP-138-138. ON JULY 16, 2018, THE PLANNING DIRECTOR APPROVED YOUR REQUEST FOR AN ALTERNATIVE COMPLIANCE OF SECTION 16.1202(A)(7), WHICH IDENTIFIES STATE CHAMPION TREES, TREES 75 % OF THE DIAMETER OF STATE CHAMPION TREES. THIS PROJECT SHALL BE A NATIVE SPECIES AND IDENTIFIED FOR SPECIMEN TREE MITIGATION ON THE FINAL APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
1. THE REMOVAL OF SPECIMEN TREE #3 SHALL BE MITIGATED WITH THE PLANTING OF TWO (2) SHADE TREES WITH A MINIMUM 3 1/2" CALIPER. THE TREES SHOULD BE A NATIVE SPECIES AND IDENTIFIED FOR SPECIMEN TREE MITIGATION ON THE LANDSCAPE PLAN.
2. THIS APPROVAL IS ONLY FOR THE REMOVAL OF SPECIMEN TREE #3. REMOVAL OF ADDITIONAL SPECIMEN TREES SHALL REQUIRE THE SUBMITTAL OF A NEW ALTERNATIVE COMPLIANCE REQUEST.

## SCHEDULE 'C' RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING

Table with columns: NUMBER OF DWELLING UNITS, NUMBER OF TREES PROVIDED, OTHER TREES (2:1 SUBSTITUTION).

## SCHEDULE 'A' - PERIMETER LANDSCAPE EDGE

Table with columns: CATEGORY, ADJACENT TO ROADWAYS AND PERIMETER PROPERTIES, TOTAL. Lists categories like Perimeter/Frontage Designation, Linear Feet of Roadway, Credit for Existing Vegetation, etc.

\* CHOSEN TREES SHALL BE BGE COMPLIANT

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. A FINANCIAL SURETY SHALL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT FOR THE REQUIRED LANDSCAPING IN THE AMOUNT OF \$18,000.

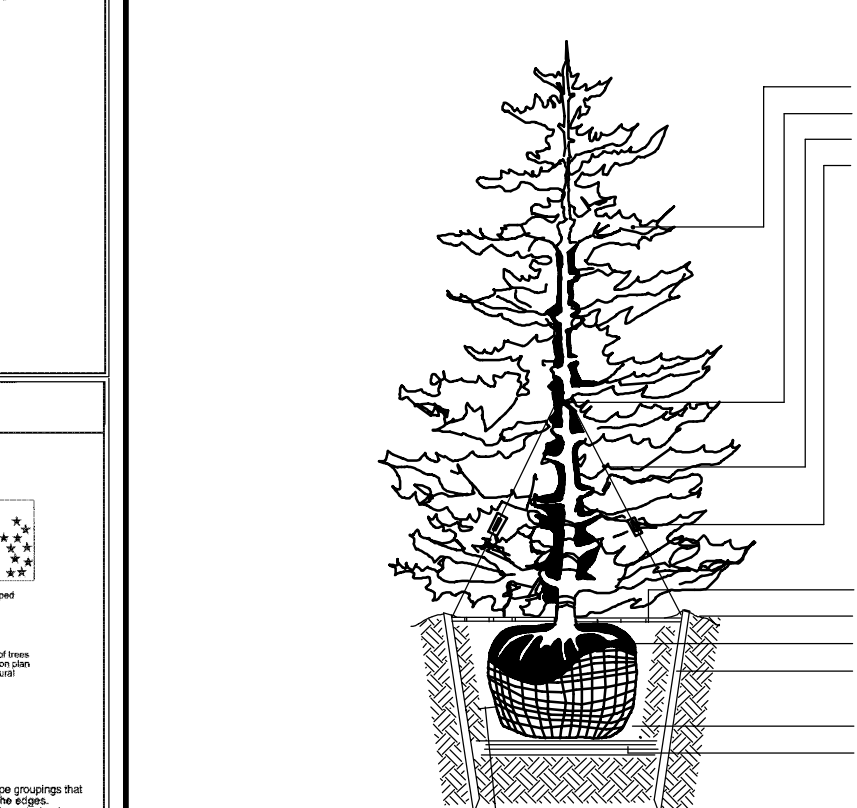
\$14,100 FOR 47 SHADE TREES (34 + 2 WP-138-138 + 11 INTERNAL)
\$ 3,900 FOR 26 EVERGREEN TREES

## LANDSCAPE SCHEDULE NOTES:

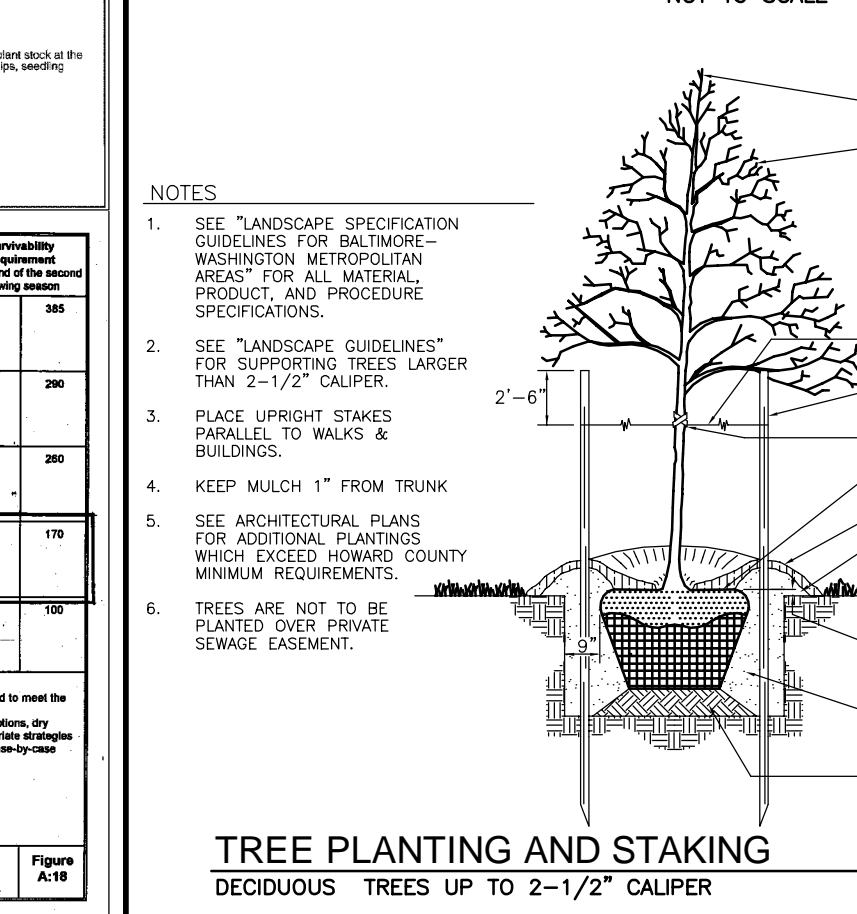
- 1. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT ANI SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH THE PLANTING SPECIFICATIONS.
2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
3. FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
4. CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

## NOTES:

- 1) IN THE DIRECTION FACING A TRAFFIC CONTROL SIGN, THERE SHALL BE A MINIMUM OF 30' BETWEEN THE SIGN FACE AND CLOSEST TREE FOR ALL STOP SIGNS.
2) THERE SHALL BE A MINIMUM OF 30' BETWEEN THE SIGN FACE AND CLOSEST TREE FOR ALL SIGNS OTHER THAN A STOP SIGN.
3) A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.



## TYPICAL EVERGREEN TREE PLANTING DETAIL NOT TO SCALE



## TREE PLANTING AND STAKING DECIDUOUS TREES UP TO 2-1/2" CALIPER NOT TO SCALE

## LANDSCAPING NOTES

- 1. 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 REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DELAY OR DEFER IN THE RELEASE OF LANDSCAPE SPECIMEN UNITS. SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLAN.
2. THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERRIES, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW 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.
3. 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 TREES MUST BE A MINIMUM OF 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE HOWARD COUNTY LANDSCAPE MANUAL.
4. PLANTINGS SHOWN HEREON ARE THE RESPONSIBILITY OF THE DEVELOPER TO INSTALL DURING THE CONSTRUCTION OF THE FINAL PLAN.
5. SURETY FOR THE PROPOSED LANDSCAPING SHALL BE BASED ON THE NUMBER OF PLANTINGS REQUIRED.
6. THE REMOVAL OF TREES 30" OR GREATER DBH IS PROHIBITED WITHOUT COUNTY APPROVAL.

## LANDSCAPE PLANTING NOTES:

SOIL AMENDMENTS AND FERTILIZATION RECOMMENDATIONS WILL BE MADE BASED UPON THE RESULTS OF SOIL ANALYSIS FOR NITROGEN, PHOSPHORUS, POTASSIUM, ORGANIC MATTER CONTENT AND pH. IF REQUIRED, FERTILIZER WILL BE PROVIDED USING A SLOW RELEASE, SOLUBLE 16-16-16 FERTILIZER. ALL FERTILIZERS MUST BE CONTAINED IN POLYETHYLENE PERFORATED BAGS SUCH AS MANUFACTURED BY ADCO WORKS, P.O. BOX 310 HOLLINS, N.Y. 11423 OR EQUAL.

PLANT MATERIALS WILL BE PLANTED IN ACCORDANCE WITH THE PLANTING DETAILS AND PLANTING SCHEDULE.
PLANT MATERIAL SHALL BE NURSERY GROWN AND INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO THE AMERICAN STANDARD FOR NURSERY STOCK SPECIFICATIONS FOR SIZE, FORM, VIGOR OR ROOTS TO DIE OF TRUNK WOUNDS, BREAKAGE, DESICCATION, INSECT OR DISEASE MUST BE REPLACED.

PLANTING STOCK MUST BE PROTECTED FROM DESICCATION AT ALL TIMES PRIOR TO PLANTING. MATERIALS HELD FOR PLANTING SHALL BE MOISTENED AND PLACED IN COOL, SHADY AREAS UNTIL READY FOR PLANTING.

NEWLY PLANTED TREES MAY REQUIRE WATERING AT LEAST ONCE PER WEEK DURING THE FIRST GROWING SEASON DEPENDING ON RAINFALL IN ORDER TO GET ESTABLISHED. THE INITIAL PLANTING OPERATION SHOULD ALLOW FOR WATERING DURING INSTALLATION. SUFFICIENTLY SOAK PLANTING MATERIAL.

MULCH SHALL BE APPLIED IN ACCORDANCE WITH DIAGRAM PROVIDED AND SHALL CONSIST OF COMPOSTED, SHREDED HARDWOOD BARK MULCH, FREE OF WOOD ALCOHOL.

ALL NURSERY STOCK TO BE SPRAYED WITH DEER REPELLENT CONTAINING BITREX, SUCH AS REFLEXEL. ALL NURSERY STOCK TO BE GROWN WITH DEER REPELLENT TABLETS IN GROWING MEDIUM, SUCH AS REFLEXEL TABLETS.

## STREET TREE CALCULATIONS

Table with columns: STREET NAME, LINEAR FEET, NO. REQUIRED, NO. PROVIDED. Lists streets like Bolton Farm Lane.

PUBLIC STREET TREES ARE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 16.124(e)(1) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL. THE STREET TREE REQUIREMENT FOR THIS PROJECT IS 33 SHADE TREES FINANCIALLY SUBSTITUTED AS PART OF THE ANALYSIS DESIGN BY THE DEPARTMENT OF PUBLIC WORKS COST ESTIMATE.

## STREET TREE NOTES:

- 1. WHEN THE DISTANCE BETWEEN THE CURB AND SIDEWALK IS 6 FEET OR GREATER, TREES SHALL BE LOCATED WITHIN THE FRIEDLANDER SHALL BE CENTERED BETWEEN THE CURB AND THE SIDEWALK.
2. 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.
3. 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 INTERSECTIONS WHEN PLANTED WITHIN THE INTERSECTIONS. MAINTENANCE EASEMENT SHALL BE REQUIRED IF THE RIGHT OF WAY IS LIMITED.
4. TREES SHALL BE PLACED A MINIMUM OF 30 FEET FROM ALL SIGNS 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.

## OWNER DEVELOPER

OWNER: ROBERT LEE BOLTON, C/O WILLIAM A. BOLTON, 910 RIVER HILL ROAD, LAUREL, MD 20723-1781, (410) 480-0023
DEVELOPER: TRINITY QUALITY HOMES, LLC, 3675 PARK AVE, SUITE 301, ELLICOTT CITY, MD 21043, (410) 480-0023

Table with columns: NO., REVISION, DATE.

## PRELIMINARY PLAN FOREST CONSERVATION & LANDSCAPE PLAN NOTES AND DETAILS

## BEECHWOOD MANOR LOTS 1-31 AND OPEN SPACE LOTS 32-34 A SUBDIVISION OF TAX MAP 50 - PARCEL 1

L. 1271 / F. 186
TAX MAP: 50 GRID: 1
6TH ELECTION DISTRICT

9111 RIVER HILL ROAD LAUREL, MD 20723

ZONED: R-SC
PARCEL: 001

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.
EXPIRATION DATE: 09-27-2024

DESIGN BY: RHV
DRAWN BY: RHV
CHECKED BY: RHV
DATE: OCTOBER 2022
SCALE: AS SHOWN
W.O. NO.: 17-26

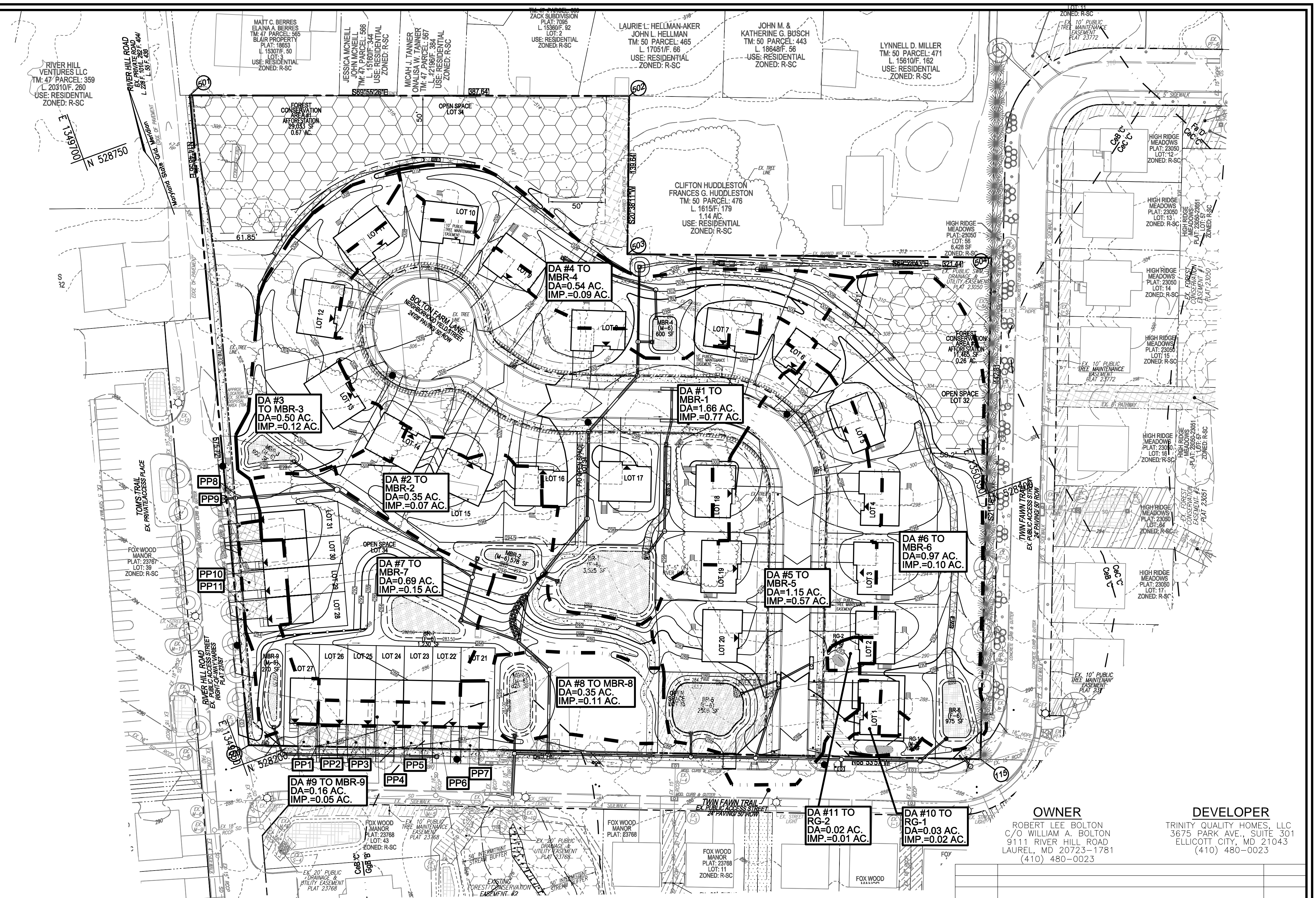
9 SHEET OF 11

**LEGEND:**

	PROPERTY LINE		PUBLIC WATER & UTILITY EASEMENT
	RIGHT-OF-WAY LINE		PRIVATE SWM, DRAINAGE & UTILITY EASEMENT
	ADJACENT PROPERTY LINE		PUBLIC SWM, DRAINAGE & UTILITY EASEMENT
	EXISTING EDGE OF PAVING		SIGN EASEMENT
	EXISTING TREELINE		EXISTING 10' CONTOUR
	PROPOSED TREELINE		EXISTING 2' CONTOUR
	EXISTING SPECIMEN TREES		SOILS
	EXISTING WOOD FENCE		10' CONTOUR
	EXISTING METAL FENCE		2' CONTOUR
	STORM DRAIN		MICRO-SCALE PRACTICE MICRO BIORETENTION (M-6)
	MICRO-BIORETENTION FACILITY (M-6)		DRAINAGE AREA DIVIDE
	RAIN GARDEN STRUCTURE (M-7)		PERMEABLE CONCRETE (A-2)
	EX. PUBLIC DRAINAGE & UTILITY EASEMENT (PLAT 23768)		
	EX. PUBLIC TREE MAINTENANCE EASEMENT (PLATS 23772 & 23768)		
	EX. FOREST CONSERVATION EASEMENT (PLATS 14613, 23050-23051 & 23768)		
	EX. PRIVATE USE-IN-COMMON ACCESS EASEMENT (PLAT 23768)		
	EX. PUBLIC WATER & UTILITY EASEMENT (PLAT 23768)		
	EX. PRIVATE SEWER & UTILITY EASEMENT (PLATS 23768)		
	EX. PUBLIC SEWER & UTILITY EASEMENT (PLATS 23050-23051)		

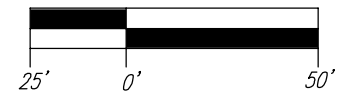
**BEECHWOOD MANOR - ESDv PER AREA COMPUTATIONS**

DA	% IMPERV	Rv	DA (SF)	DA (AC)	MINIMUM VOLUME	MAXIMUM VOLUME	1.60' VOLUME PROVIDED	IMPERV (SF)	IMPERV (AC)	GREEN AREA	REMARKS	
AREA 1	46.30	0.4667	72250	1.66	2810	7305	4496	4700	33450	0.77	0.89	BIO RETENTION #1 4700 3250 SF MICRO BIO
AREA 2	20.19	0.2317	15355	0.35	296	771	474	770	3100	0.07	0.28	MICROSCALE MICRO-BIO RETENTION #2 770 577.5 SF MICRO BIO
AREA 3	23.13	0.2582	21760	0.50	468	1217	749	800	5033	0.12	0.38	MICROSCALE MICRO-BIO RETENTION #3 800 660 SF MICRO BIO
AREA 4	17.02	0.2032	23630	0.54	400	1040	640	800	4023	0.09	0.45	MICROSCALE MICRO-BIO RETENTION #4 800 660 SF MICRO BIO
AREA 5	50.06	0.5006	50015	1.15	2086	5425	3338	3340	25040	0.57	0.57	BIO RETENTION #5 3340 2505 SF MICRO BIO
AREA 6	9.96	0.1397	42270	0.97	492	1279	787	1300	4211	0.10	0.87	BIO RETENTION #6 1300 975 SF MICRO BIO
AREA 7	22.42	0.2518	30065	0.69	631	1640	1009	1640	6740	0.15	0.54	BIO RETENTION #7 1640 1230 SF MICRO BIO
AREA 8	31.98	0.3378	15071	0.35	424	1103	679	1100	4820	0.11	0.24	MICROSCALE MICRO-BIO RETENTION #8 1100 825 SF MICRO BIO
AREA 9	31.04	0.3294	6810	0.16	187	486	299	360	2114	0.05	0.11	MICROSCALE MICRO-BIO RETENTION #9 360 270 SF MICRO BIO
AREA 10	64.14	0.6272	1450	0.03	76	197	121	125	930	0.02	0.01	MICROSCALE RAIN GARDEN #1 125 93.75 SF MICRO BIO
AREA 11	37.12	0.3840	1040	0.02	33	87	53	70	386	0.01	0.02	MICROSCALE RAIN GARDEN #2 70 52.5 SF MICRO BIO
PP1	100.00	0.9500	300	0.01	24	62	38	48	300	0.01	0.00	A-2 ALTERNATIVE SURFACE 48 PERM DW @ 0.16 @ 12" PE EQUIVALENT = 2 48
PP2	100.00	0.9500	300	0.01	24	62	38	48	300	0.01	0.00	A-2 ALTERNATIVE SURFACE 48 PERM DW @ 0.16 @ 12" PE EQUIVALENT = 2 48
PP3	100.00	0.9500	300	0.01	24	62	38	48	300	0.01	0.00	A-2 ALTERNATIVE SURFACE 48 PERM DW @ 0.16 @ 12" PE EQUIVALENT = 2 48
PP4	100.00	0.9500	300	0.01	24	62	38	48	300	0.01	0.00	A-2 ALTERNATIVE SURFACE 48 PERM DW @ 0.16 @ 12" PE EQUIVALENT = 2 48
PP5	100.00	0.9500	300	0.01	24	62	38	48	300	0.01	0.00	A-2 ALTERNATIVE SURFACE 48 PERM DW @ 0.16 @ 12" PE EQUIVALENT = 2 48
PP6	100.00	0.9500	300	0.01	24	62	38	59	300	0.01	0.00	A-2 ALTERNATIVE SURFACE 59 PERM DW @ 0.196 @ 12" PE EQUIVALENT = 2.5 59
PP7	100.00	0.9500	300	0.01	24	62	38	59	300	0.01	0.00	A-2 ALTERNATIVE SURFACE 59 PERM DW @ 0.196 @ 12" PE EQUIVALENT = 2.5 59
PP8	100.00	0.9500	300	0.01	24	62	38	48	300	0.01	0.00	A-2 ALTERNATIVE SURFACE 48 PERM DW @ 0.16 @ 12" PE EQUIVALENT = 2 48
PP9	100.00	0.9500	300	0.01	24	62	38	48	300	0.01	0.00	A-2 ALTERNATIVE SURFACE 48 PERM DW @ 0.16 @ 12" PE EQUIVALENT = 2 48
PP10	100.00	0.9500	300	0.01	24	62	38	48	300	0.01	0.00	A-2 ALTERNATIVE SURFACE 48 PERM DW @ 0.16 @ 12" PE EQUIVALENT = 2 48
PP11	100.00	0.9500	300	0.01	24	62	38	48	300	0.01	0.00	A-2 ALTERNATIVE SURFACE 48 PERM DW @ 0.16 @ 12" PE EQUIVALENT = 2 48
MEASURED PROJECT TOTALS	32.91	0.3462	283016	6.50	-	-	13064	15551	93147	2.14	4.36	



**STORMWATER MANAGEMENT DRAINAGE AREA MAP**

SCALE: 1"=50'



**OWNER**  
ROBERT LEE BOLTON  
C/O WILLIAM A. BOLTON  
9111 RIVER HILL ROAD  
LAUREL, MD 20723-1781  
(410) 480-0023

**DEVELOPER**  
TRINITY QUALITY HOMES, LLC  
3675 PARK AVE., SUITE 301  
ELLCOTT CITY, MD 21043  
(410) 480-0023

NO.	REVISION	DATE

**PRELIMINARY PLAN**  
**PRELIMINARY STORMWATER MANAGEMENT DRAINAGE AREA MAP**  
**BEECHWOOD MANOR**  
LOTS 1-31 AND OPEN SPACE LOTS 32-34  
A SUBDIVISION OF TAX MAP 50 - PARCEL 1

L 1271 / F 186  
TAX MAP 50 GRID 1  
6TH ELECTION DISTRICT

9111 RIVER HILL ROAD  
LAUREL, MD 20723

ZONED: R-SC  
PARCEL: 001  
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

**SOILS LEGEND**

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	ERODIBLE
CeB	CHILLUM LOAM, 2 TO 5 PERCENT SLOPES	C	24	NO
CeB	CHILLUM LOAM, 3 TO 8 PERCENT SLOPES	B	24	NO

SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE  
-HOWARD COUNTY SOILS MAP NUMBER 28, LAUREL, NW

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

PROFESSIONAL CERTIFICATE

DESIGN BY: RHY  
DRAWN BY: VTG  
CHECKED BY: RHY  
DATE: OCTOBER 2022  
SCALE: AS SHOWN  
W.O. NO.: 17-26

10 SHEET OF 11

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

DocuSigned by:  
Amy Goman  
5840909470C4D4

12/13/2022

PLANNING DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

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

1. MATERIAL SPECIFICATIONS
THE ALLOWABLE MATERIALS TO BE USED IN THESE PRACTICES ARE DETAILED IN TABLE B.4.1.
2. FILTERING MEDIA OR PLANTING SOIL
THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES.

Appendix B.4. Construction Specifications for Environmental Site Design Practices

Table B.4.1 Materials Specifications for Micro-Bioretention, Rain Gardens & Landscape Infiltration-
Material Specification Size Notes
Plantings see Appendix A, Table A.4 n/a
Planting soil loamy sand (60 - 65%) & compost (35 - 40%) or sandy loam (30%), coarse sand (30%) & compost (40%)
Organic content Min. 10% by dry weight (ASTM D 2974)
Mulch shredded hardwood aged 6 months, minimum; no pine or wood chips
Pea gravel diaphragm pea gravel: ASTM-D-448 NO. 8 OR NO. 9 (1/8" TO 3/8")
Curtain drain ornamental stone: washed cobbles stone: 2" to 5"
Geotextile n/a PE Type 1 nonwoven
Gravel (underdrains and infiltration berms) AASHTO M-43 NO. 57 OR NO. 6 AGGREGATE (3/8" to 3/4")
Underdrain piping F 758, Type PS 28 or AASHTO M-278 4" to 6" rigid schedule 40 PVC or SDR35
Poured in place concrete (if required) MSHA Mix No. 3; f'c = 3500 psi @ 28 days, normal weight, air-entrained; reinforcing to meet ASTM-615-60
Sand AASHTO-M-6 or ASTM-C-33 0.02" to 0.04"

3. COMPACTION
IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF BIORETENTION PRACTICES AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF PRACTICES ARE EXCAVATED USING LAZERS, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TYPE TIRES.

4. PLANT MATERIAL
RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION A.2.3.
5. PLANT INSTALLATION
COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS.

6. UNDERDRAINS
UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:
PIPE - SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTM F 758, TYPE PS 28, OR AASHTO-M-278) IN A GRAVEL LAYER.

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

A-2. PERMEABLE PAVEMENTS

CONSTRUCTION CRITERIA:
THE FOLLOWING ITEMS SHOULD BE ADDRESSED DURING CONSTRUCTION OF PROJECTS WITH PERMEABLE PAVEMENT:
- EROSION AND SEDIMENT CONTROL: FINAL GRADING FOR INSTALLATION SHOULD NOT TAKE PLACE UNTIL THE SURROUNDING SITE IS STABILIZED.
- SOIL COMPACTION: SUB SOILS SHALL NOT BE COMPACTED. CONSTRUCTION SHOULD BE PERFORMED WITH LIGHTWEIGHT, WIDE TRACKED EQUIPMENT TO MINIMIZE COMPACTION.

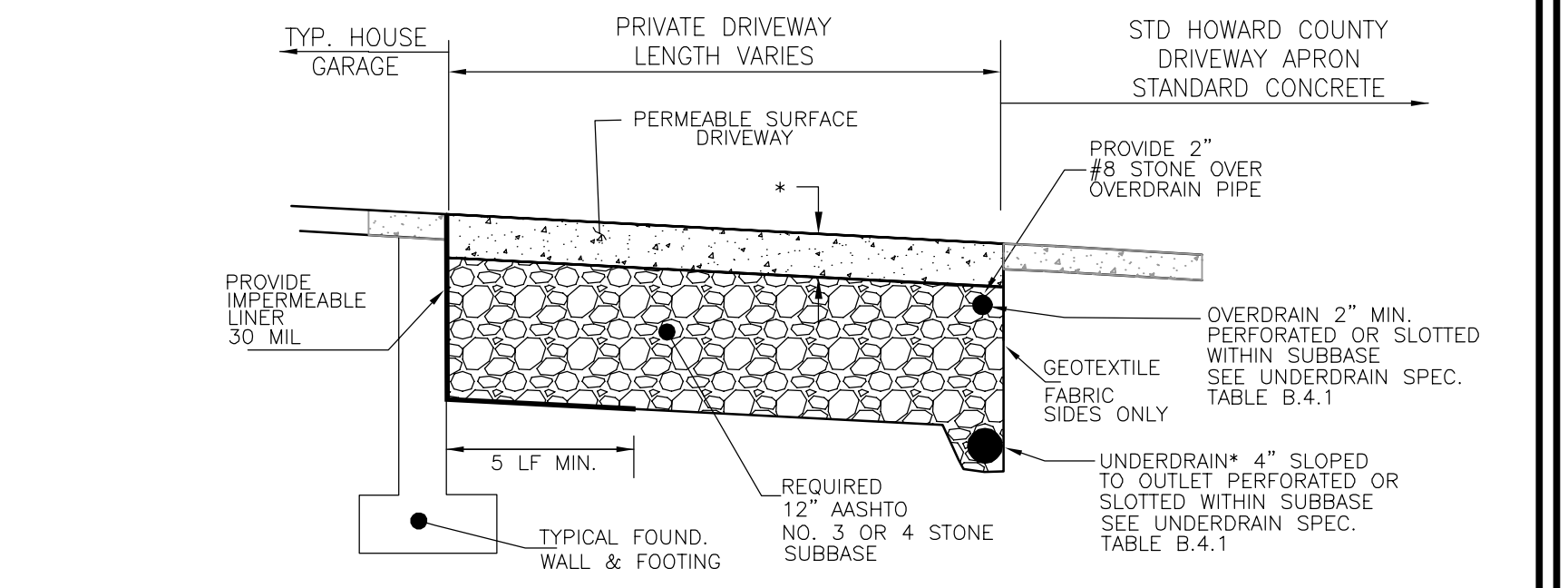
INSPECTION:
REGULAR INSPECTIONS SHALL BE MADE DURING THE FOLLOWING STAGES OF CONSTRUCTION:
- DURING EXCAVATION TO SUB GRADE.
- DURING PLACEMENT OF ANY DRAINAGE OR DISTRIBUTION SYSTEM(S).
- DURING PLACEMENT OF THE CRUSHED STONE SUBBASE MATERIAL.
- DURING PLACEMENT OF THE SURFACE MATERIAL.

MAINTENANCE CRITERIA:

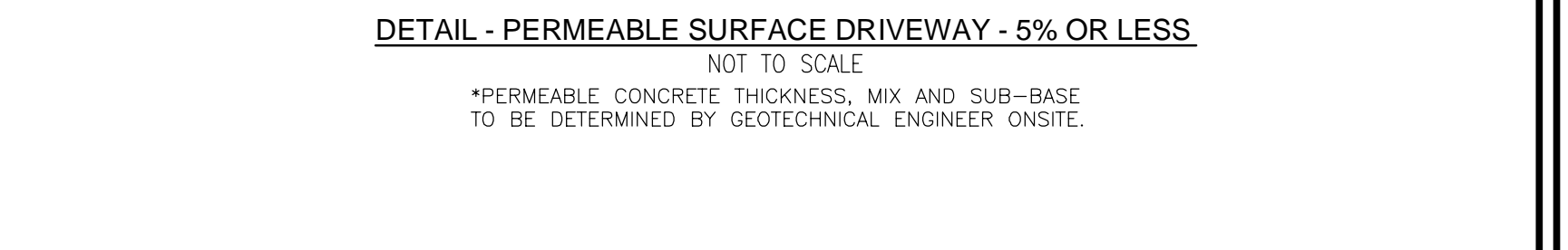
THE FOLLOWING PROCEDURES SHOULD BE CONSIDERED ESSENTIAL FOR MAINTAINING PERMEABLE PAVEMENT SYSTEMS:
- PAVEMENTS SHOULD BE USED ONLY WHERE REGULAR MAINTENANCE CAN BE PERFORMED. MAINTENANCE AGREEMENTS SHOULD CLEARLY SPECIFY HOW TO CONDUCT ROUTINE TASKS TO ENSURE LONG-TERM PERFORMANCE.
- PAVEMENT SURFACES SHOULD BE SWEEPED AND VACUUMED TO REDUCE SEDIMENT ACCUMULATION AND ENSURE CONTINUED SURFACE POROSITY.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED PERMEABLE PAVEMENT (A-2)

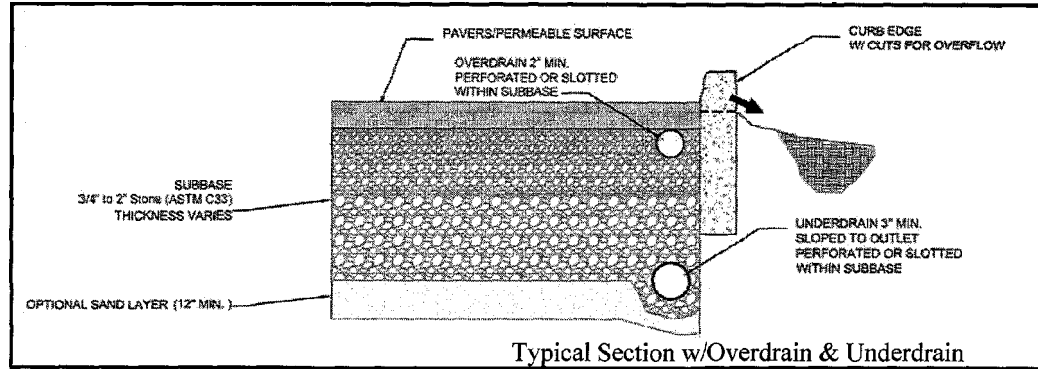
- A. THE INDIVIDUAL LOT OWNER SHALL PERIODICALLY SWEEP (OR VACUUM POROUS CONCRETE PAVEMENT) THE PAVEMENT SURFACES TO REDUCE SEDIMENT ACCUMULATION AND ENSURE CONTINUED SURFACE POROSITY. SWEEPING SHOULD BE PERFORMED AT LEAST TWICE ANNUALLY WITH A COMMERCIAL CLEANING UNIT.
B. THE INDIVIDUAL LOT OWNER SHALL PERIODICALLY CLEAN DRAINAGE PIPES, INLETS, STONE EDGE DRAINS AND OTHER STRUCTURES WITHIN OR DRAINING TO THE SUBBASE.
C. THE INDIVIDUAL LOT OWNER SHALL USE DEICERS IN MODERATION. DEICERS SHOULD BE NON-TOXIC AND BE APPLIED EITHER AS CALCIUM MAGNESIUM ACETATE OR AS PRETREATED SALT.
D. THE INDIVIDUAL LOT OWNER SHALL ENSURE SNOW PLOWING IS PERFORMED CAREFULLY WITH BLADES SET ONE-INCH ABOVE THE SURFACE.



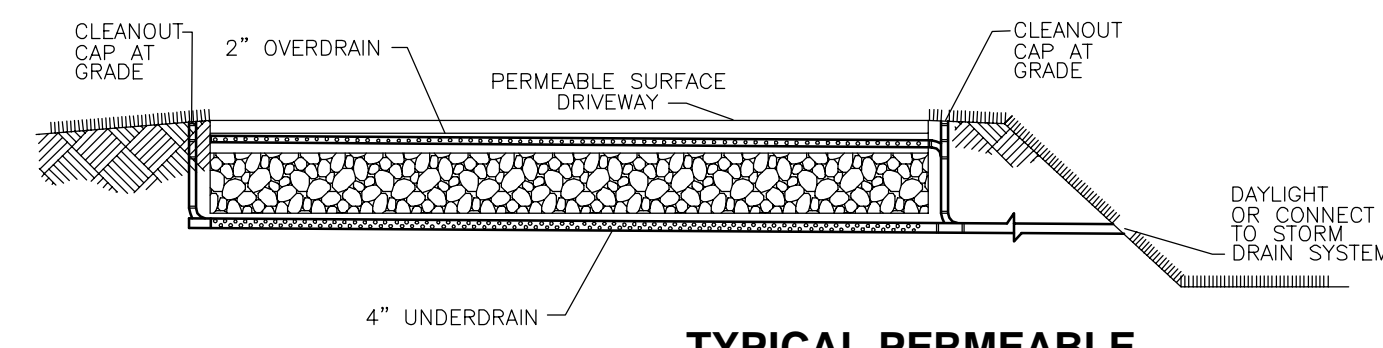
NOTES:
1. PAVEMENT CROSS SECTION/THICKNESS TO BE CONFIRMED BY GEOTECHNICAL ENGINEER
2. UNDERDRAIN SHALL BE LOCATED SUCH THAT IT CAN DAYLIGHT OR CONNECT TO STORM DRAIN SYSTEM
3. OVERDRAIN SHALL COMBINE WITH UNDERDRAIN
4. AN UNDERDRAIN CLEANOUT SHALL BE PROVIDED ON THE HIGH AND LOW SIDE OF THE DRIVEWAY



NOTES:
1. PAVEMENT CROSS SECTION/THICKNESS TO BE CONFIRMED BY GEOTECHNICAL ENGINEER
2. UNDERDRAIN SHALL BE LOCATED SUCH THAT IT CAN DAYLIGHT OR CONNECT TO STORM DRAIN SYSTEM
3. OVERDRAIN SHALL COMBINE WITH UNDERDRAIN
4. AN UNDERDRAIN CLEANOUT SHALL BE PROVIDED ON THE HIGH AND LOW SIDE OF THE DRIVEWAY DRIVEWAY APRON, 2% BOTTOM STONE

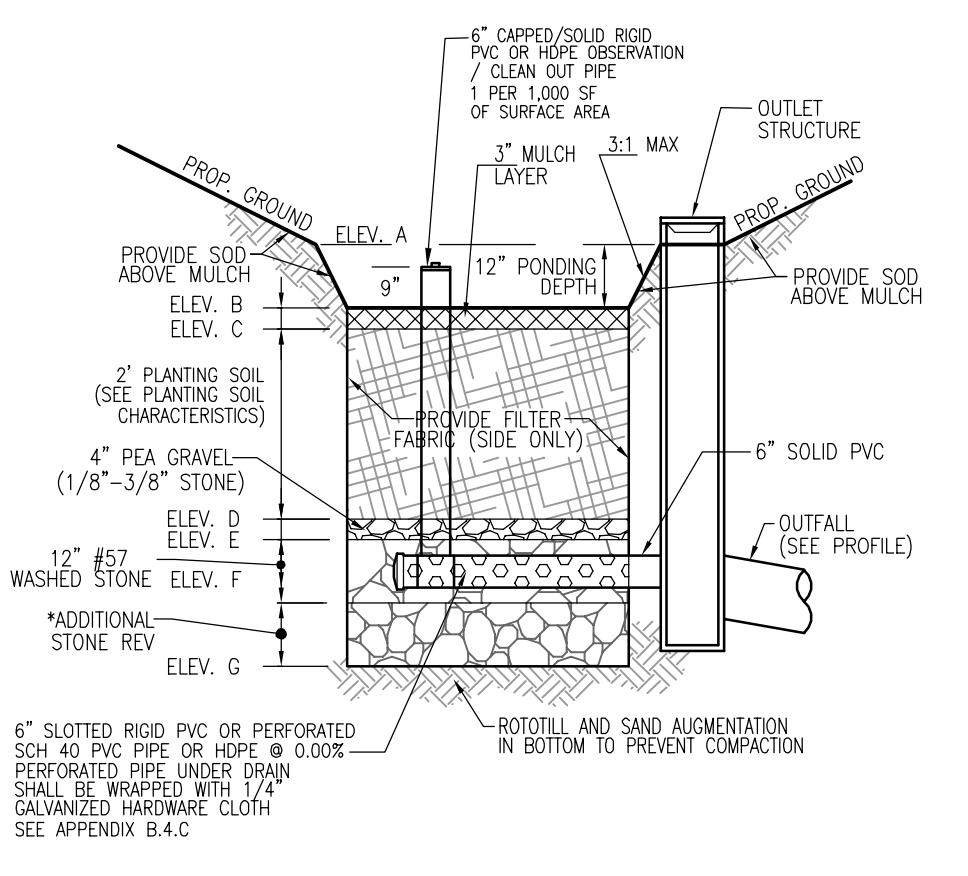


PERMEABLE SURFACE TYPICAL SECTION NOT TO SCALE

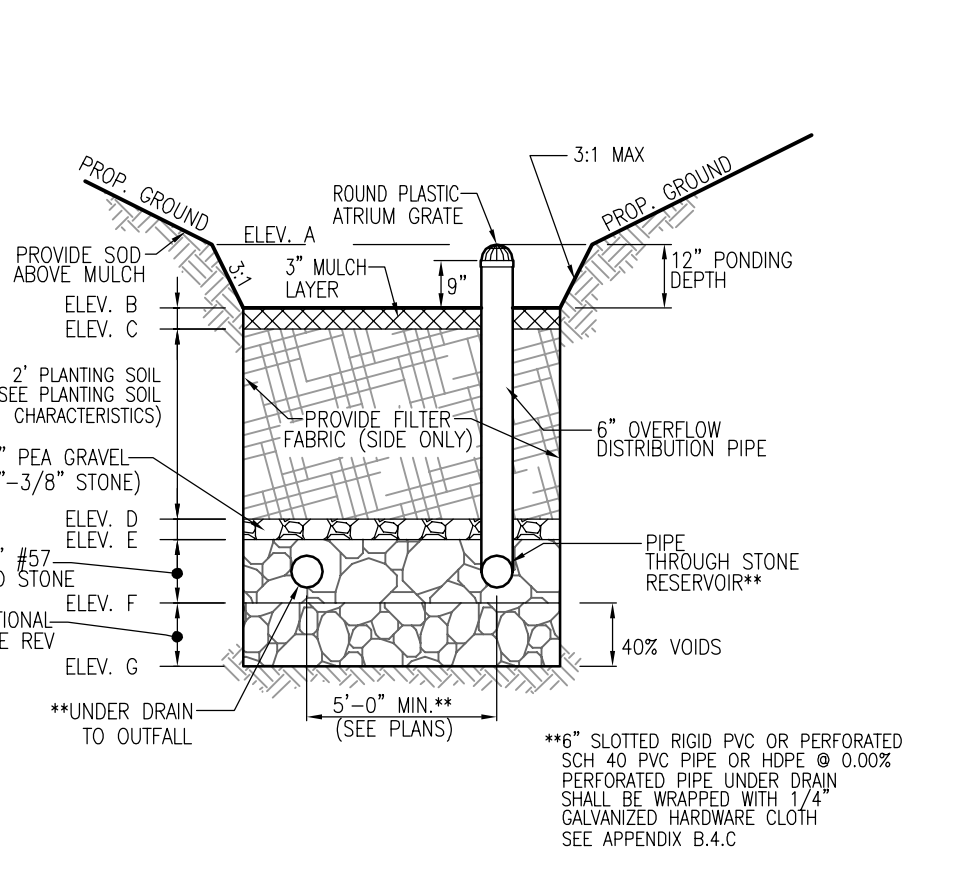


NOTE:
- DETAIL SHOWN FOR INFORMATION ONLY. DRIVEWAY DETAILING (TYPE, PLAN VIEW & PROFILE) WILL BE PART OF THE BUILDER'S FUTURE SITE DEVELOPMENT PLAN.

BIORETENTION / MICRO-BIORETENTION / RAINGARDEN FACILITY - DESIGN ELEVATION CHART
Table with columns: FACILITY, ESD WSEL, TOP MULCH, TOP PLANT SOIL, BOTTOM PLANT SOIL, BOTTOM PEA GRAVEL, INV PIPE (1), INV STONE, SURFACE AREA, DIM, OWNER, MAINTENANCE. Rows include MBR-1 through RB-2.



RAIN GARDEN (M-7), BIORETENTION (F-6) & MICRO-BIORETENTION (M-6) (UNDERDRAIN) NOT TO SCALE



RAIN GARDEN (M-7), BIORETENTION (F-6) MICRO-BIORETENTION (M-6) (OVERFLOW) NOT TO SCALE

NOTES:
1. ONLY THE SIDES OF THE BIORETENTION, MICROBIORETENTION OR RAIN GARDEN ARE TO BE WRAPPED IN FILTER FABRIC.
2. WRAP THE PERFORATED MBR UNDERDRAIN PIPE WITH 1/4\"/>

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY
DocuSigned by: Amy Granan 12/13/2022
PLANNING DIRECTOR DATE

OWNER: ROBERT LEE BOLTON, C/O WILLIAM A. BOLTON, 9111 RIVER HILL ROAD, LAUREL, MD 20723-1781, (410) 480-0023
DEVELOPER: TRINITY QUALITY HOMES, LLC, 3675 PARK AVE., SUITE 301, ELLICOTT CITY, MD 21043, (410) 480-0023

Table with columns: NO., REVISION, DATE

PRELIMINARY PLAN
PRELIMINARY STORMWATER MANAGEMENT NOTES AND DETAILS
BEECHWOOD MANOR
LOTS 1-31 AND OPEN SPACE LOTS 32-34
A SUBDIVISION OF TAX MAP 50 - PARCEL 1
L 1271 / F 186
TAX MAP: 50 GRID: 1
6TH ELECTION DISTRICT
9111 RIVER HILL ROAD
LAUREL, MD 20723
ZONED: R-3C
PERM: 001
ELLICOTT CITY, MD 21043
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TIMMONS GROUP
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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.
ROBERT H. VOGEL, PE No.16193
DESIGN BY: RHV
DRAWN BY: VTG
CHECKED BY: RHV
DATE: OCTOBER 2022
SCALE: AS SHOWN
W.O. NO.: 17-26
11 SHEET OF 11