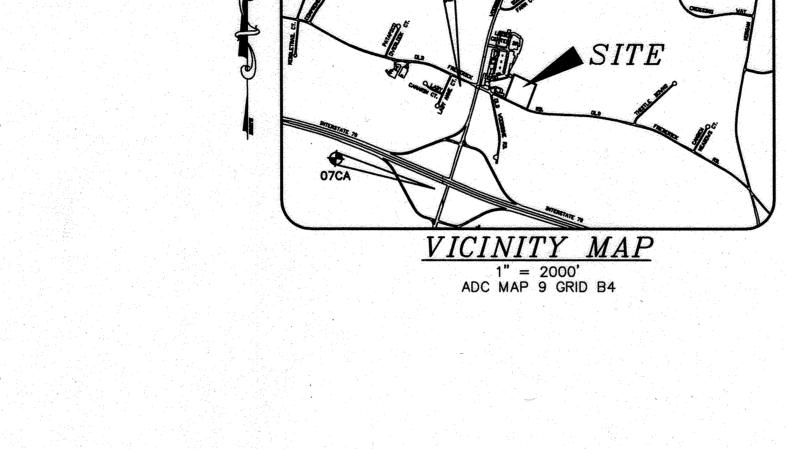
INDEX OF DRAWINGS

NO.	DESCRIPTION
1	COVER SHEET
2	DEMOLITION PLAN
3	LAYOUT AND STRIPING PLAN
4	GRADING AND SEDIMENT CONTROL PLAN
5	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
6	LANDSCAPE AND FOREST CONSERVATION PLAN
7	LANDSCAPE AND FOREST CONSERVATION NOTES AND DETAILS
8	STORM DRAIN DRAINAGE AREA MAP
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12	FREDERICK ROAD WIDENING CROSS SECTIONS AND DETAILS
13	ON-SITE SEWAGE DISPOSAL SYSTEM GENERAL NOTES AND DETAILS
14	ON-SITE SEWAGE DISPOSAL SYSTEM PLAN (DRIVE THRU)
15	ON-SITE SEWAGE DISPOSAL SYSTEM PLAN (OFFICE BUILDING #1)
16	ON-SITE SEWAGE DISPOSAL SYSTEM PLAN (OFFICE BUILDING #2)
	OFF-SITE FOREST CONSERVATION PLAN

- 37 THIS PLAN IS SUBJECT TO WP-19-127, SEEKING AN ALTERNATIVE COMPLIANCE TO SECTIONS 16.156(o)(2) WHICH STATES IF THE DEVELOPER DOES NOT APPLY FOR BUILDING PERMITS AS REQUIRED BY PARAGRAPH (1) OF THIS SUBSECTION, THE SITE DEVELOPMENT PLAN SHALL EXPIRE AND AN NEW SITE DEVELOPMENT PLAN SUBMISSION WILL BE REQUIRED. THIS ALTERNATIVE COMPLIANCE WAS APPROVED ON AUGUST 2, 2019, SUBJECT TO THE FOLLOWING CONDITIONS:
- A. THE PETITIONER MUST APPLY WITH THE DEPARTMENT OF LICENSED, INSPECTION AND PERMITS FOR PERMIT TO INITIATE CONSTRUCTION ON THE SUBJECT PROPERTY WITHIN 1 YEAR FROM THE APPROVAL OF THIS ALTERNATIVE COMPLIANCE PETITION (ON OR BEFORE AUGUST 2, 2020). THE PETITIONER SHALL APPLY FOR BUILDING PERMITS FOR ALL BUILDINGS SHOWN ON SDP-14-021 WITHIN 2 YEARS FROM THIS APPROVAL (ON OR BEFORE AUGUST 2, 2021).
- B. A REDLINE REVISION TO SDP-14-021 MUST BE SUBMITTED TO THIS DEPARTMENT TO ENSURE THAT ALL THE SITE DEVELOPMENT STANDARDS ARE CURRENT.
- COMPLIANCE WITH THE DEVELOPMENT ENGINEERING DIVISION COMMENTS DATED JULY 16. 2019.
- D. COMPLIANCE WITH THE HEALTH DEPARTMENT'S COMMENTS DATED JULY 19, 2019. FULFILLMENT OF ANY APPLICABLE AMENDMENTS TO THE DPW DEVELOPER AGREEMENT ASSOCIATED WITH THIS DEVELOPMENT UNDER SDP-14-021.
- F. INCLUDE THIS ALTERNATIVE COMPLIANCE PETITION DECISION AS A GENERAL NOTE ON THE SDP (AS PART OF THE REDLINE REVISION). THIS NOTE SHALL INCLUDE THE ALTERNATIVE COMPLIANCE PETITION FILE NUMBER, THE REGULATORY SECTION, THE DECISION DATE AND THE CONDITIONS OF APPROVAL.
- 38. A SHARED PARKING AGREEMENT BETWEEN LOTS 1-3 SHALL BE RECORDED WITH THE LAND RECORDS
- 39. ALL OUTSIDE LIGHTING SHALL COMPLY WITH SECTION 134 OF THE ZONING REGULATIONS WHICH REQUIRES LIGHTS TO BE INSTALLED TO DIRECT/REFLECT LIGHT DOWNWARDS AND INWARDS ON THE SITE AND AWAY FROM ALL PUBLIC STREETS AND RESIDENTIAL AREAS. LIGHT TRESPASS ONTO ADJOINING RESIDENTIAL PROPERTIES SHALL BE LIMITED AT 0.1 FOOT CANDLES.
- 40. THIS SITE DEVELOPMENT PLAN IS NOT SUBJECT TO COUNCIL BILL 62-2019 (FOREST CONSERVATION ACT) BECAUSE IT WAS ORIGINALLY SIGNED ON OCTOBER 30, 2015 WHICH IS PRIOR TO THE FEBRUARY 5, 2020
- 41. THE EXISTING WELL (TAG NO HO-95-2691) WAS FIELD LOCATED AND IT IS CORRECTLY SHOWN ON THE



MM

1-STORY BUILDING

(3,762 S.F.)

FRONT

FRONT ELEVATION

FINISHED

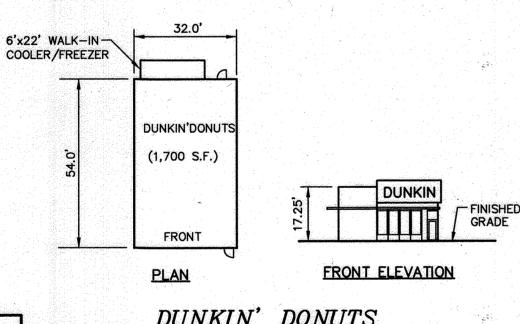
GRADE

SITE DEVELOPMENT PLAN

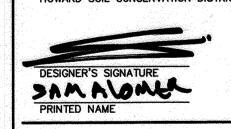
WILSON VILLAGE LOTS: 1-3

FOURTH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



ENGINEER'S CERTIFICATION I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.



MD REGISTRATION NO. (P.E.)

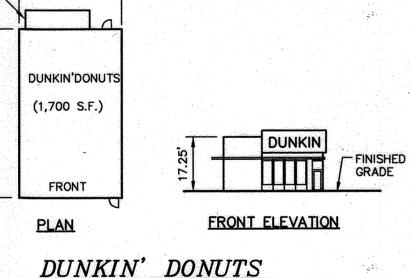
OWNER/DEVELOPER CERTIFICATION I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS. AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FO THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT.

CERTIES RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

HOWARD SCD SIGNATURE BLOCK

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

DEPARTMENT OF PLANNING AND ZONING CHIEF, DEVELOPMENT ENGINEERING DIVISION 099 CHIEF, DIVISION OF LAND DEVELOPMENT DATE



DUNKIN' DONUTS

7-27-23: THE PURPOSE OF THE REVISED SUBMISSION IS TO RERACE BUILDING I ON LOT & WITH A 3500 S.F. VET CLIDIC AND A 2000 S.F. OFFICE BUILDING. ALSO ELIMINATE, PARKING IN THE BACK OF BUILDING I, IT ALSO REDUCES THE SIZE OF BUILDING & ON LOT 3 TO 4,500 S.F.

Y CERTIFY THAT THESE DOCUMENTS WERE KRED OR APPROVED BY ME AND THAT I AM LICENSED PROFESSIONAL ENGINEER
THE LAWS OF THE STATE OF MARYLAND,

approved for Private water and Private Sewease Systems

<u>OWNER</u>

WOODBINE BRANTLY, LLC

8318 FOREST ST. SUITE 200 ELLICOTT CITY, MARYLAND 21043 (410)992-4600

Housed County Health Department

REVISION PURPOSE

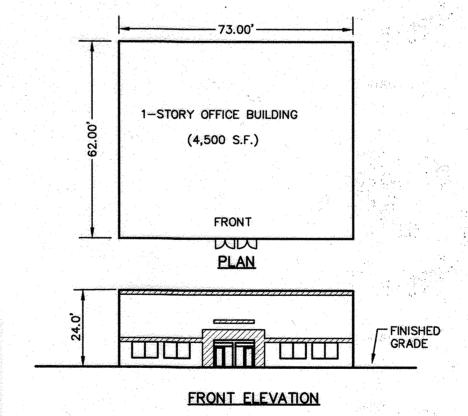
ETERINARY CLINIC

OFFICE BUILDING #1

FRONT ELEVATION

GRADE

(2,000 S.F.)



OFFICE BUILDING #2

CMODIUMAMED MANAGEMENT DDAGMICEG

STORMWATER	MANAGEMENT	PRACTICES
ADDRESS	DRY WELLS (M-5) NUMBER	MICRO-BIORETENTION (M-6) NUMBER
15870 OLD FREDERICK ROAD	0	2
15860 OLD FREDERICK ROAD	0	1
15850 OLD FREDERICK ROAD	0	1
15840 OLD FREDERICK ROAD	1	1

ADDRESS CHART

BUILDING #	ADDRESS
DUNKIN DONUT	15870 OLD FREDERICK ROAD
VETERINARY CLINIC	15860 OLD FREDERICK ROAD
OFFICE BUILDING #1	15850 OLD FREDERICK ROAD
OFFICE BUILDING #2	15840 OLD FREDERICK ROAD

GENERAL NOTES

- 1. THE SUBJECT PROPERTY IS ZONED B-2, PER THE COMPREHENSIVE ZONING PLAN, MAPS AND AMENDED REGULATIONS EFFECTIVE ON 10/06/13.
- . THIS SITE DEVELOPMENT PLAN IS FOR THREE (3) INDEPENDENT LOTS WITH THREE SEPARATE WELLS AND SEWAGE DISPOSAL SYSTEMS.

3. SITE ANALYSIS DATA:
LOCATION: TAX MAP: 7 GRID: 6 PARCEL: 478

ELECTION DISTRICT : FOURTH

LIMIT OF DISTURBED AREA: 4.73 AC.± (INCLUDING OFFSITE) PROPOSED USE FOR SITE: 2 OFFICE BUILDINGS, FAST-FOOD RESTAURANT, VETERINARY CLINIC BUILDING COVERAGE: 11,700 S.F. (4.56% OF SITE) GROSS FLOOR AREA: 11,700 S.F.

REQUIRED PARKING: (OFFICE)-3.3 SPACES/1,000 S.F. (6,500x3.3=22) (VETERINARY CLINIC)-4 SPACES/1000 S.F. (3,500x4=14) (DUNKIN' DONUTS)-14 SPACES/1,000 S.F. (1,700x14=24)

PROVIDED PARKING: 81 SPACES DEED REFERENCE: 08084 / 00137 PREVIOUS DPZ FILES: F-78-03, SDP-92-77, ECP-13-050, SDP-14-021, F-20-028, WP-19-127

- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH 2-FOOT CONTOUR INTERVALS PREPARED BY FISHER, COLLINS & CARTER, INC. DATED SEPTEMBER, 2005. OFFSITE TOPOGRAPHY BASED ON HOWARD COUNTY GIS. EXISTING TOPOGRAPHY AND SITE FEATURES WERE FIELD VERIFIED BY MILDENBERG, BOENDER & ASSOC., INC. ON OR ABOUT JANUARY, 2013.
- THE BOUNDARY SHOWN IS TAKEN FROM FIELD RUN SURVEY WITH 2-FOOT CONTOUR INTERVALS PREPARED BY FISHER, COLLINS & CARTER, INC. DATED SEPTEMBER, 2005 AND CONFIRMED BY MILDENBERG, BOENDER
- 6. 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 NO: 07CA & 0031 WERE USED FOR THIS PROJECT. STA. No. 07CA N 610,731.3284 E 1,292,224.3055 EL. 619.312
- 7. EXISTING UTILITIES ARE TAKEN FROM FIELD RUN SURVEY PREPARED BY FISHER, COLLINS & CARTER, INC. DATED SEPTEMBER, 2005.
- 8. WATER IS PRIVATE.
- 9. SEWER IS PRIVATE. 10 THERE ARE NO STEEP SLOPES OR FLOODPLAINS ON THIS SITE.
- 11. THERE ARE NO STREAMS, WETLANDS, OR THEIR ASSOCIATED BUFFERS ON THIS SITE.

STA. No. 0031 N 612,408.1774 E 1,292800.7066 EL. 632.207

- 12. BASED ON AVAILABLE COUNTY DATA, NO HISTORIC STRUCTURES OR BURIAL GROUNDS EXIST ON SITE.
- 13. THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT.
- 13. FOREST STAND DELINEATION WAS PREPARED BY ECO-SCIENCE, INC. IN FEBRUARY, 2013, FOLLOWED BY FIELD REVIEW ON ,ARCH 2018 TO ASSESS THE ENVIRONMENTAL CONDITIONS ON THE SITE. SEE SHEET 6 FOR ADDITIONAL FOREST CONSERVATION DETAILS.
- 15. THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP, INC. DATED JANUARY, 2013 AND WAS APPROVED ON JUNE 24, 2014.
- 16. THE EXISTING STRUCTURE AND EXISTING PAVEMENT ONSITE SHALL BE REMOVED. THE EXISTING TRAILER AND PARKING LOT WERE CONSTRUCTED UNDER SDP-92-77.
- STORMWATER MANAGEMENT REQUIREMENTS WILL BE SATISFIED VIA MICRO-BIORETENTION (M-6) AND MODIFIED DRY WELL, STORMTECH 740 SYSTEM. ALL FACILITIES WILL BE PRIVATELY OWNED AND
- 18. THE FOREST CONSERVATION OBLIGATIONS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION HAS BEEN FULFILLED BY PROVIDING AFFORESTATION OF 0.65 ACRES AND BY PLACEMENT OF OF 0.83 ACRES OF REQUIRED OBLIGATION INTO AN OFF-SITE EASEMENT ON PROPERTY IDENTIFIED AS THE ROSEBAR PROPERTY, PRESERVATION PARCEL "A", LOCATED ON TAX MAP NO. 14 AND IDENTIFIED AS PARCEL 221, SITUATED ON THE WEST SIDE OF HOBBS ROAD. THE ROSEBAR FOREST CONSERVATION EASEMENT HAS BEEN SHOWN ON SHEET 18 OF SDP-97-115, NEW COLONY VILLAGE. FINANCIAL SURETY FOR THE ON-SITE AFFORESTATION IN THE AMOUNT OF \$14,157.00 WILL BE POSTED AS PART OF DEVELOPERS AGREEMENT. SURETY FOR THE OFF-SITE FOREST CONSERVATION EASEMENT ON ROSEBAR PROPERTY HAS BEEN PREVIOUSLY POSTED BY THE OWNER OF THE EASEMENT. A PLAT OF FOREST CONSERVATION FOR THE 0.65 AC OF AFFORESTATION WAS RECORED UNDER FINAL PLAN F-20-028.
- 19. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, OR PLACEMENT OF NEW PAVING OR STRUCTURES IS PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM(S), OR THEIR BUFFERS, AND FOREST CONSERVATION EASEMENT AREAS.
- 20. FINANCIAL SURETY FOR THE REQUIRED PERIMETER AND PARKING LOT LANDSCAPING IN THE AMOUNT OF \$19,710 FOR 40 SHADE TREES, 26 EVERGREEN TREES AND 127 SHRUBS SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS SITE DEVELOPMENT PLAN.
- 21. THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS (COUNCIL BILL 45—2003). DEVELOPMENT OR CONSTRUCTION OF THIS SITE MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION OR BUILDING/GRADING PERMIT.
- 22. IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS. PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE
- THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK. 23. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST 48 HOURS PRIOR
 - TO EXCAVATION WORK BEING DONE.

SS UTILITY	800-257-7777
RIZON TELEPHONE COMPANY	(410) 725-9976
WARD COUNTY BUREAU OF UTILITIES	(410) 313-4900
&T CABLE LOCATION DIVISION	(410) 393-3533
LTIMORE GAS AND ELECTRIC	(410) 685-0123
ATE HIGHWAY ADMINISTRATION	(410) 531-5533

- 24. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410)313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- 25 ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- 26. ANY DAMAGE TO THE COUNTY RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- 27. THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING PLANT MATERIALS, BERMS, FENCES AND WALLS, ALL PLANT MATERIALS SHALI 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.
- 28. HOWARD COUNTY STANDARD R-3.03 TO BE USED TO CONSTRUCT BARRIER CURB
- 29. A KNOX BOX (FIRE DEPARTMENT ACCESS BOX) IS REQUIRED TO BE PLACED ON THE FRONT OF THE BUILDING(S). IT SHALL BE PLACED TO THE RIGHT OF THE MAIN ENTRANCE AT A RANGE OF 4-5' IN HEIGHT AND NO MORE THAN 6' LATERALLY FROM THE DOOR. THE BOX SHALL BE ELECTRONICALLY SUPERVISED TO NOTIFY THE OWNER THAT IT IS BEING ACCESSED (INTEGRATED WITH THE FIRE ALARM SYSTEM). NFPA-1 10.12.1
- 30. MAXIMUM BUILDING HEIGHT IN THE B-2 ZONING DISTRICT IS 40 FEET PER THE COMPREHENSIVE ZONING PLAN, EFFECTIVE 10/6/2013. NO BUILDING WITHIN THIS DEVELOPMENT WILL EXCEED 24 FEET IN HEIGHT.
- 31. PRE-SUBMISSION COMMUNITY MEETING WAS HELD ON DECEMBER 5, 2013 AT GLENWOOD LIBRARY AT
- 32. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- 33. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- 34. THE WELLS MUST BE DRILLED BEFORE THE PLAT RECORDATION (F-20-028)
- 35. THE BAT SYSTEMS HAVE BEEN INDIVIDUALLY ENGINEERED FOR THE SITE AND HAS BEEN APPROVED BY THE HOWARD COUNTY HEALTH DEPARTMENT AND THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE).
- 36. THE BAT SYSTEMS ARE COVERED BY A SERVICE CONTRACT THAT THE PROPERTY OWNERS MAINTAIN WITH A CERTIFIED SERVICE PROVIDER. THE OWNER SHALL ENSURE THAT THE BAT SYSTEM IS INSPECTED AND HAS NECESSARY OPERATION AND MAINTENANCE PERFORMED AT A MINIMUM OF ONCE PER QUARTER. A CERTIFIED SERVICE PROVIDER SHALL REPORT ON INSPECTION, OPERATION AND MAINTENANCE ACTIVITIES TO MDE, OR MDE'S DESIGNEE, IN A MANNER ACCEPTABLE TO MDE ON A YEARLY BASIS PRIOR TO THE YEARLY ANNIVERSARY OF THE DATE OF INSTALLATION. THE CERTIFIED SERVICE PROVIDER SHALL HAVE A CERTIFICATE OF QUALIFICATION FROM THE MANUFACTURER OF THE BAT SYSTEM BEING SERVICED.

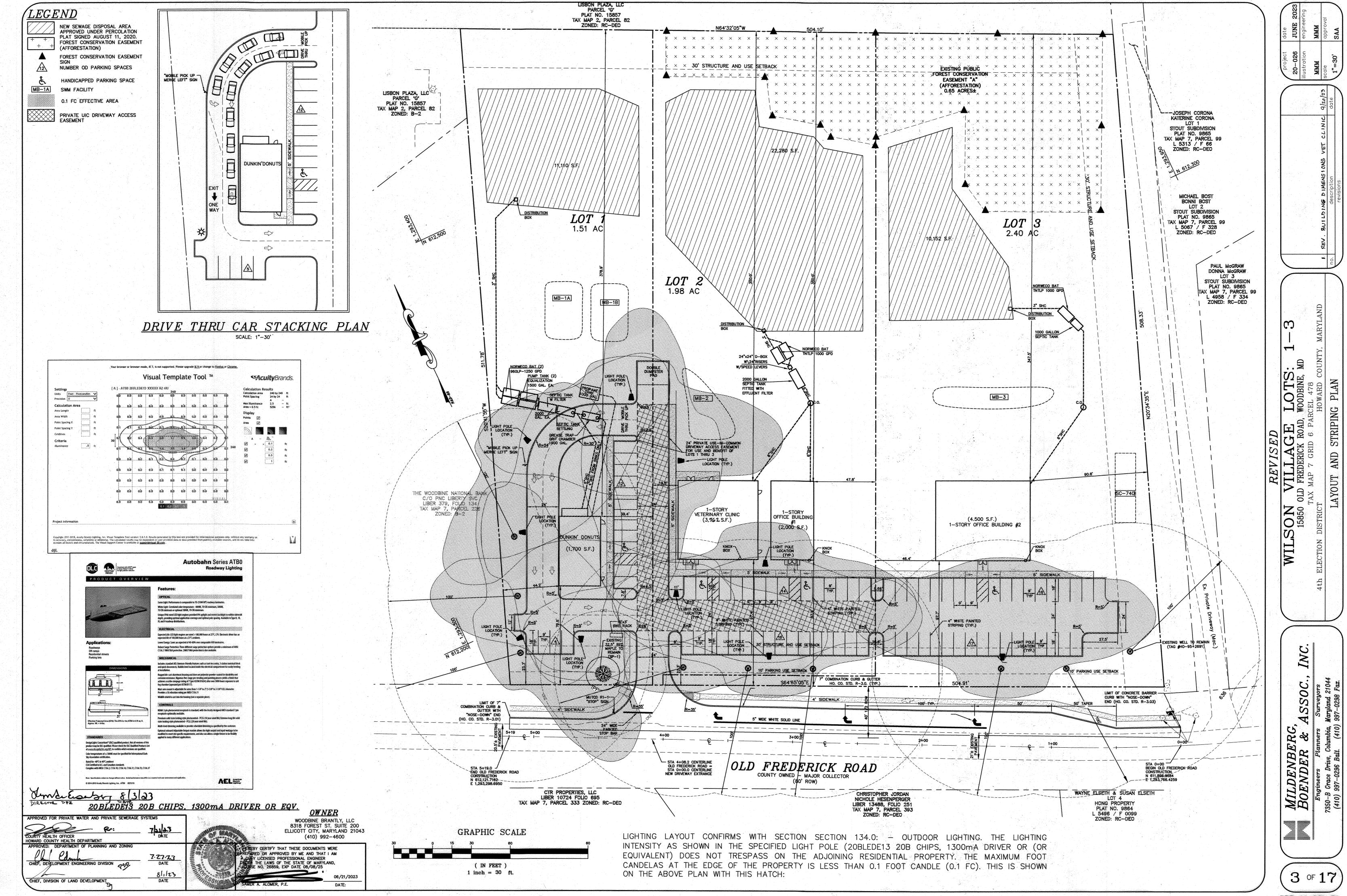
	PERI	AIT II	VFORMAT	ION BLOCK	
SUBDIVISION I SOBRINA 99,	NAME: INC. PROPERT	Y	SECTION/AREA: N/A	PARCI	EL: 478
PLAT NO. 25895-96	BLOCK(S) 6	ZONING B-2	TAX MAP NO.	ELECTION DISTRICT 4TH	CENSUS TRACT 6040.01

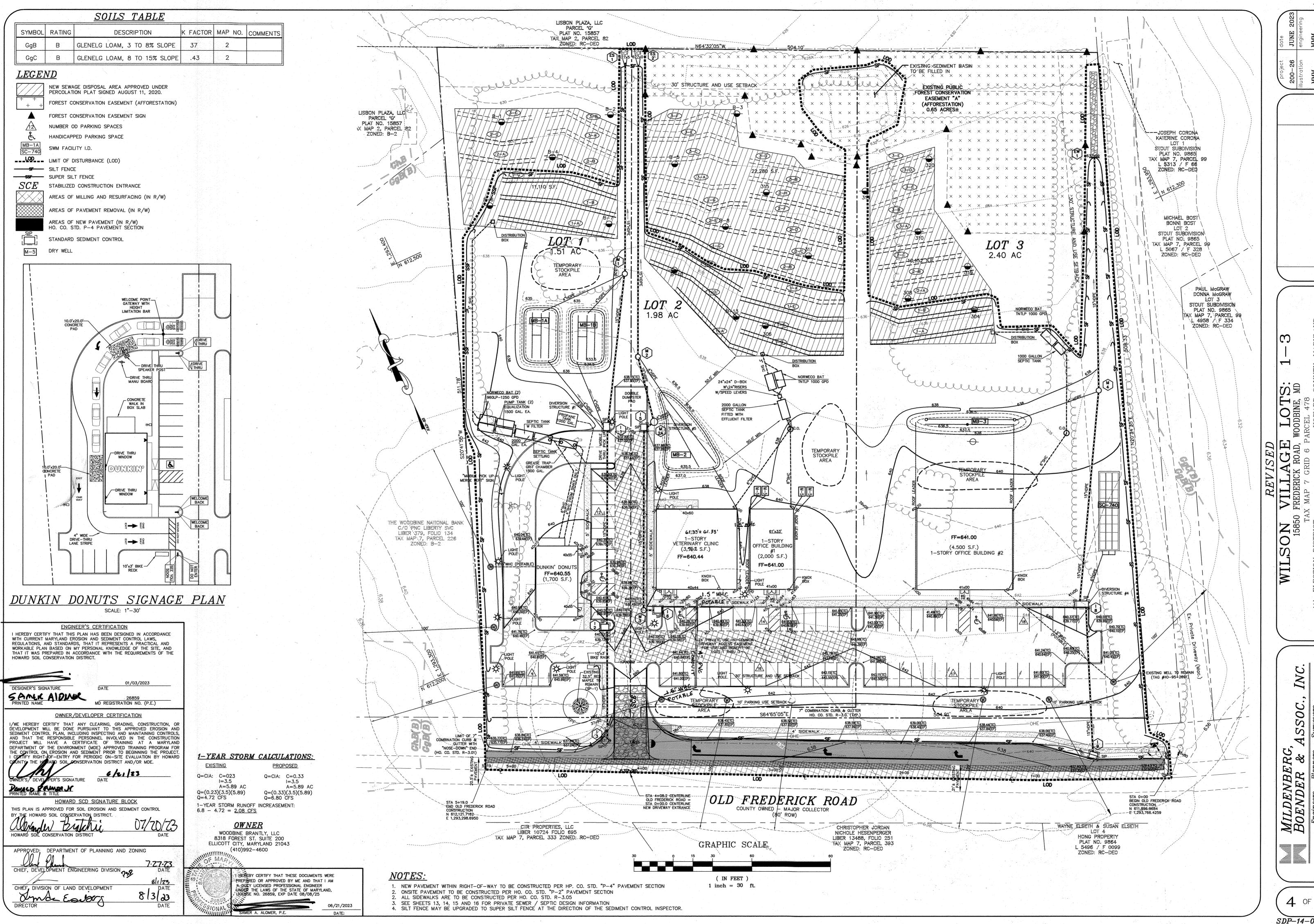
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4 of 17 SDP-14-021-R1 UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS. BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING

PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES.

OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THE

- 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS
- 3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF AL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING.
- 4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-1) SPECIFICATIONS SHALL BE ENFORCED IN AREAS WITH >15' OF CUT AND/OR FILL. STOCKPILES (SEC. B-4-8) IN EXCESS OF 20 FT. MUST BE BENCHED WITH STABLE OUTLET. ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC. B-4-6).
- 5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE, AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE

6. SITE ANALYSIS: TOTAL AREA OF SITE: AREA DISTURBED: BE ROOFED OR PAVED: BE VEGETATIVE STABILIZED: ___3.38___

OFFSITE WASTE/BORROW AREA LOCATION:

7. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE CID. THE SITE AND ALL CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR WEEKLY: AND THE NEXT DAY AFTER EACH RAIN EVENT. A WRITTEN REPORT BY THE CONTRACTOR, MADE AVAILABLE UPON REQUEST, IS PART OF EVERY INSPECTION AND SHOULD INCLUDE:

-INSPECTION TYPE (ROUTINE, PRE-STORM EVENT, DURING RAIN EVENT)
-NAME AND TITLE OF INSPECTOR -WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF LAST RECORDED PRECIPITATION) -BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G., PERCENT COMPLETE) AND/OR CURRENT ACTIVITIES -EVIDENCE OF SEDIMENT DISCHARGES

-IDENTIFICATION OF PLAN DEFICIENCIES -IDENTIFICATION OF SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE
-IDENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT CONTROLS
-COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS

-MONITORING/SAMPLING -MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED
-OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES, MDE).

9. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THA WHICH CAN AND SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY,

10. ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE HSCD PRIOR TO PROCEEDING WITH CONSTRUCTION. MINOR REVISIONS MAY ALLOWED BY THE CID PER THE LIST OF HSCD—APPROVED FIELD CHANGES. 11. DISTURBANCE SHALL NOT OCCUR OUTSIDE THE L.O.D. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN

STABILIZED AND APPROVED BY THE CID. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE

12. WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE. 13. TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL

HSCD, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

GRADE 14. ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE IMBERICATED AT 25' MINIMUM INTERVALS. WITH LOWER ENDS CURLED UPHILL BY 2' IN

15. STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUSIVE): USE I AND IP MARCH 1 - JUNE 15 USE III AND IIIP OCTOBER 1 - APRIL 30

16. A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL 'EROSION AND SEDIMENT CONTROL AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE SITE IS ACTIVE.

STANDARD STABILIZATION NOTE:

USE IV MARCH 1 - MAY 31

FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE

A. THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1), AND B. SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

ENGINEER'S CERTIFICATION HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. SAMAIOMER

26859 MD REGISTRATION NO. (P.E.) OWNER/DEVELOPER CERTIFICATION

I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAN DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT CERTIFIC RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

OWNER'S / DEVELOPER'S SIGNATURE PRINTED NAME & TITLE

HOWARD SCD SIGNATURE BLOCK THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT APPROVED: DEPARTMENT OF PLANNING AND ZONING CHIEF, DEVELOPMENT ENGINEERING DIVISION PSP

, DIVISION OF LAND DEVELOPMENT Junda Estor

(B-4-2) STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

DEFINITION THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. CONDITIONS WHERE PRACTICE APPLIES

WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

A. SOIL PREPARATION

1. TEMPORARY STABILIZATION SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION, SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.

APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.

INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER

2. PERMANENT STABILIZATION

 a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL
CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:

 I. SOIL PH BETWEEN 6.0 AND 7.0.

 SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM). III. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN

EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE. IV. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.

V. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.

APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON—SITE SOILS DO NOT MEET THE ABOVE

GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
RAKE LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND
READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR

OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE, LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRIABLE. SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS. B. TOPSOILING

TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE

TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE: THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE

THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.

THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.

THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN

TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA: TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED B HE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRACMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 11/2 INCHES IN DIAMETER. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL

TOPSOIL APPLICATION TOPSOIL APPLICATION

EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.

UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM
THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR
SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER CRADING AND SEEDING DEPREATION. GRADING AND SEEDBED PREPARATION.

SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR

C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)

FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED VARRANTY OF THE PRODUCER.

LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.

WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

(B-4-8) STANDARDS AND SPECIFICATION FOR STOCKPILE AREA A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES. PURPOSE
TO PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT CONTROLS THE POTENTIAL FOR EROSION, SEDIMENTATION ,AND CHANGES TO DRAINAGE PATTERNS.

CONDITIONS WHERE PRACTICE APPLIES STOCKPILE AREAS ARE UTILIZED WHEN IT IS NECESSARY TO SALVAGE AND STORE SOIL FOR LATER USE.

1. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN. 2. THE FOOTPRINT OF STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATED VOLUME OF MATERIAL AND BASED ON A SIDE SLOPE RATIO NO STEEPER THAN 2:1. BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.

3. RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE. 4. ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE. CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVISE SUCH AS AN EARTH DIKE, TEMPORARY SWALE OR DIVERSION FENCE. PROVISIONS MUST BE MADE FOR DISCHARGING CONCENTRATED FLOW IN A NON-EROSIVE MANNER.

6. WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE.

STOCKPILE MUST BE STABILIZED IN ACCORDANCE WITH THE 3/7 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION. 8. IF THE STOCKPILE IS LOCATED ON AN IMPERVIOUS SURFACE, A LINER SHOULD BE PROVIDED BELOW THE STOCKPILE TO FACILITATE CLEANUP. STOCKPILES CONTAINING CONTAMINATED MATERIAL MUST COVERED WITH IMPERMEABLE MAINTENANCE

THE STOCKPILE AREA MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. SIDE SLOPES MUST BE MAINTAINED AT NO STEEPER THAN 2:1 RATIO. THE STOCKPILE AREA MUST BE KEPT FREE OF EROSION. IF THE VERTICAL HEIGHT OF A STOCKPILE EXCEEDS 20 FEET FOR 2:1 SLOPES, 30 FEET FOR 3:1 SLOPES, OR 40 FEET FOR 4:1 SLOPES, BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.

ALL SEDIMENT CONTROL OPERATIONS ARE TO BE DONE IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY VOLUME IV DESIGN MANUAL AND THE STANDARDS AND SPECIFICATIONS FOR SEDIMENT CONTROL IN DEVELOPING AREAS.

2. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AS THE FIRST ORDER OF BUSINESS. 3. ALL EXCAVATED MATERIALS SHALL BE STOCKPILED ON THE UPGRADE SIDE OF THE MAIN TRENCH. 4. EXCAVATION AND BACKFILL SHALL BE LIMITED TO THAT WHICH CAN BE STABILIZED WITHIN 1 WORKING DAY. 5. IMMEDIATELY FOLLOWING BACKFILL OF THE SEWER TRENCH, ALL DISTURBED AREAS ARE TO BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION AND SEEDING NOTES SHOWN ON THIS SHEET. 6. THROUGHOUT THE PROJECT, THE CONTRACTOR SHALL REGULARLY INSPECT ALL SEDIMENT CONTROL DEVICES

AND PROVIDE ALL NECESSARY MAINTENANCE TO INSURE THAT ALL DEVICES ARE IN OPERATIVE CONDITION.

(B-4-3) STANDARDS AND SPECIFICATIONS DEFINITION FOR SEEDING AND MULCHING THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER. PURPOSE
TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.

CONDITIONS WHERE PRACTICE APPLIES TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING. CRITERIA A. SEEDING

1. SPECIFICATIONS a. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE—TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO

VERIFY TYPE OF SEED AND SEEDING RATE. DE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING, NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT SOR DE LATER THAN THE DATE INDICATED ON SOLUTIONS.

d. SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.

a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.

I. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR SITE—SPECIFIC SEEDING SUMMARIES.

II. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL

b. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.

 CULTIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING. II. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN

c. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER). I. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P O (PHOSPHOROUS), 200 POUNDS PER ACRE; K20 (POTASSIUM), 200 POUNDS PER ACRE. II. LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE

III. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION IV. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.

2. APPLICATION

MULCH MATERIALS (IN ORDER OF PREFERENCE)
 STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN

MUSIT, MOLDY, CARED, DECATED, OR EXCESSIVELY DUSIT. NOTE: USE ONLY STERILE STRAW MULCH I AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.

b. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.

I. WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.

II. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS. III. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOO CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND W BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS. IV. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL

V. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.

a. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.
WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER
ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS

3. ANCHORING a. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD:

1. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND IS PRACTICE SHOULD FOLLOW THE CONTOUR.

II. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY

WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.

III. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSET, TERRA TAX II, TERRA TACK AR OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.

IV. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000

(B-4-4) STANDARDS AND SPECIFICATIONS FOR *TEMPORARY STABILIZATION* **DEFINITION**TO STABILIZE DISTURBED SOIL WITH VEGETATION FOR UP TO 6 MONTHS

OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.

PURPOSE
TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURB SOIL. CONDITIONS WHERE PRACTICE APPLIES
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER
DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE

PLANT HARDINESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B-1 PLUS FORTELIZER AND LIME RATES MUST BE PUT ON THE 2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.

3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.A.1b, AND MAINTAIN UNTIL THE NEXT SEEDING SEASON OPERATION & MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)

A. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN

MANUAL VOLUME II, TABLE A.4.1 AND 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.
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.

THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

(B-4-5) STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION TO STABILIZE DISTURBED SOIL WITH PERMANENT VEGETATION.

TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER OF DISTURBED CONDITIONS WHERE PRACTICE APPLIES EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE. CRITERIA A. SEED MIXTURES

1. GENERAL US A. SELECT ONE OR MORE OF THE SPIECES OF MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND BASED IN THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING

B. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DINES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD GUIDE, SECTION 342-CRITICAL AREA PLANTING. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW RATES RECOMMENDED BY THE SOIL

FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FROM FERTILIZED (40-0-01) AT 3 1 POUNDS PER 1000 S.F. (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.

2. TURFGRASS MIXTURES
A. AREAS WHERE TURFGRASS MAY BE DESIRE INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE. B. SELECT ONE OR MORE OF THE SPECIES OF MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OF PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT

I. KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS SEEDING REATE: 1.5 TO 2.0 POUNDS PER 1000 S.F. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE II. KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFIED PERENNIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 S.F. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.

III. TALL FESCUE/KENTUCKY BLUEGRASS: FULL MIXTURE: FOR USE IN DROUGHT AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES; CERTIFIED TALL FESCUE CULTIVARS 65 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT. SEEDING RATE: 5 TO 8 PERCENT PER 1000 S.F. ONE OR MORE CULTIVARS

IV.KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS, FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES; CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIES FINE FESCUE AND 60 TO 70 PERCENT. SEEDING RATES 1 1/2 TO 3 POUNDS PER1000 S.F. C. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURE

WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 5B,6A) CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 6B) SOUTHERN MD. EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 7A,7B) TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONE AND DEBRIS OVER 1.5 INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASS WILL POSE NO DIFFICULTY.

E. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH 0.5 TO 1 INCH EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASON, OR ON ADVERSE SITES.

SEQUENCE OF CONSTRUCTION

REQUEST PRE-CONSTRUCTION MEETING IF NECESSARY AND OBTAIN GRADING PERMIT. (1DAY). CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AT LOCATION SHOWN (1 DAY) INSTALL SUPER SILT FENCE AND SILT FENCE (1 DAY). CLEAR AND GRUB SITE (3 DAYS).

GRADE SITE PER PLAN , FILL IN EXISTING SEDIMENT BASIN (10 DAYS)
CONSTRUCT STORM DRAIN SYSTEM; INSTALL INLET PROTECTION TYPE B ON ALL INLETS AND BLOCK 4" HDPE PIPES IN INLETS: 1-1, 1-8 AND MANHOLE M-2A (10 DAYS) CONSTRUCT DRIVEWAYS AND PARKING LOTS (15 DAYS) CONSTRUCT BUILDINGS.

CONSTRUCT SEWER HOUSE CONNECTIONS AND SEPTIC SYSTEM UPON COMPLETION OF EACH BUILDING (10 DAYS) STABILIZE ALL DISTURBED AREAS (1 DAY) CONSTRUCT STORMWATER MANAGEMENT FACILITIES UPON COMPLETION AND STABILIZATION OF

DRAINAGE AREAS FOR EACH FACILITY (6 DAYS)

12. CONSTRUCT WIDENING OF OLD FREDERICK ROAD; DO NOT REMOVE INLET PROTECTION UNTIL ALL CONSTRUCTION AND STABILIZATION IS COMPETED (15 DAY). 13. SEED AND MULCH ALL REMAINING DISTURBED AREAS. (3 DAYS).

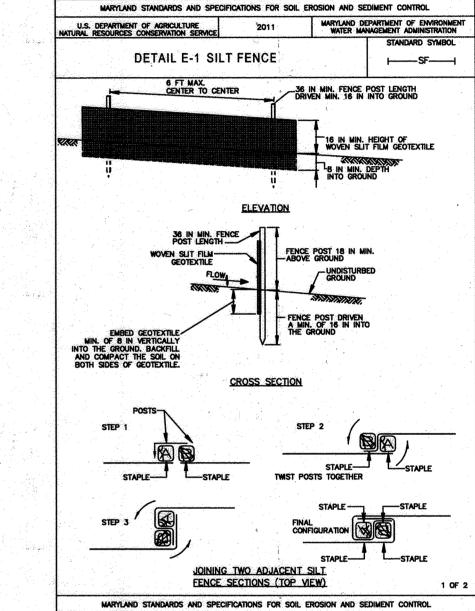
14. REMOVE INLET PROTECTION AND UNBLOCK 4" HDPE PIPES IN INLETS I-1, I-8 AND MANHOLE M-2A (2 DAYS). 15. WHEN ALL CONTRIBUTING DRAINAGE AREAS TO SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED, AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE

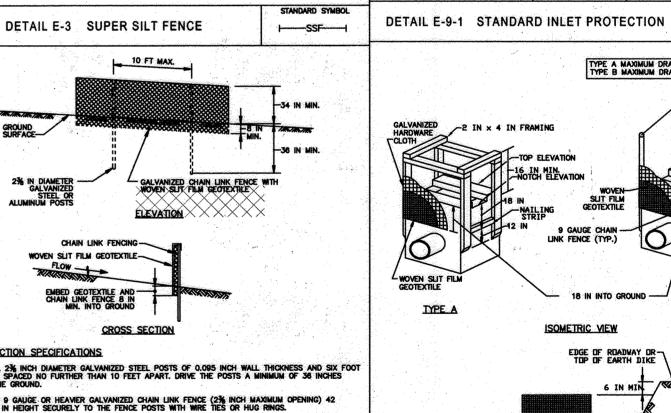
SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING DISTURBED AREAS (1 DAY).

DETAIL B-1 STABILIZED CONSTRUCTION SCE. **ENTRANCE** -PIPE (SEE NOTE 6) PROFILE 50 FT MIN. PLAN VIEW

PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE, USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET, FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS. 2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE, PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE, PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN, WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY, A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.

PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS





CHAIN LINK FENCING-

WOVEN SLIT FILM GEOTEXTILE-

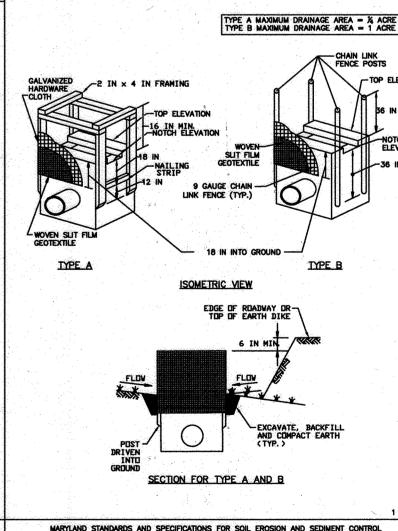
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CONSTRUCTION SPECIFICATIONS

EMBED GEOTEXTILE AND --CHAIN LINK FENCE 8 IN MIN. INTO GROUND

PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THA GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION 2011



U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE DETAIL E-9-1 STANDARD INLET PROTECTION CONSTRUCTION SPECIFICATIONS 1. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS. 2. EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH

3. FOR TYPE A, USE NOMINAL 2 INCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVEN FOOT INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETVEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2X4 FRAME AS SHOWN. STRETCH & INCH GALVANIZED HARDWARE CLOTH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. FASTEN GEOTEXTILE SECURELY TO THE HARDWARE CLOTH WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND HARDWARE CLOTH A MINIMUM OF 18 INCHES BELOW THE VEIR CREST. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED, THEN FASTENED TO THE POST. FOR TYPE B, USE 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND 6 FOOT LENGTH, DRIVEN A MINIMUM OF 36 INCHES BELOW THE WEIR CREST AT EACH CORNER OF THE STRUCTURE. FASTEN 9 GAUGE OR HEAVIER CHAIN LINK FENCE, 42 INCHES IN HEIGHT, SECURELY TO THE FENCE POSTS WITH WIRE TIES. FASTEN GEOTEXTILE SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 18 INCHES BELOW THE VEIR CREST.

STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGIN IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL 2011

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5 of 17

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OWNER

WOODBINE BRANTLY, LLC 8318 FOREST ST. SUITE 200 LLICOTT CITY, MARYLAND 21043 (410)992-4600

LB/AC LB/ (INCHES) PLANT SPECIES 5B AND 6A COOL SEASON GRASSES ANNUAL RYEGRASS 40 1.0 LOLIUM PERENNE SSP. MULTIFLORUM AUG 1 TO SEP 30 | AUG 1 TO OCT 15 | AUG 15 TO NOV 30 MAR 15 TO MAY 31; MAR 1 TO MAY 15; (HORDEUM VULGARE AUG 1 TO SEP 30 | AUG 1 TO OCT 15 | AUG 15 TO NOV 3 MAR 15 TO MAY 31: | MAR 1 TO MAY 15; | FEB.15 TO APR 30: 72 17 (AVENA SATIVA) AUG 1 TO SEP 30 AUG 1 TO OCT 15 AUG 15 TO NOV 30 MAR 15 TO MAY 31; MAR 1 TO MAY 15; FEB.15 TO APR 30: 120 2.8 (TRITICUM AESTIVUM AUG 1 TO SEP 30 | AUG 1 TO OCT 15 | AUG 15 TO NOV 3 MAR 15 TO MAY 31; MAR 1 TO MAY 15; FEB.15 TO APR 30; AUG 1 TO OCT 31 AUG 1 TO OCT 15 AUG 15 TO DEC 15 CEREAL RYE (SECALE ITALICA) WARM SEASON GRASSES FOXTAIL MILLET 30 0.7 0.5 JUN 1 TO JUL 31 | MAY 16 TO JUL 31 | MAY 1 TO AUG 14 (SETARIA ITALICA) 20 | 0.5 | JUN 1 TO JUL 31 | MAY 16 TO JUL 31 | MAY 1 TO AUG 14

TEMPORARY SEEDING FOR SITE STABILIZATION

RECOMMENDED SEEDING DATED BY PLANT HARDINESS ZONE

7. ALL SEDIMENT CONTROL FACILITIES SHALL REMAIN IN PLACE UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. PERMANENT SEEDING SUMMARY HARDINESS ZONE (FROM FIGURE B.3): 60 FERTILIZER RATE SEED MIXTURE (FROM TABLE B.3): 8 (10-20-20)LIME RATE SEEDING DATES APPLICATION SEEDING DEPTHS K₂O SPECIES RATE (LB/AC) 90 LBS. PER ACRE 90 LBS. PER ACRE 45 LBS. PER ACRE 2 TONS / ACRE (90 LBS / 1000 TALL FESCUE - 100 AUG 15-SEP 30 (1 LB./1000 SF) (2 LB./1000 SF) (2 LB./1000 SF) MIXTURES 1, 4-7, 9, AND 10 FROM TABLE B.3 OF THE 2011 MARYLAND STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMEN CONTROL MAY BE USED.

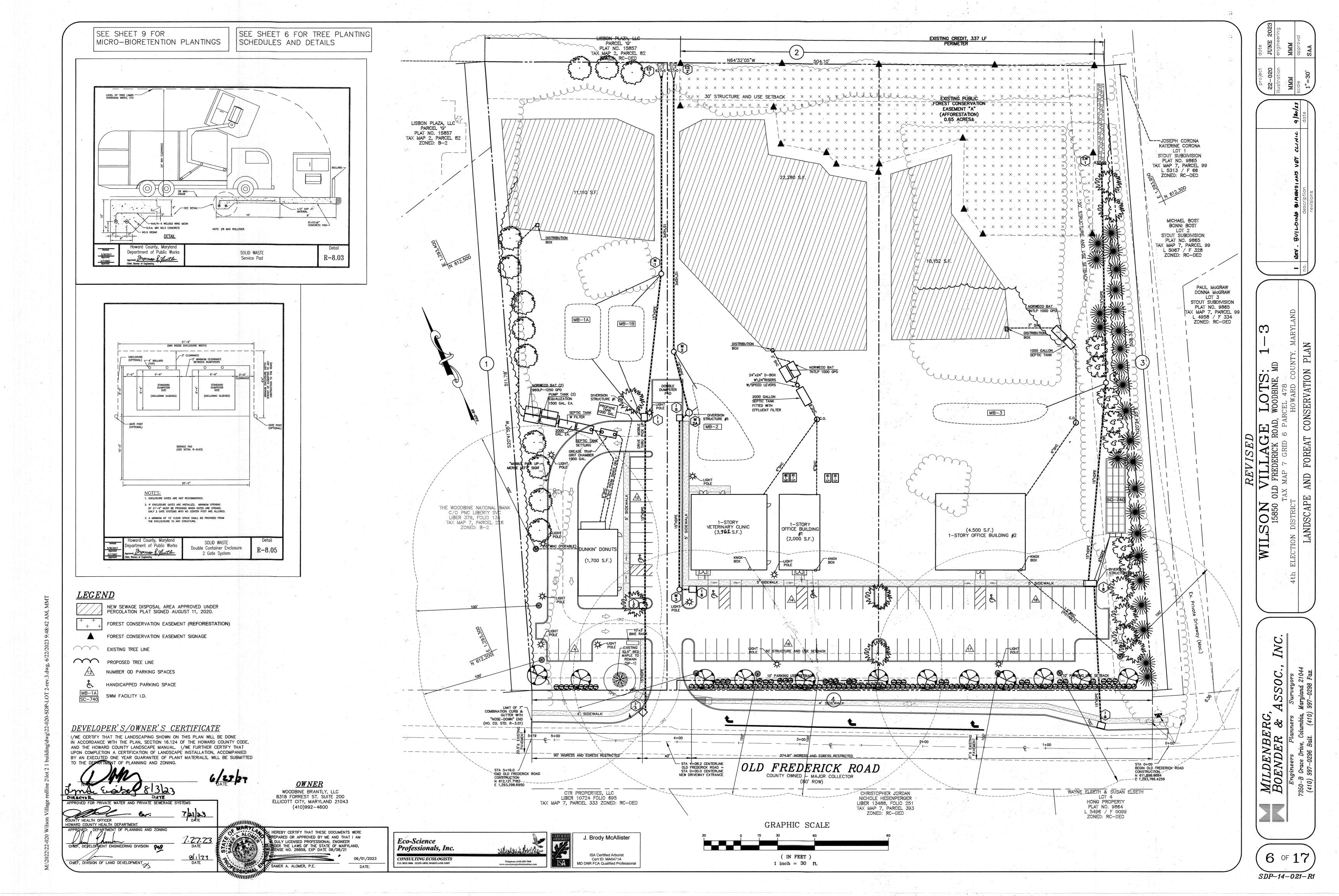
06/21/2023

CERTIFY THAT THESE DOCUMENTS WERE

PREPARED OR APPROVED BY ME AND THAT I AM

R.A. ALOMER, P.

EROSION AND SEDIMENT CONTROL NOTES



PROTECTION FENCING AND SILT FENCES FOR SEDIMENT AND EROSION CONTROL ARE TO BE INSTALLED AS A FIRST ORDER OF BUSINESS. SEE PLAN FOR LOCATIONS. 2. DISTURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD FOR EACH PLANT. AS SHOWN ON THE DETAIL VIEW, A PLANTING

FIELD OF RADIUS = 5 X DIAMETER OF THE ROOT BALL OR CONTAINER IS RECOMMENDED. 3. SOIL MIX FOR ALL PLANTS EXCEPT ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL

THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLUDGE. SOIL MIX FOR ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME PEAT MOSS.

ALL MIXING IN 3 AND 4 SHALL BE LIMITED TO CONTAINER GROWN OR BALL AND BURLAP STOCK ONLY AND CONFINED TO THE PLANTING FIELD AND IMMEDIATE ADJACENT SOIL SURFACE AREA AND SHALL BE DONE TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

PLANT STORAGE AND INSPECTION

1. FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE. 2. FOR BALL AND BURLAP NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN THREE DAYS AFTER DELIVERY TO THE SITE.

PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERYMAN SPECIFICATIONS FOR SIZE, FORM, VIGOR, ROOTS, TRUNK WOUNDS, INSECTS AND DISEASE SHOULD BE REPLACED.

UNTIL PLANTED, ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL, AND MOISTENED ENVIRONMENT

PLANT INSTALLATION

1. THE PLANTING FIELD SHOULD BE PREPARED AS SPECIFIED (SEE DETAIL). NATIVE STOCKPILED SOILS SHOULD BE USED FOR SOIL MIX AND BACKFILL FOR PLANTING FIELD. AFTER PLANT INSTALLATION, RAKE SOILS EVENLY OVER THE PLANTING FIELD AND COVER WITH AT LEAST 4 INCHES OF MULCH. WATER, GENEROUSLY, TO SETTLE SOIL BACKFILLED AROUND TREES.

2. PLANTING FIELD DIAMETERS SHOULD BE REDUCED OR PLANTING FIELD MOVED IF IT APPEARS THAT EXCESSIVE EXISTING ROOT DAMAGE MAY OCCUR DURING DIGGING OPERATION NEAR EXISTING FOREST. 3. CARE SHALL BE TAKEN WHEN DIGGING PLANTING FIFLDS NOT TO CHOP

THRU LARGER EXISTING ROOTS FROM EXISTING MATURE TREES. IF ROOTS GREATER THAN 1/2 INCH ARE ENCOUNTERED PLEASE TRY TO DIG AROUND THEM AS MUCH AS POSSIBLE TO MINIMIZE IMPACT TO EXISTING TREES. THEY WERE HERE FIRST.

CONTAINER GROWN STOCK SHOULD BE REMOVED FROM THE CONTAINER AND ROOTS GENTLY LOOSENED FROM THE SOIL. IF THE ROOTS ENCIRCLE THE ROOT BALL, SUBSTITUTION IS STRONGLY RECOMMENDED. J-SHAPED OR KINKED ROOT SYSTEMS SHOULD ALSO BE NOTED. ROOTS MAY NOT BE TRIMMED ON SITE, DUE TO THE INCREASED CHANCES OF SOIL BORNE DISEASES.

FOR BALL AND BURLAP STOCK, PLACE TREE IN PREPARED PLANTING FIELD AND REMOVE WIRE AND/OR STRING FROM ROOT BALL. THEN PEEL BACK BURLAP TO BASE OF ROOT BALL AND COVER ENTIRE ROOT BALL WITH TOPSOIL MIXTURE INDICATED ABOVE AND WATER GENEROUSLY. 6. FOR TREES PLANTED IN THE AFFORESTATION AREA, CONTRACTOR SHALL EVENLY DISPERSE SPECIES IN GROUPS OF TWO (2) TO FOUR (4), PER SPECIES, OVER THE ENTIRE DESIGNATED AREA TO BE PLANTED WHILE MAINTAINING AN AVERAGE RANDOM SPACING OF INDIVIDUAL TREES AT

PROPER SPACING INDICATED ON PLANT LIST. 7. AVOID PLANTING IN A STRAIGHT GRID PATTERN. TREES SHALL BE PLANTED ON AN AVERAGE SPACING AS INDICATED ON PLANT LISTS TO

OBTAIN A MORE NATURAL APPEARANCE. 8. NEWLY PLANTED TREES MAY NEED WATERING AS MUCH AS ONCE A WEEK FOR THE ENTIRE GROWING SEASON, DUE TO THE WELL DRAINED NATIVE SOILS FOUND ON THIS SITE COMBINED WITH THE LOOSENESS OF THE BACKFILLED AREA WITHIN THE PLANTING FIELD. THE NEXT TWO YEARS MAY REQUIRE WATERING ONLY A FEW TIMES A YEAR DURING SUMMER AND DRY MONTHS. AFTER THAT PERIOD, TREES SHOULD ONLY NEED WATER IN SEVERE DROUGHTS. ANY WATERING PLAN SHOULD COMPENSATE FOR RECENT RAINFALL PATTERNS.

FERTILIZING

1. DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SPURT OF CANOPY GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADD ADDITIONAL SHOCK TO THE ALREADY DISTURBED PLANT.

2. NOTHING SHOULD BE ADDED TO THE SOIL WITHOUT TESTING IT FIRST TO DETERMINE ITS NEEDS. 3. IF AND WHEN IT IS TIME TO FERTILIZE, ORGANIC FERTILIZERS ARE

PREFERRED TO SYNTHETIC FERTILIZERS. BONE MEAL OR SEAWEED BASED PRODUCTS ARE AVAILABLE COMMERCIALLY AND ARE RECOMMENDED. THEY HAVE THE ABILITY TO SUPPLY NUTRIENTS TO THE PLANT AS NEEDED WHILE MINIMIZING THE RISK OF EXCESS NUTRIENTS ENTERING THE FOREST SYSTEM AND WATER SUPPLY.

B. Area within 100 year floodplain & overhead transmission line = 0.00

..= 0.00

.= 5.89

FOREST CONSERVATION WORKSHEET NET TRACT AREA: A. Total tract area..

C. Area to remain in agricultural production...

D. Net tract area... LAND USE CATEGORY: Input the number "1" under the appropriate land use zoning, and limit to only one entry. ARA MDR IDA HDR MPD CIA 0 0 0 0 0 1 E. Afforestation Threshold... $15\% \times D = 0.88$ F. Conservation Threshold.. $15\% \times D = 0.88$ **EXISTING FOREST COVER** G. Existing forest cover (excluding floodplain)... H. Area of forest above afforestation threshold...

...= 0.00 I. Area of forest above conservation threshold... ..= 0.00 BREAK EVEN POINT: J. Forset retention above threshold with no mitigation. ...= 0.00 K. Clearing permitted without mitigation. ..= 0.00 PROPOSED FOREST CLEARING L. Total area of forest to be cleared... ...= 0.60 M. Total area of forest to be retained. ...= 0.00 PLANTING REQUIREMENTS: N. Reforestation for clearing above conservation threshold......= 0.00 P. Reforestation for clearing below conservation threshold......= 1.20 Q. Credit for retention above conservation threshold... ...= 0.00 .= 1.20 R. Total reforestation required. S. Total afforestation required. ..= 0.28 ...= 1.48 T. Total reforestation and afforestation required... Total reforestation and afforestation provided on-site.

7/21/23

Total reforestation and afforestation provided off-site.

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

ARTMENT OF PLANNING AND ZONING

Limber

HOWARD COUNTY HEALTH DEPARTMENT

HIEF, DIVISION OF LAND DEVELOPMENT

COUNTY HEALTH OFFICER

DIRECTOR

<u>OWNER</u> WOODBINE BRANTLY, LLC 8318 FORREST ST. SUITE 200 ELLICOTT CITY, MARYLAND 21043 (410)992-4600

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. 26859, EXP DATE 08/08/25

Eco-Science Professionals, Inc. CONSULTING ECOLOGISTS

J. Brody McAllister

ISA Certified Arboris

Cert ID: MA6471A

MD DNR FCA Qualified Professional

FOREST CONSERVATION NOTES:

POST CONSTRUCTION PERIOD PROTECTION

1. ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR

2. ASSESS TREE MORTALITY OF PLANTING STOCK, REMOVE AND REPLACE ANY

3. VOLUNTEER SEEDING OF NATIVE, LOCAL AND ENDEMIC VEGETATION IS TO

4. REMOVE THROUGH MANUAL MEANS (GRUBBING, PULLING, CUTTING)

AGGRESSIVE, NOXIOUS, INVASIVE SPECIES AND ALL HERBACEOUS

VEGETATION WITHIN A 3-FOOT RADIUS SURROUNDING THE PLANTED

5. REMOVE AND DISPOSE OF MAN-MADE TRASH, INCLUDING ITEMS CONTAINED

WITHIN ENTIRE PLANTING AREA. DO NOT REMOVE DOWN AND DEAD

MATERIAL NATURALLY OCCURRING OR ACCUMULATING, UNLESS IT IS

6. A 75 PERCENT SURVIVAL OF PLANTED STOCK MUST BE ACHIEVED AT THE

ALL FOREST CONSERVATION ACTIVITIES SHALL BY DONE UNDER THE

COMAR 08.19.06.01 AND THE MARYLAND DEPARTMENT OF NATURAL

STANDARD SPECIMEN TREE NON-DISTURBANCE NOTE:

OR EXCAVATION, INTRODUCTION OF TOXIC CHEMICALS OR OTHER

"THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, SOIL COMPACTION

DISTURBANCES DETRIMENTAL TO THE LIVE SPECIMEN TREES OR CRITICAL

CONSTRUCTION PERIOD PROTECTION

AND MANAGEMENT PROGRAM

1. ALL FOREST RETENTION AREAS AND ISOLATED POTENTIAL SPECIMEN

TREES SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED.

ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE

FOREST RETENTION BOUNDARY AND AROUND ISOLATED POTENTIAL

SPECIMEN TREES PRIOR TO ANY LAND CLEARING, GRUBBING, OR

BLAZE ORANGE PLASTIC MESH FENCING SHALL BE INSTALLED ALONG THE

REFORESTATION BOUNDARY WHERE THERE IS NO SUPER SILT FENCE

THE FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT

CONSTRUCTION. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL

NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE

ATTACHMENT OF SIGNS, OR ANY OTHER OBJECTS TO TREES IS PROHIBITED

PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THE PROTECTED AREAS

INSTALLATION AND MAINTENANCE OF PROTECTIVE FENCING AND SIGNAGE

SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE

GENERAL CONTRACTOR SHALL TAKE THE UTMOST CARE TO PROTECT TREE

SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING

DRAINING OF MATERIALS THAT MAY BE HARMFUL TO TREES.

FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE AND

THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION

VEHICLES AND EQUIPMENT. AND THE STORING OF BUILDING SUPPLIES

OR STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS.

REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TREES

OFGRADING WITHIN AND ADJACENT TO ALL FORESTED AREAS. PLEASE

PRE-CONSTRUCTION MEETING

AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS HAVE BEEN

FIELD LOCATED AND MARKED, AND AFTER THE FOREST PROTECTION

DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER DISTURBANCE

PLACE ON SITE. THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER,

AREAS AND EQUIPMENT STAGING AREAS:

CONSTRUCTION MONITORING 1. THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE

RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS

OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION

LIMB INJURY, OR STRESS CAUSED BY FLOODING OR DROUGHT CONDITIONS.

ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIED IMMEDIATELY

THE CONSTRUCTION PROCEDURE SHALL NOT DAMAGE AREAS OUTSIDE OF

THE LIMITS OF DISTURBANCE AS DESIGNATED ON THE PLANS. ANY DAMAGE

SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE

ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS.

USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE

CONSULTATION WITH A PROFESSIONAL ARBORIST.

SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

MAKE ALL NECESSARY ADJUSTMENTS:

HAS TAKEN PLACE ON SITE, A PRE-CONSTRUCTION MEETING SHALL TAKE

AND HOWARD COUNTY INSPECTORS SHALL ATTEND. THE PURPOSE OF THIS

A. TO IDENTIFY THE LOCATIONS OF THE FOREST RETENTION

AREAS, SPECIMEN TREES WITHIN 50 FEET OF THE LIMIT OF

INSPECT ALL FLAGGED BOUNDARIES AND PROTECTION DEVICES;

ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS

DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING

10. ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE OR LIMIT

REFER TO ROOT PRUNING DETAIL THIS SHEET.

DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS.

ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS

THE CRITICAL ROOT ZONES OF ALL TREES WITHIN THE RETENTION AREA

NOT OTHERWISE PROTECTED WILL BE WITHIN FOREST PROTECTION DEVICES.

IT IS UNDERSTOOD THAT THE INSTALLATION OF THE FENCING IN THIS

SUPER SILT FENCE SHALL BE INSTALL AS SHOWN ON THE PLAN.

ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT

CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY.

PROPOSED, AFTER THE PLANTING OF THE EASEMENT.

MANNER WILL CREATE AN IRREGULAR EDGE.

AREA SHALL BE PROHIBITED.

MEETING WILL BE:

PENALTIES.

BLAZE ORANGE PLASTIC MESH FENCING AND SIGNAGE AS INDICATED

ROOT ZONES FOR THESE TREES EXCEPT AS PERMITTED BY HOWARD COUNTY"

DIRECT SUPERVISION OF SOMEONE FROM THE DESIGN TEAM OR OTHER "QUALIFIED PROFESSIONAL" AS DETERMINED BY THE REQUIREMENTS OF

PLANTINGS MAY BE REQUIRED TO ACHIEVE THIS GOAL.

RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION.

END OF THE 24 MONTH MANAGEMENT PERIOD. IF NOT, ADDITIONAL

BE EXPECTED. DO NOT DISCOURAGE THIS EFFORT UNLESS IT IS

AND MANAGEMENT PROGRAM

PERIOD

DEAD OR DISEASED PLANTINGS.

WOODY NURSERY STOCK.

GRADING ACTIVITIES.

SMOTHERING PLANTING STOCK.

NEGATIVELY EFFECTING THE PLANTED STOCK.

11. NO RARE, THREATENED OR ENDANGERED SPECIES AND THEIR HABITATS WERE OBSERVED

2. THE FOREST CONSERVATION OBLIGATIONS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION HAS BEEN FULFILLED BY PROVIDING AFFORESTATION OF 0.65 ACRES AND BY PLACEMENT OF 0.83 ACRES OF REQUIRED OBLIGATION INTO AN OFF-SITE EASEMENT ON PROPERTY IDENTIFIED AS THE ROSEBAR PROPERTY, PRESERVATION PARCEL "A". LOCATED ON TAX MAP NO. 14 AND IDENTIFIED AS PARCEL 221, SITUATED ON THE WEST SIDE OF HOBBS ROAD. THE ROSEBAR FOREST CONSERVATION EASEMENT HAS BEEN SHOWN ON SHEET 18 OF SDP-97-115, NEW COLONY VILLAGE. FINANCIAL SURETY FOR THE ON-SITE AFFORESTATION IN THE AMOUNT OF \$14,157.00 WILL BE POSTED AS PART OF DEVELOPERS AGREEMENT. SURETY FOR THE OFF-SITE FOREST CONSERVATION EASEMENT ON ROSEBAR PROPERTY HAS BEEN PREVIOUSLY POSTED BY THE OWNER OF THE EASEMENT.

3' TO 5

LANDSCAPE NOTES

1. NO CLEARING OF EXISTING VEGETATION IS PERMITTED WITHIN THE LANDSCAPE EDGE FOR WHICH CREDIT IS BEING TAKEN; HOWEVER, LANDSCAPE MAINTENANCE IS AUTHORIZED.

2. THE OWNER, TENANT AND / OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, PLANT MATERIALS, BERMS, 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 REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

3. AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONÍNG. ANY DEVIATION FROM THIS 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 APPLICABLE PLANS AND CERTIFICATES.

4. SHOULD ANY TREE DESIGNATED FOR PRESERVATION, FOR WHICH CREDIT IS GIVEN, BE REMOVED OR 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 LANDSCAPE MANUAL.

SCHEDULE A: PERIMETER LANDSCAPE EDGE

CATEGORY		ADJACENT TO PERIMETER	PROPERTIES	ADJACENT TO ROADWAYS	TOTAL
LANDSCAPE TYPE	A (PERIMETER 1)	A (PERIMETER 2)	C (PERIMETER 3)	E (PERIMETER 4)	
LINEAR FEET OF PERIMETER	512 LF	504 LF	509 LF	505 LF	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	YES, 337 LF	NO	NO	N/A
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	9 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	3 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	13 SHADE TREE 26 EVERGREEN TREES 0 SHRUBS	13 SHADE TREES 0 EVERGREEN TREES 127 SHRUBS	37 SHADE TREES 26 EVERGREEN TREES 127 SHRUBS
CREDIT FOR EXISTING VEGETATION SHADE TREES EVERGREEN TREES	N/A	N/A	N/A	1 SHADE TREE 0 EVERGREEN TREES	1 SHADE TREE 0 EVERGREEN TREES
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES SUBSTITUTION TREES SHRUBS	9 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	3 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	13 SHADE TREES 26 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	12 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES 127 SHRUBS	36 SHADE TREES 26 EVERGREEN TREES 0 SUBSTITUTION TREES 127 SHRUBS

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	80 SPACES
NUMBER OF TREES REQUIRED SHADE TREES (1 PER 20 SPACES)	4 SHADE TREES
NUMBER OF TREES PROVIDED SHADE TREES OTHER TREES (2:1 SUBSTITUTION)	4 SHADE TREES
SHRUBS (10:1 SUBSTITUTION)	0 SHRUBS

PLANTING SCHEDULE

--- 2'-3' -----

TREE PLANTING DETAIL

- WHIP OR TREE

-3"-4" MULCH

TOPSOIL

FCE Reforestation Area - 0.65 acres Planting Units Provided: 455

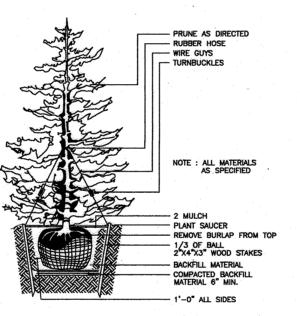
BACKFILL WITH EXISTING NATIVE SOIL

" LOWER THAN NURSERY

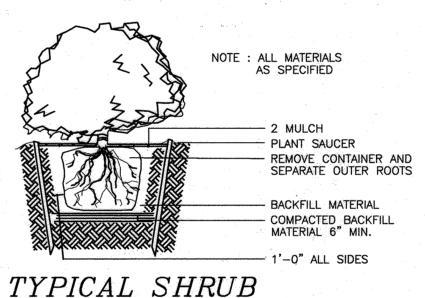
Qty	Species	Canopy/ Understory	Size	Spacing	Total FCA Units
25	Acer rubrum - Red maple	C	1" caliper	15' oc	
20	Cercis canadensis - Red bud	U	1" caliper	15' oc	
15	Cornus florida - Flowering dogwood	U	1" caliper	15' oc	11.
- 30	Liriodendron tulipifera - Tulip poplar	C	1" caliper	15' oc	
20	Nyssa sylvatica - Black gum	C	1" caliper	15' oc	
20	Quercus alba - White oak	C	1" caliper	15' oc	
130		Total 1" caliper plan	ntings x 3.5 units	tree = FCA unit credit	455
	•	Total Un	it Credit		455

Planting Notes -

Trees shall be staked per the deciduous tree planting detail



TYPICAL EVERGREEN TREE PLANTING DETAIL



PLANTING DETAIL

NOT TO SCALE

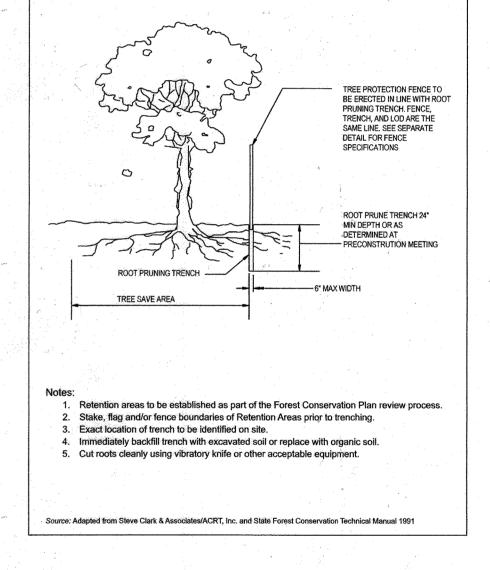


Figure E-9: Root Pruning

SPECIMEN TREE CHART

 بريسيسين أبرين كبران	Marie Carlotte Company of the Control of the Contro				7
SPECIMEN TREE (SP)#	COMMON NAME	BITANICAL NAME	SIZE DBH	CONDITION	
1	RED MAPLE (TO BE RETAINED)	ACER RUBRUM	32.5"	POOR	

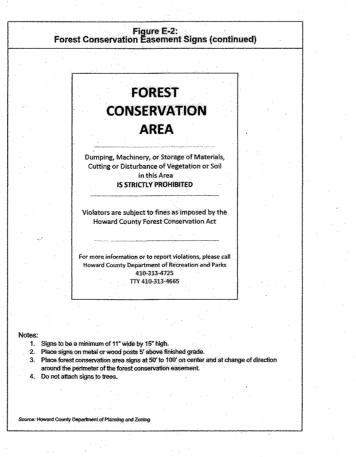
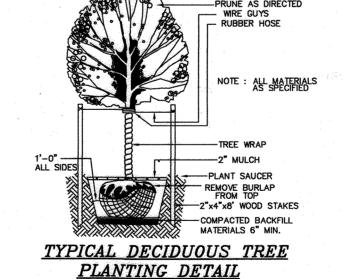
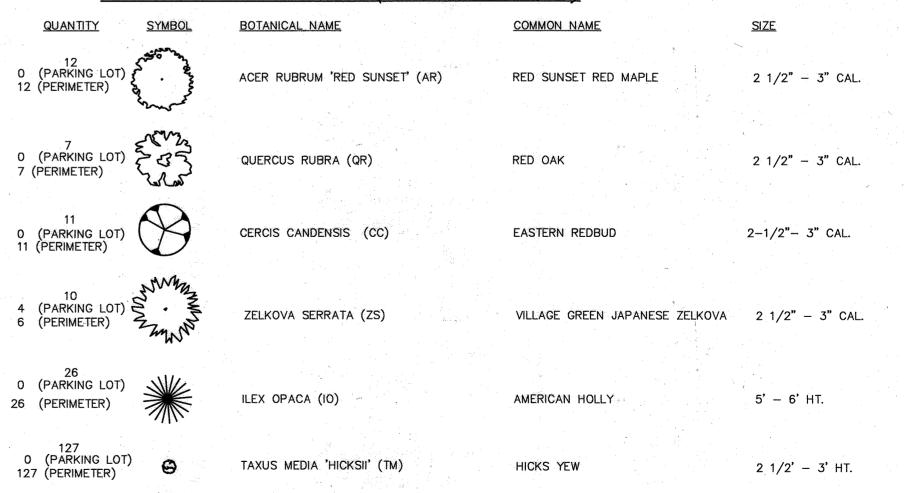


Figure E-3: Plastic Mesh Tree Protection Fence HIGHLY VISIBLE FLAGGING ATTACHED TO TOPS OF ANCHOR POSTS USE 2"X4" LUMBER FOR CROSS BRACING Blaze orange or blue plastic mesh fence for forest protection device, only. Boundaries of Retention Area will be established as part of the Forest Conservation Pla Stake and flag boundaries of Retention Area prior to installing device. Protection signs are required, see Figures E-1 and E-2. Source: Adapted from Prince George's County, Maryland; Woodland Conservation Manual and State Forest Conservation Technical Manual 1991



NOT TO SCALE

LANDSCAPE PLANT LIST (SCHEDULES A, B)



66 TREES (40 SHADE, 26 EVERGREEN)

* NOTE- LANDSCAPE SURETY IS BASED ON THE TOTAL NUMBER OF PLANTINGS REQUIRED.

127 SHRUBS

(ILDEN) OENDE

0

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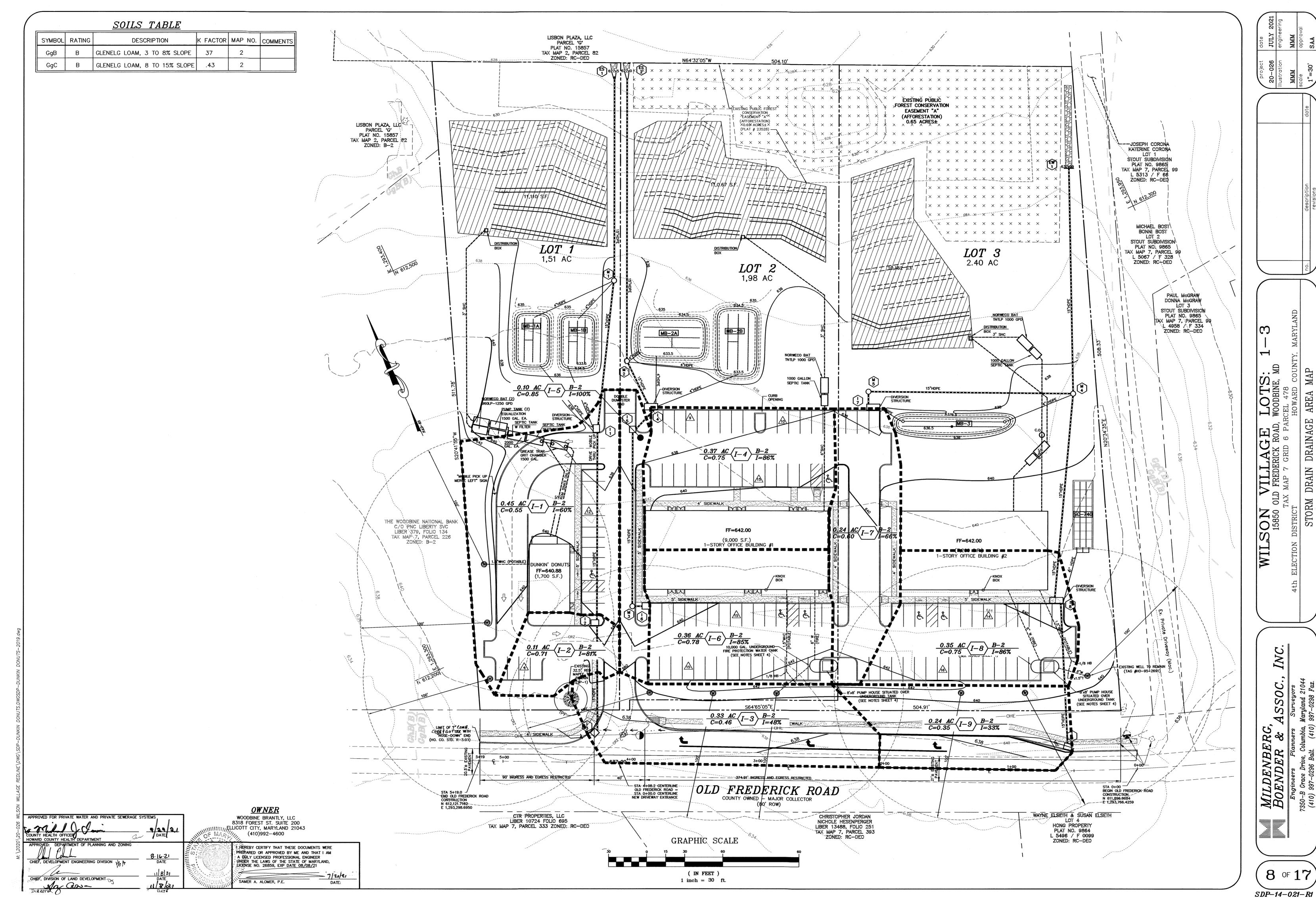
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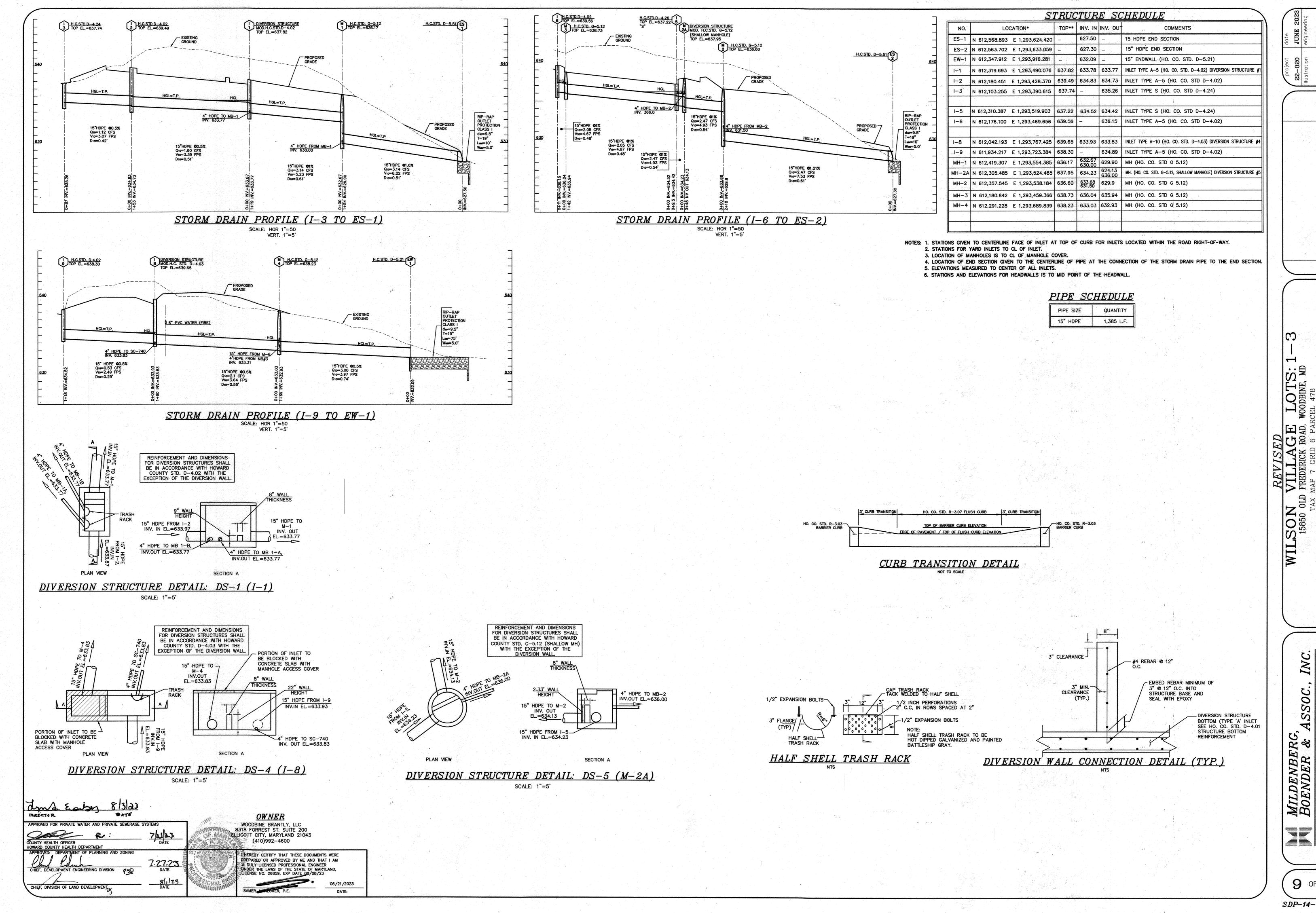
OLD PAX

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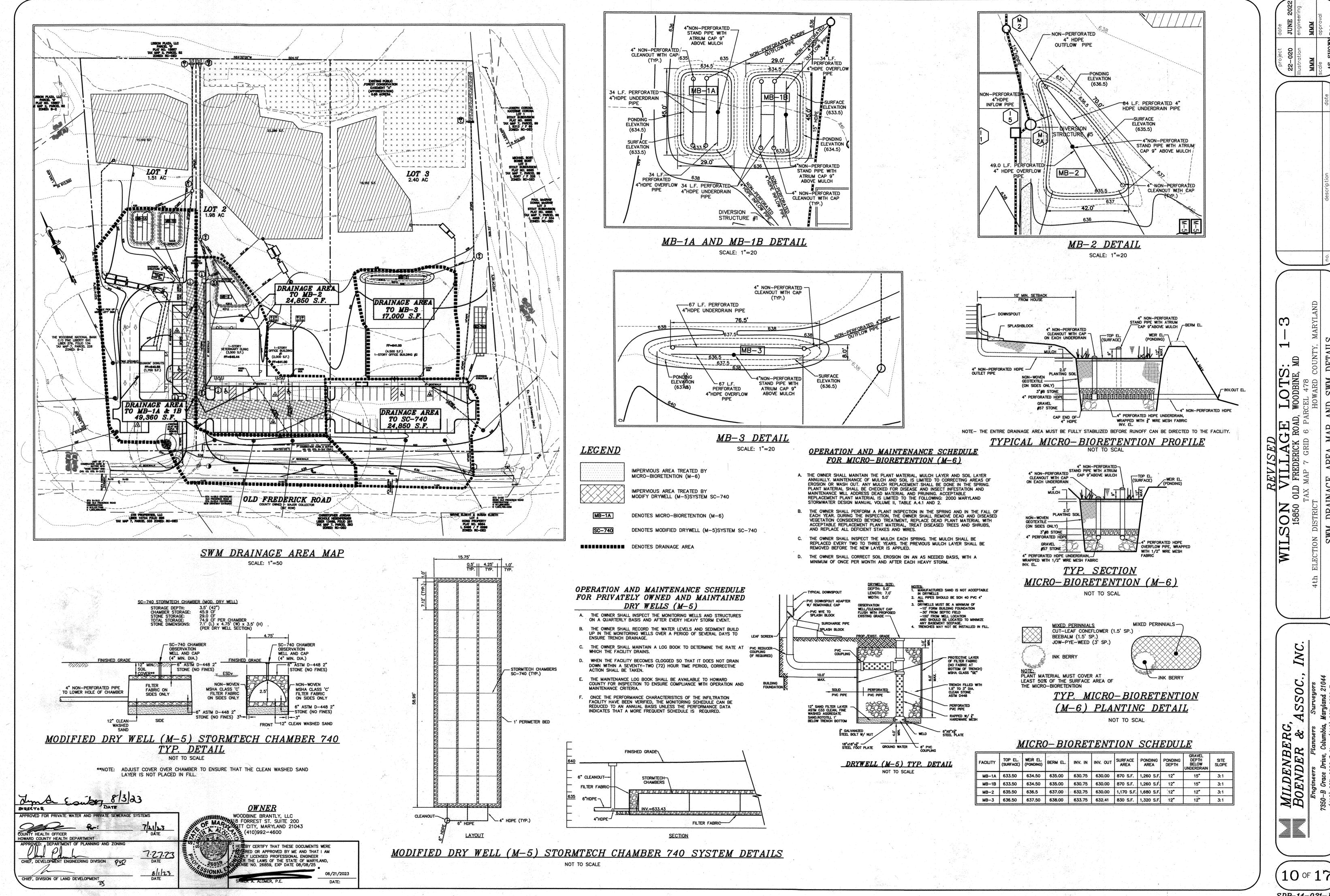
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9 of 17 SDP-14-021-R1



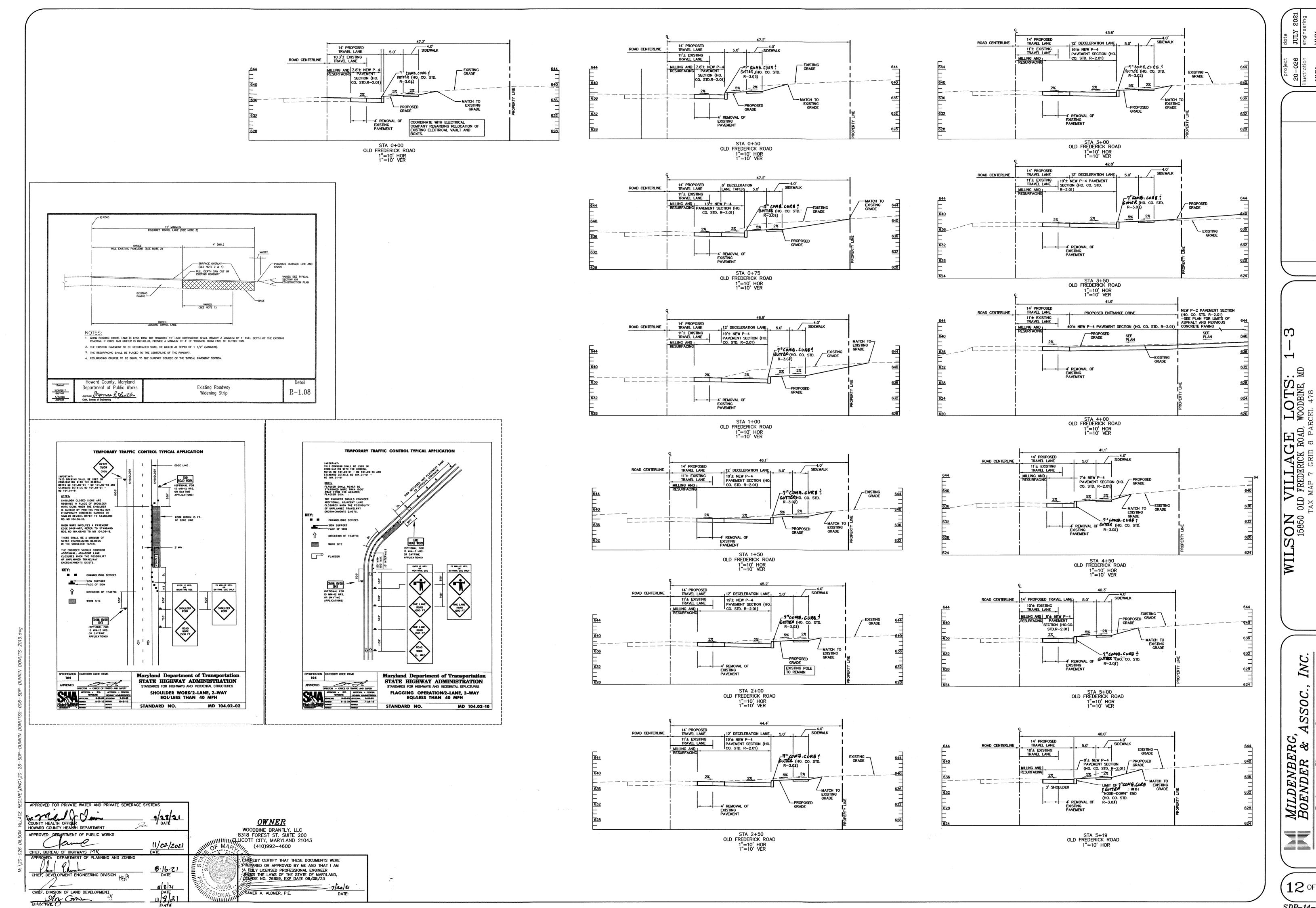
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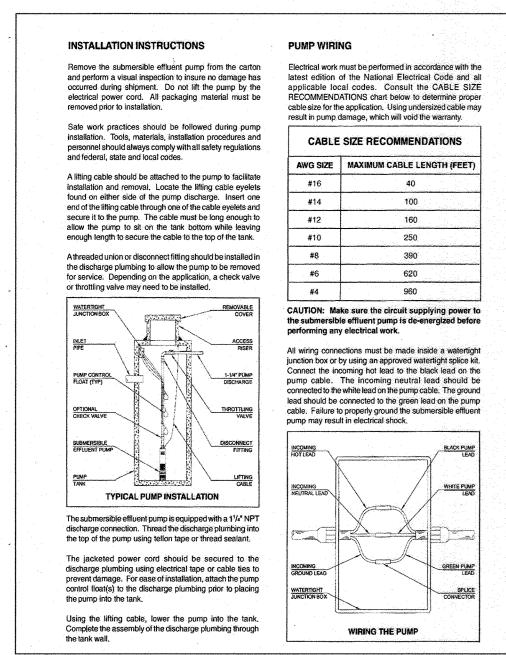
GENERAL NOTES:

- 1. ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.
- 2. SOILS LOCATION AND CLASSIFICATION BASED ON HOWARD COUNTY GIS SOIL SURVEY
- 3. ANY CHANGES TO THE LOCATION OR DEPTH TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A SITE PLAN MAY BE REQUIRED.
- 4. SEPTIC TANKS AND DRAIN FIELD SHOWN IS BASED ON DATA PROVIDED BY HOWARD COUNTY HEALTH DEPARTMENT.
- THIS AREA DESIGNATES A PRIVATE SEWERAGE AREA SIZED TO FIT PRIMARY AND TWO (2) REPLACEMENT SYSTEMS AT THE PROPOSED DESIGN FLOW AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL, IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED EASEMENT SHALL NOT BE NECESSARY.
- 6. THE MAXIMUM EARTH COVER OVER THE SEPTIC AND PUMP TANKS IS THREE (3) FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
- 7. THE MAXIMUM EARTH COVER OVER A HEAVY LOAD BEARING TANK IS FIVE (5) FEET. GREATER EARTH COVER IS NOT
- 8. ANY WELLS OR SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELL AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.
- 9. ALL TRENCHES ARE FED BY GRAVITY FROM THE DISTRIBUTION BOX.
- 10. ELECTRICAL WORK FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
- 11. THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP, WIDTH, AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- 12. ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
- 14. THIS SYMBOL DESIGNATES A PASSED PERCOLATION TEST LOCATION
- 15. THIS SYMBOL DESIGNATES A FAILED PERCOLATION TEST LOCATION
- 16. ALL TANKS ARE TO BE WATERTIGHT TESTED IN THE FIELD AFTER CONNECTIONS ARE INSTALLED.

OPERATION AND MAINTENANCE:

IT IS IMPORTANT THAT PROPER OPERATION & MAINTENANCE BE PERFORMED BY A NORWECO CERTIFIED O&M TECHNICIAN ON A REGULAR BASIS TO ENSURE THAT THE SYSTEM PERFORMS PROPERLY. THE WASTEWATER STRENGTH REQUIRES THAT O&M BE PERFORMED AT LEAST ONCE EVERY 4 MONTHS AND MORE OFTEN IF FATS, OIL, AND GREASE (FOG) BECOMES A PROBLEM. IT IS NECESSARY TO MONITOR FOG ACCUMULATION IN THE GREASE TRAP TO ENSURE THAT IT DOESN'T FLOW INTO THE DOWNSTREAM TANKAGE. GREASE CANNOT BE TREATED IN ANY WASTEWATER TREATMENT FACILITY AND MUST BE PUMPED FROM THE GREASE TRAP ON A REGULAR SCHEDULE THAT COULD BE AS OFTEN AS ONCE A MONTH. IF THE FOG ACCUMULATES AT THE POINT OF ENTRY INTO THE SINGULAIR TANK, ALL TANKAGE MUST BE PUMPED AND RINSED TO COMPLETELY REMOVE THE GREASE.

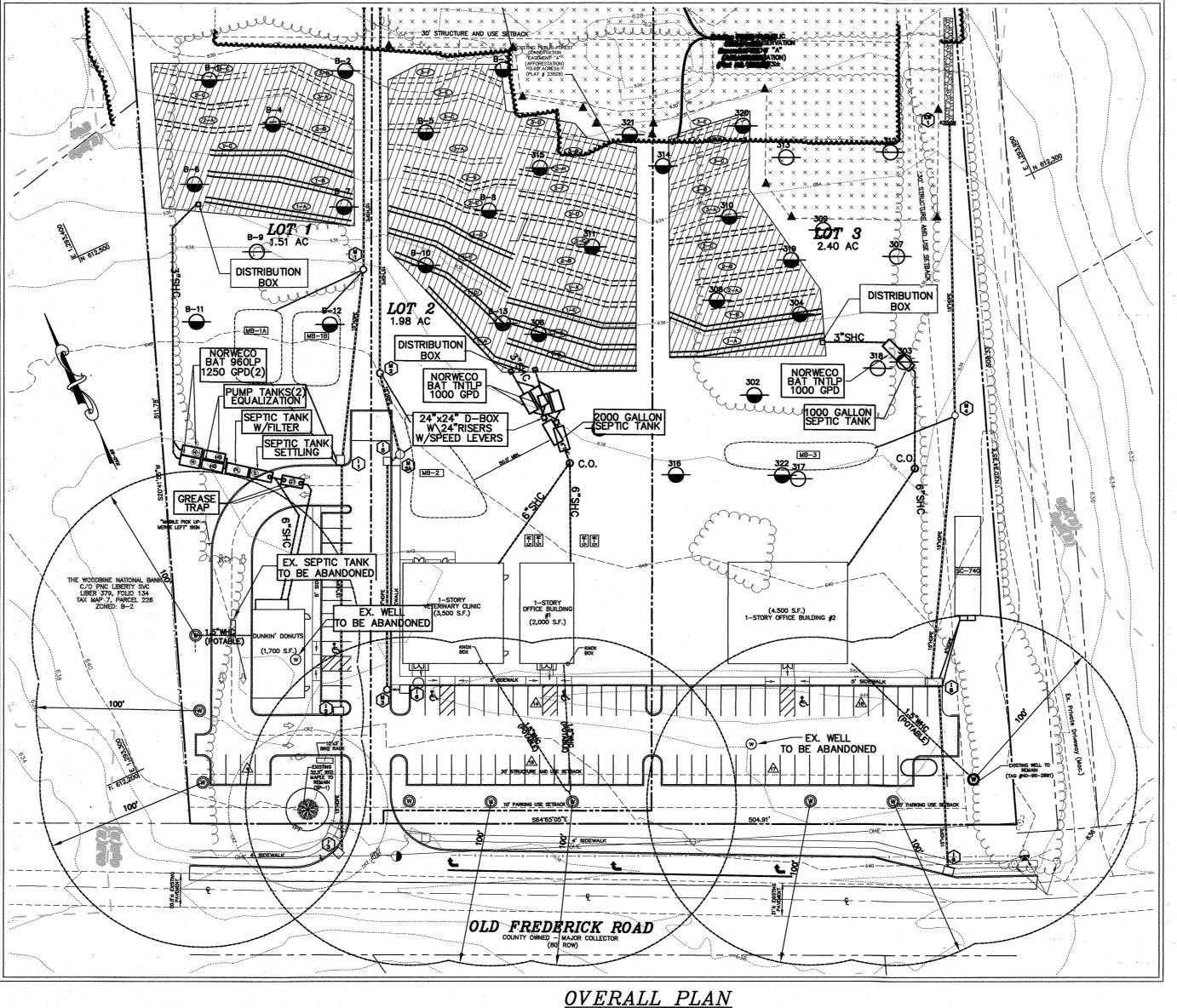
BACK RIVER PRE-CAST, LLC WILL PROVIDE AN INITIAL TWO (2) YEAR WARRANTY INCLUDING OPERATION AND MAINTENANCE AFTER THE INITIAL 2 YEARS THE PROPERTY OWNER IS REQUIRED BY MD COMER 26,04.02.07 TO CONTRACT WITH A NORWECO AND MDE CERTIFIED COMPANY TO PERFORM OPERATIONS AND MAINTENANCE AT LEAST ONCE EVERY 4 MONTHS. THE WASTEWATER EFFLUENT STRENGTH WILL MEET DESIGN REQUIREMENTS PROVIDING RECOMMENDED O&M IS PERFORMED, HIGH STRENGTH CLEANING AGENTS ARE NOT USED, FOG LEVELS ARE <25 MG/L PRIOR TO ENTERING THE NORWECO 1250 GPD TANKS AND INFLUENT CONCENTRATIONS DO NOT EXCEED 1200 MG/L OF BOD'S.



PUMP NOTES FOR LOT 1

- PUMP OPERATION IS ON A TIME RATHER THAN A LEVEL BASIS. PUMP CONTROL WILL UTILIZE A WASP CONTROLLER, AS WILL ALSO BE USED TO CONTROL THE BAT SYSTEMS FLOAT WILL BE USED FOR LOW WATER CUT OFF
- FLOAT WILL BE USED FOR RESUME OPERATION AFTER CUT OFF FLOAT WILL BE USED TO INDICATE GRAVITY OPERATION (HIGH WATER)

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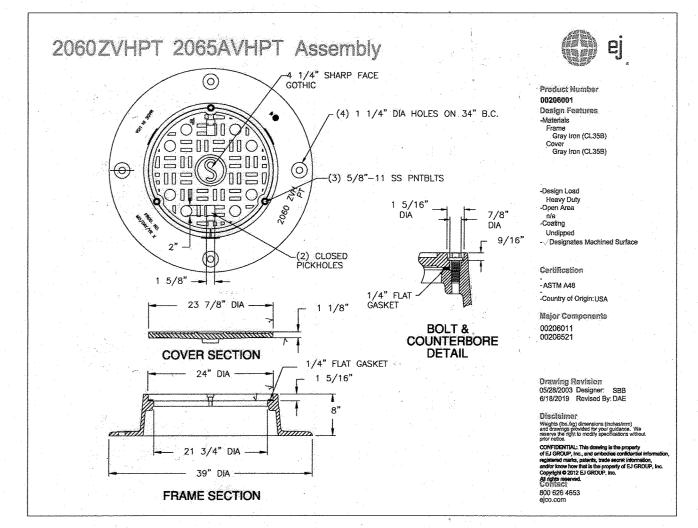


<u>LEGEND</u>

- DENOTES EXISTING WELL
- DENOTES PROPOSED WELL
- DENOTES PASSED PERCOLATION TEST
- DENOTES FAILED PERCOLATION TEST
- PRIMARY SEPTIC TRENCH === SECONDARY SEPTIC TRENCH

HEALTH DEPARTMENT WILL REVIEW THE FLOOR PLAN OD THE PROPOSED BUILDING DURING BUILDING PERMIT REVIEW. IF THE FLOOR PLAN INDICATES USE DIFFERENT FROM WHAT IS PROPOSED ON THIS PLAN A REVISION OF THIS PLAN, AND SEWAGE DISPOSAL SYSTEM MAY BE REQUIRED.

TRAFFIC BEARING COVER FOR GREASE TRAP AND THE DRIVE SIDE OF THE SETTLING TANK APPLIES TO LOT 1 ONLY



FILTER FOR LOT

2014(0)(6

Rated for 8,000 GPD (gallons per day)

• 625 linear feet of 1/32" filtration.

* Accepts 4" and 6" SCHD 40 pipe

PL-625 Filter

norweco° SERVICE PR**O**°

WASP SERIES INTEGRATED SYSTEM CONTROLS **ELECTRICAL WIRING AND CONTROL CENTER INSTALLATION**

The information contained in these instructions is not intended to be a complete electrical installation reference, as conrequirements vary according to geographic area. These instructions focus only on the specific requirements for the Service Pro WASP controls. They do not cover all installation aspects of the underground electrical cable and control center, liminary inspection, testing and service of the control center or troubleshooting. More instructions are contained in the Bio-Kinetic Wastewater Treatment System Electrical Wiring and Control Center Installation yellow sheet. All electrical wiring and Control Center Installation yellow sheet. All electrical wiring and Control Center Installation yellow sheet. All electrical wiring and Control Center Installation yellow sheet. All electrical wiring and Control Center Installation yellow sheet. All electrical wiring and Control Center Installation yellow sheet. All electrical wiring and Control Center Installation yellow sheet. All electrical wiring and Control Center Installation yellow sheet. All electrical wiring and Control Center Installation yellow sheet. All electrical wiring and Control Center Installation yellow sheet. All electrical wiring and Control Center Installation yellow sheet. All electrical wiring and Control Center Installation yellow sheet. All electrical wiring and Control Center Installation yellow sheet. All electrical wiring and Control Center Installation yellow sheet. All electrical wiring and Control Center Installation yellow sheet. All electrical wiring and Control Center Installation yellow sheet. All electrical wiring and Control Center Installation yellow sheet.

UNDERGROUND ELECTRICAL CABLE INSTALLATION 1. A separate underground electrical service cable mus be installed from the main electrical panel in the home to the Service Pro WASP control center. The electrica service cable must be UL or CSA approved, type UF ground. Larger cable is required if the underground

also be installed for the effluent pump and each float

e pump must be UL or CSA approved, type UF, #12/

Larger cable is required if the underground service

ervice needs to be run more than 80 feet. be installed for each aerator within the Singulair service cable must be UL or CSA approved, type UF, #14/2AWG minimum and must have a full-size center ground. Larger cable is required if the

> tankage and underground electrical cables are installed. The Service Pro WASP controls should be located so that all warning lights can be readily seen and the audible atarm heard. The mounting location should minimize exposure to direct sunlight, freezing rain or conditions that migh STACE PRO" SATES PERSONNELL AND ADDRESS OF THE PERSONNELL AND ADDR WASP SERIES CONTROLS

should always be mounted out of the reach of children. Remove the control center insert and all packaging from the enclosure. Drill the appropriate openings in the bottom of the enclosure and install a conduit connector in each should always be encased in conduit. Mount the control center securely using masonry nails, wood screws or common nails as appropriate. Install the control center insert into the enclosure and secure with the four screws provided. The alarm light wires on the insert must now be to the yellow light, the blue wires to the blue light, and the red wires to the red light.

needs to be run more than 80 feet. NOTE: The floa

do not carry the full electrical load of the pump. Floa

4. Each underground cable must be continuous and

unspliced from the Service Pro WASP control center

float switches. Underground cable must be protected

conduit anytime the cable path passes directly across

5. Uncoil the electrical service cables into the influent

ounting casting. Extend the pump and float switch

electrical service cables to the pump station chambe

NOTE: Leave sufficient slack in the cables so they wi

not be stressed during backfilling or settling.

6. All underground cables should have at least two feet

of earth cover to prevent damage from landscaping

trenches, etc. or be installed in an approved conduit.

INSTALLATION OF ELECTRICAL CONTROL CENTER

he control center should be wired for operation when the

in electrical panel in the home, aerator, pump ar

witch cables should be #16 AWG minimum.

switch cables carry low voltage for controls only and

SERVICE PRO® WASP WIRING AND INSTALLATION (Cont.)

11. Connect the wires from the float switches into the

WASP control center.

float terminals marked "ON/OFF".

terminals marked "OVERRIDE".

terminal block marked "FLOAT" in the Service Pro

the wires from the timer override float switch to the float

Pro WASP control center, push button style terminals

are provided for the auxiliary input connections. Use

from the auxiliary device to the "AUX 1", "AUX 2" of "AUX 3" terminals marked "AUX RELAY CONTACTS"

to signal an alarm condition, connect the wires from

terminals marked "AUX AC/DC CONTACTS" on the re-

minalblock, CAUTION: Do not con

on the blue push button terminal block.

nect the wires from the high water alarm float switch

nuxiliary inputs are being connected to the Service

12. Connect the wires from the on/off float switch to the two

to the two float terminals marked "ALARM".

1 Use a dedicated 120 volt AC, 20 amp, single-phase circuit breaker in the main electrical panel for service to the Service Pro WASP control center. CAUTION Make sure the breaker is de-energized. Check it with an electrical multi-meter before proceeding with installation of the control center. Rememb that other circuits in the service panel may remai energized as you are working. Use only tools wil nsulated handles, stand in a dry location and work with extreme care. to the "INCOMING" power terminal marked "L1" in the control center using copper wire with black insulation Wire from the neutral in the main service panel to the

#16AWG or smaller wires in the push button terminals.

16. If the auxiliary device uses dry contact (no voltage 'INCOMING" power terminal marked "N" in the control center using copper wire with white insulation.

4. Connect the ground conductor from the main service panel to the "INCOMING" power terminal marked "G" in the control center using bare copper wire. IMPORTAN Never allow the white neutral leads and ground leads to 17. If the auxiliary device supplies a voltage (5 to 120 volts be spliced together or connected to common term Connect the power wire from the pump to the "PUM! power terminal marked "P1" in the control center using copper wire with black insulation.

the auxiliary device to the "AUX 1", "AUX 2" or "AUX 3 6. Connect the neutral wire from the pump to the "PUMP" power terminal marked "N" in the control center using copper wire with white insulation.

Connect the ground wire from the pump to the "PUMP POWER" terminal marked "G". DICOMING PUMP AERATOR ONIOFF ALARM OVERSHOE POWER POWER FLOAT FLOAT FLOAT FLOAT FLOAT STATE OF STATE O

0000000000000000 TW = ME WE 120 VOLTAC HIGH HEAD POWER EFFLUENT SINGULAR FLOAT FLOAT SUPPLY PUMP AERATOR SWITCH SWITCH SWITCH CONTROL CENTER WIRING . Connect the power wire from the aerator to the center using copper wire with black insulation 9. Connect the neutral wire from the aerator to the

center using copper wire with white insulation

10. Connect the ground wire from the aerator to the

devices to both the "AUX RELAY CONTACTS" and "AUX AC/DC CONTACTS" terminals for a single uxiliary input. Doing so may damage the circu 18. Inspect your work to make sure that there are no breaks in wiring insulation and that all connections are secure. Tighten all screws on the terminal board. 19. Carefully form all wiring neatly into the lower part of the Service Pro WASP control center. Do not allow the 20. IMPORTANT: Seal all conduit openings with duct sea compound or similar appropriate material.

21. Clearly label the dedicated circuit breaker used for the Service Pro WASP control center inside the door of the main service panel. . Place all three circuit breakers in the Service Pro WASF control center in the "off" position. Close and secure the control center cover.

Complete all of the remaining steps outlined in the Bio-Kinet Center Installation yellow sheet. Check to insure that a electrical controls, circuits and wiring for the Singulair sy identification label are attached to the control center. MANUFACTURED BY NORWECO, INC. norweco Norwalk, OHIO U.S.A. 44857

norweco[®] SERVICE PR**O**[®] WASP SERIES INTEGRATED SYSTEM CONTROLS

START-UP AND OPERATION INSTRUCTIONS

The information contained in these instructions is not intended to be a complete electrical installation reference, as code equirements vary according to geographic area. These instructions focus only on the specific requirements for the Service Fro WASP controls. They do not cover all installation aspects of the underground electrical cable and control center reliminary inspection, testing and service of the control center or troubleshooting. More instructions are contained in the Bio-Kinetic Wastewater Treatment System Electrical Wiring and Control Center Installation yellow sheet. All electrical wormust be performed in accordance with the latest edition of the National Electrical Code and all applicable local codes.

PROGRAMMING THE PANEL . After wiring has been completed, the Service Pro WASP control center must be programmed to operate the Singulair system. Make sure the breakers in the home and in the panel are both in the "on" position and the on the top line.

Press the "MENU" button on the touchpad to access the programming menu of the control center, "SET CLOCK and "SET HOURS" will be displayed on the screen ress the up or down arrow button on the touchpad to set the correct hours value. right arrow button to set the minutes value. The display will read "SET MINUTES". Press the up or down arrow

Once the correct hours value is displayed, press the Once the correct minutes value is displayed, press the right arrow button to set the seconds value. The display will read "SET SECONDS". Press the up or down arro button to set the correct seconds value

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RESILIENT MECHANICAL GASKET

WASP SERIES CONTROL

timer mode. The display will read "PUMP TIME! the timer mode. Available options include NO TIMER mode, TIME OF DAY mode and CYCLE TIMER mode. NO TIMER mode operates the pump on a demand use basis controlled by the float switches. TIME OF DAY mode enables the pump to operate at a set time range during the day and works in conjunction with the t switches. CYCLE TIMER mode enables pump operation on a repeat cycle and works in conjunction with the float switches, For TIME OF DAY mode roceed to step 7 below. For CYCLE TIMER mod If the TIME OF DAY mode has been selected, press the right arrow button on the touchpad to set the pump on time. This is the time of day that the pump will begin

5. Once the correct seconds value is displayed, pre-

set from 30 minutes up to continuous operation.

the right arrow button on the touchpad to set the aerator run time. The display will read "AERATOR RUN TIME

Press the up or down arrow button to change the aerator run time in one minute increments. This value can be

Once the aerator run time has been set, press the righ

- operating.
 a. "PUMP ON TIME" and "SET HOURS" will be displayed on the screen. Press the up or down arrow button to set the desired hours value. b. Once the correct hours value has been set, pres the right arrow button to set the minutes value. The display will read "SET MINUTES", Press the up or down arrow button to set the desired minutes valu
- c. Once the correct minutes value has been sel press the right arrow button to set the pump of time. This is the time of day that the pump will be disabled. "PUMP OFF TIME" and "SET HOUR! will be displayed on the screen. Press the up or down arrow button to set the desired hours value d. Once the correct hours value has been set, pre the right arrow button to set the minutes value. The display will read "SET MINUTES". Press the up or Proceed to step 9 below.

PUMP TANKS /

SERVICE PRO® WASP START-UP AND OPERATION (Cont.)

8. If the CYCLE TIMER mode has been selected, press the right arrow button on the touchpad to set the pun on time. This is the length of time that the pump will

operate each cycle.

a. "PUMP CYCLE ON TIME" and "SET HOURS" will. he displayed on the screen. Press the up or down arrow button to set the desired hours value. Once the correct hours value has been set, pres the right arrow button to set the minutes value. The tisplay will read "SET MINUTES". Press the u or down arrow button to set the desired minutes

- Once the correct minutes value has been set, press the right arrow button to set the seconds value. The display will read "SET SECONDS". Press the up or down arrow button to set the desired second d. Once the correct seconds value has been set, press the right arrow button to set the pump off time. "PUMP CYCLE OFF TIME" and "SET
- HOURS" will be displayed of up or down arrow button to set the desired hours e. Once the correct hours value has been set, press the right arrow button to set the minutes value. The display will read "SET MINUTES". Press the up or down arrow button to set the desired minutes

Once the correct minutes value has been set, press

- the right arrow button to set the seconds value. The display will read "SET SECONDS". Press the up r down arrow button to set the desired second 9. Press the right arrow button on the touchpad to enter the auxiliary input alarms configuration screen. The display will read "AUXILIARY ALARMS" and the AUX1 value should be selected. Press the up or down arrow butto
- to change the auxiliary 1 input from N-OP (normally open) to N-CL (normally closed) if required. If auxiliar input 1 will not be used, leave AUX1 set to N-OP. Once auxiliary input 1 has been configured, press the nput 2. The AUX2 value should be selected. Press th from N-OP (normally open) to N-CL (normally closed if required. If auxiliary input 2 will not be used, leave AUX2 set to N-OP.

 11. Once auxiliary input 2 has been configured, press the right arrow button on the touchpad to configure auxiliary input 3. The AUX3 value should be selected. Press the up or down arrow button to change the auxiliary 3 input from N-OP (normally open) to N-CL (normally closed
- if required. If auxiliary input 3 will not be used, leave 2. Press the right arrow button on the touchpad to exit the programming menu. The display should read "SERVICE PRO OK" on the top line. The Service Pro system is now ready for operation.

VIEW SYSTEM STATUS AND CONFIGURATION

The Service Pro WASP control center records paramete egarding the Singulair system that can be reviewed at ar time. Adjustments to the programming can be made as . Press the "SELECT" button on the touchpad. The

- screen should display the elapsed pump run time ss the right arrow button to review the pump cycle 3. Press the right arrow button to review the aerator elapsed run time.

 Press the right arrow button to review the aerator cycle
- Press the right arrow button to review the auxiliary input 6. Press the right arrow button to review failsafe mode status, software version and panel serial number . Press the right arrow button to exit the system
- parameters menu. The Service Pro WASP control center has a built-in pun test feature. To start a pump test, hold the "PUMP TEST" button for five seconds. The screen will display "PUMP

ST" and the pump will turn on. The pump will operate for five minutes and then will turn off.

The Service Pro WASP control center has a built-in alarr eature. To start an alarm test, hold the "ALARM.
T" button for five seconds. The screen will display RESET* button for rive seconds. The screen will display "ALARM TEST" and the audible and visual alarms will turn on for five seconds. After five seconds, the alarms

If the Service Pro WASP control center detects an abnorma condition, the display will indicate the specific problem the alarm condition, press the "ALARM RESET" button. the issue has been corrected, the system will turn off the alarms and resume normal operation. If a problem still exists, the audible alarm will be silenced for 48 hours, bu the visual alarm will continue to light. In addition, detailed information regarding the specific problem will be displayed on the screen.

MANUFACTURED BY NORWALK, OHIO U.S.A. 44857 norweco. www.norweco.com

• Built in gas deflector * Automatic shut-off ball when filter is removed · Alarm accessibility. Accepts PVC extension handle. PL-625 Installation: Ideal for residential and commercial waste flows up to 8,000 gallons per day (GPD). 1. Locate the outlet of the septic tank. 2. Remove the tank cover and pump tank if necessary 3. Glue the filter housing to the 4" or 6" outlet pipe. If the filter is not centered under the access opening use a SCHD 40 pip Polylok Extend & Lok or piece of pipe to center filter.

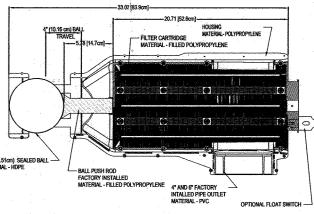
level of TSS removal. Whatever the application, Polylok has the filter for you!

4. Insert the PL-625 filter into its housing. 5. Replace and secure the septic tank cover. PL-625 Maintenance: The PL-625 Effluent Filters will operate efficiently for several years under normal conditions before requiring cleaning. It is recommended that the filter be cleaned every time the tank is pumped, or at least every three years. If the installed filter contains an optional alarm, the owner will be notified by an alarm when the filter needs servicing. Servicing should be done by a certified septic tank pumper or installer.

 Locate the outlet of the septic tank. 2. Remove tank cover and pump tank if necessary 3. Do not use plumbing when filter is removed. 4. Pull PL-625 cartridge out of the housing. 5. Hose off filter over the septic tank. Make sure all solids fall back into septic tank. 6. Insert the filter cartridge back into the housing making

sure the filter is properly aligned and completely inserted.

7. Replace and secure septic tank cover. Technical Specifications: Page 88 - 89



Outdoor SmartFilter@ Alarm

www.polylok.com

PL-625 Effluent Filter & Grease Trap

The PL-625 filter is ideal for grease trap applications. The 1/32" filtration has been shown to reduce fats, oils, and

grease (FOG) by as much as 60% to 98%! The filter may be used in onsite wastewater systems that require a finer

1/32" Filtration Slots

8,000 GPD

CONTROL PANEL (TYPICAL) FOR BAT SYSTEMS, AND LOT 1 PUMP

COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT REBY CERTIFY THAT THESE DOCUMENTS WERE REPARED OR APPROVED BY ME AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER THE LAWS OF THE STATE OF MARYLAND, LECENSE NO. 3/027, EXP DATE 01/16/2025

<u>OWNER</u> WOODBINE BRANTLY, LLC 8318 FORREST ST. SUITE 200 ELLICOTT CITY, MARYLAND 21043 (410)992-4600

ALL PIPE INVERTS LISTED IN SEWER SYSTEM CHART, SHEET 14 WHERE NOT INDICATED OTHERWISE. PIPES RUN TO CENTERLINE OF TANK

EQUALIZATION WITH OVERFLOW 4" ELBOW AT SAME ELEVATION 1 1" PIPE PUMP DISCHARGE-1500 GALLON NON TRAFFIC 4"x4"x4" TEE NORWECO BAT 960LP-1250 SEE NOTE BELOW SEPTIC TANK - SETTLING GREASE TRAP SEPTIC TANK W FILTER GRIT CHAMBER 4" PIPE PRETREATMENT SEE PLAN AND PL625 EFFLUENT (OVERFLOW) NORWECO BAT **ELEVATION** 960LP-1250 ∠4" CROSS-OVER (HB) PIPE, 634.30 2000 GALLON 2000 GALLON 1500 GALLON NON TRAFFIC TRAFFIC RATED TRAFFIC RATED 1 PIPE PUMP DISCHARGE-4" ELBOW NOTE: ALL OPENINGS NOT PRECAST PARALLEL SYSTEM SCHEMATIC LOT 1 TO BE CORED, SEALED WITH

POLYLOK PL-525 - 625 CUTAWAY SECTION A-A

RE TRED OLD PAX

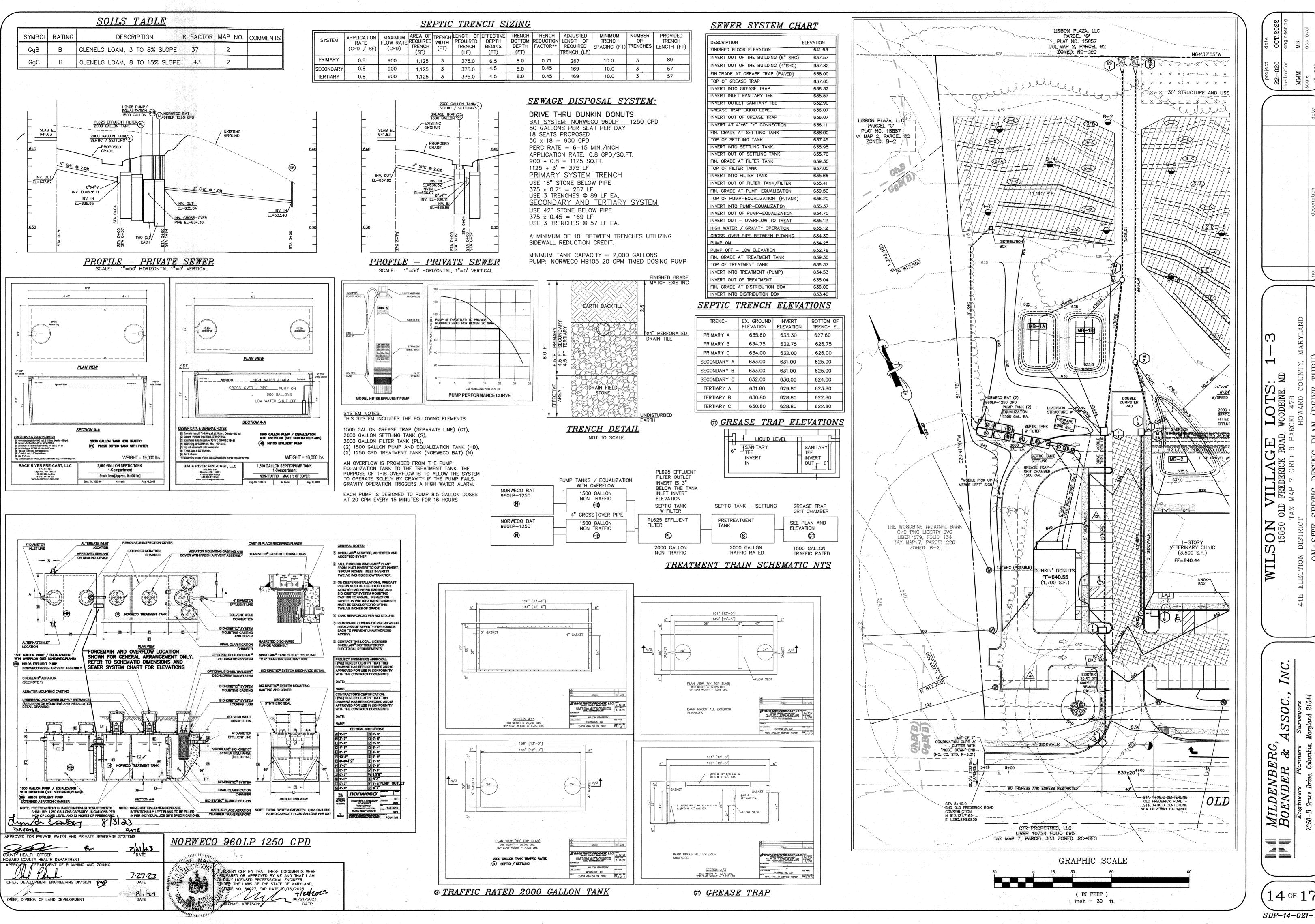
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SOILS TABLE

SYMBOL	RATING	DESCRIPTION K FACTOR MAP NO. COMMENTS
GgB	В	GLENELG LOAM, 3 TO 8% SLOPE 37 2
GgC	В	GLENELG LOAM, 8 TO 15% SLOPE .43 2

PRIMARY A

PRIMARY B

PRIMARY C

PRIMARY D

PRIMARY E

PRIMARY F

PRIMARY G

SECONDARY A

SECONDARY B

SECONDARY C

SECONDARY D

SECONDARY E

SECONDARY F

SECONDARY G

SECONDARY H

TERTIARY A

TERTIARY B

TERTIARY C

TERTIARY D

TERTIARY E

TERTIARY F

SEPTIC TRENCH ELEVATIONS

637.23 | 634.25

636.40 633.40

635.16 632.16

634.93 | 631.94

634.55 631.55

634.50 631.50

633.82 630.82

633.53 630.53

ELEVATION | ELEVATION | TRENCH EL.

633.82

633.40

633.00

632.75

632.80

632.30

631.10

630.00

629.33

628.90

627.80

627.50

626.85

629.25

628.82

628.40

628.40

628.00

627.75

627.16

627.80

627.30

626.93

626.55

626.50

626.10

625.82

625.53

625.00

624.33

623.90

622.80

622.50

EX. GROUND INVERT

636.82

636.40

636.00

635.75

635.80

635.30

634.10

633.00

632.33

631.90

630.80

630.50

629.85

SEWAGE DISPOSAL SYSTEM:

BAT SYSTEM: 2X NORWECO TNTLP 1000 GPD

VETERINARY CLINIC RUNS: 2x25/RUN = 50 GPDDOG CAGES: $16 \times 25 / \text{CAGE} = 400 \text{ GPD}$ CAT CAGES: 7x25/CAGE = 175 GPDX-RAY ROOM: 1x150/ROOM = 150 GPDDENTAL ROOM: 1x150/ROOM = 150 GPD3 TREATMENT STATIONS: 250 CPD 4 EXAMINATION ROOMS: 250 GPD 1 OPERATING ROOM: 250 GPD

OFFICE BUILDING 2,000 S.F. OFFICE SPACE 0.09 GALLONS PER S.F. PER DAY $2,000 \times 0.09 = 180 \text{ GPD}$

TOTAL: 1675 + 180 = 1.855 GPD

PRIMARY AND SECONDARY SYSTEM PERC RATE: 16-30 MIN./INCH APPLICATION RATES: 0.6 GPD/S.F. $1855 \div 0.6 = 3,092 \text{ SQ.FT.}$ $3,092 \div 3' = 1,031 \text{ L.F.}$ USE 30" STONE BELOW PIPE $1,031 \times 0.55 = 567 LF$ PRIMARY SYSTEM: USE 7 TRENCHES @ 81 LF EACH SECONDARY SYSTEM: USE 8 TRENCHES @ 71 LF EACH

TERTIARY SYSTEM 0.8 GPD/SQ.FT.

PERC RATE: 6-15 MIN./INCH APPLICATION RATE: 0.8 GPD/S.F. $1855 \div 0.8 = 2319$ $2319 \div 3' = 773$ USE 30" STONE BELOW PIPE 773 x 0.55= 425 LF USE 6 TRENCHES @ 71 LF EACH

TRENCH WIDTH: 3.0', A MINIMUM OF 10' BETWEEN TRENCHES UTILIZING SIDEWALL REDUCTION CREDIT.

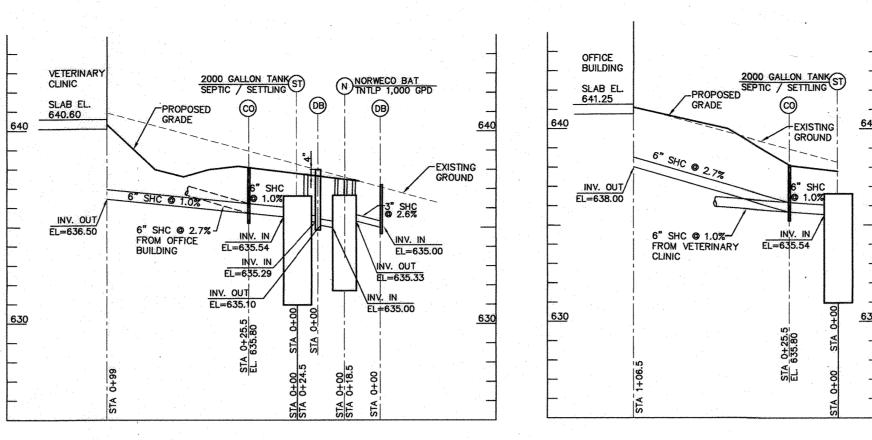
MINIMUM TANK CAPACITY = 2,000 GALLONS PER TANK

APPLICATION MAXIMUM REQUIRED REQUIRED FOR TRENCH REQUIRED DEPTH BOTTOM REDUCTION LENGTH OF TRENCH REQUIRED FOR TRENCH REQUIRED SPACING (FT) TRENCH LENGTH (FT) PRIMARY 0.6 SECONDARY

SEWER SYSTEM CHART

• 0.8

DESCRIPTION	ELEVATION
FINISHED FLOOR ELEVATION	640.60
INVERT OUT OF THE BUILDING	636.40
FIN. GRADE PRIMARY TANK	637.52
TOP OF PRIMARY TANK	636.20
INVERT INTO PRIMARY TANK	635.54
INVERT OUT OF PRIMARY TANK	635.29
FIN. GRADE AT TREATMENT TANK	637.60
TOP OF TREATMENT TANK	636.67
INVERT INTO TREATMENT	635.00
INVERT OUT OF TREATMENT	635.33
INVERT INTO DISTRIBUTION BOX	635.00



10.0

10.0

TRENCH (LF)

567

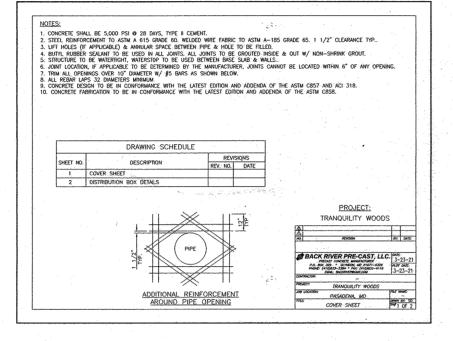
567

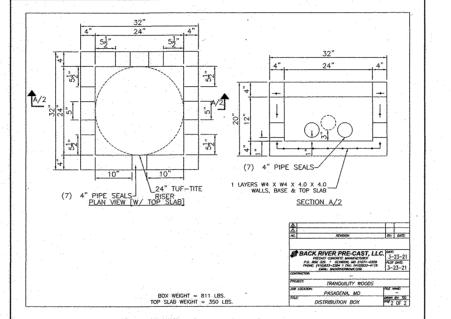
425

PROFILE - PRIVATE SEWER SCALE: 1"=50' HOR 1"=5' VER

PROFILE - PRIVATE SEWER SCALE: 1"=50' HOR 1"=5' VER

81





SEPTIC TRENCH SIZING

(LF)

3 1,031

3092 3 1,031 5.5

2319 3 773 5.5

(FT)

5.5

8.0

8.0

8.0

0.55

0.55

0.55

TRENCH (FT)

(GPD)

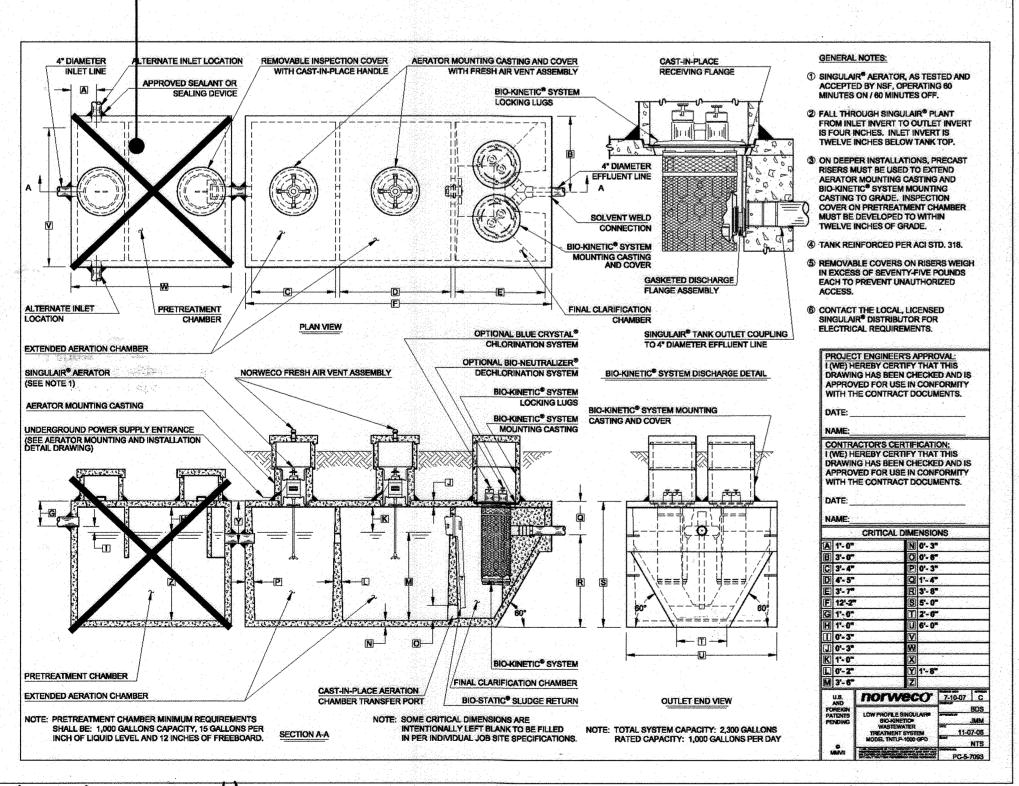
1855

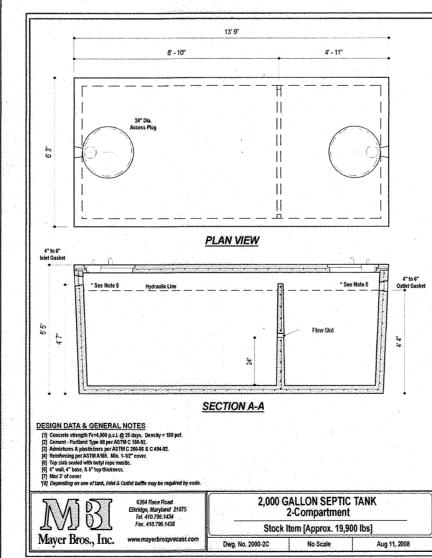
`EARTH` BACKFILL VO4" PERFORATED DRAIN FIELD TRENCH DETAIL

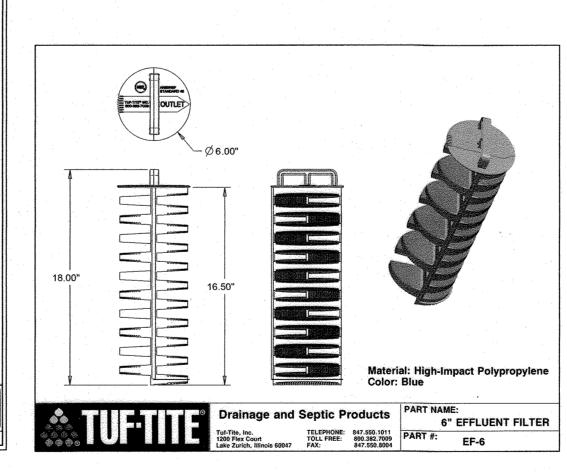
NOT TO SCALE

___ USE 2,000 GALLON TANK SEE DETAIL THIS SHEET

24"x 24"D-BOX DETAIL FITTED W/SPEED LEVERS





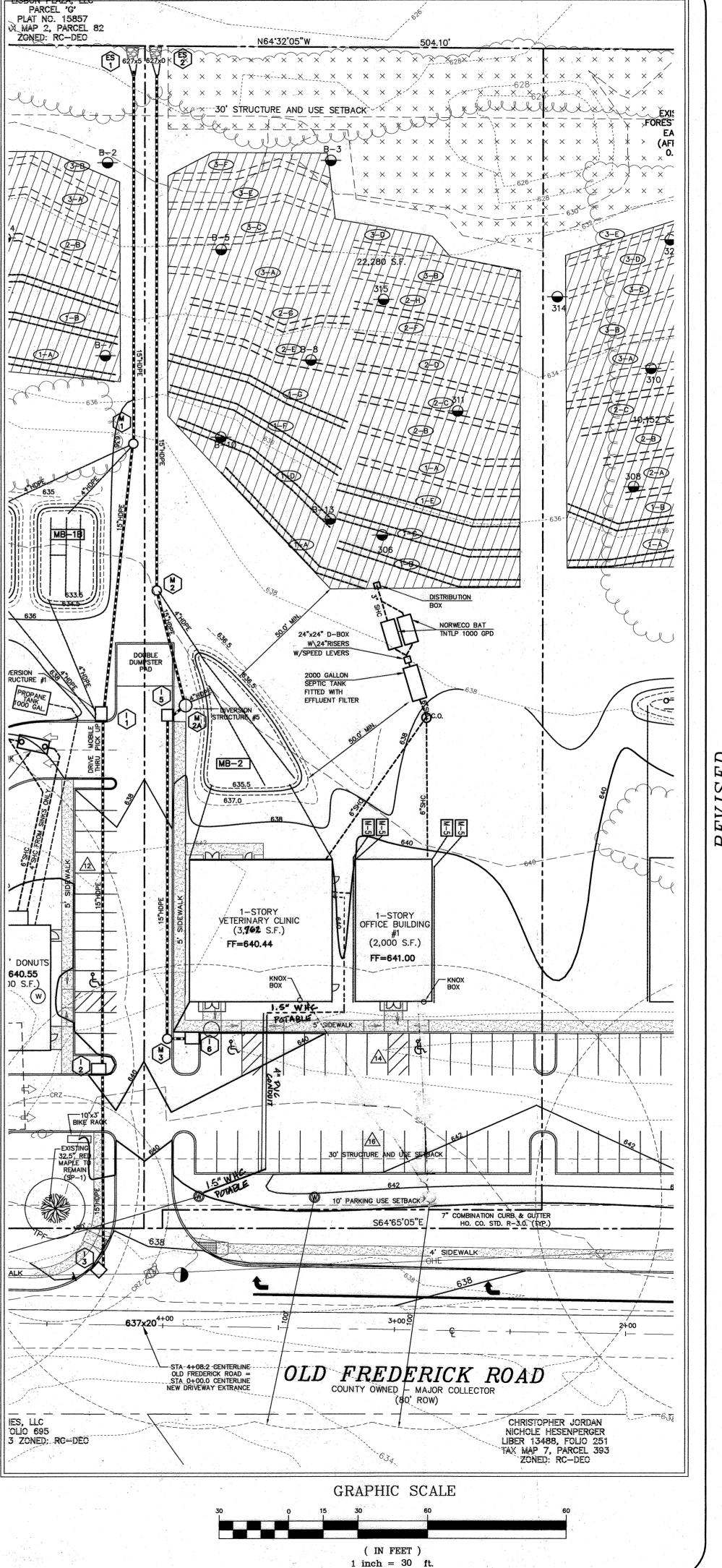


PRE-TREATMENT CHAMBER 2000 GALLON TANK

FILTER TO BE FITTED IN PRETREATMENT CHAMBER

HEALTH DEPARTMENT WILL REVIEW THE FLOOR PLAN OF THE PROPOSED BUILDING DURING BUILDING PERMIT REVIEW. IF THE FLOOR PLAN INDICATES USE DIFFERENT FROM WHAT IS PROPOSED ON THIS PLAN, A REVISION OF THIS PLAN, AND SEWAGE DISPOSAL SYSTEM MAY BE REQUIRED.

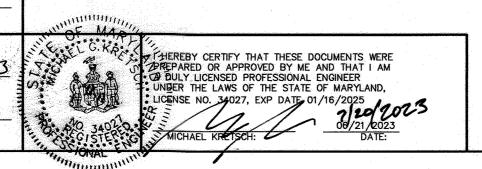
ENGINEER MUST SUBMIT A SITE SPECIFIC BAT O&M MANUAL TO THE HEALTH DEPARTMENT PRIOR TO BUILDING PERMIT APPROVAL



8/3/23 NORWECO TNTLP 1000 GPD DIRECTIR DATE APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS COUNTY HEALTH OFFICER

HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: , DEPARTMENT OF PLANNING AND ZONING



<u>OWNER</u> WOODBINE BRANTLY, LLC 8318 FORREST ST. SUITE 200 ELLICOTT CITY, MARYLAND 21043 (410)992-4600

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SOILS TABLE

SYMBOL	RATING	DESCRIPTION	K FACTOR	MAP NO.	COMMENTS
GgB	В	GLENELG LOAM, 3 TO 8% SLOPE	37	2	
GgC	∍ B	GLENELG LOAM, 8 TO 15% SLOPE	.43 -	2	

	<u>SE</u>	PTIC	' TREN	ICH S.	<u>IZING</u>		-	
F	REQUIRED	WIDTH	REQUIRED	DEPTH	BOTTOM	REDUCTION	ADJUSTED LENGTH OF	
	TRENCH	(FT)	TRENCH	BEGINS	DEPTH	FACTOR**	REQUIRED	5

BEI IIC INENCII BIZINO												
SYSTEM	APPLICATION RATE (GPD / SF)	MAXIMUM FLOW RATE (GPD)	AREA OF REQUIRED TRENCH (SF)	TRENCH WIDTH (FT)	LENGTH OF REQUIRED TRENCH (LF)	EFFECTIVE DEPTH BEGINS (FT)	TRENCH BOTTOM DEPTH (FT)	TRENCH REDUCTION FACTOR**		MINIMUM TRENCH SPACING (FT)	NUMBER OF TRENCHES	PROVIDED TRENCH LENGTH (F
PRIMARY	0.8	1000	1250	3	417.0	4.5	8.0	0.45	188	10.0	2	94
SECONDARY	8.0	1000	1250	3	417.0	4.5	8.0	0.45	188	10.0	3	63
TERTIARY	0.8	1000	1250	3	417.0	5.5	8.0	0.55	230	10.0	5	46
***************************************									-			

SEWAGE DISPOSAL SYSTEM:

OFFICE BUILDING #2
BAT SYSTEM: NORWECO TNTLP 1000 GPD 7,200 S.F. OFFICE SPACE 0.09 GALLONS PER S.F. PER DAY $7,200 \times 0.09 = 648 \text{ GPD}$ ADDITIONAL CAPACITY: 352 GPD

PERC RATE: 6-15 MIN./INCH APPLICATION RATES: 0.8 GPD/S.F. $1,000 \div 0.8 = 1250$ SQ.FT. $1250 \div 3' = 417 \text{ L.F.}$

DESIGN: 1,000 GPD

PRIMARY SYSTEM USE 42" STONE BELOW PIPE $417 \times 0.45 = 188 \text{ L.F.}$ USE 2 TRENCHES @ 94 L.F. EA,

SECONDARY SYSTEM USE 42" STONE BELOW PIPE $417 \times 0.45 = 188 \text{ L.F.}$ USE 3 TRENCHES @ 63 L.F. EA TERTIARY SYSTEM

USE 30" STONE BELOW PIPE $417 \times 0.55 = 230 LF$ USE 5 TRENCHES @ 46 L.F. EA.

A MINIMUM OF 10' BETWEEN TRENCHES UTILIZING SIDEWALL REDUCTION CREDIT.

MINIMUM TANK CAPACITY = 1,000 GALLONS

SEWER SYSTEM CHART

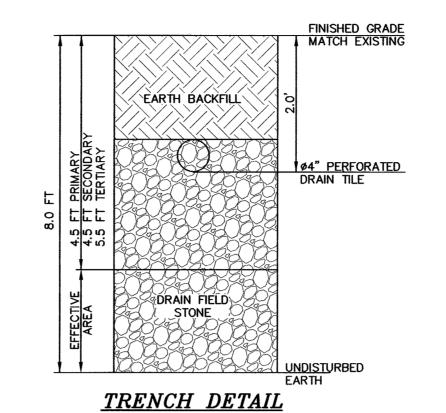
DESCRIPTION	ELEVATION
FINISHED FLOOR ELEVATION	642.00
INVERT OUT OF THE BUILDING	638.11
FIN. GRADE PRIMARY TANK	637.00
TOP OF PRIMARY TANK	636.67
INVERT INTO PRIMARY TANK	635.67
INVERT OUT OF PRIMARY TANK	635.00
FIN. GRADE AT TREATMENT TANK	639.48
TOP OF TREATMENT TANK	636.08
INVERT INTO TREATMENT	635.00
INVERT OUT OF TREATMENT	634.75
FIN. GRADE AT DISTRIBUTION BOX	636.20

634.20

INVERT INTO DISTRIBUTION BOX

SEPTIC TRENCH ELEVATIONS

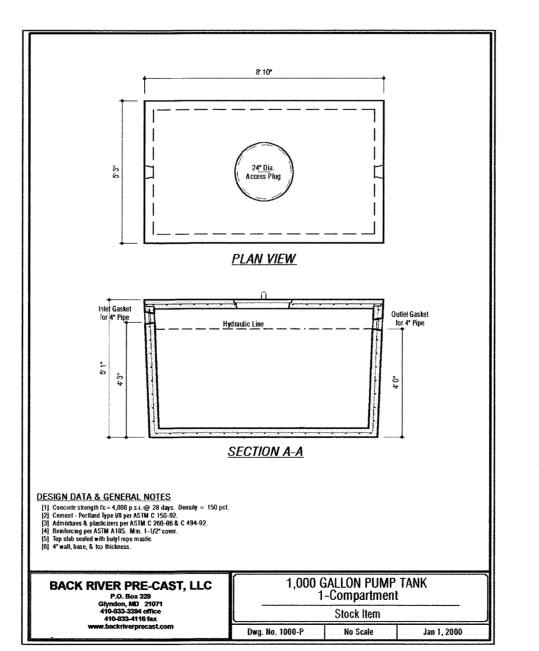
TRENCH	EX. GROUND ELEVATION	INVERT ELEVATION	BOTTOM OF TRENCH EL.
PRIMARY A	636.12	634.12	628.12
PRIMARY B	635.88	633.88	627.88
SECONDARY A	635.50	633.50	627.50
SECONDARY B	635.14	633.14	627.14
SECONDARY C	634.80	632.80	626.80
TERTIARY A	634.30	632.30	626.30
TERTIARY B	633.90	631.90	625.90
TERTIARY C	633.46	631.46	625.46
TERTIARY D	632.95	630.95	624.95
TERTIARY E	632.48	630.48	624.48



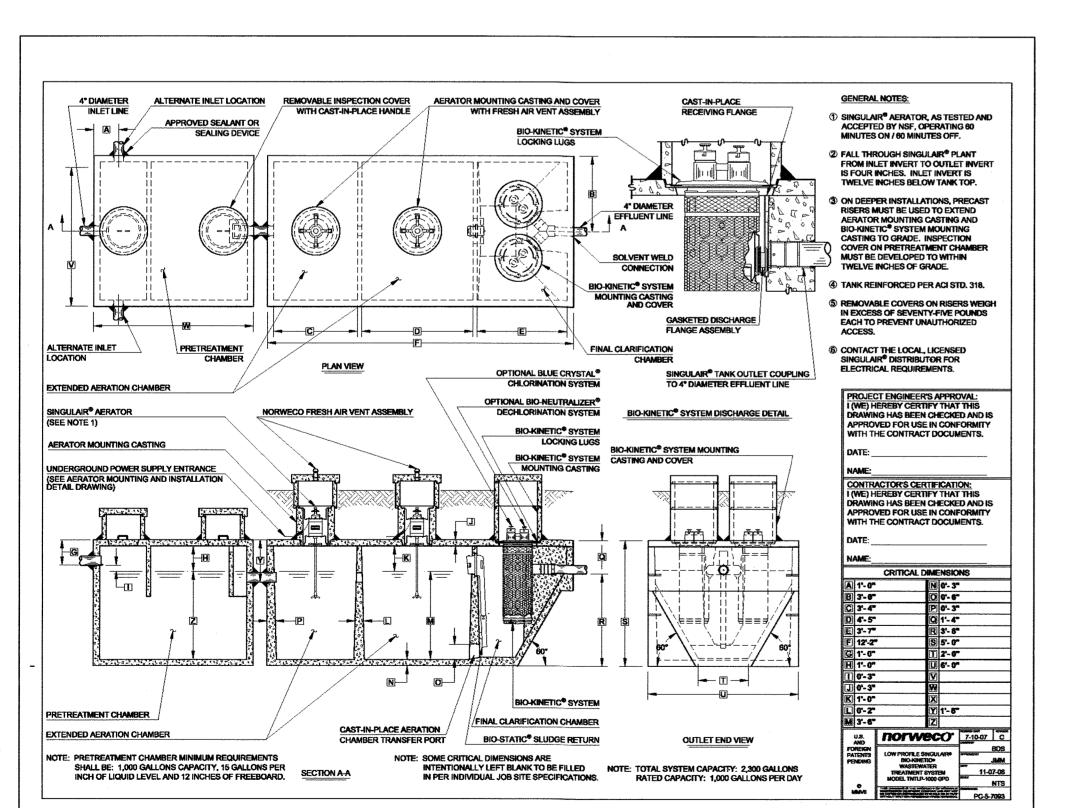
NOT TO SCALE

SLAB EL 642.00 6" SHC @ 2.0% INV. OUT/ EL=638.11 INV. OUT EL=634.75 INV. IN EL=635.67 15"HDPE INV.633.59 INV. OUT/ EL=635.00 STA STA STA STA STA

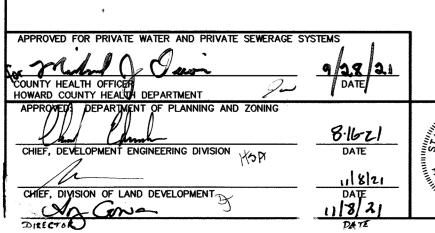
PROFILE - PRIVATE SEWER SCALE: 1"=50' HOR 1"=5' VER



PRE-TREATMENT CHAMBER /
1000 GALLON TANK

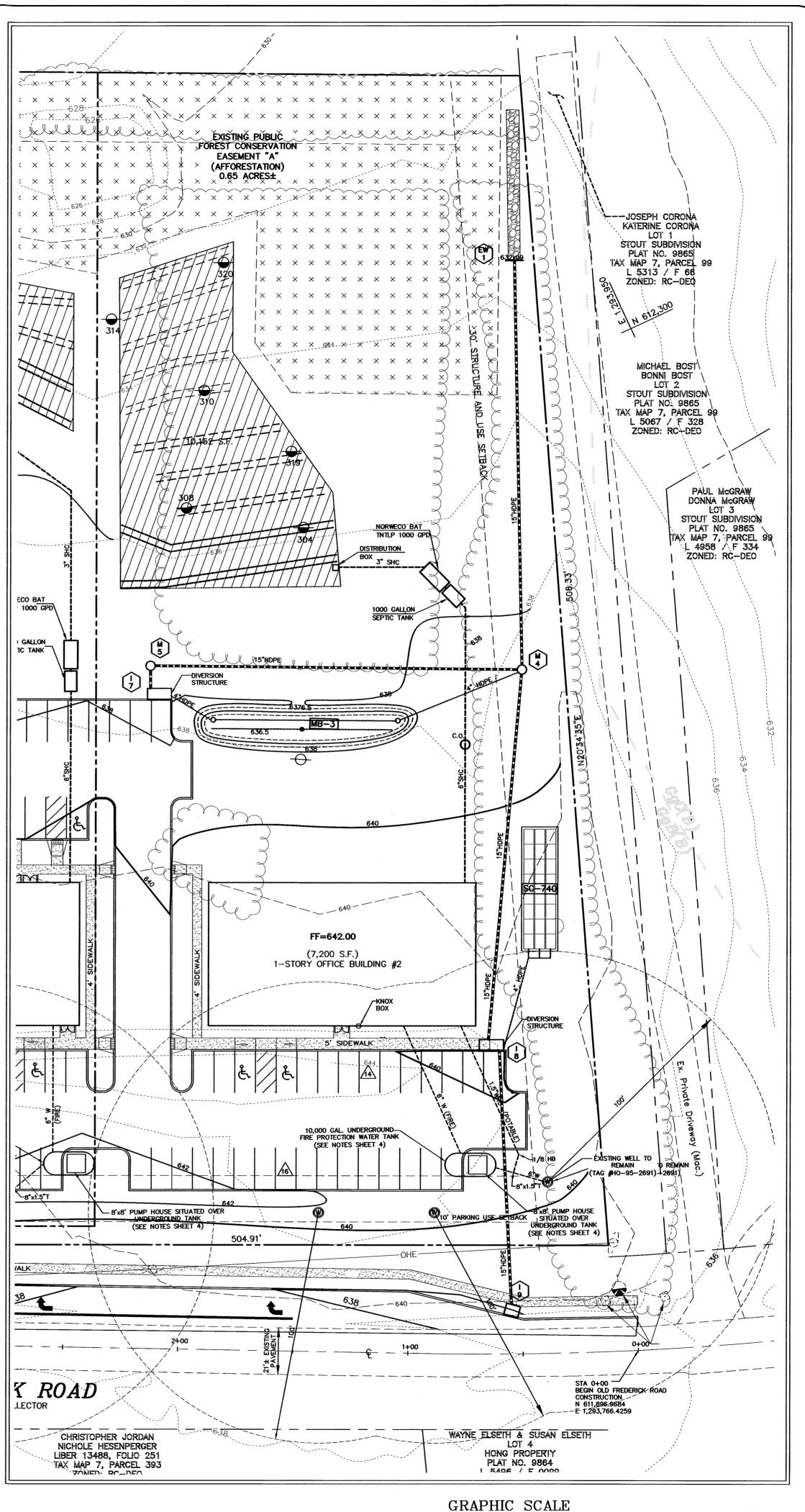


NORWECO TNTLP 1000 GPD



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. 34027, EXP DATE 01/16/2023 MICHAEL KRETSCH:

<u>OWNER</u> WOODBINE BRANTLY, LLC 8318 FOREST ST. SUITE 200 ELLICOTT CITY, MARYLAND 21043 (410)992-4600



(IN FEET)

1 inch = 30 ft.

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SOILS CLASSIFICATION OFF-SITE FOREST CONSERVATION EASEMENT AREAS PLANTING SPECIFICATIONS AND NOTES CARE SHALL BE TAKEN WHEN DIGGING PLANTING FIELDS NOT TO CHOP THROUGH LARGER EXISTING ROOTS FROM EXISTING MATURE TREES. IF ROOTS GREATER THAN 1/2 INCH ARE ENCOUNTERED PLEASE TRY TO DIG TOTAL EASEMENT AVAILABLE FOR PLANTING: 8.87 ACRES± DESCRIPTION SITE PREPARATION AND SOILS THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR EASEMENT AREA REMAINING EASMENT PROVIDED DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION PROTECTION FENCING IS TO BE INSTALLED AS A FIRST ORDER OF BAILE SILT LOAM, 0 TO 3 PERCENT SLOPES (D) PLAN # BUSINESS. SEE PLAN FOR LOCATIONS.

DISTURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD FOR EACH PLANT. AS SHOWN ON THE DETAIL VIEW, A PLANTING FIELD OF RADIUS = 5 X DIAMETER OF THE ROOT BALL OR CONTAINER AROUND THEM AS MUCH AS POSSIBLE TO MINIMIZE IMPACT TO EASEMENTS EXCEPT AS PERMITTED BY THE HOWARD COUNTY CHILLUM-RUSSETT LOAMS, 2 TO 5 PERCENT SLOPES (B) EXISTING TREES. THEY WERE HERE FIRST. FOREST CONSERVATION PROGRAM 4. CONTAINER GROWN STOCK SHOULD BE REMOVED FROM THE CONTAINER AND NORDAU PROPERTY 0.77 ACRES± F-12-047 GLENELG LOAM, 0 TO 3 PERCENT SLOPES (B) 8.10 ACRES± ROOTS GENTLY LOOSENED FROM THE SOIL. IF THE ROOTS ENCIRCLE THE ROOT BALL, SUBSTITUTION IS STRONGLY RECOMMENDED. GLENELG LOAM, 3 TO 8 PERCENT SLOPES (B) THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, SOIL J-SHAPED OR KINKED ROOT SYSTEMS SHOULD ALSO BE NOTED. ROOTS
MAY NOT BE TRIMMED ON SITE, DUE TO THE INCREASED CHANCES OF TURLEY'S MEADOW F-13-084 1.36 ACRES± 6.74 ACRES± 3. SOIL MIX FOR ALL PLANTS EXCEPT ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL COMPACTION, OR EXCAVATION, INTRODUCTION OF TOXIC CHEMICALS OR OTHER DISTURBANCES DETRIMENTAL TO THE LIVE SPECIMEN SOIL BORNE DISEASES. MONTGOMERY CORSSING, TREES OR CRITICAL ROOT ZONES FOR THESE TREES EXCEPT AS 1.08 ACRES± 5.66 ACRES± F-14-029 5. FOR BALL AND BURLAP STOCK, PLACE TREE IN PREPARED PLANTING FIELD AND REMOVE WIRE AND/OR STRING FROM ROOT BALL. THEN PEEL BACK BURLAP TO BASE OF ROOT BALL AND COVER ENTIRE ROOT BALL WITH TOPSOIL MIXTURE INDICATED ABOVE AND WATER GENEROUSLY. THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLUDGE.

4. SOIL MIX FOR ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM. TURLEY'S OVERLOOK 5.14 ACRES± F-14-079 0.52 ACRES± EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME PEAT MOSS. FOR TREES PLANTED IN THE AFFORESTATION AREA, CONTRACTOR SHALL SDP-14-042 BETHEL MINISTRIES, INC. 4.33 ACRES± . 0.81 ACRES± EVENLY DISPERSE SPECIES IN GROUPS OF TWO (2) TO FIVE (5), PER SPECIES, OVER THE ENTIRE DESIGNATED AREA TO BE PLANTED WHILE MAINTAINING AN AVERAGE RANDOM SPACING OF INDIVIDUAL TREES AT 5. ALL MIXING IN 3 AND 4 SHALL BE LIMITED TO CONTAINER GROWN OR BALL AND BURLAP STOCK ONLY AND CONFINED TO THE PLANTING FIELD AND IMMEDIATE ADJACENT SOIL SURFACE AREA AND SHALL BE DONE TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER. F-11-059 3.86 ACRES± GUILFORD OVERLOOK 0.47 ACRES± PROPER SPACING INDICATED ON PLANT LIST. AVOID PLANTING IN A STRAIGHT GRID PATTERN. TREES SHALL BE PLANTED ON AN AVERAGE SPACING AS INDICATED ON PLANT LISTS TO PINE GROVE ADDITION 0.27 ACRES± F-15-036 3.59 ACRES± PLANT STORAGE AND INSPECTION LOTS 1-6 OBTAIN A MORE NATURAL APPEARANCE. 8. NEWLY PLANTED TREES MAY NEED WATERING AS MUCH AS ONCE A WEEK FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WILSON VILLAGE 2.76 ACRES± 0.83 ACRES± SDP-14-021 FOR THE ENTIRE GROWING SEASON, DUE TO THE VERY DEEP, WELL DRAINED NATURE OF THE NATIVE SOILS FOUND ON THIS SITE COMBINED WITH THE LOOSENESS OF THE BACKFILLED AREA WITHIN THE PLANTING FIELD. FOR BALL AND BURLAP NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN THREE DAYS AFTER DELIVERY TO THE SITE. THE NEXT TWO YEARS MAY REQUIRE WATERING ONLY A FEW TIMES A YEAR DURING SUMMER AND DRY MONTHS. AFTER THAT PERIOD, TREES SHOULD ONLY NEED WATER IN SEVERE DROUGHTS. ANY WATERING PLAN SHOULD COMPENSATE FOR RECENT RAINFALL PATTERNS. 3. PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERYMAN SPECIFICATIONS FOR SIZE, FORM, VIGOR, ROOTS, TRUNK WOUNDS, INSECTS AND DISEASE SHOULD BE REPLACED. 4. UNTIL PLANTED, ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL, DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SPURT OF CANOPY PLANT INSTALLATION THE PLANTING FIELD SHOULD BE PREPARED AS SPECIFIED (SEE DETAIL). NATIVE STOCKPILED SOILS SHOULD BE USED FOR SOIL MIX AND BACKFILL FOR PLANTING FIELD. AFTER PLANT INSTALLATION, RAKE SOILS EVENLY OVER THE PLANTING FIELD AND COVER WITH AT GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADD ADDITIONAL SHOCK TO THE ALREADY DISTURBED PLANT.
NOTHING SHOULD BE ADDED TO THE SOIL WITHOUT TESTING IT FIRST VICINITY MAP TO DETERMINE ITS NEEDS.

3. IF AND WHEN IT IS TIME TO FERTILIZE, ORGANIC FERTILIZERS ARE LEAST 4 INCHES OF MULCH. WATER, GENEROUSLY, TO SETTLE SOIL BACKFILLED AROUND TREES.
PLANTING FIELD DIAMETERS SHOULD BE REDUCED OR PLANTING FIELD PREFERRED TO SYNTHETIC FERTILIZERS. BONE MEAL OR SEAWEED N 530,250 BASED PRODUCTS ARE AVAILABLE COMMERCIALLY AND ARE RECOMMENDED. THEY HAVE THE ABILITY TO SUPPLY NUTRIENTS TO PROJECT BACKGROUND: MOVED IF IT APPEARS THAT EXCESSIVE EXISTING ROOT DAMAGE MAY OCCUR DURING DIGGING OPERATION NEAR EXISTING FOREST. THE PLANT AS NEEDED WHILE MINIMIZING THE RISK OF EXCESS LOCATION: TAX MAP: 7 GRID: 6 PARCEL: 478 NUTRIENTS ENTERING THE FOREST SYSTEM AND WATER SUPPLY. ELECTION DISTRICT: FOURTH % LOT 13 MAINTENANCE SCHEDULE ZONING: B-2 TOTAL AREA: 5.89 AC.± ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR DEED REFERENCE: 08084 / 00137 ASSESS TREE MORTALITY OF PLANTING STOCK, REMOVE AND REPLACE ANY PREVIOUS DPZ FILES: F-78-03, SDP-92-77, ECP-13-050 DEAD OR DISEASED PLANTINGS.

3. VOLUNTEER SEEDING OF NATIVE, LOCAL AND ENDEMIC VEGETATION IS TO BE EXPECTED. DO NOT DISCOURAGE THIS EFFORT UNLESS IT IS NEGATIVELY EFFECTING THE PLANTED STOCK. + (REFORESTATION)+ 4. REMOVE THROUGH MANUAL MEANS (GRUBBING, PULLING, CUTTING) Gre PLATETANAS. AGGRESSIVE, NOXIOUS, INVASIVE SPECIES AND ALL HERBACEOUS VEGETATION WITHIN A 3-FOOT RADIUS SURROUNDING THE PLANTED PLAT# 14344-14345 WOODY NURSERY STOCK. REMOVE AND DISPOSE OF MAN-MADE TRASH, INCLUDING ITEMS CONTAINED WITHIN ENTIRE PLANTING AREA. DO NOT REMOVE DOWN AND DEAD MATERIAL NATURALLY OCCURRING OR ACCUMULATING, UNLESS IT IS SMOTHERING PLANTING STOCK. 6. A 75 PERCENT SURVIVAL OF PLANTED STOCK MUST BE ACHIEVED AT THE END OF THE 24 MONTH MANAGEMENT PERIOD. IF NOT, ADDITIONAL PLANTINGS MAY BE REQUIRED TO ACHIEVE THIS GOAL. **FOREST** MINDSOR FARM ESTATES, LOT 1 **SUPERVISION** CONSERVATION AREA 1. ALL FOREST CONSERVATION ACTIVITIES SHALL BY DONE UNDER THE DIRECT SUPERVISION OF SOMEONE FROM THE DESIGN TEAM OR OTHER "QUALIFIED PROFESSIONAL" AS DETERMINED BY THE REQUIREMENTS OF COMAR 08.19.06.01 AND THE MARYLAND DEPARTMENT OF NATURAL 222.61 RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION. REFORESTATION **PROJECT** TREES FOR YOUR 107 20// **FUTURE** SIGNAGE DETAILS NOT TO SCALE N 529,500 N 529,500 REFORESTATION PLANT LIST FOREST CONSERVATION WORKSHEET ALTERNATIVE 1 NET TRACT AREA: SHADE MOIST. WET. MIN.O.C. SIZE & TOL. REGIME STATUS SPACING REMARKS A. Total tract area. QTY. SPECIES B. Area within 100 year floodplain & overhead transmission line = 0.00 VT D-W FAC 15' CONT/B & B C. Area to remain in agricultural production..... Red Maple 1" CALIPER D. Net tract area. 40 Lindera benzoin Spicebush FACW- 15' CONT/B & B LAND USE CATEGORY 3'-5' HEIGHT Input the number "1" under the appropriate land use 15' CONT/B & B 40 Quercus Rubra Red Oak zoning, and limit to only one entry. 1" CALIPER ARA MDR IDA HDR MPD CIA 0 0 0 0 0 1 15' CONT/B & B 40 Liriodendron tulipifero 15% x D = 0.88 1" CALIPER 15% x D = 0.88 30 Nyssa sylvatica Black Gum EXISTING FOREST COVER: l" CÁLIPER G. Existing forest cover (excluding floodplain).....
H. Area of forest above afforestation threshold..... 15' CONT/B & B 30 Prunus sargentii= 0.00 Sargent Cherry 1" CALIPER Area of forest above conservation threshold. TOTAL BREAK EVEN POINT: 166 TREES, 40 BUSHES J. Forset retention above threshold with no mitigation.... K. Clearing permitted without mitigation...= 0.00 **ALTERNATIVE 2** PROPOSED FOREST CLEARING Total area of forest to be cleared. QTY. SPECIES REGIME STATUS SPACING REMARKS M. Total area of forest to be retained ...= 0.00 11' SEEDLING/WHIP 50 Acer rubrum Red Maple VT D-W FAC PLANTING REQUIREMENTS: WITH TREE SHELTER 40 Lindera benzoin SEEDLING/WHIP <u>LEGEND</u> P. Reforestation for clearing below conservation threshold......= 1.20 SEEDLING/WHIE . Total reforestation and afforestation required..... SEEDLING/WHIP EXISTING SEPTIC EASEMENT Total reforestation and afforestation provided onsite....= 0.65 with tree shelter Total reforestation and afforestation provided offsite... Nyssa sylvatica Black Gum SEEDLING / WHIP WITH TREE SHELTE FOREST CONSERVATION EASEMENT (REFORESTATION) BACKFILL WITH EXISTING NATIVE SOIL 91 Prunus sargentii FACU SEEDLING/WHIP THAT SATISFY OTHER SUBDIVISION FOREST CONSERVATION OBLIGATION. Sargent Cherry with tree shelter TOTAL
291 WHIPS WITH TREE SHELTERS, 40 BUSHES EXISTING FOREST CONSERVATION EASEMENT (REFORESTATION) F-01-11 AVAILABLE. "GROUND LINE 1" LOWER THAN NURSERY FOREST CONSERVATION IN ACCORDANCE WITH SECTION 16.1202 OF THE FOREST CONSERVATION MANUAL SHALL BE PROVIDED PROPOSED FOREST CONSERVATION EASEMENT FOR WILSON VILLAGE SHOPPING CENTER. BY PLACEMENT OF 0.83 ACRES OF REQUIRED REFORESTATION FOR THE WILSON VILLAGE SHOPPING CENTER INTO AN OFF-SITE EASEMENT ON PROPERTY IDENTIFIED AS THE DENOTES FOREST CONSERVATION SIGNAGE ROSEBAR PROPERTY, PRESERVATION PARCEL A LOCATED ON TAX MAP NO. 14 AND IDENTIFIED AS PARCEL 221, SITUATED ON THE WEST SIDE OWNER / DEVELOPER OF HOBBS ROAD. THE ROSEBAR FOREST CONSERVATION EASEMENT HAS BEEN SHOWN WOODBINE BRANTLY, LLC ON SHEET 18 OF SDP-97-115/NEW COLONY 5300 DORSEY HALL DRIVE VILLAGE. DPZ HAS DETERMINED THAT A RED-LINE REVISION SHALL BE MADE TO ELLICOTT CITY, MARYLAND 21042 SDP-97-115 TO SHOW 0.83 ACRES OF (413)367-0422 REFORESTATION DEDUCTED FROM THE TOTAL FC EASEMENT LOCATED ON ROSEBAR. SURETY - CONVEX BOTTOM FOR THE OFF-SITE FOREST CONSERVATION

PROFESSIONAL LANDSCAPE ARCHITECT

LICENSE NO.: 3126

DAVID A. MITCHELL, P.L.A.

WEREBY CERTIFY THAT THESE DOCUMENTS WERE

PREPARED OR APPROVED BY ME AND THAT I AM ACRUEY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 26859, EXP DATE 08/08/23

SAMER A. ALOMER, P.E.

CHIEF, DEVELOPMENT ENGINEERING DIVISION 14 K

CHIEF, DIVISION OF LAND DEVELOPMENT

EASEMENT ON THE ROSEBAR PROPERTY HAS

BEEN PREVIOUSLY POSTED BY THE OWNER OF

THE EASEMENT HOLDER.

 $17 \, \text{of} \, 17$

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MILDENBE! BOENDER

3' TO 5'

- WHIP OR TREE

TREE PLANTING DETAIL

CONTAINER GROWN

-3"-4" MULCH

EXISTING-

TOPSOIL

MD