

**ESD NARRATIVE**

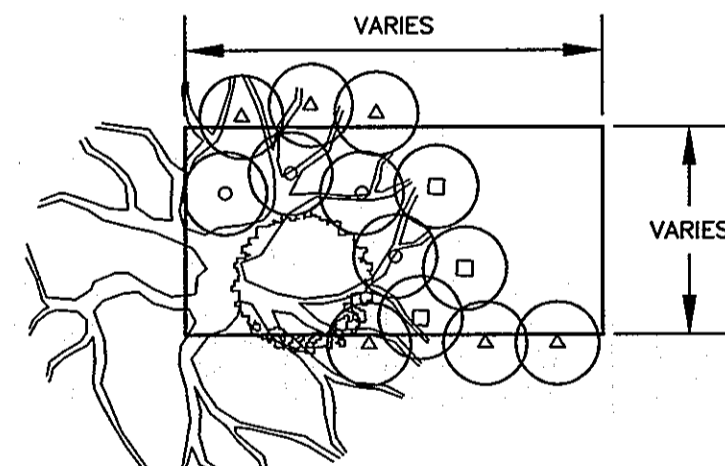
1. THERE IS AN INTERMITTENT STREAM LOCATED ON-SITE. DISTURBANCE OF THE STREAM FOR A CONSTRUCTION OF A DRIVEWAY IS NECESSARY TO PROVIDE ACCESS TO THE PROPOSED HOUSE AT THE NORTH SIDE OF LOT. HOWEVER, THE 50' STREAM BUFFER WAS DISTURBED AS LITTLE AS POSSIBLE. A PORTION OF THE SITE LIES WITHIN THE 100-YEAR FLOODPLAIN. DISTURBANCE (CUT AND FILL) WITHIN THE FLOODPLAIN WAS KEPT TO A MINIMUM.
2. THE IMPROVEMENTS AND DEVELOPED AREA WILL MAINTAIN THE EXISTING DRAINAGE PATTERNS AS CLOSELY AS POSSIBLE. NO IMPACT IS PROPOSED THAT WOULD ALTER ANY NATURAL FLOW PATTERNS.
3. STORMWATER MANAGEMENT REQUIREMENTS ARE MET VIA NON-STRUCTURAL PRACTICES WHERE POSSIBLE, HOWEVER MICRO-SCALE PRACTICES SUCH AS MICRO-BIORETENTION ARE PROPOSED TO PROVIDE TREATMENT FOR A PORTION OF THE DEVELOPMENT.
4. THE REQUIRED EROSION AND SEDIMENT CONTROL MEASURES WILL BE IN ACCORDANCE WITH THE LATEST MDE STANDARDS AND SPECIFICATIONS UTILIZING SILT FENCES AND SUPER SILT FENCES. NO CONCENTRATED FLOW IS PROPOSED. NO SEDIMENT TRAPS OR BASINS ARE REQUIRED.
5. TABLE 5.2, SUMMARY OF SITE DEVELOPMENT STRATEGIES WAS UTILIZED TO THE EXTENT ALLOWABLE BY THE CURRENT HOWARD COUNTY ZONING AND LAND DEVELOPMENT REGULATIONS BY MINIMIZING EARTH DISTURBANCE.
6. IN DESIGNING THIS PROJECT, AND AFTER WE PLAN THE PROJECT TO MINIMIZE IMPERVIOUS AREAS, WE UTILIZED ESD MEASURES IN THE FOLLOWING ORDER OF PREFERENCE: A. DISCONNECTION OF ROOFTOP, B. SHEET FLOW TO CONSERVATION, C. MICRO-SCALE PRACTICES.
7. THERE ARE NO DESIGN MANUAL WAIVERS FOR THIS SITE IN REGARDS TO ENVIRONMENTAL DISTURBANCES.

**SOIL CLASSIFICATION:**

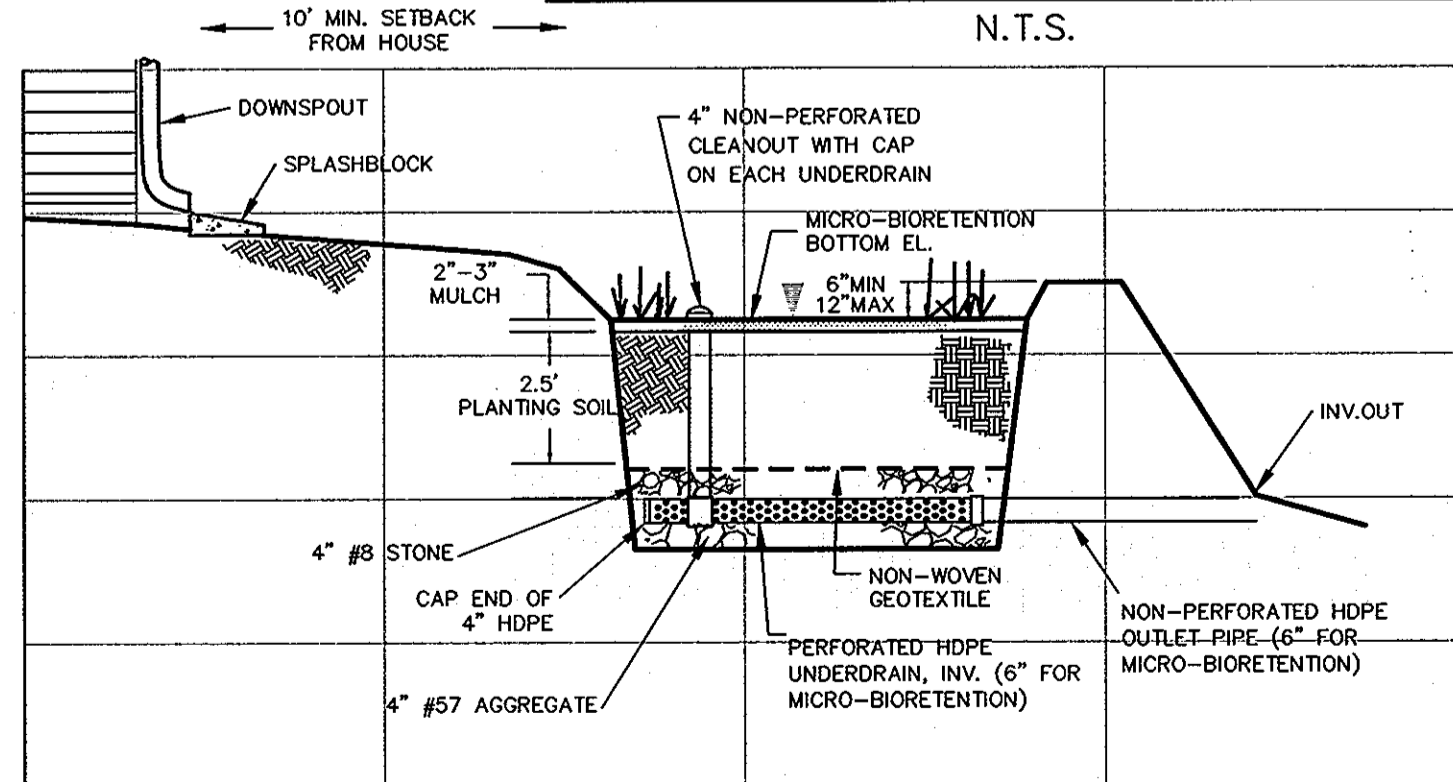
GnB (C) GLENVILLE-BAILE SILT LOAMS - 0 TO 8% SLOPES.

**LEGEND:**

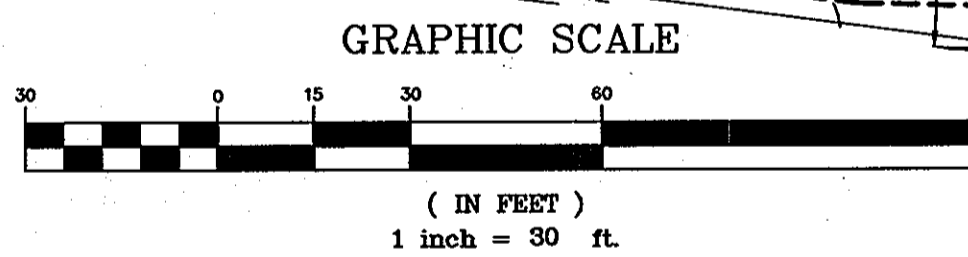
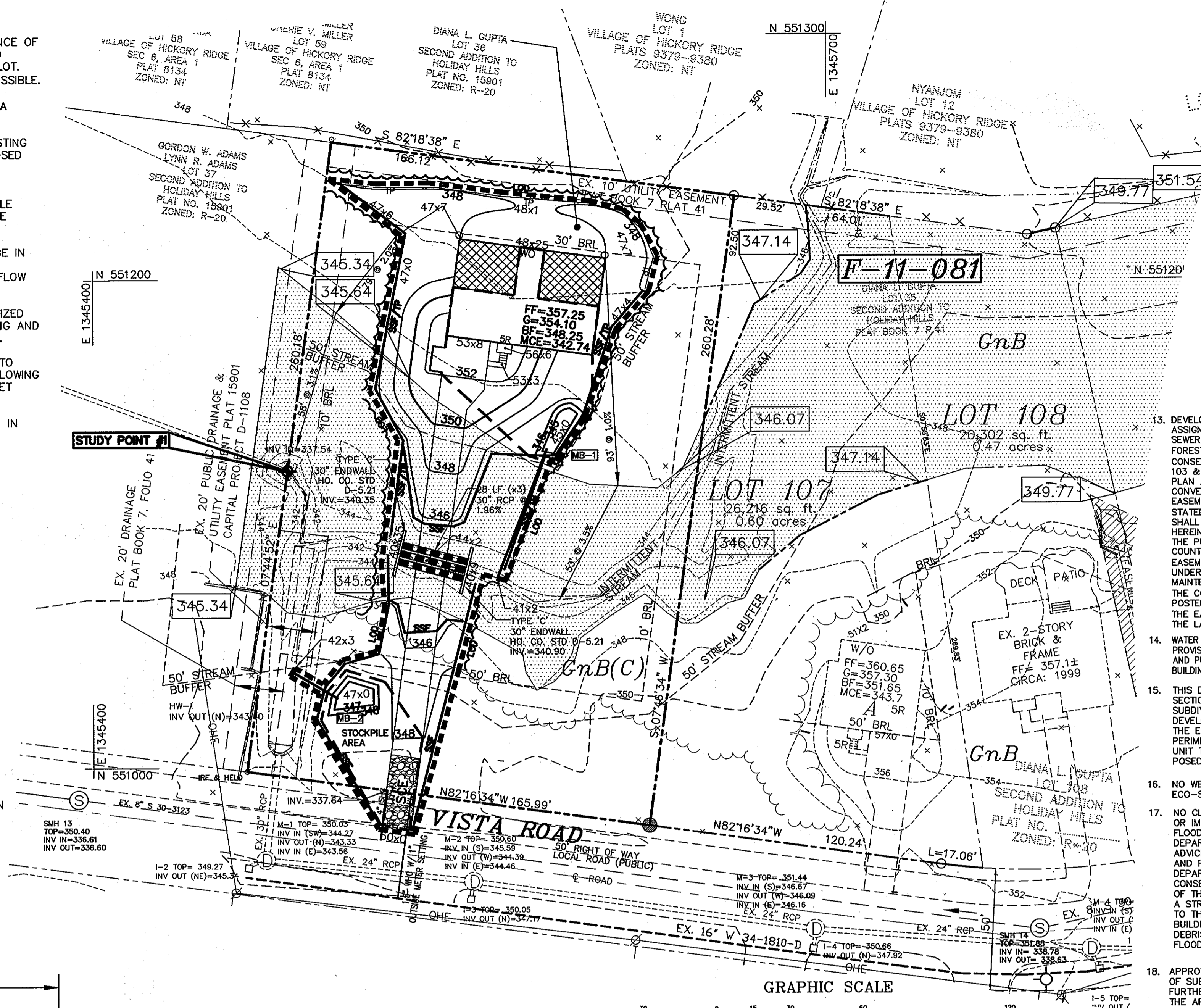
- EX. TREE/BRUSH LINE
- DENOTES PUBLIC 100-YEAR FLOODPLAIN, DRAINAGE & UTILITY EASEMENT
- STABILIZED CONSTRUCTION ENTRANCE
- LOD
- LIMITS OF DISTURBANCE
- SILT FENCE OR SUPER SILT FENCE
- PROPOSED TREE LINE
- INTERMITTENT STREAM
- TREE PROTECTION FENCE
- AREA TREATED BY N-1 ROOFTOP DISCONNECTION AND N-3 SHEET FLOW TO CONSERVATION
- DRAINAGE AREA DIRECTLY TO MICRO-BIORETENTION
- MB-X
- M-6, MICRO-BIORETENTION FACILITY



**FACILITY PLANTING DETAIL**  
N.T.S.



**TYPICAL MICRO-BIORETENTION DETAIL**  
N.T.S.



**SWM PRACTICES SCHEDULE**

AREA	PROPOSED PRACTICES	REQUIRED ESDv	PROVIDED ESDv
LOT 36	N-1, ROOFTOP DISCONNECTION N-3, SHEET FLOW TO CONSERVATION M-6, MICRO-BIORETENTION (MB-1,2)	515 CF	158 CF 95 CF 281 CF
TOTAL		515 CF	534 CF

**PLANT LIST**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
1	☼	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2-1/2" - 3" CAL.
1	○	ILEX GLABRA	INK BERRY	2' - 3' HT.
6	⊙	LOBELIA SIPHILITICA	GREAT BLUE LOBELIA	1 GAL. CONTAINER
4	⊙	ONOCLEA SENSIBILIS	SENSITIVE FERN	1 GAL. CONTAINER
3	⊙	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	1 GAL. CONTAINER

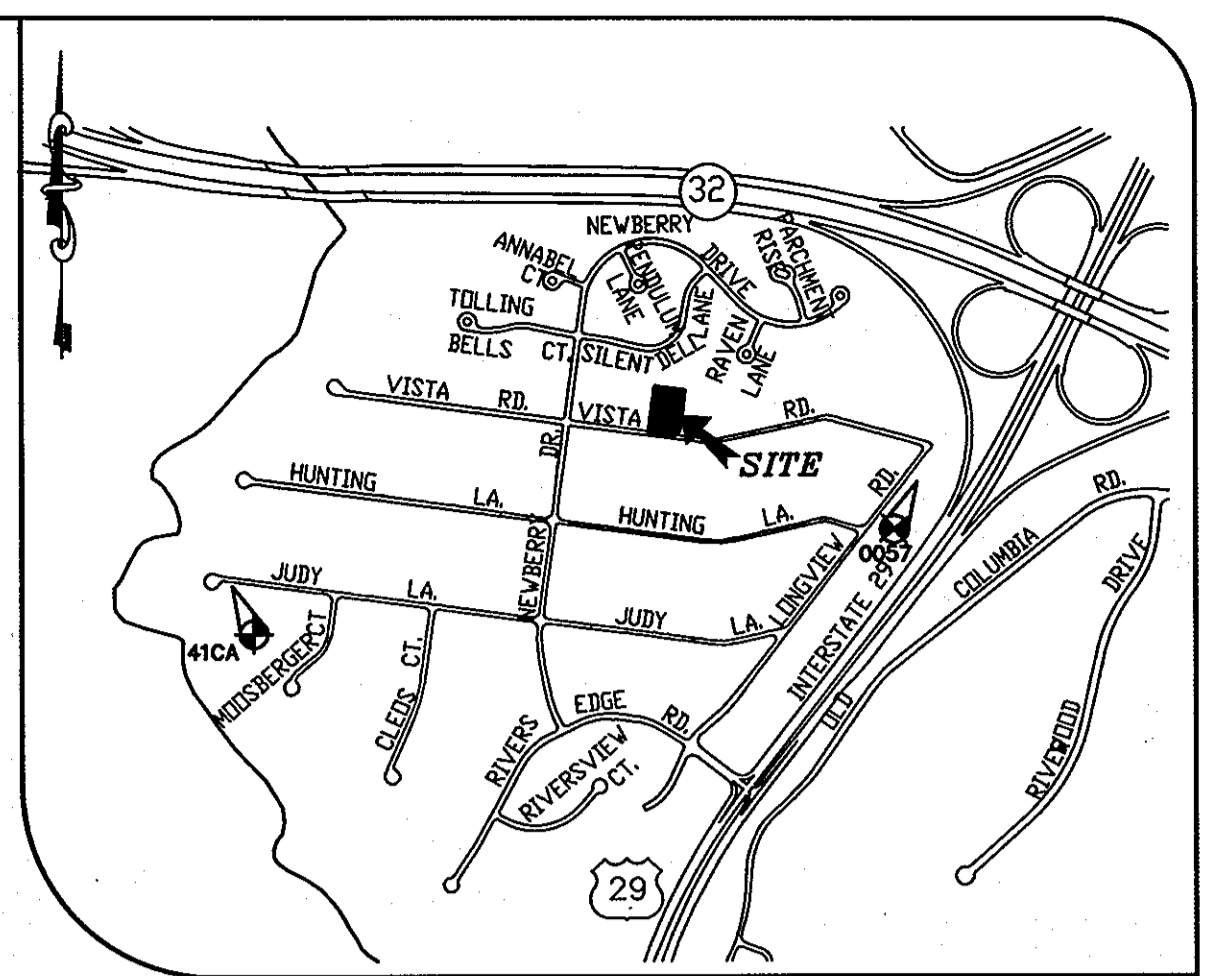
TOTAL: 13 PERENNIALS, 1 SHRUB, 1 TREE (PER EACH FACILITY)

**OWNER / DEVELOPER**

DIANA GUPTA  
10610 VISTA ROAD  
COLUMBIA, MD 21044  
(410) 531-0370

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. 40091, EXP DATE 2/13/13.

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 DATE: 1/23/12  
 DATE: 1/6/12  
 1-5-12



**VICINITY MAP**  
SCALE: 1"=2,000'  
ADC MAP: 5052 J-2

**GENERAL NOTES:**

1. THE SUBJECT PROPERTY IS ZONED R-20 AND THE COMP LITE ZONING AMENDMENTS DATED 07/28/06.
2. BOUNDARY AND TOPOGRAPHIC SURVEY SHOWN HEREON BASED ON DEED INFORMATION AND FIELD RUN TOPOGRAPHIC SURVEY PERFORMED BY MILDENBERG, BOENDER AND ASSOCIATES, INC. IN DECEMBER, 2007.
3. SITE DATA:  
TAX MAP 41, BLOCK 6, PARCEL 220 (LOT 36)  
DEED REFERENCE: PLAT NO. 15901 L. 07266 F. 00037  
ALSO, SEE SITE DATA CHART BELOW
4. SOILS DATA BASED ON HOWARD COUNTY SOIL SURVEY DATED 2003.
5. THIS SUBDIVISION IS IN THE METROPOLITAN DISTRICT.
6. ALL AREAS ARE MORE OR LESS.
7. COORDINATES BASED ON NAD '83 (HORIZONTAL) AND NAVD '88 (VERTICAL) MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS:  
0057 - N 550835.2057 E 1347017.6516 ELEV= 398.864  
41CA - N 550124.8331 E 1342960.8189 ELEV= 295.328
8. NO BURIAL GROUNDS, HISTORIC STRUCTURES OR CEMETERIES EXIST ON SITE.
9. THIS PLAN IS CONDITIONALLY EXEMPT FROM FOREST CONSERVATION REQUIREMENTS WITH A LETTER OF INTENT PER SECTION 16.122(b)(2)(i)(4) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. GRADING AND CLEARING OF EXISTING FOREST IS LESS THAN 20,000 SF.
10. SINCE NO LAND SUBDIVISION IS PROPOSED, NO OPEN SPACE LOTS HAVE BEEN PROVIDED
11. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLING TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:  
A. WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENT).  
B. SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1.5" MINIMUM).  
C. GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45 FOOT TURNING RADIUS.  
D. STRUCTURES (GULVERT/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).  
E. DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YR. FLOOD WITH NO MORE THAN 1" OF DEPTH OVER DRIVEWAY SURFACE.  
F. STRUCTURE CLEARANCES - MINIMUM 12 INCHES  
G. MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
12. STORMWATER MANAGEMENT DETAILS ARE SHOWN ON THIS SHEET

**SITE ANALYSIS DATA CHART**

- A. TOTAL PROJECT AREA: 0.99 Ac / 43,210 SF
- B. AREA OF PLAN SUBMISSION: 0.99 Ac / 43,210 SF
- C. LIMIT OF DISTURBED AREA: 0.40 Ac / 17,424 SF
- D. PRESENT ZONING: R-20
- E. PROPOSED USE: SINGLE-FAMILY RESIDENTIAL
- F. FLOOR SPACE ON EACH LEVEL OF BUILDING: N/A
- G. TOTAL NUMBER OF UNITS ALLOWED FOR PROJECT AS SHOWN ON FINAL PLAT: 1
- H. TOTAL NUMBER OF UNITS PROPOSED: 1
- I. MAXIMUM NUMBER OF EMPLOYEES, TENANTS ON SITE: N/A
- J. NUMBER OF PARKING SPACES REQUIRED: N/A
- K. NUMBER OF PARKING SPACES PROVIDED: N/A
- L. AREA OF RECREATIONAL OPEN SPACE:  
REQUIRED: 0.00 Ac  
PROVIDED: 0.00 Ac
- M. BUILDING COVERAGE OF SITE: 0.055 Ac / 5.55% OF GROSS AREA
- N. ON-SITE WETLAND AREA: 0
- O. ON-SITE 100-YR FLOODPLAIN AREA: 0.32 Ac / 13,907 SF
- P. ON-SITE STEEP SLOPE / ERODABLE SOIL AREA: 0.00 Ac / 0 SF
- Q. ON-SITE IMPERVIOUS AREA: 0.12 Ac / 5,123 SF (PROPOSED)
- R. ON-SITE GREEN AREA: 0.87 Ac / 38,001 SF (PROPOSED)
- S. ON-SITE FORESTED AREA: 0.65 Ac / 28,605 SF (PROPOSED)
- T. PREVIOUS DP2 FILE NUMBERS: F-03-169

13. DEVELOPER RESERVES UNTO ITSELF, ITS SUCCESSORS AND ASSIGNS, ALL EASEMENTS SHOWN ON THIS PLAN FOR WATER, SEWER, STORM DRAINAGE, OTHER PUBLIC UTILITIES, AND FOREST CONSERVATION (DESIGNATED AS "FOREST CONSERVATION AREA"), LOCATED IN, OVER AND THROUGH LOTS 103 & 104, OR PORTIONS THEREOF, AND SHOWN ON THIS PLAN AS THE FOREST CONSERVATION AREA. ANY AND ALL CONVEYANCES OF AFORESAID LOTS SHALL BE SUBJECT TO THE EASEMENTS HEREIN RESERVED, WHETHER OR NOT EXPRESSLY STATED IN THE DEED(S) CONVEYING SAID LOT(S). DEVELOPER SHALL EXECUTE AND DELIVER A DEED FOR THE EASEMENTS HEREIN RESERVED TO HOWARD COUNTY, UPON COMPLETION OF THE PUBLIC UTILITIES AND THEIR ACCEPTANCE BY HOWARD COUNTY, AND, IN CASE OF A FOREST CONSERVATION EASEMENT(S), UPON COMPLETION OF DEVELOPER'S OBLIGATION UNDER THE FOREST CONSERVATION INSTALLATION AND MAINTENANCE AGREEMENT EXECUTED BY THE DEVELOPER AND THE COUNTY, AND THE RELEASE OF THE DEVELOPER'S SURETY POSTED WITH SAID AGREEMENT, THE COUNTY SHALL ACCEPT THE EASEMENTS AND RECORD THE DEED(S) OF EASEMENT IN THE LAND RECORDS OF HOWARD COUNTY.
14. WATER AND SEWER SERVICE TO THIS LOT WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 16.122B OF THE HOWARD COUNTY CODE. PUBLIC WATER AND PUBLIC SEWER WILL BE GRANTED AT THE TIME OF THE ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME.
15. THIS DEVELOPMENT IS DESIGNED TO BE IN ACCORDANCE WITH SECTION 16.127 - RESIDENTIAL INFILL DEVELOPMENT -- OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THE DEVELOPER OF THIS PROJECT SHALL CREATE COMPATIBILITY WITH THE EXISTING NEIGHBORHOOD THROUGH THE USE OF ENHANCED PERIMETER LANDSCAPING, BERMS, FENCES, SIMILAR HOUSING UNIT TYPES AND THE DIRECTIONAL ORIENTATION OF THE PROPOSED HOUSES.
16. NO WETLANDS EXIST ON SITE BASED ON A LETTER OF FINDINGS BY ECO-SCIENCE, INC. DATED OCTOBER 21, 2011
17. NO CLEARING, EXCAVATING, FILLING, ALTERING DRAINAGE OR IMPERVIOUS PAVING MAY OCCUR ON LAND LOCATED IN FLOODPLAIN UNLESS REQUIRED OR AUTHORIZED BY THE DEPARTMENT OF PLANNING AND ZONING UPON THE ADVICE OF THE DEPARTMENT OF INSPECTIONS, LICENCES AND PERMITS, THE DEPARTMENT OF PUBLIC WORKS, THE DEPARTMENT OF RECREATION AND PARKS, THE SOIL CONSERVATION DISTRICT, OR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT. ANY PROPOSED CONSTRUCTION OF A STRUCTURE WITHIN A FLOODPLAIN SHALL BE SUBJECT TO THE REQUIREMENTS OF THE HOWARD COUNTY BUILDING CODE, BUILDING MATERIALS AND OTHER DEBRIS SHALL NOT BE STORED OR DISCARDED IN FLOODPLAINS.
18. APPROVAL OF THIS ECP DOES NOT CONSTITUTE ANY APPROVAL OF SUBSEQUENT SUBDIVISION OR SITE DEVELOPMENT PLANS. FURTHER COMMENTS WILL BE GENERATED UPON REVIEW OF THE APPLICABLE DEVELOPMENT PLANS IN ACCORDANCE WITH THE SUBDIVISION AND ZONING REGULATIONS.
19. LANDSCAPING FOR LOT 36 HAS BEEN PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
20. THE STAKING OF FOUNDATION PRIOR TO CONSTRUCTION TO ENSURE COMPLIANCE WITH REGULATORY BUILDING RESTRICTION LINES IS RECOMMENDED.
21. THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES, AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, 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.
22. SHOULD ANY TREE DESIGNATED FOR PRESERVATION, FOR WHICH LANDSCAPING CREDIT IS GIVEN, DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR WITH A TREE WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD, AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 2 1/2 TO 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE LANDSCAPE MANUAL.
23. NO CLEARING OF EXISTING VEGETATION IS PERMITTED WITHIN THE LANDSCAPE EDGE FOR WHICH CREDIT IS BEING TAKEN; HOWEVER, LANDSCAPE MAINTENANCE IS AUTHORIZED.

**ADDRESS CHART**

LOT/PARCEL NO.	STREET ADDRESS
36	10622 VISTA ROAD

date	SEPT 2011	approval	RH
project	07-041	scale	1"=90'
illustration	JLS	description	revisions
		no.	

date	
description	revisions
no.	

**SECOND ADDITION TO HOLIDAY HILLS SUBDIVISION, LOT 36**  
 PLAT NO. 15901, SFD LOT  
 TAX MAP 41, BLOCK 6, PARCEL 220  
 FIFTH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
**ENVIRONMENTAL CONCEPT PLAN**

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 6800 Deepwater Road, Suite 150, Ellicottville, MD 21075  
 (410) 997-0296 Bldg. (301) 621-5521 Wash. (410) 997-0296 Fax