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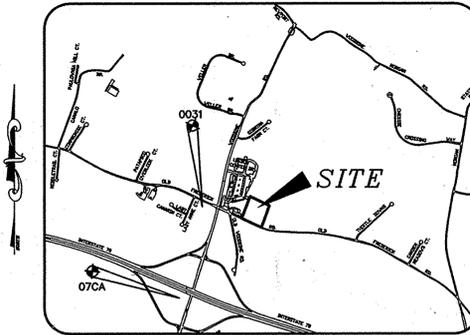
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SITE DEVELOPMENT PLAN

WILSON VILLAGE

FOURTH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP
1" = 2000'
ADC MAP 9 GRID B4

STORMWATER MANAGEMENT PRACTICES																
ADDRESS	GREEN ROOF	PERMEABLE PAVEMENTS	REINFORCED TURF	DISCONNECTION OF ROOFTOP RUNOFF	DISCONNECTION OF NON-ROOFTOP RUNOFF	SHEETFLOW TO CONSERVATION AREAS	RAINWATER HARVESTING	SUBMERGED GRAVEL WETLANDS	LANDSCAPE INFILTRATION	INFILTRATION BERMS	DRY WELLS	MICRO-BIOTRETION	RAIN GARDENS	SWALES	ENHANCED FILTERS	
	A-1 (Y/N)	A-2 (Y/N)	A-3 (Y/N)	N-1 (NUMBER)	N-2 (Y/N)	N-3 (Y/N)	M-1 (NUMBER)	M-2 (NUMBER)	M-3 (NUMBER)	M-4 (NUMBER)	M-5 (NUMBER)	M-6 (NUMBER)	M-7 (NUMBER)	M-8 (NUMBER)	M-9 (NUMBER)	
SITE	N/A	N	Y	N	0	N	0	0	0	0	0	4	0	2	0	

OWNER / DEVELOPER

WOODBINE BRANTLY, LLC
5300 DORSEY HALL DRIVE
ELLICOTT CITY, MARYLAND 21042
(410)367-0422

DEVELOPERS CERTIFICATE

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

LAND DESIGN & DEVELOPMENT LLC

PRINTED NAME OF DEVELOPER: Land Design & Development LLC
SIGNATURE OF DEVELOPER: [Signature] DATE: 9/4/2015

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATURAL RESOURCE CONSERVATION SERVICE.

SIGNATURE OF ENGINEER: [Signature] DATE: 9/11/15
R. JACOB HIKMAT, PE
PRINTED NAME OF ENGINEER

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

[Signature] DATE: 9/30/15
HOWARD SOIL CONSERVATION DISTRICT

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

[Signature] DATE: 10/14/2015
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS

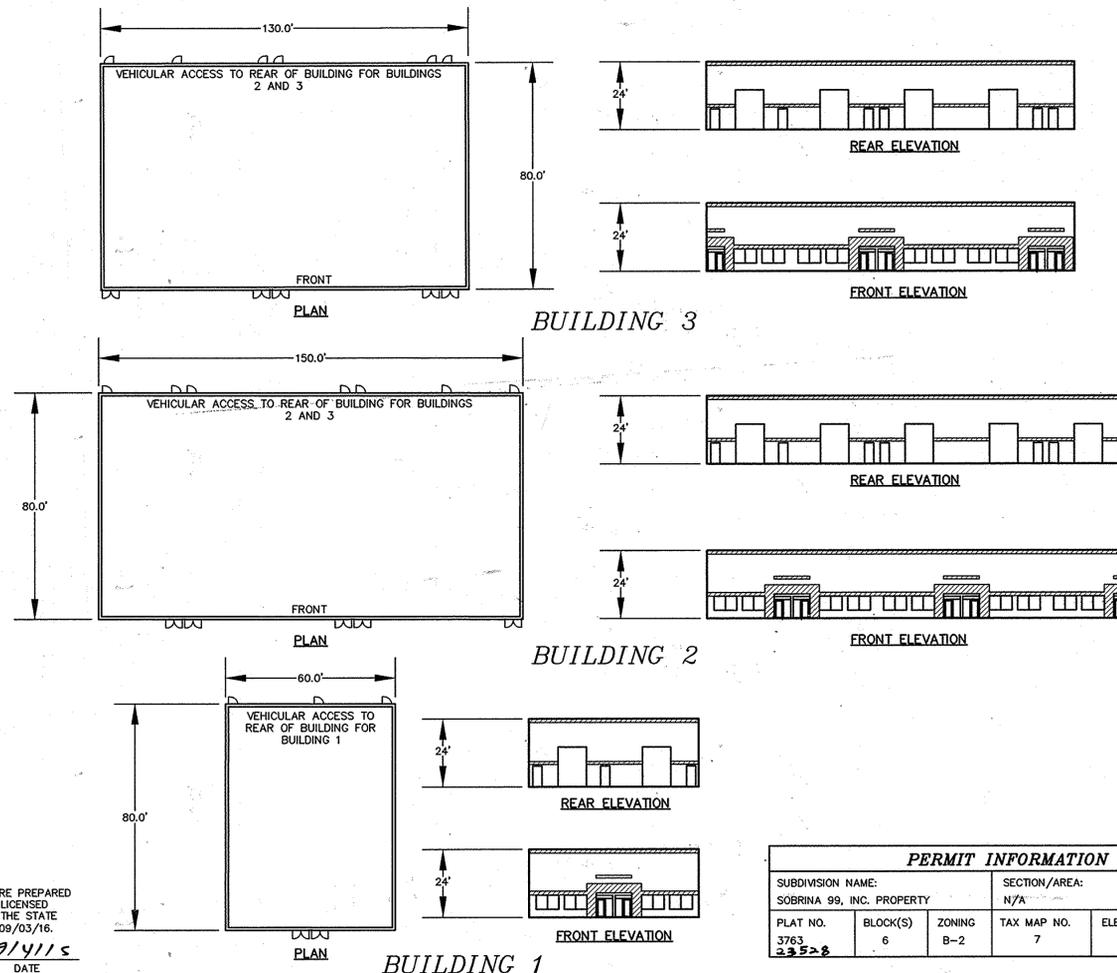
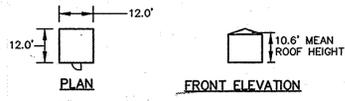
APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] DATE: 10-20-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION
[Signature] DATE: 10-30-15
CHIEF, DIVISION OF LAND DEVELOPMENT
[Signature] DATE: 10-30-15
DIRECTOR



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. 17642, EXP DATE 09/03/16.
R. JACOB HIKMAT, P.E. DATE: 9/11/15

PRIVATE WATER DISTRIBUTION SYSTEM PUMP HOUSE



PERMIT INFORMATION BLOCK					
SUBDIVISION NAME: SOBRIANA 99, INC. PROPERTY		SECTION/AREA: N/A		PARCEL: 478	
PLAT NO. 3763	BLOCK(S) 6	ZONING B-2	TAX MAP NO. 7	ELECTION DISTRICT 4TH	CENSUS TRACT 6040.01

ADDRESS CHART

BUILDING #	ADDRESS
1	15870 OLD FREDERICK ROAD
2	15860 OLD FREDERICK ROAD
3	15850 OLD FREDERICK ROAD

- GENERAL NOTES**
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
 - THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTIONS AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
 - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
 - TRAFFIC CONTROL DEVICES, 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.
 - ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
 - 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 & ASSOC., INC. IN JANUARY, 2013.
 - THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 07CA & 0031 WERE USED FOR THIS PROJECT.
STA. No. 07CA N 610,731.3284 E 1,292,224.3055 EL. 619.312
STA. No. 0031 N 612,408.1774 E 1,292,900.7066 EL. 632.207
 - WATER IS PRIVATE.
 - SEWER IS PRIVATE.
 - STORMWATER MANAGEMENT IS PROVIDED BY PRIVATELY OWNED AND MAINTAINED PERVIOUS CONCRETE (A-2), MICRO-BIOTRETION FACILITIES (M-6), AND GRASSED SWALES (M-8) IN ACCORDANCE WITH THE 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUMES I AND II. STORMWATER MANAGEMENT HAS BEEN DESIGNED IN ACCORDANCE WITH THE 2000 MDE STORMWATER MANUAL (2007 REGULATIONS).
 - EXISTING UTILITIES ARE TAKEN FROM FIELD RUN SURVEY PREPARED BY FISHER, COLLINS & CARTER, INC. DATED SEPTEMBER, 2005.
 - THERE ARE NO STEEP SLOPES OR FLOODPLAINS ON THIS SITE.
 - THERE ARE NO STREAMS, WETLANDS, OR THEIR ASSOCIATED BUFFERS ON THIS SITE.
 - THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP, INC. DATED JANUARY, 2013 AND WAS APPROVED ON JUNE 24, 2014.
 - ANY DAMAGE TO THE COUNTY RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
 - HOWARD COUNTY STANDARD R-3.03 TO BE USED TO CONSTRUCT BARRIER CURB.
 - THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS (COUNTY BILL 46-2003). 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.

SITE ANALYSIS DATA:
LOCATION: TAX MAP: 7 GRID: 6 PARCEL: 478
ELECTION DISTRICT: FOURTH
ZONING: B-2
TOTAL AREA: 5.89 AC.±
LIMIT OF DISTURBED AREA: 4.73 AC.± (INCLUDING OFFSITE)
PROPOSED USE FOR SITE: SHOPPING CENTER
BUILDING COVERAGE: 27,200 GSF (10.6% OF SITE)
GROSS FLOOR AREA: 27,200 GSF
GROSS FLOOR AREA RATIO: 0.106
REQUIRED PARKING: 6 SPACES / 1,000 GSF
163 SPACES
PROVIDED PARKING: 180 SPACES
DEED REFERENCE: 08084 / 00137
PREVIOUS DPZ FILES: F-78-03, SDP-92-77, ECP-13-050, F-16-028

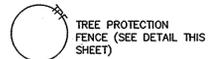
- THE SUBJECT PROPERTY IS ZONED B-2, PER THE COMPREHENSIVE ZONING PLAN, MAPS AND AMENDED REGULATIONS EFFECTIVE ON 10/06/13.
- IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR BE CLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- 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.
- BASED ON AVAILABLE COUNTY DATA, NO HISTORIC STRUCTURES OR BURIAL GROUNDS EXIST ON SITE.
- THE FOREST CONSERVATION OBLIGATIONS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION WILL BE FULLY FULFILLED BY PROVIDING AFFORESTATION OF 0.63 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.
- FINANCIAL SURETY FOR THE REQUIRED PERIMETER AND PARKING LOT LANDSCAPING IN THE AMOUNT OF \$23,010 FOR 48 SHADE TREES, 32 EVERGREEN TREES AND 137 SHRUBS SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS SITE DEVELOPMENT PLAN, SDP-14-021.
- 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 OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
- THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT.
- FOREST STAND DELINEATION WAS PREPARED BY ECO-SCIENCE, INC. IN JANUARY, 2013. SEE SHEET 6 FOR ADDITIONAL FOREST CONSERVATION DETAILS.
- THE EXISTING STRUCTURE AND EXISTING PAVEMENT ON-SITE SHALL BE REMOVED. THE EXISTING TRAILER AND PARKING LOT WERE CONSTRUCTED UNDER SDP-92-77.
- 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 ACCESSSED (INTEGRATED WITH THE FIRE ALARM SYSTEM), NFPA-1 10.12.1.
- THE WELL MUST BE DRILLED BEFORE THE BUILDING PERMIT IS RELEASED.
- BUILDINGS 1, 2 AND 3 CONTAIN AT-GRADE VEHICULAR ACCESS AT THE REAR OF THE BUILDINGS TO ALLOW FOR DELIVERY VEHICLES TO PARK INSIDE THE BUILDINGS DURING LOADING AND UNLOADING ACTIVITIES.
- 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.
- THE RETAIL COMPONENTS SHOWN ON THIS SDP ARE LIMITED TO THOSE THAT GENERATE 0.10 GPD / SF OF WASTEWATER PER MDE GUIDELINES.
- THE BAT SYSTEM HAS BEEN INDIVIDUALLY ENGINEERED FOR THE SITE AND HAS BEEN APPROVED BY THE HOWARD COUNTY HEALTH DEPARTMENT AND THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE).
- PRESUBMISSION COMMUNITY MEETING WAS HELD ON DECEMBER 5, 2013 AT GLENWOOD LIBRARY AT 6:00 PM.
- THE ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM IS DESIGNED PRIMARILY FOR COMMERCIAL RETAIL USE AT 0.1 GPD/SF, BUT CAN ACCOMMODATE ADDITIONAL HIGH STRENGTH USES OF UP TO 750 GPD. IF RESTAURANT USE IS PLANNED A GREASE INTERCEPTOR WILL BE REQUIRED FOR ALL KITCHEN WASTE. ANY FUTURE CHANGES TO THE PLANNED RETAIL USES MUST BE APPROVED BY HOWARD COUNTY HEALTH DEPARTMENT SUCH THAT THE DESIGN FACTORS ARE NOT EXCEEDED.
- THE BAT IS COVERED BY A SERVICE CONTRACT THAT THE PROPERTY OWNER MAINTAINS 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.

date	SEP. 2015	approval	MMM
project	12-035	illustration	JLS
scale	1" = 30'	description	revisions

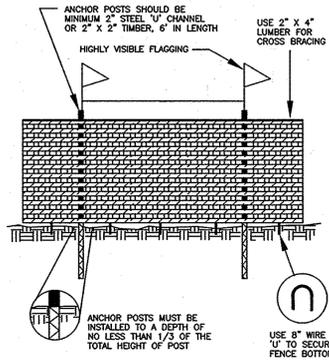
date		description	revisions
no.			

WILSON VILLAGE
 SHOPPING CENTER DEVELOPMENT 15850 OLD FREDERICK ROAD, WOODBINE, MD
 TAX MAP 7 GRID 6 PARCEL 478
 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
COVER SHEET

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 7350-B Grabe Drive, Columbia, Maryland 21044
 (410) 997-0296 Fax: (410) 997-0296



TREE PROTECTION FENCE DETAIL
BLAZE ORANGE PLASTIC MESH



- NOTES:
1. FOREST PROTECTION DEVICE ONLY.
 2. SETBACK AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
 3. BOUNDARIES OF RESTRICTION AREA SHOULD BE MARKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
 4. ROOT DAMAGE SHOULD BE AVOIDED.
 5. PROTECTIVE SIGNAGE MAY ALSO BE USED.
 6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

LEGEND

- EXISTING SEWAGE DISPOSAL AREA TO BE ABANDONED PART OF THE REVISION TO PLAT 3763 (F-78-03). EXISTING SEWAGE DISPOSAL AREA IS TO BE PROPERLY ABANDONED WITH NOTIFICATION SENT TO THE HEALTH DEPARTMENT.
- NEW SEWAGE DISPOSAL AREA APPROVED UNDER PERCOLATION PLAT SIGNED AUGUST, 2014.
- LOD - LIMIT OF DISTURBANCE (LOD) - SEE SHEET 4 FOR EROSION AND SEDIMENT CONTROL FEATURES



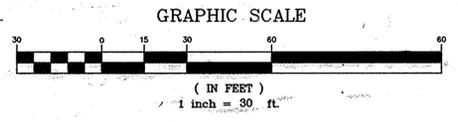
OWNER / DEVELOPER
WOODBINE BRANTLY, LLC
5300 DORSEY HALL DRIVE
ELLCOTT CITY, MARYLAND 21042
(413)367-0422

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

Patricia M. Rossman 10/14/2015
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT
DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chad P. Brantley 10-20-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE

Veronica D. ... 10-30-15
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE

William J. ... 10-30-15
DIRECTOR
DATE



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. 17942, EXP DATE 09/03/16.

R. Jacob Hirkat 9/14/15
R. JACOB HIRKAT, P.E. DATE

CIR PROPERTIES, LLC
LIBER 10724 FOLIO 695
TAX MAP 7, PARCEL 333 ZONED: RC-DEO

CHRISTOPHER JORDAN
NICOLE HESENPERGER
LIBER 13488, FOLIO 251
TAX MAP 7, PARCEL 393
ZONED: RC-DEO

WAYNE ELSETH
SUSAN ELSETH
LOT 4
HONG PROPERTY
PLAT NO. 9864
L 5496 / F 0089
ZONED: RC-DEO

date	SEP. 2015	engineering	JLS	approval	MAM
project	12-035	illustration	JLS	scale	1" = 30'

no.	description	revisions	date

WILSON VILLAGE
SHOPPING CENTER DEVELOPMENT 15850 OLD FREDERICK ROAD, WOODBINE, MD
4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DEMOLITION PLAN

MILDENBERG & ASSOC., INC.
Boender & Assoc., Inc. Surveyors
7350-B Grace Drive, Columbia, Maryland 21044
(410) 997-0296 Bldg. (410) 997-0298 Fax.

SEE SHEET 8 FOR OLD FREDERICK ROAD IMPROVEMENT CROSS SECTIONS

SEE SHEET 9 FOR CURB OPENING DETAILS

SEE SHEET 2 FOR EXISTING FEATURES ON-SITE THAT ARE TO BE REMOVED.

SEE SHEET 1 FOR BUILDING DIMENSIONS.

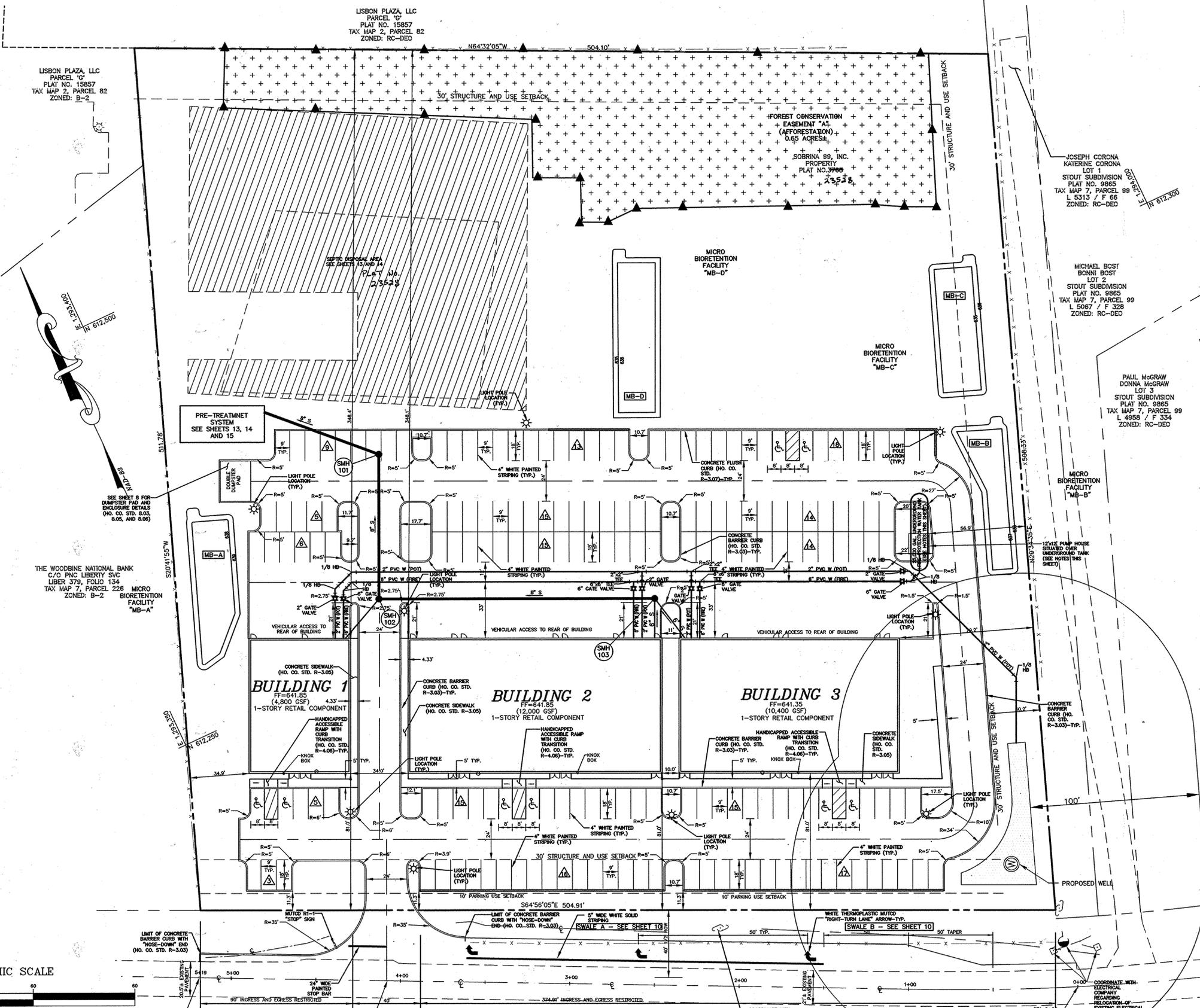
ALL SIDEWALKS ARE TO BE CONSTRUCTED PER HO. CO. STD. R-3.05

SEE SHEET 4 FOR PRIVATE WATER AND SEWER NOTES AND LABELS

SEE SHEETS 13, 14, AND 15 FOR PRIVATE SEWER / SEPTIC DESIGN INFORMATION

LEGEND

- DESIGNATES AREAS FOREST CONSERVATION EASEMENT (AFFORESTATION)
- DESIGNATES AREA OF APPROVED SEPTIC EASEMENT
- NUMBER OF PARKING SPACES
- MICRO-BIORETENTION FACILITY (M-6) I.D.



OWNER / DEVELOPER

WOODBINE BRANTLY, LLC
5300 DORSEY HALL DRIVE
ELLCOTT CITY, MARYLAND 21042
(413)367-0422

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

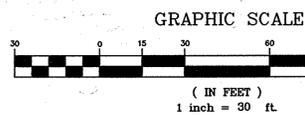
Anna Rosman 10/14/2015
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chris Edwards 10-20-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION
Walt S. ... 10-30-15
CHIEF, DIVISION OF LAND DEVELOPMENT
Walter ... 10-30-15
DIRECTOR



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. 17942, EXP. DATE 09/03/16.
R. JACOB HIKMAT, P.E. 9/23/15



STA 5+19.0
END OLD FREDERICK ROAD
CONSTRUCTION
N 612.121.7162
E 1,293,298.6950

CTR PROPERTIES, LLC
LIBER 10724 FOLIO 895
TAX MAP 7, PARCEL 333 ZONED: RC-DEC

OLD FREDERICK ROAD
COUNTY OWNED - MAJOR COLLECTOR
(80' ROW)

CHRISTOPHER JORDAN
NICOLE HESSENBERGER
LIBER 13498, FOLIO 251
TAX MAP 7, PARCEL 383
ZONED: RC-DEC

WAYNE ELSEITH
SUSAN ELSEITH
LOT 4
HONG PROPERTY
PLAT NO. 9854
L 5496 / F 0099
ZONED: RC-DEC

date	SBP, 2015	engineering	JIS	approval	MAM
project	12-035	illustration	JIS	scale	1"=30'

no.	description	revisions	date

WILSON VILLAGE
SHOPPING CENTER DEVELOPMENT 15850 OLD FREDERICK ROAD, WOODBINE, MD
TAX MAP 7 GRID 6 PARCEL 478
4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
LAYOUT AND STRIPING PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
7350-B Grace Drive, Columbia, Maryland 21044
(410) 997-0286 Fax: (410) 997-0288 Fax.

LEGEND

---	STANDARD CONCRETE BARRIER CURB (HO. CO. STD. R-3.03)
---	CONCRETE FLUSH CURB (HO. CO. STD. R-3.07)
---	PVC SCHEDULE 40 POLYVINYLCHLORIDE PIPE
---	PVC (POT) SCHEDULE 80 POLYVINYLCHLORIDE PIPE (POTABLE WATER)
---	PVC (FIRE) C-900 POLYVINYLCHLORIDE PIPE (FIRE PROTECTION)
---	NP NON-PERFORATED PLASTIC PIPE
---	HDPE HIGH-DENSITY POLYETHYLENE PIPE
---	MB-X MICRO-BIORETENTION FACILITY (M-6) I.D. NUMBER
---	MB-Y MICRO-BIORETENTION FACILITY (M-6) I.D. NUMBER
---	MB-Z MICRO-BIORETENTION FACILITY (M-6) I.D. NUMBER
---	DESIGNATES AREAS OF MILLING AND RESURFACING (IN R/W)
---	DESIGNATES AREAS OF PAVEMENT REMOVAL (IN R/W)
---	DESIGNATES AREAS OF NEW PAVEMENT (IN R/W)
---	DESIGNATES AREAS OF PERVIOUS CONCRETE PAVEMENT TYPE 1 (SEE DETAIL ON SHEET 9(A-2))
---	DESIGNATES AREAS OF PERVIOUS CONCRETE PAVEMENT TYPE 2 (SEE DETAIL ON SHEET 9(A-2))
---	DESIGNATES AREAS FOREST CONSERVATION EASEMENT (AFFORESTATION)
B-2	GEOTECHNICAL BORING LOCATION AND NUMBER
*	LIGHT POLE LOCATION
---	ROOF DRAIN LEADER (SEE DETAIL ON SHEET 9 FOR DISCHARGE AT FACILITIES)
GgC(B)	SOIL TYPE DIVISION
MB-X	MICRO-BIORETENTION FACILITY (M-6) I.D.

SEE SHEET 9 FOR PERVIOUS CONCRETE PAVEMENT DETAILS INCLUDING INTERFACE BETWEEN PERVIOUS CONCRETE AND ASPHALT PAVEMENT

6" SEWER LATERALS ARE TO CONTAIN SLEEVING PIPES AND WATERTIGHT GASKETS AS SHOWN IN THE DETAIL ON SHEET 13.

SEE SHEET 2 FOR EXISTING FEATURES THAT ARE TO BE REMOVED OR RELOCATED.

SEE SHEET 9 FOR CURB OPENING DETAILS

ONSITE AREAS OF IMPERVIOUS ASPHALT PAVEMENT TO BE CONSTRUCTED PER HO. CO. STD. "P-2" PAVEMENT SECTION

ALL SIDEWALKS ARE TO BE CONSTRUCTED PER HO. CO. STD. R-3.05

SEE SHEET 2 FOR EXISTING FEATURES THAT ARE TO BE REMOVED OR RELOCATED.

SEE SHEET 9 FOR MICRO-BIORETENTION FACILITY DETAILS.

SEE SHEETS 13, 14, AND 15 FOR PRIVATE SEWER / SEPTIC DESIGN INFORMATION

OWNER / DEVELOPER
 WOODBINE BRANTLY, LLC
 5300 DORSEY HALL DRIVE
 ELLICOTT CITY, MARYLAND 21042
 (413)367-0422

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

LAND DESIGN AND DEVELOPMENT
 PRINTED NAME OF DEVELOPER: *MA/VA*
 SIGNATURE OF DEVELOPER: *[Signature]*
 DATE: 9-4-15

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

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
 HOWARD SOIL CONSERVATION DISTRICT
 DATE: 9/30/15

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT
 DATE: 10/14/2015

APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF HIGHWAYS

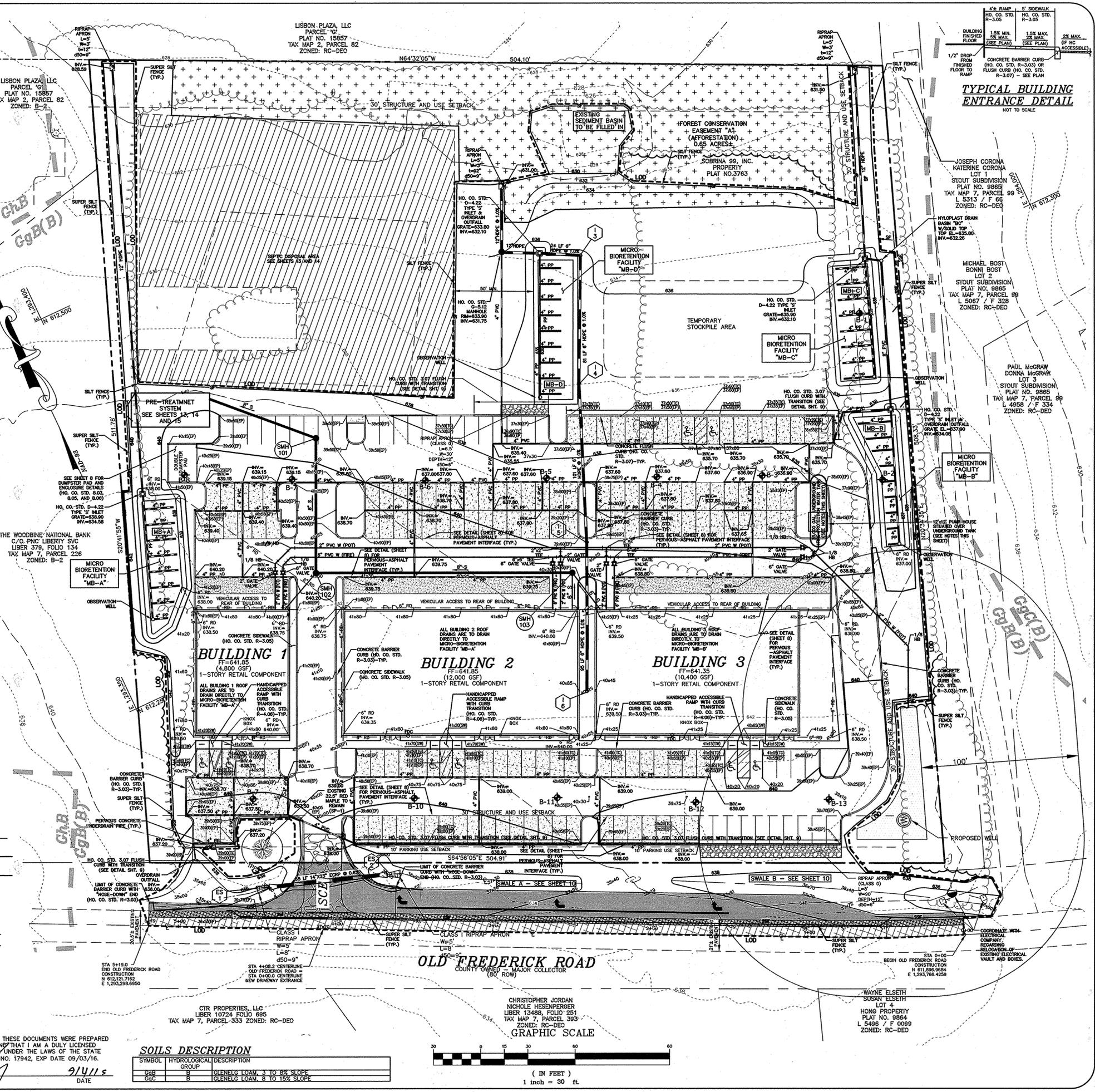
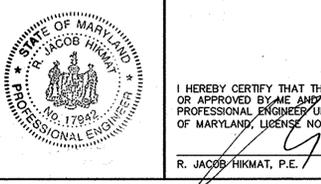
APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR

DATE: 10-20-15
 DATE: 10-30-15
 DATE: 10-30-15

PRIVATE POTABLE / FIRE PROTECTION WATER SYSTEM NOTES

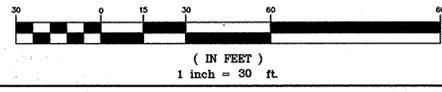
- FIRE PROTECTION WATER TANK AND FIRE PROTECTION PUMP AND PUMP HOUSE TO BE DESIGNED BY OTHERS.
- THE TANK AND ALL ACCESSORY COMPONENTS MUST BE MADE OF NON-TOXIC MATERIALS AND COATINGS.
- THE POTABLE WATER AND FIRE PROTECTION SYSTEMS SHALL NOT BE CROSS-CONNECTED AT ANY POINT.
- THE FIRE PROTECTION TANK SHALL BE FILLED MANUALLY AND CONTAIN A LOW-LEVEL ALARM.
- POTABLE AND FIRE PROTECTION PIPING SHALL HAVE A MINIMUM COVER OF 42 INCHES UNLESS OTHERWISE NOTED.
- VALVE BOXES TO BE TRAFFIC RATED FOR H-20 LOADING AND CONSTRUCTED PER HOWARD COUNTY STD. G-8.01.
- FIRE PROTECTION PIPING SHALL BE MADE OF PVC (C-900). POTABLE WATER PIPING SHALL BE MADE OF PVC (SCHEDULE 80).

PRIVATE POTABLE / FIRE PROTECTION PIPE CROSSING DETAIL
 NOT TO SCALE



SOILS DESCRIPTION

SYMBOL	HYDROLOGICAL DESCRIPTION
GgB	GLENELOAM, 3 TO 8% SLOPE
GgC	GLENELOAM, 8 TO 15% SLOPE



WILSON VILLAGE
 SHOPPING CENTER DEVELOPMENT 15850 OLD FREDERICK ROAD, WOODBINE, MD
 TAX MAP 7, PARCEL 478
 4th ELECTION DISTRICT
 GRADING, DRAINAGE AND SEDIMENT AND EROSION CONTROL PLAN

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 7550-B Grace Drive, Columbia, Maryland 21044
 (410) 997-0296 Fax: (410) 997-0298 Fax

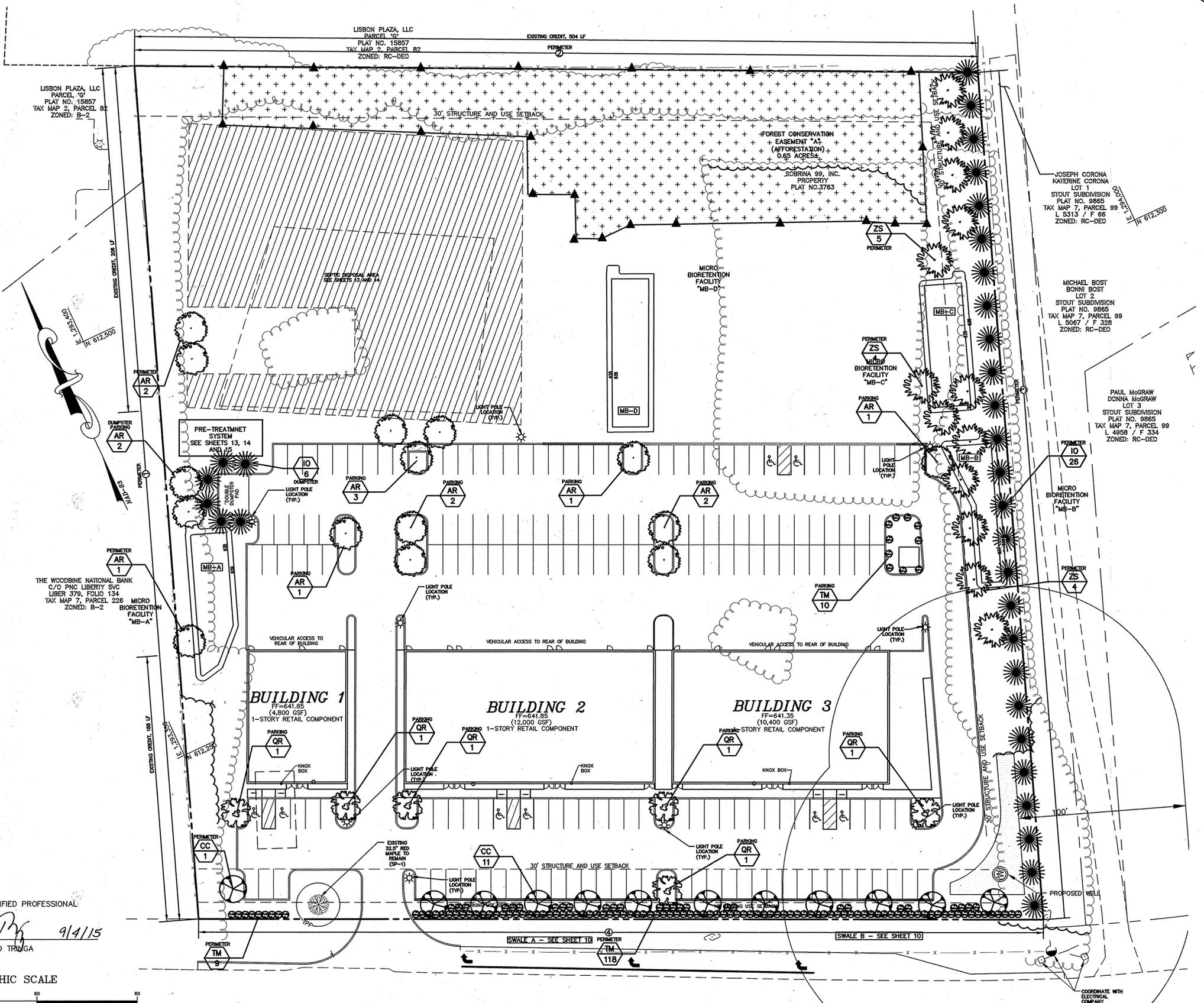
PROJECT
 date: SEP. 2016
 illustration: JLS
 scale: 1"=30'
 approval: JLS
 MDA

4 OF 16
 SDP-14-021

SEE SHEET 9 FOR
MICRO-BIORETENTION PLANTINGS

SEE SHEET 6 FOR TREE PLANTING
SCHEDULES AND DETAILS

LEGEND
 FOREST CONSERVATION EASEMENT (AFFORESTATION).
 FOREST CONSERVATION SIGNAGE.
 EXISTING TREE LINE.



DEVELOPER'S/OWNER'S CERTIFICATE

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

NAME: [Signature] DATE: 9-18-15

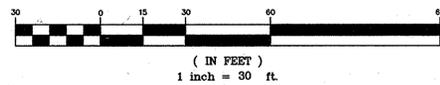
OWNER / DEVELOPER

WOODBINE BRANTLY, LLC
5300 DORSEY HALL DRIVE
ELLCOTT CITY, MARYLAND 21042
(413)367-0422

MD DNR QUALIFIED PROFESSIONAL

[Signature] 9/14/15
MASHID TRUQA

GRAPHIC SCALE



APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

[Signature] 10/14/2015
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 10-20-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 10-30-15
CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 10-30-15
DIRECTOR



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. 17842, EXP DATE 09/03/16.

[Signature] 9/14/15
R. JACOB HIKMAT, P.E. DATE

CIR PROPERTIES, LLC
LIBER 10724 FOLIO 695
TAX MAP 7, PARCEL 333 ZONED: RC-DEO

CHRISTOPHER JORDAN
NICOLE HESENPERGER
LIBER 13488, FOLIO 251
TAX MAP 7, PARCEL 393
ZONED: RC-DEO

WAYNE ELSETH
SARAH ELSETH
LOT 4
HONG PROPERTY
PLAT NO. 9864
L 5486 / F 0089
ZONED: RC-DEO

project	12-035	date	SEP. 2015
illustration	JLS	engineering	JLS
scale	1"=30'	approval	MAM

no.	description	date

WILSON VILLAGE
SHOPPING CENTER DEVELOPMENT 15860 OLD FREDERICK ROAD, WOODBINE, MD
TAX MAP 7 GRID 6 PARCEL 476
4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
LANDSCAPE AND FOREST CONSERVATION PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
7350-B Grace Drive, Columbia, Maryland 21044
(410) 997-0236 Fax: (410) 997-0238 Fax.

SCHEDULE A : PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO ROADWAYS	TRASH PAD	TOTAL
LANDSCAPE TYPE	A (PERIMETER 1)	A (PERIMETER 2)	C (PERIMETER 3)	E (PERIMETER 4)	D
LINEAR FEET OF PERIMETER	512 LF	504 LF	505 LF	505 LF	60 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	YES, 364 LF	YES, 504 LF	NO	NO	NO
NUMBER OF PLANTS REQUIRED					
SHADE TREES	3 SHADE TREES	0 SHADE TREES	13 SHADE TREE	13 SHADE TREES	1 SHADE TREE
EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	26 EVERGREEN TREES	0 EVERGREEN TREES	6 EVERGREEN TREES
SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	127 SHRUBS	0 SHRUBS
CREDIT FOR EXISTING VEGETATION (SHADE TREES, EVERGREEN TREES)	N/A	N/A	N/A	1 SHADE TREE 0 EVERGREEN TREES	N/A
NUMBER OF PLANTS PROVIDED					
SHADE TREES	3 SHADE TREES	0 SHADE TREES	13 SHADE TREES	12 SHADE TREES	1 SHADE TREE
EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	26 EVERGREEN TREES	0 EVERGREEN TREES	6 EVERGREEN TREES
SUBSTITUTION TREES	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES
SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	127 SHRUBS	0 SHRUBS

SCHEDULE B : PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	180 SPACES
NUMBER OF TREES REQUIRED (SHADE TREES (1 PER 10 SPACES))	18 SHADE TREES
NUMBER OF TREES PROVIDED (SHADE TREES (2:1 SUBSTITUTION) OTHER TREES (10:1 SUBSTITUTION))	17 SHADE TREES 10 SHRUBS

LANDSCAPE NOTES

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

PLANTING SPECIFICATIONS AND NOTES

SITE PREPARATION AND SOILS

- PROTECTION FENCING AND SILT FENCES FOR SEDIMENT AND EROSION CONTROL ARE TO BE INSTALLED AS A FIRST ORDER OF 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 IS RECOMMENDED.
- 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 PEAT MOSS.
- 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

- FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE.
- 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.

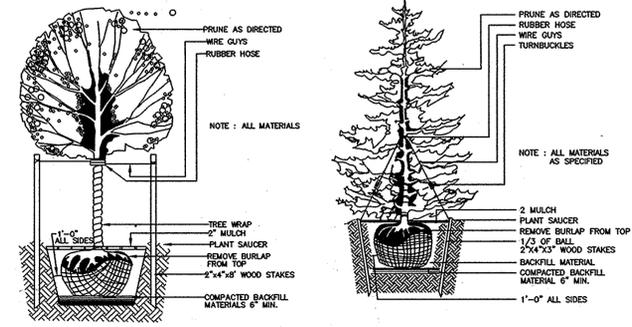
PLANT INSTALLATION

- 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.
- 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.
- CARE SHALL BE TAKEN WHEN DIGGING PLANTING FIELDS 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 FEEL BACK BURLAP TO BASE OF ROOT BALL AND COVER ENTIRE ROOT BALL WITH TOPSOIL MIXTURE INDICATED ABOVE AND WATER GENEROUSLY.
- 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.

LANDSCAPE PLANT LIST (SCHEDULES A, B)

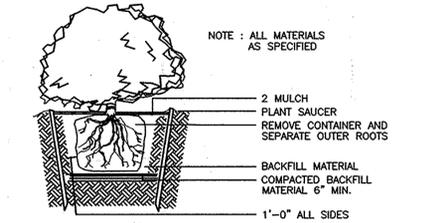
QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
11 (PARKING LOT) 3 (PERIMETER) 1 (DUMPSTER)		ACER RUBRUM 'RED SUNSET' (AR)	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
6 (PARKING LOT) 0 (PERIMETER)		QUERCUS RUBRA (OR)	RED OAK	2 1/2" - 3" CAL.
12 (PARKING LOT) 12 (PERIMETER)		CERCIS CANDENSIS (CC)	EASTERN REDBUD	2-1/2" - 3" CAL.
13 (PARKING LOT) 13 (PERIMETER)		ZELKOVA SERRATA (ZS)	VILLAGE GREEN JAPANESE ZELKOVA	2 1/2" - 3" CAL.
32 (PARKING LOT) 26 (PERIMETER) 6 (DUMPSTER)		ILEX OPACA (IO)	AMERICAN HOLLY	5' - 6' HT.
10 (PARKING LOT) 127 (PERIMETER)		TAXUS MEDIA 'HICKSII' (TM)	HICKS YEW	2 1/2" - 3" HT.

TOTALS
78 TREES (46 SHADE, 32 EVERGREEN)
137 SHRUBS
* NOTE - LANDSCAPE SURETY IS BASED ON THE TOTAL NUMBER OF PLANTINGS REQUIRED.

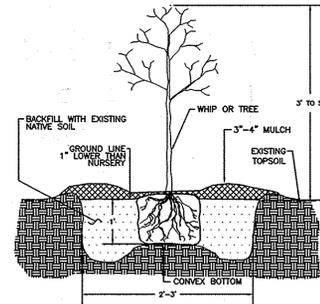


DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE

TYPICAL EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



TYPICAL SHRUB PLANTING DETAIL
NOT TO SCALE



TREE PLANTING DETAIL
CONTAINER GROWN

FOREST CONSERVATION WORKSHEET

NET TRACT AREA:	
A. Total tract area.....	5.89
B. Area within 100 year floodplain & overhead transmission line.....	0.00
C. Area to remain in agricultural production.....	0.00
D. Net tract area.....	5.89
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 1
E. Afforestation Threshold.....	15% x D = 0.88
F. Conservation Threshold.....	15% x D = 0.88
EXISTING FOREST COVER:	
G. Existing forest cover (excluding floodplain).....	0.60
H. Area of forest above afforestation threshold.....	0.00
I. Area of forest above conservation threshold.....	0.00
BREAK EVEN POINT:	
J. Forest 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
R. Total reforestation required.....	1.20
S. Total afforestation required.....	0.28
T. Total reforestation and afforestation required.....	1.48
Total reforestation and afforestation provided on-site.....	0.63
Total reforestation and afforestation provided off-site.....	0.85

FOREST CONSERVATION NOTES:

- NO RARE, THREATENED OR ENDANGERED SPECIES AND THEIR HABITATS WERE OBSERVED ON THE PROPERTY.
- THE FOREST CONSERVATION OBLIGATIONS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION HAS BEEN FULLY FILLED 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.

MD DNR QUALIFIED PROFESSIONAL

Mashid Tri... 9/14/15
MASHID TRI...

OWNER / DEVELOPER

WOODBINE BRANTLY, LLC
5300 DORSEY HALL DRIVE
ELLCOTT CITY, MARYLAND 21042
(413)367-0422

FOREST CONSERVATION AREA
AFFORESTATION PROJECT
TREES FOR YOUR FUTURE

SIGNAGE DETAILS

NOT TO SCALE

SPECIMEN TREE (SP#)	COMMON NAME	BOTANICAL NAME	SIZE DBH	CONDITION
1	RED MAPLE (TO BE RETAINED)	ACER RUBRUM	32.5"	POOR

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. 17942, EXP DATE 09/03/16.

R. JACOB HIKMAT, P.E. 9/14/15



P: 120041 12-035 Wilson Village (any) 035-SOP-ENG

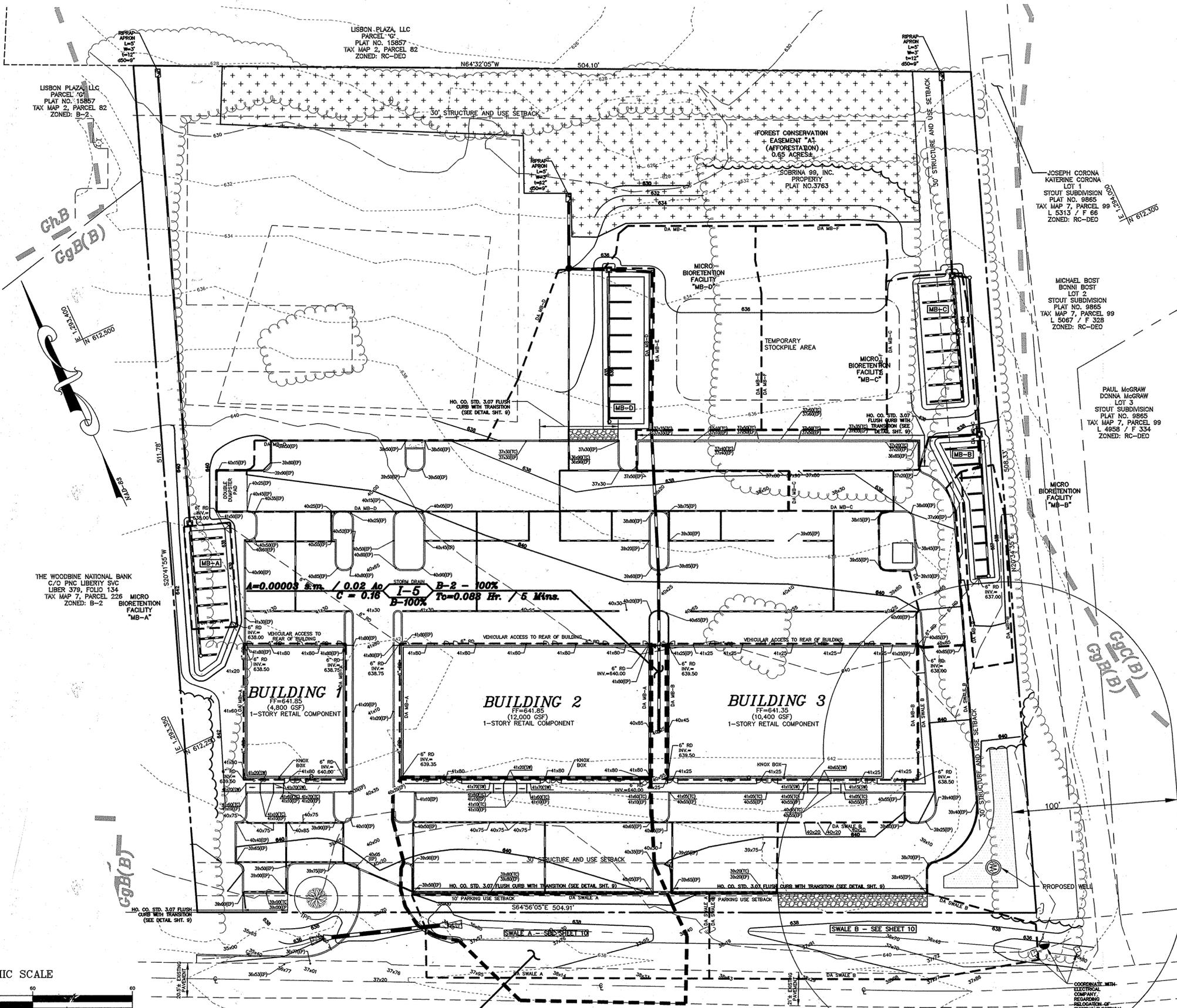
Project	date	date	date
12-035	SEP 2015	12-035	12-035
Illustration	engineering	illustration	approval
ILS	ILS	ILS	ILS
scale	scale	scale	scale
1"=30'	1"=30'	1"=30'	1"=30'

WILSON VILLAGE
SHOPPING CENTER DEVELOPMENT 15850 OLD FREDRICK ROAD, WOODBINE, MD
TAX MAP 7 GRID 6 PARCEL 476
4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
LANDSCAPE AND FOREST CONSERVATION NOTES AND DETAILS

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
7850-B Grace Drive, Columbia, Maryland 21044
(410) 997-0296 Fax

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- 40+00 PROPOSED SPOT ELEV.
- 39+50(EP) PROPOSED EDGE OF PAVEMENT ELEV.
- 39+50(1C) PROPOSED TOP OF CURB ELEV.



SOILS DESCRIPTION

SYMBOL	HYDROLOGICAL GROUP	DESCRIPTION
G9B	B	GLENELG LOAM, 3 TO 8% SLOPE

THIS SOIL COVERS 100% OF THE SITE

OWNER / DEVELOPER

WOODBINE BRANTLY, LLC
 5300 DORSEY HALL DRIVE
 ELLICOTT CITY, MARYLAND 21042
 (413)367-0422

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

Adrian for Maura Roszman 10/14/15
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chad P. ... 10-20-15
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE

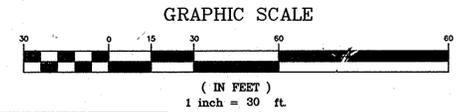
V. ... 10-30-15
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE

W. ... 10-30-15
 DIRECTOR
 DATE



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. 17942, EXP DATE 09/03/16.

Jacob Hikmat 9/14/15
 R. JACOB HIKMAT, P.E. DATE



A=0.0007 s.m. / 0.45 Ac B-2 - 100% To=0.083 Hr. / 5 Mins.
CN = 88 BS-2 B-100%
OLD FREDERICK ROAD
 COUNTY OWNED - MAJOR COLLECTOR (80' ROW)

CIR PROPERTIES, LLC
 LIBER 10724 FOLIO 695
 TAX MAP 7, PARCEL 333 ZONED: RC-DEO

CHRISTOPHER JORDAN
 NICOLE HESENPERGER
 LIBER 13488, FOLIO 251
 TAX MAP 7, PARCEL 393
 ZONED: RC-DEO.

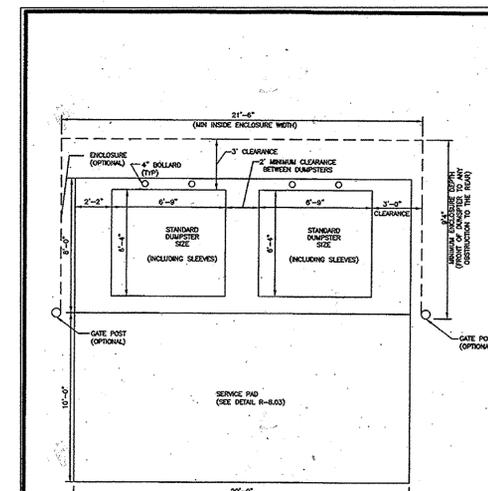
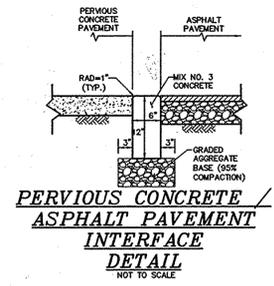
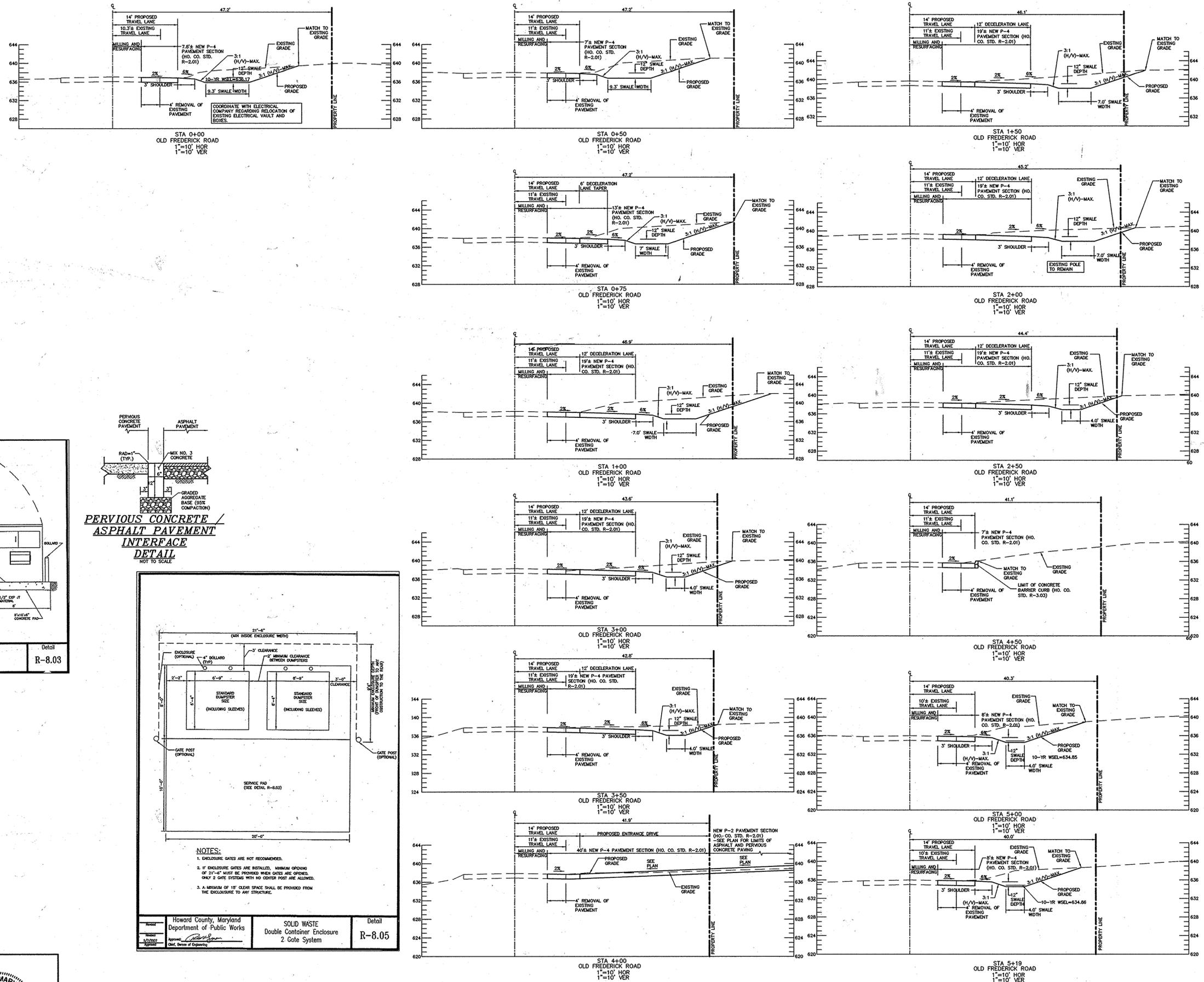
WAYNE ELSETH
 SUSAN ELSETH
 LOT 4
 HONG PROPERTY
 PLAT NO. 9864
 L 5486 / F 0089
 ZONED: RC-DEO

date	SEP. 2015	approval	MAM
project	12-085	scale	1"=30'
illustration	JLS	description	
no.		revisions	

no.		date	

WILSON VILLAGE
 SHOPPING CENTER DEVELOPMENT 15850 OLD FREDERICK ROAD, WOODBINE, MD
 TAX MAP 7, PARCEL 478
 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DRAINAGE AREA MAP

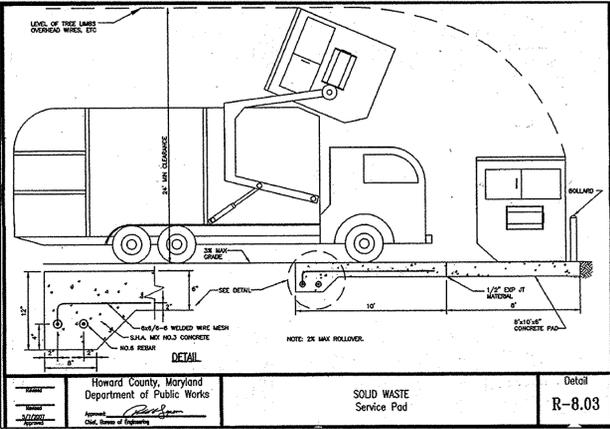
MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 COMPANY, INCORPORATED
 7350-B Grace Drive, Columbia, Maryland 21044
 (410) 997-0296 Fax: (410) 997-0298 Fax.



NOTES:

- ENCLOSURE GATES ARE NOT RECOMMENDED.
- IF ENCLOSURE GATES ARE INSTALLED, MINIMUM OPENING OF 24'-4" MUST BE PROVIDED WHEN GATES ARE OPENED. ONLY 2 GATE SYSTEMS WITH NO CENTER POST ARE ALLOWED.
- A MINIMUM OF 15' CLEAR SPACE SHALL BE PROVIDED FROM THE ENCLOSURE TO ANY STRUCTURE.

Howard County, Maryland
Department of Public Works
SOLID WASTE
Double Container Enclosure
2 Gate System
Detail
R-8.05



Howard County, Maryland
Department of Public Works
SOLID WASTE
Service Pad
Detail
R-8.03

OWNER / DEVELOPER
WOODBINE BRANTLY, LLC
5300 DORSEY HALL DRIVE
ELLCOTT CITY, MARYLAND 21042
(413)367-0422

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

William M. Reseman 10/14/2015
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Paul C. Chubb 10-20-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION

W. Schloer 10-20-15
CHIEF, DIVISION OF LAND DEVELOPMENT

Valentin J. Jozlin 10-30-15
DIRECTOR



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. 17942, EXP. DATE 09/03/16.

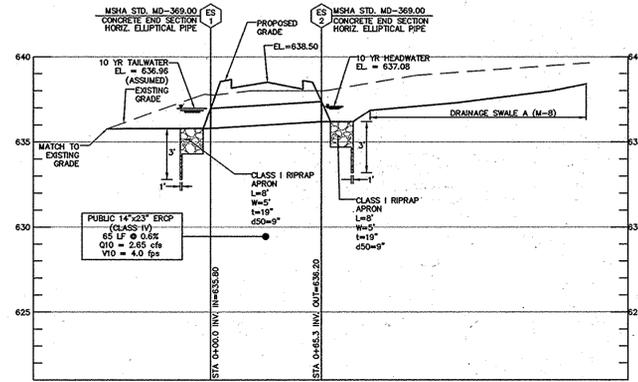
R. JACOB HIKMAT, P.E. 9/14/15
DATE

Project	date	Scale	Approval
SBP, 2015	12-03-15	1"=30'	MMM
Illustration	1/15		
Illustration	1/15		

no.	description	date
	revisions	

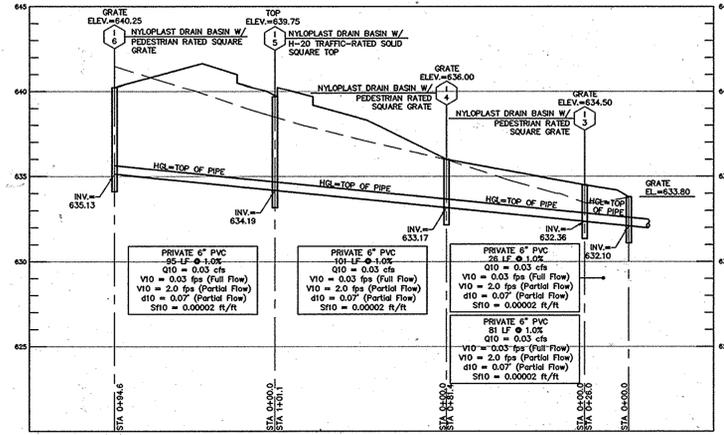
WILSON VILLAGE
SHOPPING CENTER DEVELOPMENT 15850 OLD FREDERICK ROAD, WOODBINE, MD
TAX MAP 7 GRID 6 PARCEL 478
4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
ROAD AND SITE CROSS SECTIONS AND DETAILS

MILDENBERG & ASSOC., INC.
Engineers Planners Surveyors
7350-B Grace Drive, Columbia, Maryland 21044
(410) 997-0236 Fax: (410) 997-0236 Fax



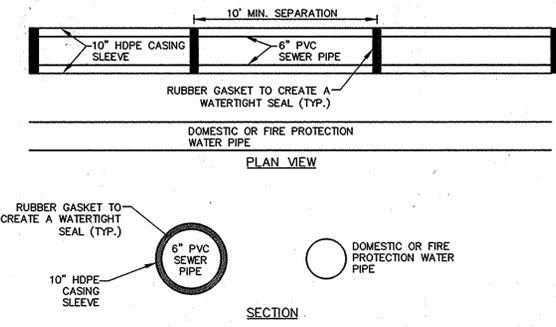
PROFILE - STRUCTURES
ES-2 TO ES-1

SCALE: 1"=50' HOR
1"=5' VER

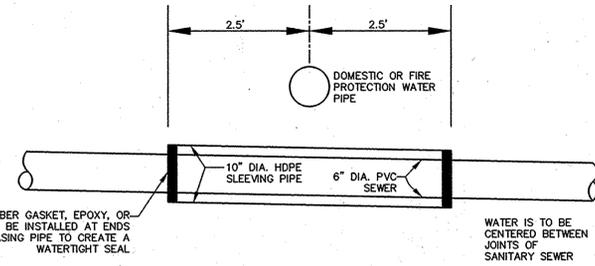


PROFILE - STRUCTURES
I-6 TO 'S' INLET (MB-D)

SCALE: 1"=50' HOR
1"=5' VER



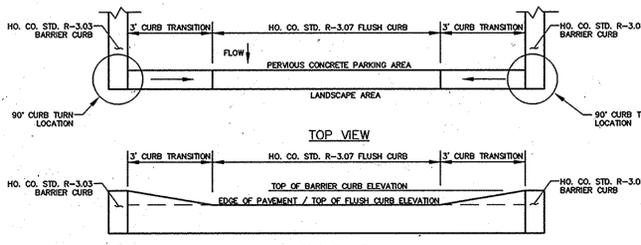
UTILITY SLEEVING DETAIL #1
(APPLICABLE WHERE HORIZONTAL CLEARANCE BETWEEN WATER AND SEWER IS LESS THAN 10 FEET)
NOT TO SCALE



UTILITY SLEEVING DETAIL #2
(APPLICABLE WHERE VERTICAL CLEARANCE BETWEEN WATER AND SEWER IS LESS THAN 18 IN.)
NOT TO SCALE

STRUCTURE SCHEDULE

STRUCTURE	TYPE	COORDINATES	TOP/RIM/ GRATE EL.	INV. IN	INV. OUT
ES-1	MSHA STD. MD-369.00 CONCRETE END SECTION HORIZ. ELLIPTICAL PIPE	N 612,109.7673 E 1,293,383.4765	N/A	635.80	N/A
ES-2	MSHA STD. MD-369.00 CONCRETE END SECTION HORIZ. ELLIPTICAL PIPE	N 612,088.7513 E 1,293,445.0587	N/A	N/A	636.20
I-3	NYLOPLAST 6" DRAIN BASIN W/ 12"x12" PEDESTRIAN RATED SOLID TOP	N 612,391.6182 E 1,293,727.5771	634.50 (TOP)	632.36	632.36
I-4	NYLOPLAST 6" DRAIN BASIN W/ 12"x12" H-20 TRAFFIC RATED SOLID TOP	N 612,318.2820 E 1,293,692.3408	636.00 (TOP)	633.17	633.17
I-5	NYLOPLAST 6" DRAIN BASIN W/ 12"x12" PEDESTRIAN RATED SOLID TOP	N 612,224.6686 E 1,293,654.0910	639.75 (TOP)	634.19	634.19
I-6	NYLOPLAST 6" DRAIN BASIN W/ 12"x12" PEDESTRIAN RATED GRATE	N 612,135.8990 E 1,293,614.1827	640.25 (GRATE)	N/A	635.19
FACILITY MB-A	HO. CO. STD. D-4.22 TYPE 'S' INLET	N 612,371.9051 E 1,293,411.3906	638.90 (GRATE)		
FACILITY MB-B	HO. CO. STD. D-4.22 TYPE 'S' INLET	N 612,219.5645 E 1,293,864.5471	637.90 (GRATE)		
FACILITY MB-C	HO. CO. STD. D-4.22 TYPE 'S' INLET	N 612,313.2123 E 1,293,890.4188	635.90 (GRATE)		
FACILITY MB-D	HO. CO. STD. D-4.22 TYPE 'S' INLET	N 612,413.8762 E 1,293,682.7595	635.90 (GRATE)		



CURB TRANSITION DETAIL
NOT TO SCALE

PIPE SCHEDULE

SIZE	LENGTH	TYPE / CLASS	COMMENT
14"x23"	65 LF	ERCP (CLASS IV)	CULVERT
6"	303 LF	PVC SCHEDULE 40	STORM DRAIN
6"	1,508 LF	PVC SCHEDULE 40	ROOF DRAIN
8"	145 LF	PVC SCHEDULE 40	MICRO-BIORETENTION OUTFALL (MB-B, MB-D)
12"	409 LF	HDPE	MICRO-BIORETENTION OUTFALL (MB-A, MB-C)

OWNER / DEVELOPER

WOODBINE BRANTLY, LLC
5300 DORSEY HALL DRIVE
ELLICOTT CITY, MARYLAND 21042
(413)367-0422

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

John L. Roberts 9/30/15
DATE

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

William M. Rosman 10/14/2015
COUNTY HEALTH OFFICER
DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chad Carter 10-20-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE

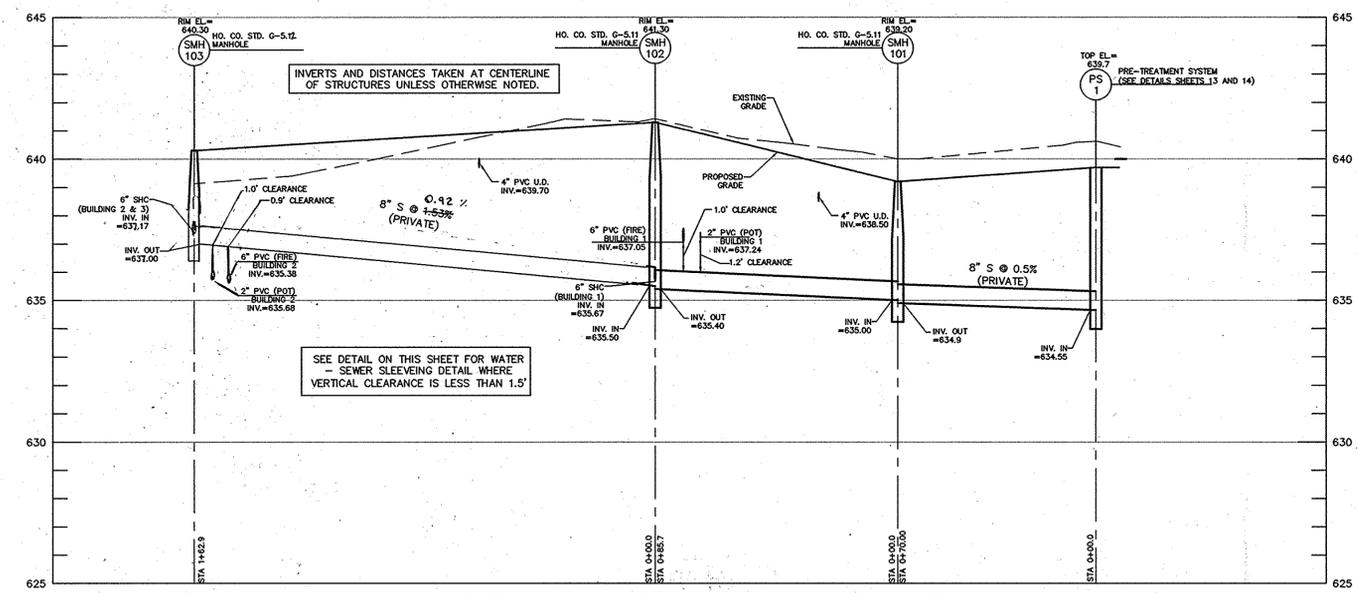
Neil Schaefer 10-30-15
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE

Nathan J. Jovic 10-30-15
DIRECTOR
DATE



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. 17942, EXP. DATE 09/03/16.

R. JACOB HIKMAT, P.E. 9/11/15
DATE



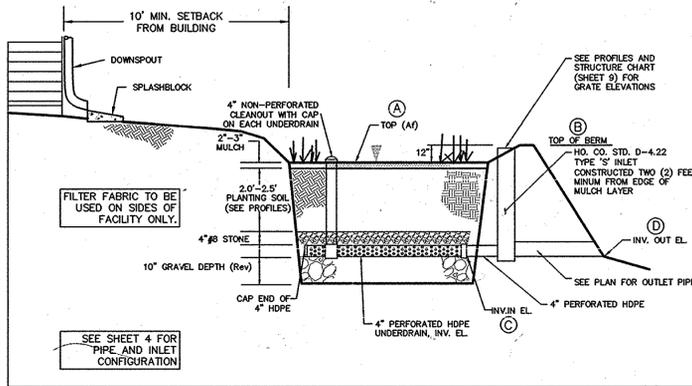
PROFILE - PRIVATE SANITARY SEWER
SCALE: 1"=30' HOR
1"=3' VER

project date SEP. 2015
12-035 illustration engineering JLS
scale JLS
1"=30' approval MMA

WILSON VILLAGE
SHOPPING CENTER DEVELOPMENT 15650 OLD FREDERICK ROAD, WOODBINE, MD
TAX MAP 7 GRID 6 PARCEL 478
4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
PRIVATE SEWER AND STORM DRAIN PROFILES AND DETAILS

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
7360-B Grace Drive, Columbia, Maryland 21044
(410) 997-0288 Fax

9 OF 16
SDP-14-021

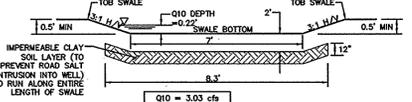


MICRO-BIORETENTION (M-6) DETAIL
NOT TO SCALE

MICRO-BIORETENTION SCHEDULE

FACILITY	TOP EL. (A)	TOP OF BERM (B)	INV. IN (C)	INV. OUT (D)	AREA AT TOP EL. (A-D)
MB-A	638.00	639.25	634.58	628.59	1,251 SF
MB-B	637.00	638.25	634.08	632.10 (M-B-C)	744 SF
MB-C	635.00	636.10	632.10	631.50 (631.97 @ BASIN CF)	1,608 SF
MB-D	635.00	636.10	632.10	631.00 (631.60 @ BASIN DE)	1,320 SF

SECTION - SWALE A (M-8)
NOT TO SCALE

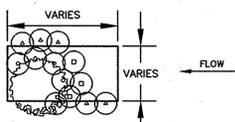


SECTION - SWALE B (M-8)
NOT TO SCALE

PLANT LIST

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY REQUIRED / PROVIDED FOR EACH FACILITY					
				MB-A	MB-B	MB-C	MB-D	MB-E	MB-F
○	ILEX GLABRA	INK BERRY	2' - 3' HI.	1	1	1	1	1	1
○	LOBELIA SIPHILITICA	GREAT BLUE LOBELIA	1 GAL. CONTAINER	40	30	50	40	50	50
○	ONOCLEA SENSIBILIS	SENSITIVE FERN	1 GAL. CONTAINER	20	20	30	30	30	30
○	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	1 GAL. CONTAINER	20	20	20	20	20	20

TOTAL: 540 PERENNIALS, 6 SHRUBS

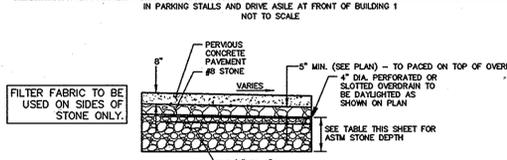


MICRO-BIORETENTION PLANTING DETAIL
N.T.S.

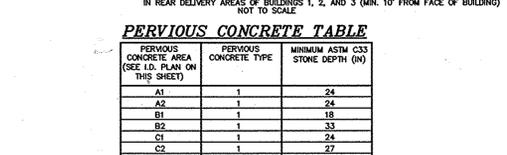
OPERATION AND MAINTENANCE SCHEDULE FOR GRASSED SWALES (M-8)

1. THE OPEN CHANNEL SYSTEM SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHALL BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE FACILITY IS FUNCTIONING PROPERLY.
2. THE OPEN CHANNEL SHALL BE MOWED A MINIMUM OF AS NEEDED DURING THE GROWING SEASON TO MAINTAIN A MAXIMUM GRASS HEIGHT OF LESS THAN SIX (6) INCHES.
3. DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
4. VISIBLE SIGNS OF EROSION IN THE OPEN CHANNEL SYSTEM SHALL BE REPAIRED AS SOON AS IT IS NOTICED.
5. REMOVE SILT IN THE OPEN CHANNEL SYSTEM WHEN IT EXCEEDS 25% OF THE ORIGINAL WQV.
6. INSPECT CHECK DAMS TWICE A YEAR FOR STRUCTURAL INTEGRITY. RESTORE CHECK DAMS TO ORIGINAL CONDITION AS APPLICABLE.

PERVIOUS CONCRETE PAVEMENT TYPE 1 (A-2) DETAIL
NOT TO SCALE

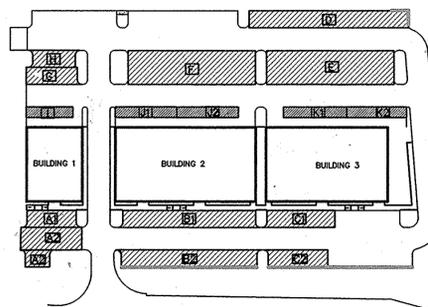


PERVIOUS CONCRETE PAVEMENT TYPE 2 (A-2) DETAIL
NOT TO SCALE

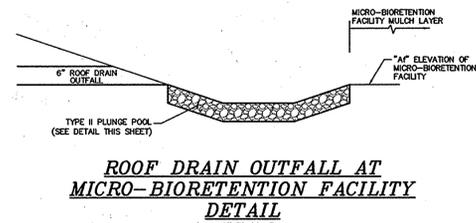


PERVIOUS CONCRETE TABLE

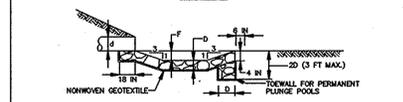
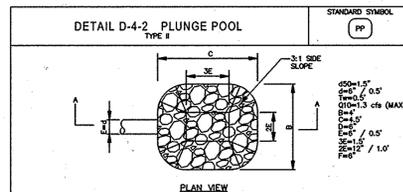
PERVIOUS CONCRETE AREA (SEE I.D. PLAN ON THIS SHEET)	PERVIOUS CONCRETE TYPE	MINIMUM ASTM C33 STONE DEPTH (IN)
A1	1	24
A2	1	24
B1	1	18
B2	1	33
C1	1	24
C2	1	27
D	1	21
E	1	30
F	1	24
G	1	27
H	1	24
I	2	27
J	2	27
K	2	27
L	2	27
M	2	27



PERVIOUS CONCRETE AREA I.D. PLAN

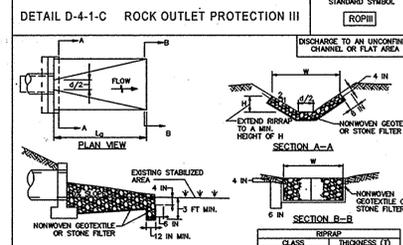


ROOF DRAIN OUTFALL AT MICRO-BIORETENTION FACILITY DETAIL
NOT TO SCALE



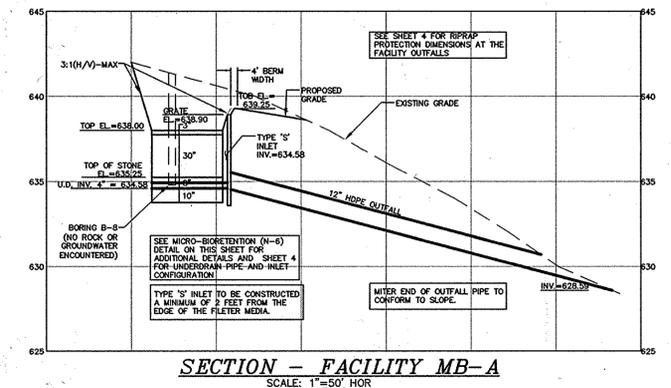
- CONSTRUCTION SPECIFICATIONS**
1. USE SPECIFIED CLASS OF RIPRAP.
 2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE.
 3. PREPARE THE SUBGRADE FOR THE PLUNGE POOL TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
 4. EDGE THE GEOTEXTILE A MINIMUM OF 6 INCHES AND EXTEND THE GEOTEXTILE A MINIMUM OF 6 INCHES BEYOND THE EDGE OF THE SCOUR HOLES.
 5. STONE FOR THE PLUNGE POOL MAY BE PLACED BY EQUIPMENT. CONSTRUCT TO THE FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLIEING MATERIALS. PLACE STONE FOR RIPRAP OUTLET IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RIPRAP IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.
 6. AT THE PLUNGE POOL OUTFLET, PLACE THE STONE SO THAT IT MEETS THE EXISTING GRADE.
 7. MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF DEBRIS, REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND DELOGGED RIPRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.

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

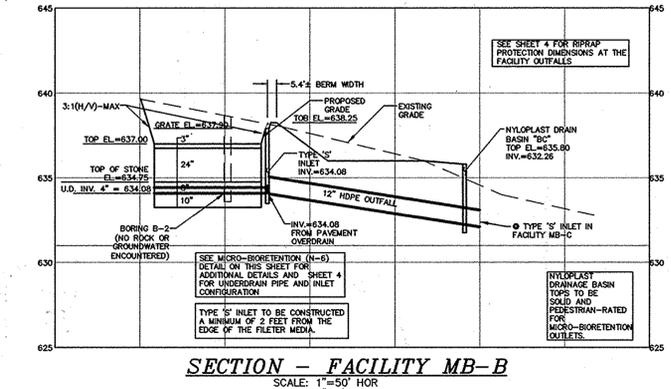


- CONSTRUCTION SPECIFICATIONS**
1. RIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.
 2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.
 3. PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (6\"/>

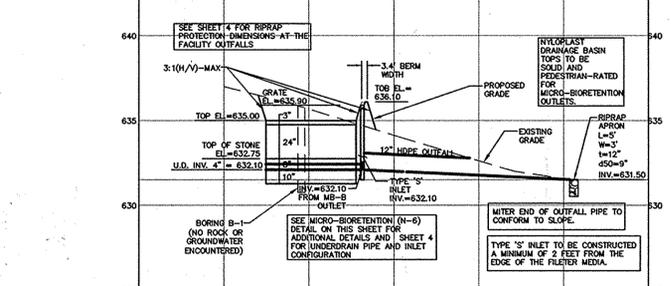
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, 2011. MARYLAND DEPARTMENT OF ENVIRONMENT AND WATER MANAGEMENT ADMINISTRATION.



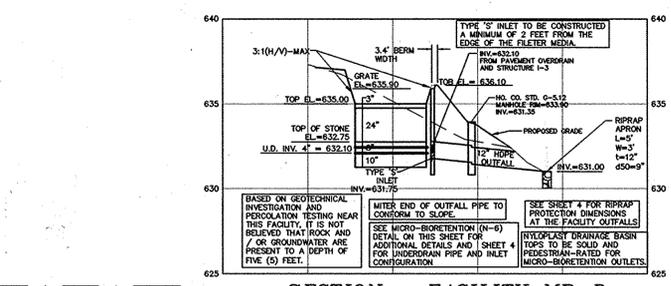
SECTION - FACILITY MB-A
SCALE: 1\"/>



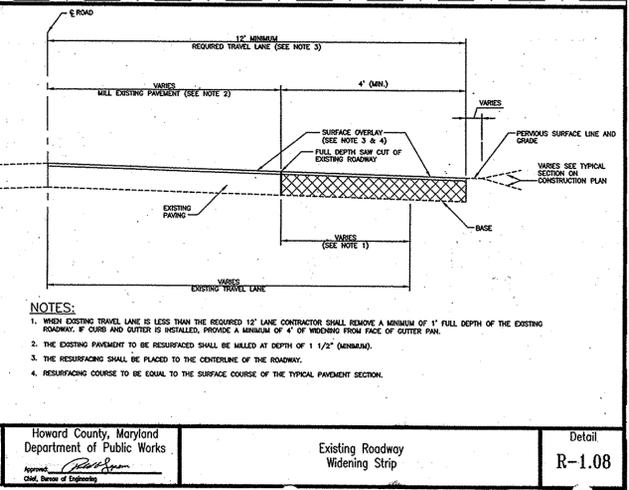
SECTION - FACILITY MB-B
SCALE: 1\"/>



SECTION - FACILITY MB-C
SCALE: 1\"/>



SECTION - FACILITY MB-D
SCALE: 1\"/>



HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS Existing Roadway Widening Strip Detail R-1.08

OWNER / DEVELOPER

WOODBINE BRANTLY, LLC
5300 DORSEY HALL DRIVE
ELLCOTT CITY, MARYLAND 21042
(413)367-0422

DEVELOPERS CERTIFICATE

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

LAND DESIGN AND DEVELOPMENT INC.

PRINTED NAME OF DEVELOPER
SIGNATURE OF DEVELOPER
DATE: 7-18-15

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATURAL RESOURCE CONSERVATION SERVICE.

SIGNATURE OF ENGINEER
DATE: 9/14/15
R. JACOB HIKMAT, PE
PRINTED NAME OF ENGINEER

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

SIGNATURE OF HOWARD SOIL CONSERVATION DISTRICT
DATE: 9/30/15

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

SIGNATURE OF COUNTY HEALTH OFFICER
DATE: 10/14/2015

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

SIGNATURES AND DATES OF APPROVALS:
10-20-15
10-30-15
10-30-15



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. 17942, EXP. DATE 09/03/16.
DATE: 9/14/15
R. JACOB HIKMAT, P.E.

date	AUG. 2015	approval	MM
project	12-035	illustration	JLS
engineering	JLS	scale	1"=30'

date		revisions	
description			
no.			

WILSON VILLAGE
SHOPPING CENTER DEVELOPMENT 15850 OLD FREDRICK ROAD, WOODBINE, MD
TAX MAP 7 GRID 6 PARCEL 476
4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
STORM DRAIN AND STORMWATER MANAGEMENT NOTES, PROFILES, AND DETAILS

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
7350-B Grace Drive, Columbia, Maryland 21044
(410) 997-0298 Fax.

PLANT SPECIES	SEEDING RATE		SEEDING DEPTH (INCHES)	RECOMMENDED SEEDING DATED BY PLANT HARDINESS ZONE			
	LB/AC	LB/1000 SF		5B AND 6A	6B	7A AND 7B	
COOL SEASON GRASSES							
ANNUAL RYEGRASS (LOUIM PERENNE SSP. MULTIFLORUM)	40	10.0	0.5	MAR 15 TO MAY 31; AUG 1 TO SEP 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30	
BARLEY (HODEURIL MILDGARE)	96	2.2	0.5	MAR 15 TO MAY 31; AUG 1 TO SEP 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30	
OATS (Avena sativa)	72	1.7	0.5	MAR 15 TO MAY 31; AUG 1 TO SEP 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30	
WHEAT (TRITICUM AESTIVUM)	120	2.8	0.5	MAR 15 TO MAY 31; AUG 1 TO SEP 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30	
CEREAL RYE (SECTAL ITALICA)	112	2.8	0.5	MAR 15 TO MAY 31; AUG 1 TO SEP 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO DEC 15	
WARM SEASON GRASSES							
FESTIVAL MILLET (PENNISSETUM ITALICA)	30	0.7	0.5	JUN 1 TO JUL 31	MAY 16 TO JUL 31	MAY 1 TO AUG 14	
PEARL MILLET (PENNISSETUM LAUCLUM)	20	0.5	0.5	JUN 1 TO JUL 31	MAY 16 TO JUL 31	MAY 1 TO AUG 14	

STANDARD SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. (31-2-1055).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL EROSION OR REDISTRIBUTION, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - 3 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES EXCEPT THOSE LISTED IN 3.1.
 - 7 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:
 - TOTAL AREA OF SITE: 5.89 ACRES
 - AREA TO BE ROOFED OR PAVED: 4.43 ACRES (INCL. R/W)
 - AREA TO BE VEGETATIVELY STABILIZED: 1.38 ACRES (INCL. R/W)
 - TOTAL FILL: 3,000 CU. YDS.
 - TOTAL CUT: 6,000 CU. YDS.
 - OFFSITE WASTE/BORROW AREA LOCATION: TBD
- 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 HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK FILLED AND STABILIZED BY THE END OF EACH WORKING DAY, WHICHEVER IS SHORTER.
- NEW CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCESSING WITH CONSTRUCTION.
- ALL GRADING TO BE PERFORMED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM AREA OF 20,000 SQ. FT.) AT A TIME. WORK MAY PROCEED ON 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 INSPECTION AGENCY. NO MORE THAN 50 PERCENT OF THE DISTURBED AREA APPROVED BY THE APPROVAL AUTHORITIES, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

OWNER / DEVELOPER

WOODBINE BRANTLY, LLC
5300 DORSEY HALL DRIVE
ELLCOTT CITY, MARYLAND 21042
(413) 367-0422

DEVELOPERS CERTIFICATE

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

LAND DESIGN AND DEVELOPMENT, INC.

PRINTED NAME OF DEVELOPER
SIGNATURE OF DEVELOPER
DATE: 9/4/15

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATURAL RESOURCE CONSERVATION SERVICE.

PRINTED NAME OF ENGINEER
SIGNATURE OF ENGINEER
DATE: 9/14/15

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

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
DATE: 9/30/15

APPROVED: DEPARTMENT OF PLANNING AND ZONING
DATE: 10/20/15

APPROVED: DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DATE: 10/20/15

APPROVED: DEPARTMENT OF AGRICULTURE
DATE: 10/20/15

SEQUENCE OF CONSTRUCTION

- REQUEST PRE-CONSTRUCTION MEETING IF NECESSARY AND OBTAIN GRADING PERMIT. (1 DAY)
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AT LOCATION SHOWN (1 DAY)
- INSTALL SUPER SILT FENCE AND SILT FENCE (1 DAY)
- CLEAR AND GRUB SITE (3 DAYS)
- CONSTRUCT UTILITIES.
- CONSTRUCT SITE TO GRADES INDICATED AND CONSTRUCT BUILDINGS (90 DAYS)
- CONSTRUCT STORM WATER MANAGEMENT FEATURES (MICRO-BIOTENTION) AND FILL IN EXISTING SEDIMENT BASIN (3 DAYS)
- ONCE ROAD BASE OF PAVEMENT WIDENING OF OLD FREDERICK ROAD HAS BEEN STABILIZED, MOVE SUPER SILT FENCE INTO GRASSY AREA ONCE FOOT BEYOND LIMITS OF PAVING (1 DAY).
- SEED AND MULCH ALL REMAINING DISTURBED AREAS. (3 DAYS)
- PAVE REQUIRED AREAS (5 DAYS)
- UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR, REMOVE CONTROLS AND STABILIZE AREAS THAT ARE DISTURBED BY REMOVAL OF CONTROLS (2 DAYS)

(B-4-8) STANDARDS AND SPECIFICATION FOR STOCKPILE AREA

- A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES.
- PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT CONTROLS THE POTENTIAL FOR EROSION, SEDIMENTATION, AND CHANGES TO DRAINAGE PATTERNS.
- STOCKPILE AREAS ARE UTILIZED WHEN IT IS NECESSARY TO SALVAGE AND STORE SOIL FOR LATER USE.
- CRITERIA
 - THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
 - 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.
 - RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE. 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 OR TRENCH. PROMISONS MUST BE MADE FOR DISCHARGING CONCENTRATED FLOW IN A NON-EROSIVE MANNER.
 - 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 INCIDENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION.
- 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.



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. 17942, EXP. DATE 09/03/16.
R. JACOB HKMAT, P.E. DATE: 9/14/15

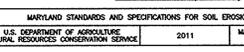
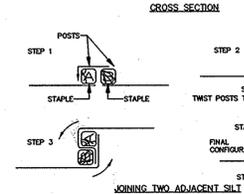
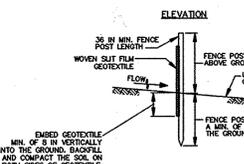
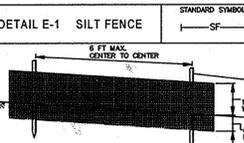
PERMANENT SEEDING SUMMARY

NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)			LIME RATE
					N	P ₂ O ₅	K ₂ O	
1	TALL FESCUE	100	MARCH 1-MAY 15 AUG 15-OCT 15	1/4"-1/2"	45 LBS. PER ACRE (1 LB./1000 SF)	90 LBS. PER ACRE (2 LB./1000 SF)	90 LBS. PER ACRE (2 LB./1000 SF)	2 TONS / ACRE (90 LBS. / 1000 SF)

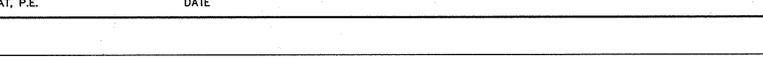
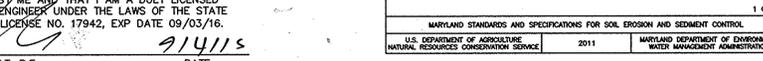
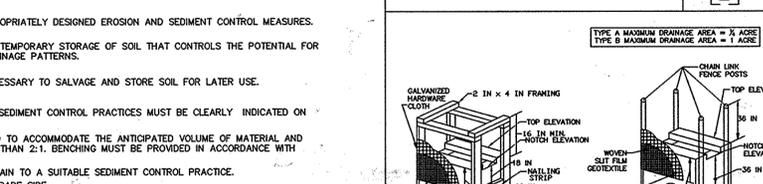
MIXTURES 1, 4-7, 9, AND 10 FROM TABLE B.3 OF THE 2011 MARYLAND STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MAY BE USED.

(B-4-5) STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

- DEFINITION: TO STABILIZE DISTURBED SOIL WITH PERMANENT VEGETATION.
- PURPOSE: TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER OF DISTURBED EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.
- CRITERIA
 - SELECT ONE OR MORE OF THE SPECIES 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 SUMMARY.
 - ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DICES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD GUIDE, SECTION 342-CRITICAL AREA PLANTING.
 - SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW RATES RECOMMENDED BY THE SOIL TESTING AGENCY.
 - FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FROM FERTILIZER (40-0-0) AT 3 1/2 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.
- TURFGRASS MIXTURES
 - AREAS WHERE TURFGRASS MAY BE DESIRE INCLUDING LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.
 - SELECT ONE OR MORE OF THE SPECIES OF MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE, ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY.
- 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 RATE: 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 TOTAL MIXTURE BY WEIGHT.
 - 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. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS: 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.
 - TALL FESCUE/KENTUCKY BLUEGRASS: FULL MIXTURE: FOR USE IN DROUGHT AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MAINTENANCE IN FULL SUN TO MEDIUM LIGHT. RECOMMENDED CERTIFIED TALL FESCUE CULTIVARS 65 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT. SEEDING RATE: 5 TO 8 POUNDS PER 1000 S.F. ONE OR MORE CULTIVARS MAY BE BLENDED.
 - KENTUCKY BLUEGRASS/RYE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. IRRIGATION REQUIRED IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES: CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED RYE FESCUE AND 60 TO 70 PERCENT. SEEDING RATES 1 1/2 TO 3 POUNDS PER 1000 S.F.
- IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES:
 - WESTERN MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 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
- 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 SHARPER THAN 1.5 INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASS WILL POSE NO DIFFICULTY.
- IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEAR SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH UNTIL THE SEEDLING ESTABLISHMENT IS SUFFICIENT TO PREVENT DRYING OUT. ESTABLISHED, THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASON, OR ON ADVERSE SITES.



DETAIL E-9-1 STANDARD INLET PROTECTION



(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.
- PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.
- CONDITIONS WHERE PRACTICE APPLIES: WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.
- CRITERIA
 - SOIL PREPARATION
 - 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 RIPPER 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 TRACED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
 - APPLY TOPSOIL TO THE SURFACE OF THE SOIL TO A DEPTH OF 3 TO 5 INCHES.
 - INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
 - PERMANENT STABILIZATION
 - A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL SAMPLE DEPTH IS TO BE 6 INCHES. THE FOLLOWING INFORMATION IS REQUIRED FOR SOIL ANALYSIS:
 - SOIL PH BETWEEN 6.0 AND 7.0.
 - SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).
 - SOIL CONTAINS LESS THAN 10 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.
 - SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
 - 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 CRITERIA.
 - GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, 1/4 INCH OF SLOPE TO ALLOW FOR DRAINAGE.
 - APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF SOIL TEST.
 - MIX 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 REMOVE THE SURFACE VEGETATION. SOILS OF CONCERN HAVE LOW FERTILITY. 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 1/4 INCH OF SOIL LOOSE AND FRAGILE. SEEDING LOOSENESS MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.
 - TOPSOILING
 - 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 USDA-NRCS.
 - TOPSOIL PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION, THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL N; POTASSIUM, 200 POUNDS PER ACRE; P (PHOSPHORUS), 200 POUNDS PER ACRE; K₂O (POTASSIUM), 200 POUNDS PER ACRE.
 - LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE) MAY BE APPLIED BY HYDROSEEDING, NORMALLY, NO MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN FRESHLY APPLIED.
 - MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.
 - WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.
 - MULCHING
 - 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, MOLLY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STRIP STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.
 - WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBER PHYSICAL STATE.
 - WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A FLUTTER-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.
 - WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
 - 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 MAXIMUM.
 - APPLICATION
 - APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.
 - WHEN STRAW MULCH IS USED, SEEDS ARE TO BE APPLIED 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 OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
 - ANCHORING
 - 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 AREA AND EROSION HAZARD:
 - 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, AND IS APPLICABLE TO ALL MULCH TYPES. MULCH ANCHORING TOOLS ARE TO BE OPERATED IN STRIPING LINES, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.
 - 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.
 - SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DGA-70, PETROSE, TERRA TAC II, TERRA TACK, OR OTHER APPROVED EQUIPMENT MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND TACK OR OTHER APPROVED EQUIPMENT CAN OPERATE. APPLICATION OF BINDERS ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.
 - 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 FEET LONG.
 - SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
 - SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH NITROGEN 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 ENGINEERING PURPOSES MAY BE USED FOR CHEMICAL ANALYSIS.
 - FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PROPER APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME, OR TRADEMARK AND WARRANTY 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 TITAN DIOXIDE (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #20 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #40 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 SQUARES, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQ. FT.) PRIOR TO THE PLACEMENT OF TOPSOIL.

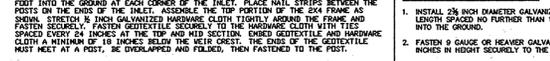
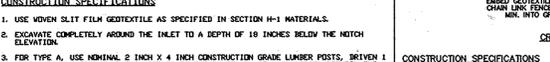
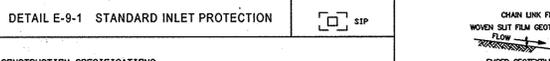
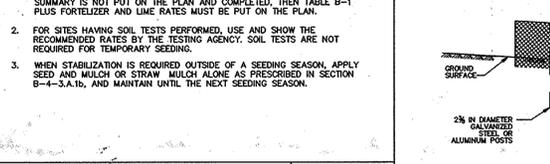
(B-4-3) STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

- DEFINITION: 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
 - SEEDING
 - 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 SEEDING. SUCH MATERIAL ON ANY OTHER DATE, REFER TO TABLE B.4 RECOMMENDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.
 - MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FRESHLY DISTURBED AND THE MULCH IS TO BE APPLIED WITHIN THE GROUND THAW.
 - INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER, AND FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE 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 LESS EFFECTIVE.
 - 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.
 - APPLICATION
 - DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
 - INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING MIXTURES.
 - APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDING AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
 - DRILL OR CULTPACKER SEEDERS: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
 - CULTPACKER SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDING MUST BE PERFORMED WITHIN THE SAME DIRECTION.
 - APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
 - HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
 - IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL N; POTASSIUM, 200 POUNDS PER ACRE; P (PHOSPHORUS), 200 POUNDS PER ACRE; K₂O (POTASSIUM), 200 POUNDS PER ACRE.
 - LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE) MAY BE APPLIED BY HYDROSEEDING, NORMALLY, NO MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN FRESHLY APPLIED.
 - MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.
 - WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

(B-4-4) STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

- DEFINITION: TO STABILIZE DISTURBED SOIL WITH VEGETATION FOR UP TO 6 MONTHS.
- PURPOSE: TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURB SOIL.
- CONDITIONS WHERE PRACTICE APPLIES: WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.
- CRITERIA
 - 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 BASED IN THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DEPTHS. IF THIS MIXTURE IS NOT LISTED IN TABLE B.1, ENTER THE MIXTURE(S) IN THE PERMANENT SEEDING SUMMARY. PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN.
 - FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.
 - 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.16, AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

DETAIL E-3 SUPER SILT FENCE

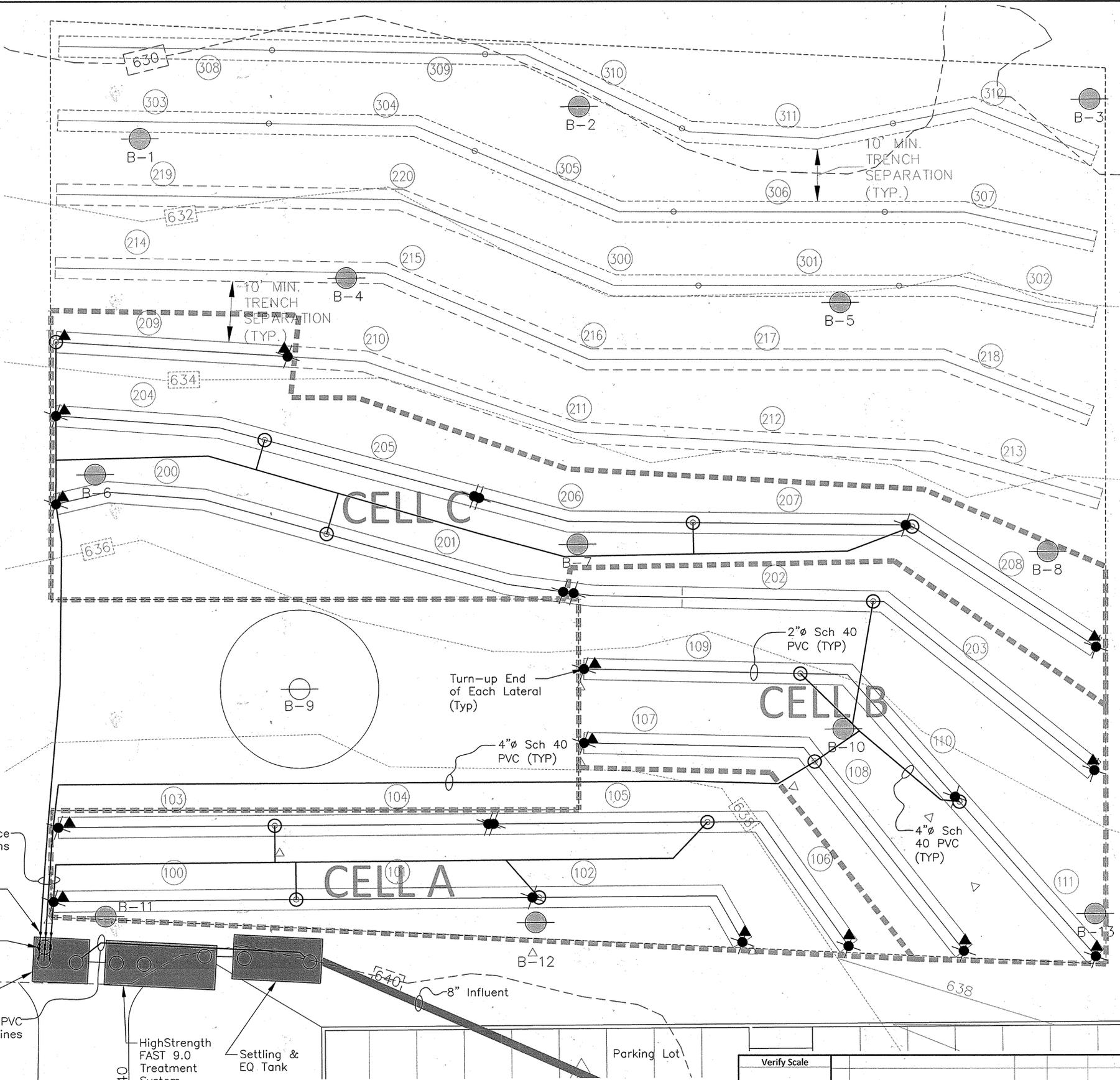


DRAINFIELD SPECIFICATIONS

Status	Trench	trench width (feet): 4		150% capacity with low pressure distribution system									
		existing ground elevation (feet msl)	perc ID's	limiting zone depths	perc rates (minutes per inch)	trench sidewall height (feet)	trench bottom depth (feet)	trench bottom elevation (feet msl)	sidewall top elevation (feet msl)	trench length (feet)	application rate (gpd/sqft)	capacity (gpd/cf)	
Primary	100-102	639.5	B11,12	7.2/10, 7.2/9.5	9.6	2.5	9	630.5	633.0	138	0.8	736	
	103-106	639.0				2.5	9	630.0	632.5	164	0.8	875	
	107-108	637.6	B10,13	6.7/11, 5.7/9	7.9	2.5	9	628.6	631.1	93	0.8	496	
	109-111	636.8				2.5	9	627.8	630.3	123	0.8	656	
	200-203	635.0	B6,7, 8,10	8.5/10, 6.5/9, 6.2/11, 6.7/11	15,10, 23,7	2.5	9	626.0	628.5	210	0.8	1,120	
Reserve	204-208	634.7				2.5	9	625.7	628.2	208	0.8	1,109	
	209	634.0	B4,6	6.6/9.5, 8.5/10	7,15	2.5	9	625.0	627.5	40	0.8	213	
	210-213	634.0	B4,5, 7,8	6.6/9.5, 6.5/10, 6.5/9, 6.2/11	7,20, 10,23	2.5	9	625.0	627.5	162	0.8	864	
	214-218	632.8				2.5	9	623.8	626.3	203	0.8	1,083	
	219-302	632.0	B1,4,5	6/9, 6.6/9.5, 6.5/10	8,7,20	2.5	9	623.0	625.5	204	0.8	1,088	
303-307	631.0	B1,2,3	6/9, 5/9, 5.1/10	8,8,4	2.5	9	622.0	624.5	202	0.8	1,077		
308-312	630.0					2.5	9	621.0	623.5	204	0.8	1,088	

Cell	Lateral elevation (feet msl)	lateral length (feet)	holes/lateral	perf spacing (feet)	lateral length (feet)	perf dia (inches)	perf flow (gpm)	lateral flow (gpm)	dose rate (gpm/foot)	max. lateral friction loss (feet)	lateral velocity (feet/second)	cell flow (gpm)	
													cell A
Cell A	100	635.5	46.0	10	4.60	43.7	5/16	2.00	20.0	0.43	0.4	1.9	132
	101	635.5	46.0	10	4.60	43.7	5/16	2.00	20.0	0.43	0.4	1.9	132
	102	635.5	46.0	10	4.60	43.7	5/16	2.00	20.0	0.43	0.4	1.9	132
	103	635.5	41.0	9	4.56	38.7	5/16	2.00	18.0	0.44	0.3	1.7	127
	104	635.5	41.0	9	4.56	38.7	5/16	2.00	18.0	0.44	0.3	1.7	127
	105	635.5	41.0	9	4.56	38.7	5/16	2.00	18.0	0.44	0.3	1.7	127
Cell B	106	635.5	41.0	9	4.56	38.7	5/16	2.00	18.0	0.44	0.3	1.7	127
	107	633.6	46.5	10	4.65	44.2	5/16	2.00	20.0	0.43	0.4	1.9	138
	108	633.6	46.5	10	4.65	44.2	5/16	2.00	20.0	0.43	0.4	1.9	138
	109	633.6	41.0	9	4.56	38.7	5/16	2.00	18.0	0.44	0.3	1.7	127
	110	633.6	41.0	9	4.56	38.7	5/16	2.00	18.0	0.44	0.3	1.7	127
	111	633.6	41.0	9	4.56	38.7	5/16	2.00	18.0	0.44	0.3	1.7	127
Cell C	202	633.6	52.5	11	4.77	50.1	5/16	2.00	22.0	0.42	0.5	2.1	136
	203	633.6	52.5	11	4.77	50.1	5/16	2.00	22.0	0.42	0.5	2.1	136
	200	631.0	52.5	10	5.25	49.9	5/16	2.00	20.0	0.38	0.4	1.9	132
	201	631.0	52.5	10	5.25	49.9	5/16	2.00	20.0	0.38	0.4	1.9	132
	204	631.0	41.6	8	5.20	39.0	5/16	2.00	16.0	0.38	0.2	1.5	125
	205	631.0	41.6	8	5.20	39.0	5/16	2.00	16.0	0.38	0.2	1.5	125

Notes: calculated values in italics; gpm = gallons per minute; msl = mean sea level in feet; laterals in each cell are the same elevation; design distal head (feet) = 3.0; friction C factor for plastic pipe = 140; lateral inside diameter (2" dia sch 40 PVC, in) = 2.067



LEGEND

- ⊙ Lateral Feed
- ⊛ Turn-up
- ▲ Observation Port
- Test Pit / Perc
- ⊙ Lateral Number
- Force Main (4" PVC)
- Lateral (2" PVC)
- ⊘ Failed Perc Test

NOTES:

1. Basemap drawing is from "SITE DEVELOPMENT PLAN, WILSON VILLAGE" by Mildenberg, Boender & Assoc., Inc., Project 12-035, dated October 2014.
2. All distribution mains are to be 4" PVC.
3. All distribution laterals are to be 2" PVC.
4. All Trenches are a nominal 4' wide and are minimum of 10' from shoulder to shoulder.

OWNER / DEVELOPER

WOODBINE BRANTLY, LLC
5100 DORSEY HALL DRIVE
ELLCOTT CITY, MARYLAND 21042
(410)964-0300

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

Maureen Roman 10/14/2015
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: DEPARTMENT OF PUBLIC WORKS

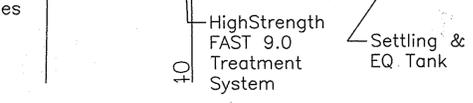
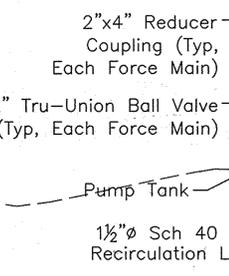
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Charles R. Crocken 10-20-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Walter J. Jaffe 10-30-15
CHIEF, DIVISION OF LAND DEVELOPMENT

Walter J. Jaffe 10-30-15
DIRECTOR



DRAINFIELD
SCALE: 1" = 10'

Verify Scale

Bar is one inch on original drawing

0 1"

if not one inch on this sheet, adjust scales accordingly

no.	description	date	by	approved
1	Address Howard County Health Department comments	08/21/15	MDS	CRC
2	Address Howard County Health Department comments	08/06/15	MDS	MDH
3	Address Howard County Health Department comments	06/12/15	MDS	MDH

Wilson Village Shopping Center
Old Frederick Rd, Howard County, Maryland

Hydro-Terra GROUP

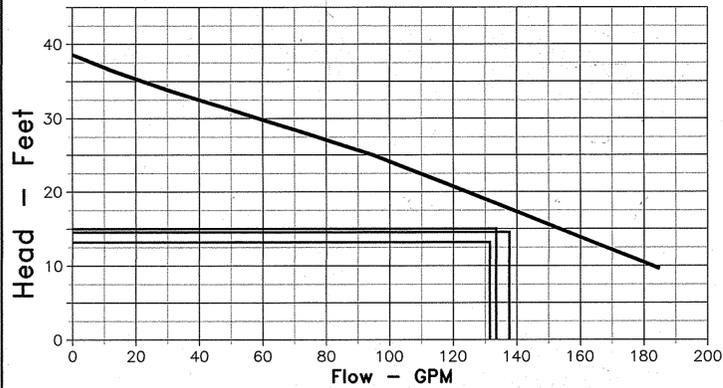
Wastewater Treatment & Disposal System

Drainfield Area Piping Plan

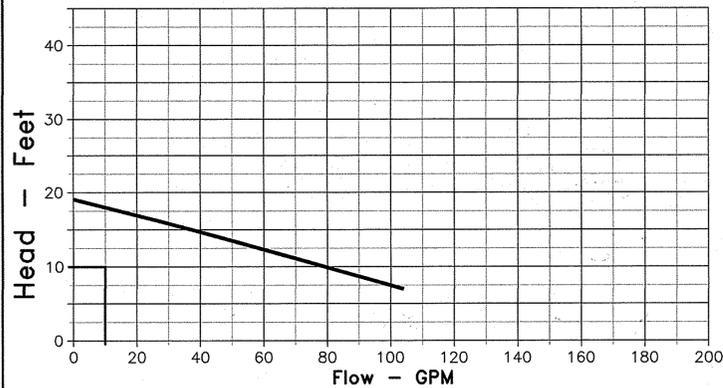
LDD-WV-Basemap.dwg SCALE: 1" = 10'

13 of 16

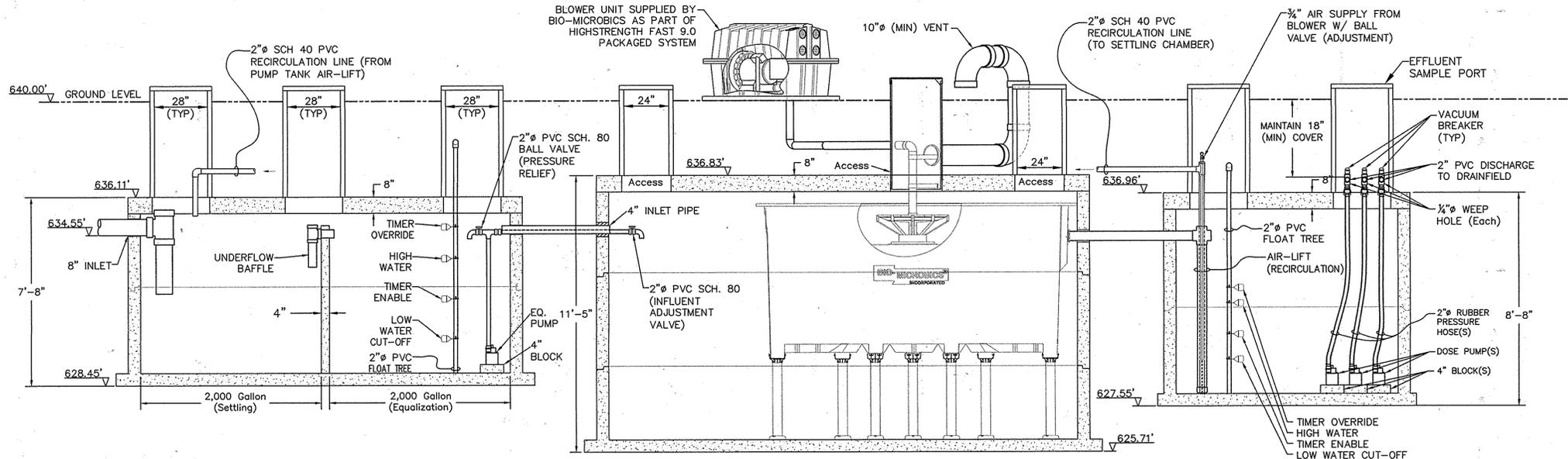
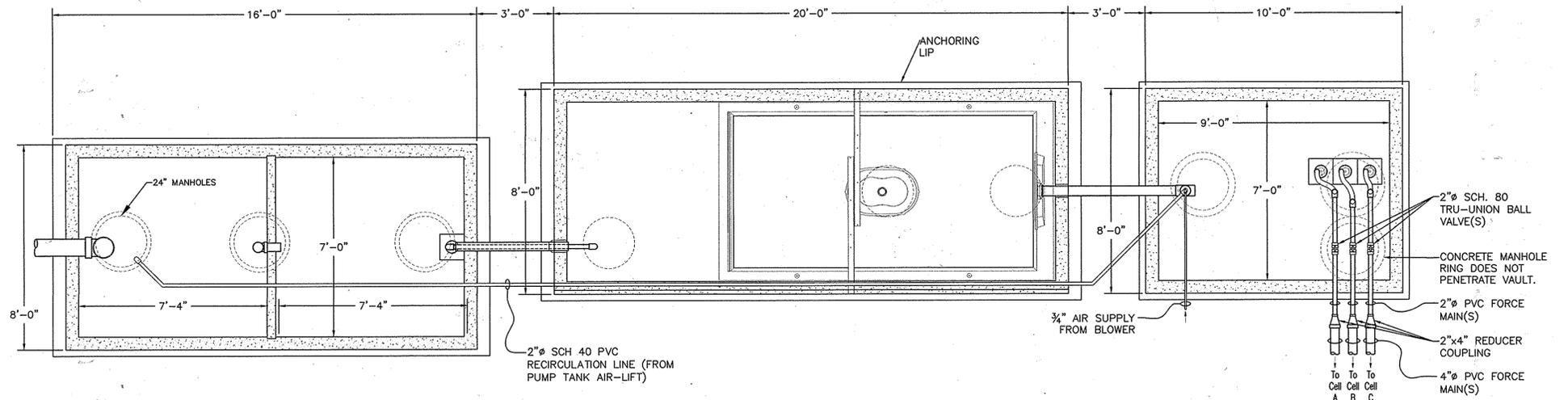
www.hydro-terra.com



**DOSE PUMP CURVE
GOULDS MODEL WS1012B**



**EQUALIZATION PUMP CURVE
GOULDS MODEL WS0312B**



2-COMPARTMENT 4,000 GALLON TANK

**HIGHSTRENGTH FAST 9.0
(8,500 GALLON TANK)**

PUMP TANK (2,000 GALLON)

EQUALIZATION TANK FLOAT	SETTING (Inches from Tank Bottom)
TIMER OVERRIDE	60
HIGH WATER	57
TIMER ENABLE	24
LOW WATER CUT-OFF	15

PUMP TANK FLOAT	SETTING (Inches from Tank Bottom)
TIMER OVERRIDE	60
HIGH WATER	57
TIMER ENABLE	39
LOW WATER CUT-OFF	15

**Bio-Microbics HighStrength FAST® 9.0 WWTS
& PUMP CHAMBER TANKS**

SCALE: 3/8" = 1'-0"

Notes

- Blower piping to FAST may not exceed 100 FT total length and use 45° elbows maximum. Blower must be located above flood/standing water levels on a concrete base 28" X 42" X 2" minimum.
- Vent to be located above finished grade to avoid infiltration. Cap with grate with at least 9 square inches of open surface area. Secure with stainless steel screws.
- All appurtenances to FAST must conform to all plumbing and electrical codes. The blower control system is provided by Bio-Microbics, Inc.
- All inspection, viewing and pump out ports must be secured to prevent accidental or unauthorized access.
- Tank, anchors, piping, conduit, blower housing pad and vents are provided by others.
- No more than 3 FT of fill may be placed over unit lid. Unit may stand inside tank.
- Tank measurements and elevations are based on septic tanks and pump chambers as manufactured by Maryland Concrete Septic Tank, Inc. (443) 491-3598.
- Dose Pump and Equalization Pump control panels have event counters and elapsed time meters.
- Food Service uses will require an appropriately sized grease trap prior to treatment system.
- All new tanks shall be tested for water tightness prior to service.
- All tanks shall be set upon 6"-8" of gravel bedding.

OWNER / DEVELOPER

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5100 DORSEY HALL DRIVE
ELLCOTT CITY, MARYLAND 21042
(410)964-0300

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

William R. Brantly 10/14/2015
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Charles R. Crocken 10-20-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Walter J. Jellison 10-30-15
CHIEF, DIVISION OF LAND DEVELOPMENT

Walter J. Jellison 10-30-15
DIRECTOR



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. 7809
EXP. DATE 4-26-17

Charles R. Crocken 9-1-15
CHARLES R. CROCKEN, P.E. DATE

Verify Scale

Bar is one inch on original drawing

0 1"

if not one inch on this sheet, adjust scales accordingly

no.	description	date	by	approved
1	Address Howard County Health Department comments	08/21/15	MDS	CRC
2	Address Howard County Health Department comments	08/06/15	MDS	MDH
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Wilson Village Shopping Center
Old Frederick Rd, Howard County, Maryland

Hydro-Terra GROUP

Project: Wastewater Treatment & Disposal System

Sheet: 14 of 16

www.hydro-terra.com

PLANTING SPECIFICATIONS AND NOTES

- PROTECTION FENCING IS TO BE INSTALLED AS A FIRST ORDER OF 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 IS RECOMMENDED.
- SOIL MIX FOR ALL PLANTS EXCEPT ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXED AT EACH PLANTING LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLOUGH. 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 CONTINUED 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**
- FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE.
 - 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**
- THE PLANTING FIELD SHOULD BE PREPARED AS SPECIFIED (SEE DETAIL). NATIVE STOCKPILED SOILS SHOULD BE USED FOR SOIL MIX AND SLOUGH 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 BUILT UP AROUND TREES.
 - 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.

- 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 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 ENIRCLE THE ROOT BALL, SUBSTITUTION IS STRONGLY RECOMMENDED.
- J-SHAPED OR RINKED ROOT SYSTEMS SHOULD ALSO BE NOTED. ROOTS MAY NOT BE TRIMMED UNLESS INDICATED ABOVE AND WATER GENEROUSLY.
- 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. MOISTURE INDICATED ABOVE AND WATER GENEROUSLY.
- FOR TREES PLANTED IN THE AFFORESTATION AREA, CONTRACTOR SHALL 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 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 OBTAIN A MORE NATURAL APPEARANCE.
- NEWLY PLANTED TREES MAY NEED WATERING AS MUCH AS ONCE A WEEK 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, 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**
- 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.
 - NOTHING SHOULD BE ADDED TO THE SOIL WITHOUT TESTING IT FIRST TO DETERMINE ITS NEEDS.
 - IF AND WHEN IT IS TIME TO FERTILIZE, ORGANIC FERTILIZERS ARE PREFERRED TO SYNTHETIC FERTILIZERS. BONE MEAL OR SEAWEED BASED PRODUCTS ARE AVAILABLE COMMERCIALY 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.

- MAINTENANCE SCHEDULE**
- ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR PERIOD.
 - ASSESS TREE MORTALITY OF PLANTING STOCK, REMOVE AND REPLACE ANY DEAD OR DISEASED PLANTINGS.
 - 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.
 - REMOVE THROUGH MANUAL MEANS (GRUBBING, PULLING, CUTTING) AGGRESSIVE, NOXIOUS, INVASIVE SPECIES AND ALL HERBACEOUS VEGETATION WITHIN A 3-FOOT RADIUS SURROUNDING THE PLANTED 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.
 - 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.

- SUPERVISION**
- ALL FOREST CONSERVATION ACTIVITIES SHALL BE 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 RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION.

NOTE :

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENTS EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, SOIL COMPACTION, OR EXCAVATION, INTRODUCTION OF TOXIC CHEMICALS OR OTHER DISTURBANCES DETRIMENTAL TO THE LIVE SPECIMEN TREES OR CRITICAL ROOT ZONES FOR THESE TREES EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

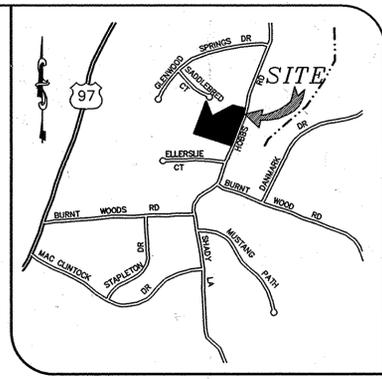
SOILS CLASSIFICATION

SYMBOL	DESCRIPTION
BaA	BAILE SILT LOAM, 0 TO 3 PERCENT SLOPES (D)
ChB	CHILLUM-RUSSETT LOAMS, 2 TO 5 PERCENT SLOPES (B)
GgB	GLENELG LOAM, 0 TO 3 PERCENT SLOPES (B)
GgB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES (B)

OFF-SITE FOREST CONSERVATION EASEMENT AREAS

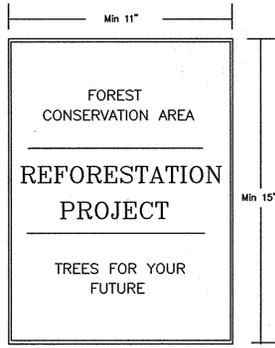
TOTAL EASEMENT AVAILABLE FOR PLANTING: 0.87 ACRES±

PROJECT	EASEMENT AREA PROVIDED	REMAINING EASEMENT AREA	FINAL PLAN #
NORDAU PROPERTY	0.77 ACRES±	8.10 ACRES±	F-12-047
TURLEY'S MEADOW	1.36 ACRES±	6.74 ACRES±	F-13-084
MONTGOMERY CROSSING PHASE 2	1.08 ACRES±	5.66 ACRES±	F-14-029
TURLEY'S OVERLOOK	0.52 ACRES±	5.14 ACRES±	F-14-079
BETHEL MINISTRIES, INC.	0.81 ACRES±	4.33 ACRES±	SDP-14-042
GULFORD OVERLOOK	0.47 ACRES±	3.86 ACRES±	F-11-059
PINE GROVE ADDITION LOTS 1-6	0.27 ACRES±	3.59 ACRES±	F-15-036
WILSON VILLAGE	0.83 ACRES±	2.76 ACRES±	SDP-14-021



VICINITY MAP
SCALE: 1" = 2000'
ADC MAP 17 B-4

LOCATION BACKGROUND:
LOCATION: TAX MAP: 7 GRID: 6 PARCEL: 478
ELECTION DISTRICT: FOURTH
ZONING: B-2
TOTAL AREA: 5.89 AC.±
DEED REFERENCE: 08084 / 00137
PREVIOUS DPZ FILES: F-78-03, SDP-92-77, ECP-13-050



SIGNAGE DETAILS
NOT TO SCALE

REFORESTATION PLANT LIST

ALTERNATIVE 1

QTY.	SPECIES	SHADE TOL.	MOIST. REQ.	WET. STATUS	MIN. O.C. SPACING	SIZE & REMARKS
26	Acer rubrum	VT	D-W	FAC	15'	CONT/B & B 1" CALIPER
40	Lindera benzoin	T	M	FACW	15'	CONT/B & B 3"-5" HEIGHT
40	Quercus Rubra	I	M-W	FAC	15'	CONT/B & B 1" CALIPER
40	Liriodendron tulipifera	MT	D-M	FAC	15'	CONT/B & B 1" CALIPER
30	Nyssa sylvatica Black Gum	T	M-W	FAC	15'	CONT/B & B 1" CALIPER
30	Prunus serotina Sargent Cherry	I	M	FACU	15'	CONT/B & B 1" CALIPER
TOTAL						
166 TREES, 40 BUSHES						

ALTERNATIVE 2

QTY.	SPECIES	SHADE TOL.	MOIST. REQ.	WET. STATUS	MIN. O.C. SPACING	SIZE & REMARKS
50	Acer rubrum	VT	D-W	FAC	11'	SEEDLING/WHIP WITH TREE SHELTER
40	Lindera benzoin	T	M	FACW	11'	SEEDLING/WHIP WITH TREE SHELTER
50	Quercus Rubra	I	M-W	FAC	11'	SEEDLING/WHIP WITH TREE SHELTER
50	Liriodendron tulipifera	MT	D-M	FAC	11'	SEEDLING/WHIP WITH TREE SHELTER
50	Nyssa sylvatica Black Gum	T	M-W	FAC	11'	SEEDLING/WHIP WITH TREE SHELTER
91	Prunus serotina Sargent Cherry	I	M	FACU	11'	SEEDLING/WHIP WITH TREE SHELTER
TOTAL						
291 WHIPS WITH TREE SHELTERS, 40 BUSHES						

OWNER / DEVELOPER
WOODBINE BRANTLY, LLC
6300 DORSEY HALL DRIVE
ELLCOTT CITY, MARYLAND 21042
(413)367-0422

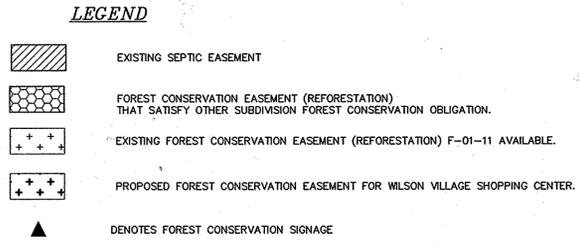
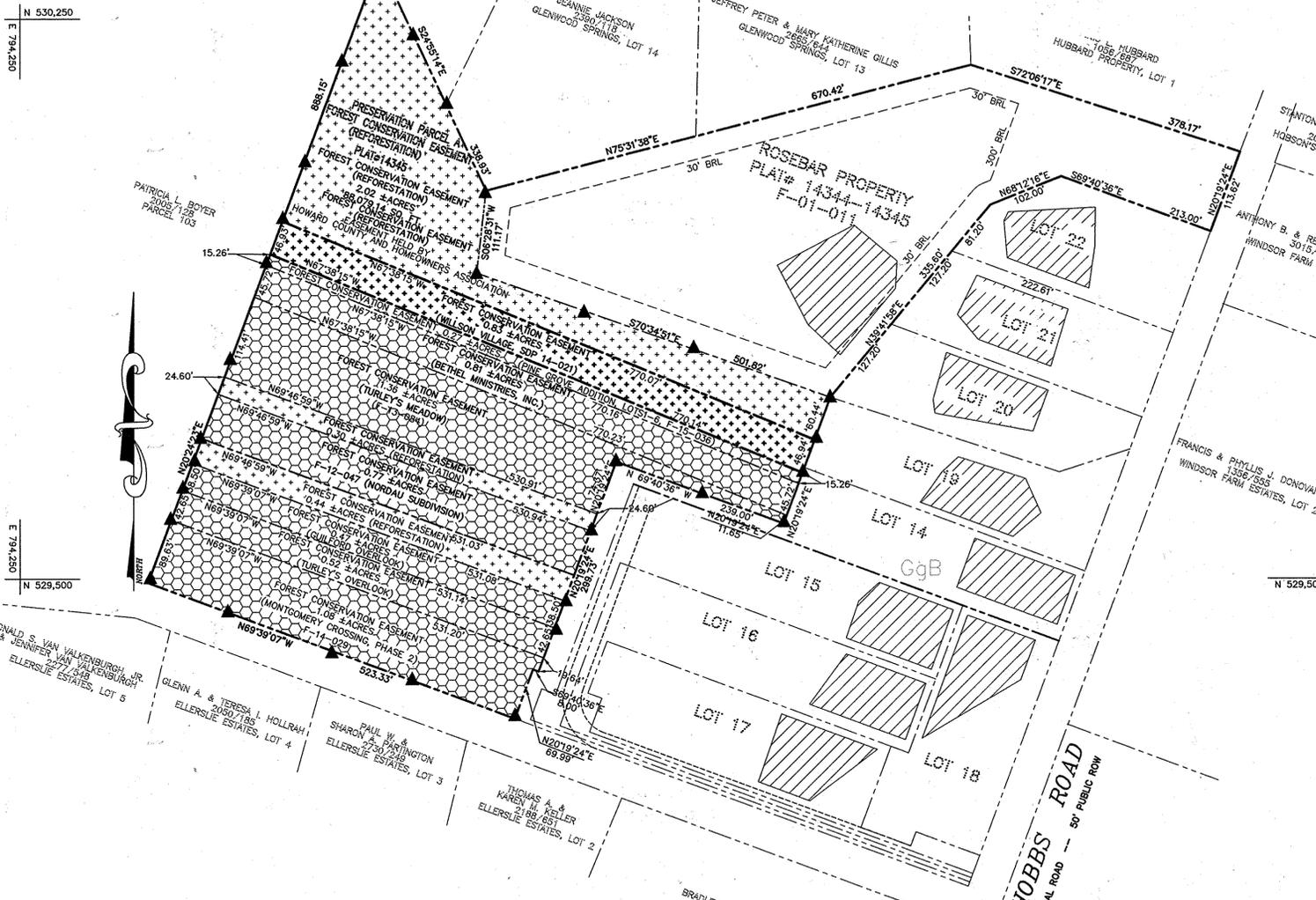
APPROVED: DEPARTMENT OF PLANNING AND ZONING

 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 10-20-15

 CHIEF DIVISION OF LAND DEVELOPMENT
 DATE: 10-20-15



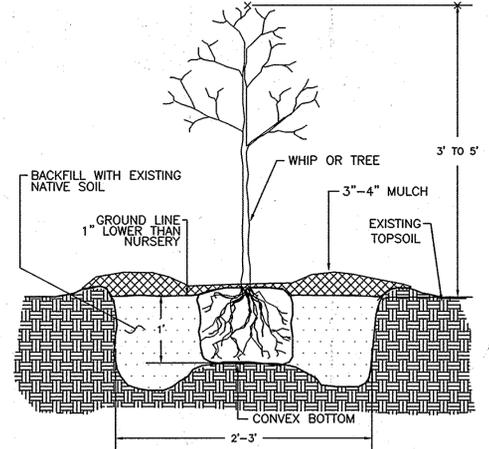
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 17942, EXP. DATE 09/03/16.
 R. JACOB HIKMAT P.E. DATE: 9/14/15



FOREST CONSERVATION IN ACCORDANCE WITH SECTION 16.1202 OF THE FOREST CONSERVATION MANUAL SHALL BE PROVIDED 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 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. DPZ HAS DETERMINED THAT A RED-LINE REVISION SHALL BE MADE TO SDP-97-115 TO SHOW 0.83 ACRES OF REFORESTATION DEDUCTED FROM THE TOTAL FC EASEMENT LOCATED ON ROSEBAR. SURETY FOR THE OFF-SITE FOREST CONSERVATION EASEMENT ON THE ROSEBAR PROPERTY HAS BEEN PREVIOUSLY POSTED BY THE OWNER OF THE EASEMENT HOLDER.

MD DNR QUALIFIED PROFESSIONAL

 MASHID PRING
 DATE: 9/14/15



TREE PLANTING DETAIL
CONTAINER GROWN

project	date	description	no.
SDP-2015	12-08-15	engineering illustration	MM
		approval	RH

date	description	revisions

WILSON VILLAGE SHOPPING CENTER
 FOREST CONSERVATION EASEMENT GRANTED FROM ROSEBAR PROPERTY, PRESERVATION PARCEL "A"
 FORTH ELECTION DISTRICT
 TAX MAP: 7 PARCEL: 478
 HOWARD COUNTY, MARYLAND
 OFFSITE FOREST CONSERVATION PLAN

MILDENBERG, BOENDER & ASSOC., INC.
 Surveyors
 Engineers
 Planners
 7350-B Grace Drive, Columbia, Maryland 21044
 (410) 997-0296 Fax: (410) 997-0296