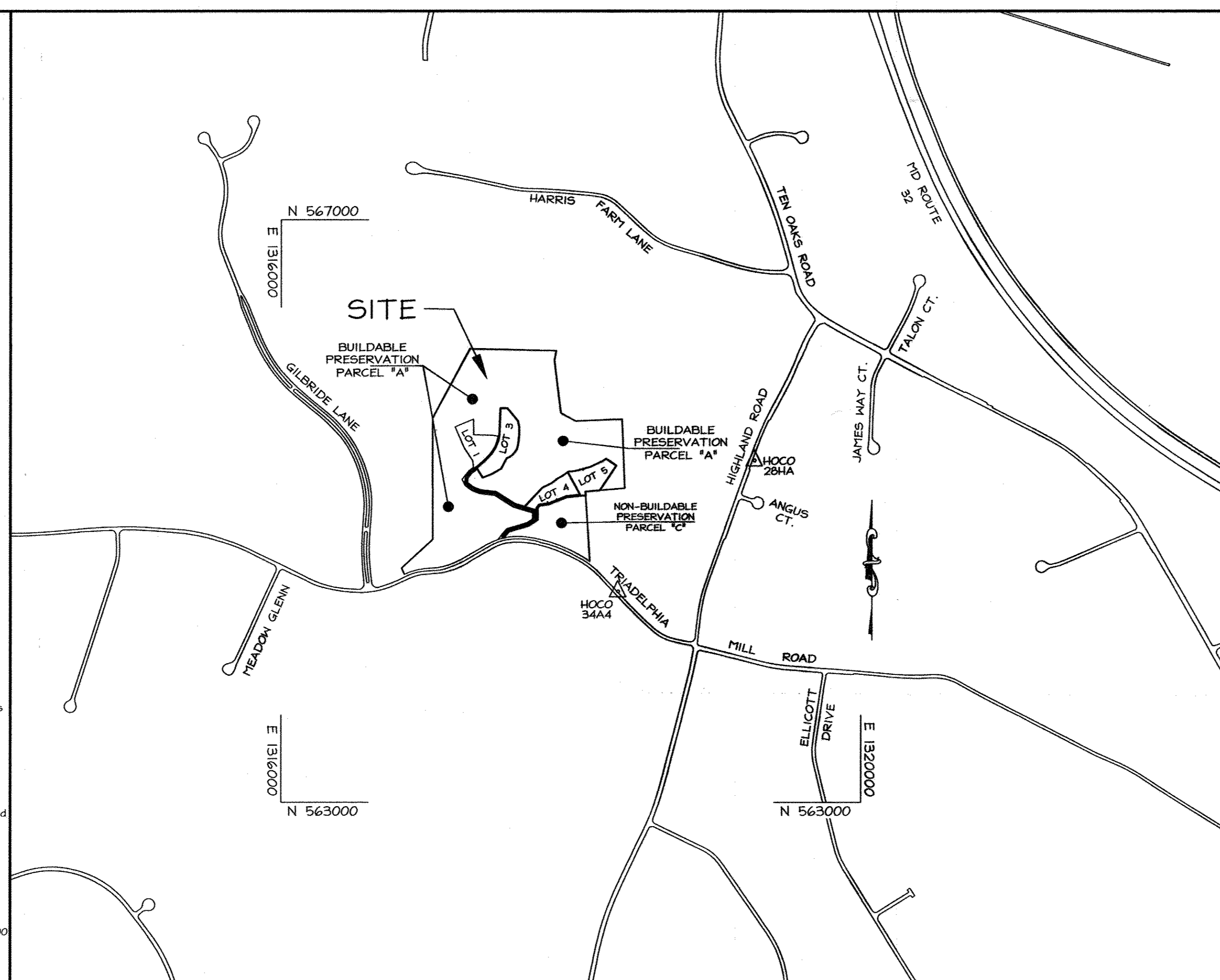


GENERAL NOTES

- 1. This project is in conformance with the latest Howard County Standards unless waivers have been approved.
2. The contractor shall notify 'Miss Utility' at 1-800-257-7777 at least forty-eight (48) hours prior to any excavation work being done.
3. The contractor shall notify the Department of Public Works/Bureau of Engineering /Construction Inspection Division at 410-313-1880 at least five (5) working days prior to the start of work.
4. The topography shown on this plan is taken from a previously approved Percolation Certification Plan prepared by NJR & Associates dated 5/14/05 and signed by the County Health Officer on 6/8/05. Topography shown is at two foot contour intervals.
5. The topography within the stream valleys has been amended to reflect field run surveys of January 2010 prepared by LDE, Inc. and merged with topography as described above.
6. The boundary shown hereon is based on a Field Run Monumented Boundary Survey performed by Fitzroy Bertrand and Real Estate Surveyors, LLC, on or about July 29, 1998 and updated by NJR & Associates on May 5, 2005.
7. These Coordinates are based on NAD '83, Maryland State Plane Coordinate System, as projected from Howard County control stations: Station 28HA Station 344A
8. Dead Reference: Liber 12246, Folio 274; Lot 3 Liber 13418, folio 461
9. Plot Reference: Plat # 21590 thru 21592
10. Project Background Information:
Location: Clarksville, Maryland (Zip Code 21024)
Subdivision Name: HEDGEROW FARM
Site Address: 13550 Triadelphia Mill Road
Tax Map: Map 28
Parcels: 4
Existing Zoning: RR-DEO (Residential - Single District)
Election District: 5 th
Total Tract Area: 31.9572 Acres +/-
Number of Proposed Lots: 4 Cluster Lots, 1 Buildable Preservation Parcel and 1 Non-Buildable Buildable Preservation Parcel
DPZ Reference Numbers: F00-58, F00-59, WPO0-65, F01-B1, WPO6-58, F 07-44, ECP 10-015, WPI0-172, FII-022, ECP 11-020, WP 11-141
11. Limit of disturbance: 30,400 SF or 0.70 Ac± Total
12. Subject property is zoned RR-DEO per 2/02/2004 Comprehensive Zoning Plan and per the Comp Lite Zoning Regulations effective on 7/28/04.
13. BSL denotes Building Restriction Line.
14. ESB denotes Environmental Setback.
15. All areas shown on this plan are +/-, more or less.
a) Flag or pipestem lots, refuse collection, snow removal and road maintenance are provided to the junction of the flag or pipestem and road right-of-way line and not onto the pipestem lot driveway. Refuse collection and recycling collection for all lots and parcels shall be at Triadelphia Mill Road within 5' of the paved roadway.
b) Driveway(s) shall be provided prior to residential occupancy to ensure access for fire and emergency vehicles per the following minimum requirements and/or allowed by Design Manual Waiver approved by the Department of Planning & Zoning on July 8, 2010: See Note 42.
a) Width - 12' (16 feet serving more than one residence).
b) Surface - 6 inches of compacted crusher run base with tar and chip coating. (1/2" Min.)
c) Geometry - Maximum 15% grade, with the durable and sustained grade of 8%. Maximum 10% grade change and minimum of 45 foot turning radius.
d) Structures (culverts/bridges) Capable of supporting 25 gross tons (H25 loading).
e) Drainage Elements - Capable of safely passing 100 year flood with no more than 1 foot depth over driveway surface.
f) Structure Clearances - minimum 12 feet.
g) Maintenance sufficient to ensure all weather use. Where one (1) driveway serves more than one (1) lot, a house number sign must be placed at each lot entrance and a range of street address house numbers sign where the common driveway intersects with the main road.
16. Three separate Maintenance Agreements will be required for the shared driveway. One agreement for Lots 1, 3, 4, 5 and Buildable Preservation Parcel 'A', one agreement for Lot 1, 3 and Buildable Preservation Parcel 'A' and one agreement for Lots 4 and 5. All maintenance agreements will be recorded concurrently with the plots. The shared driveways will be maintained by the Hedgerow Farm Home Owners Association.
17. The environmental features which currently exist onsite are floodplain, steep slopes, wetlands, wetland buffers, streams and their bank buffers. This project does not disturb any steep slopes which are greater than 20,000 square feet of on-site and offsite contiguous area. No grading, removal of vegetative cover or trees, paving and new structures shall be permitted within the limits of wetlands, stream(s), or their required buffers, floodplain and forest conservation easement areas, with the exception of the floodplain and buffer areas associated with the driveway and stone wall extensions approved with Waiver Petition WP 11-141.
18. The Wetland study for this property (Thaler Estates / F00-59) was originally conducted by J.P.D.S. dated September, 1991 and January, 2000. LDE Inc. redelineated the wetland areas as part of Thaler Estates (F01-B1) dated August, 2005 and confirmed the limit of wetlands under F 11-022, January, 2010.
19. Landscaping for Lot 1, 3 (former Lot 2-Plat# 21590 thru 21592) and Buildable Preservation Parcel 'A' was addressed under F 11-022. Landscaping for Lots 4 and 5 is provided in accordance with a certified Landscape Plan on file with this plan. The Landscape Survey of \$890.00 for the 12 shade trees, 38 flowering trees and 17 shrubs has been included with the Surety posted for Forest Conservation.
20. The Resubdivision of Non-Buildable Bulk Parcel 'B' removes 1,625 Acres of Retention Forest from Forest Conservation Easement #8 for the creation of Lots 4 & 5; expansion of Forest Conservation Easements #9 (0.4541 Acres), #10 (0.7117 Acres), Reconfiguration of #9 into #9A (3.7344 Acres) and #9B (1.7196 Acres) and the addition of New Retention Easement #11 (1.6464 Acres). The cumulative additions and adjustments to Easement Acres provides the required replacement for the 1,625 Acres removed from Easement #8. This Plan complies with the requirements of Section 16.1200 of the Howard County Code for Forest Conservation by Retention of 15,029 Acres of forest in easements #2, 4, 5, 7, 8A, 8B, 9, 10, 11 and Non-Easement Credit Areas located on Lot 2 (F00-59) and Lot 6 (F01-B1) Thaler Estates, and 4,647 Acres of Reforestation in Easements #1, 3 and 6 (F00-59). The Surety of \$21,450.00 for supplemental planting within easement #11 and \$4,810.00 for landscape planting on Lots 4 & 5 (\$31,260.00 Total) has been posted with the Developers Agreement.
21. The Forest Conservation Easements have been established to fulfill the requirements of Section 16.1200 of the Howard County Code and Forest Conservation Act. No clearing, grading or construction is permitted within the Forest Conservation Easements; however, Forest Management Practices as defined in the deed of Forest Conservation Easement are allowed.
22. This subdivision plan is subject to the amended Fifth Edition of the Subdivision and Land Development Regulations per Council Bill No. 45-2003 effective October 2nd, 2003. Development or construction on the lots must comply with setback and buffer regulations in effect at the time of submission of the site development plan, waiver petition application or building permit applications.
23. Stormwater management for Lots 4 & 5 is provided by use of Environmental Site Design by use of Alternative Surfaces. Permeable surfaces, #1000.
24. These areas designate a private sewage easement of at least 10,000 square feet as required by the Maryland Department of the Environment for individual sewage disposal. (COMAR 26-04.03) Improvements in this nature in this area are restricted until public sewage is available. These easements shall become null and void upon connection to a public sewage system. The County Health Officer shall have the authority to grant variances for encroachments into the private sewage easement. Recreational of a modified sewage easement shall not be necessary.
25. The lots shown hereon comply with the minimum lot area and ownership width as required by the Maryland Department of the Environment.
26. Existing wells, septic systems, and sewage disposal areas within 100' of the property and those wells within 200' down gradient of existing or proposed septic systems or sewage disposal areas have been shown.
27. All wells shall be drilled prior to final plot recordation. It is the developer's responsibility to schedule the well drilling prior to final plot submission. It will not be considered 'government delay' if the well drilling holds up Health Department signature of the record plot.
28. Any changes to a private sewage area shall require a revised percolation certification plan.
29. There are existing dwellings and structures located on Buildable Preservation Parcel 'A', Lot 1 and Lot 3 (formerly Lot 2) to remain. New buildings, extensions or additions to the existing dwellings and structures shall be constructed in accordance with the Zoning Regulations.
30. Existing utilities are based on field surveys and/or plans of public record.
31. A Floodplain Study was approved as part of the F 11-022 plan submission.
32. Sight Distance study for this project was prepared by LDE, Inc., April 2010 and approved by the Department of Planning & Zoning October 2010 under F 11-022.
33. All construction shall be in accordance with the latest Standards and Specifications of Howard County Design Manual Vol. IV and current MSHA Standards & Specifications if applicable.
34. The property is listed in the Historic Sites Inventory as HD-171 known as 'Hedge Row' or 'Left Over'. The subdivision proposal was presented to the Historic District Commission on 3/4/10 and received advisory approval.
35. The Public 100 Year Floodplain, Drainage & Utility easement will be owned and maintained by the owner of Buildable Preservation Parcel 'A'. In accordance with Section 16.115.b.2.ii of the subdivision regulations, the owner grants Howard County a perpetual easement for right of entry. Refer to Plat # 21590-21592.
36. A Letter of Exemption Application was filed under F 11-022 with the Maryland Department of the Environment for the repair work to the existing driveway stone wall extensions located within the 100 year floodplain and wetland buffer.
37. The owner certifies that to the best of his knowledge, there are no cemetery sites or burial grounds on the property to be subdivided.
38. Upon building permit, review the septic systems for all proposed structures and/or existing structure expansions shall be re-evaluated to determine sufficient system capacity.
39. This project is subject to WP-10-172 from the Howard County Subdivision and Land Development Regulations. On October 12, 2010, the Planning Director approved the request to waive Subsections 16.120(b)(4)(ii)(b), 16.132(a)(1)(iv) and 16.144(b) of the Howard County Code. Waiver approval allows environmental features to be located on lots less than 10 acres in size, waives the requirement that the developer provide road improvements and waives the requirement that a sketch plan or preliminary sketch plan be submitted for the subdivision referenced Waiver approval is subject to the following conditions:
1. Petitioner shall redesignate Lot 2 of Hedgerow Farm, Lots 1 - 3 as 'Buildable Preservation Parcel 'A'. Buildable Preservation Parcel 'A' shall have an area sufficient to maintain the base density of the proposed subdivision given the two cluster lots proposed and to support Buildable Preservation Parcel 'A' (minimum 10 Acres).
2. Petitioner shall designate the remaining area of the subdivision not needed to support Buildable Lots 1 and 2 and Buildable Preservation Parcel 'A' as Non-Buildable Bulk Parcel 'B'. At the time of the resubdivision of Non-Buildable Bulk Parcel 'B' into two additional cluster lots located to the east side of Lot 3 (future lots 4 & 5) as depicted on a waiver exhibit 'Percolation Certification Plan, Hedgerow Farm, Lots 4 & 5', the remaining area of Non-Buildable Bulk Parcel 'B' shall be placed into a non-buildable preservation parcel and shall be designated as 'Non-Buildable Preservation Parcel 'C''.
3. Petitioner shall identify any and all areas of existing forest conservation easements which will no longer qualify toward satisfying the forest conservation obligations of Thaler Estates, Plat No. 14436 - 14437, (F 00-064). Any forest conservation deficit shall be corrected by the addition of new forest conservation easements or augmentation of existing easements.
4. Petitioner shall obtain all Federal, State and local permits required for activities in regulated areas.
5. The Environmental Concept Plan (ECP 11-020) review was based on ECP checklist requirements. Zoning Regulations and Subdivision and Land Development Regulations have been evaluated and approved under this final plan submission Proposed activities within the environmental buffers were determined essential or necessary disturbance per Subsection 16.116.c of the Subdivision and Land Development Regulations.
6. Under ECP 10-015, On July 8, 2010, the Development Engineering Division approved the request to waive Design Manual, Volume III, and current MSHA Standards & Specifications if applicable.
7. a letter dated 12/15/09 from the Howard County Department of Fire and Rescue Services approving with conditions the use of the existing driveway for access to the proposed three lots.
8. the granting of the requested waivers will not impact the County's infrastructure systems.
42. Trash and recycling collection will be at Triadelphia Mill Road within 5' of the county roadway for collection.



STORMWATER MANAGEMENT PRACTICES

Table with columns: LOT NO., ADDRESS, PERMEABLE PAVEMENT (A-2), DRYWELL (M-5). Rows include 13550 TRIADELPHIA MILL RD, 13520 TRIADELPHIA MILL RD, and 13510 TRIADELPHIA MILL RD.

Legend table with symbols and descriptions: 100' STREAM BANK BUFFER, NON-TIDAL WETLANDS, 25' WETLAND BUFFER, 100 YEAR FLOODPLAIN EASEMENT, PRIVATE ACCESS, DRAINAGE & UTILITY EASEMENT, PRIVATE STORMWATER MANAGEMENT CREDIT EASEMENT, EXISTING FOREST CONSERVATION EASEMENT, EXISTING 10' CONTOURS, EXISTING 2' CONTOURS, PROPOSED 10' CONTOURS, PROPOSED 2' CONTOURS, PROPOSED PRIMARY WELL SITE, PROPOSED ALTERNATE WELL SITE, EXISTING WELL, PRIVATE SEWAGE DISPOSAL EASEMENT, EXISTING PRIVATE SEWAGE DISPOSAL EASEMENT, BUILDING RESTRICTION LINE, ENVIRONMENTAL SETBACK, EX. STREAM, EX. TREELINE, SOIL BOUNDARY, PERCOLATION TEST PASSED, PERCOLATION TEST FAILED, SLOPES 25% OR GREATER, OVERHEAD UTILITY LINES.

SUPPLEMENTAL PLANS HEDGEROW FARM LOTS 3-5, BUILDABLE PRESERVATION PARCEL "A" AND NON-BUILDABLE PRESERVATION PARCEL "C"

A Resubdivision of Lot 2 & Non-Buildable Bulk Parcel "B" and Forest Conservation Easements on Buildable Preservation Parcel "A" Hedgerow Farm, Plat # 21591 & 21592

Tax Map 28 Grid 20 Parcel 64 5th Election District - Howard County, Maryland Zoned RR-DEO

GENERAL NOTES (con't)

- 43. Under ECP 11-020, On March 11, 2011, the Development Engineering Division approved the request to waive Design Manual, Volume III, Section 2.6.6 which requires that a 16' wide shared use driveway be provided and Section 4.3.1.a.2 which requires that when a residential driveway crosses a floodplain, a public access place must be provided; based on:
1. the justification provided by LDE in their letter.
2. an email dated March 10, 2011 from the Howard County Department of Fire & Rescue Services approving the waiver and,
3. the granting of the requested waivers will not impact the county's infrastructure systems.
44. Buildable Preservation Parcel 'A' is encumbered by an easement agreement with HEDGEROW FARM Homeowners Association Inc. and Howard County, Maryland. This agreement prohibits further subdivision of this parcel, outlines the maintenance responsibilities of their owners and easements on the parcel. Buildable Preservation Parcel 'A' will be owned by HEDGEROW FARM, LLC. (Liber 13246, folio 364)
45. This project is subject to WP-11-141 from the Howard County Subdivision and Land Development Regulations. On June 21, 2011, the Planning Director approved the request to waive Subsections 16.116(a)(2)(iii), 16.120(b)(4)(iii)(b), 16.120(e) of the Howard County Code. Waiver of these regulations will: a) allow grading, removal of vegetative cover and trees, and paving within the 100' streambank buffer for the proposed Lot 4 well box, dry well roof leader, retaining wall, and minor grading and the use-in-common driveway to serve Lots 4 and 5; b) allow environmental features and buffers on lots less than 10 acres in size for Lots 4 and 5 and to reduce the 35' environmental setback from the 100' stream bank buffer on Lot 4; and c) allow establishment of forest conservation easements at truncated easement corners less than 35' wide for proposed Forest Conservation Easement Area Numbers 8B(1), 9A, 9B, 10A, 10B, and 10C, respectively. Approval is subject to the following conditions:
1. Petitioner shall submit a forest conservation plan as part of the final plan application for the resubdivision of F-11-022. The forest conservation plan shall reflect abandonment and augmentation of existing forest conservation easements and addition of proposed forest conservation easements. The plan shall include the addition of signage to forest conservation area perimeters resulting from augmentation and addition. Posting of forest conservation surety will be required prior to subdivision recordation.
2. Approval of the waiver of subsections 16.116(a)(2)(iii), 16.120(b)(4)(iii)(b), 16.120(e) of the Howard County Code, will be reduced to allow for construction of the house depicted in the approved analysis. The reduced setback shall be recorded on the plat submitted as part of the final plan.
3. Petitioner shall submit, as part of the final plan application and forest conservation plan, a plan for mitigating impacts to vegetative cover and trees resulting from activities proposed within the 100' streambank buffer. The forest conservation surety for the proposed subdivision shall include posting of surety for the required mitigation.
4. A private range of address sign shall be fabricated and installed by Howard County Bureau of Highways at the developers/owners expense. Contact Howard County Traffic Division at 410-313-2430 for details and cost estimate.

PROFESSIONAL CERTIFICATION: Bruce D. Burton, Licensed Professional Engineer, State of Maryland, No. 19184, Expiration Date: 6/30/13.

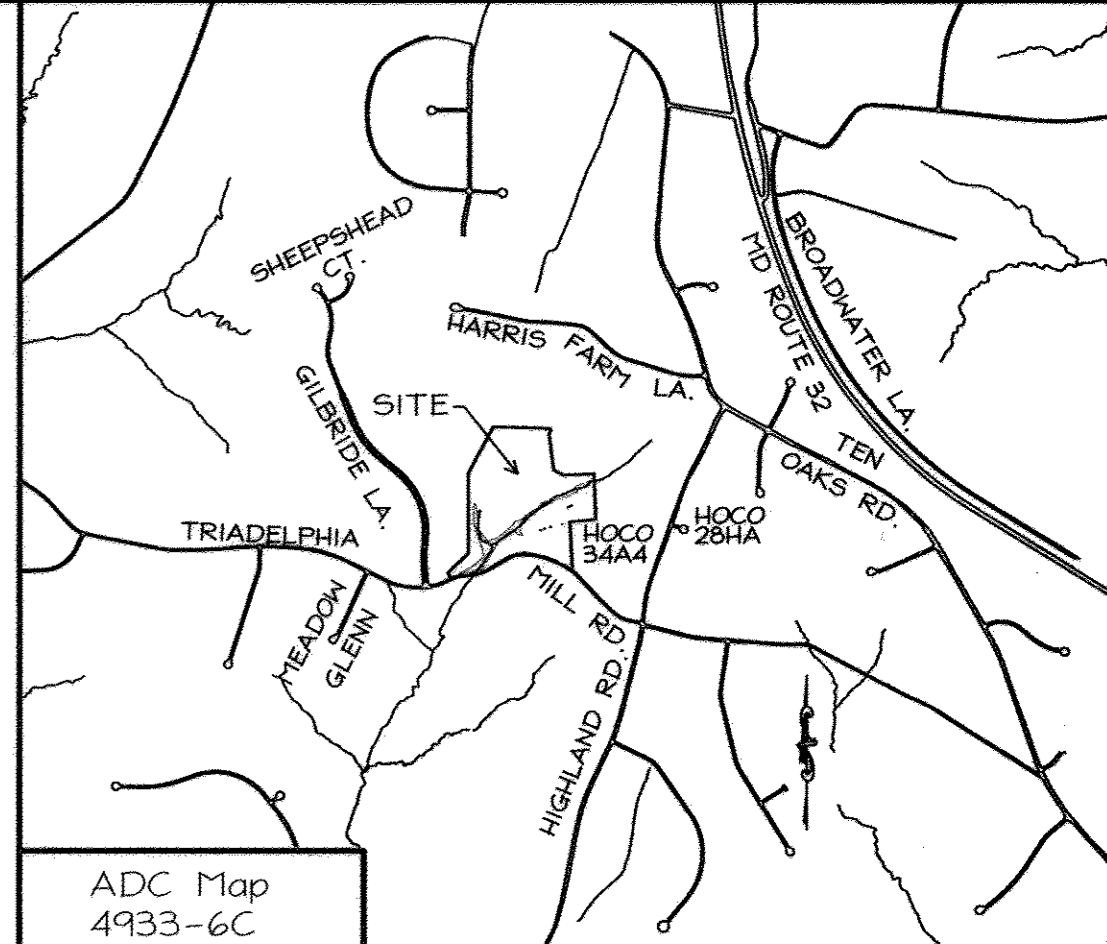
BENCHMARKS:

- 1. Howard County Control Station 28HA NAVD 29 Elevation = 588.708' NAD 83 Coordinates: N565347.937, E1319266.269
Standard stamped disc set on a 3' deep column of concrete located on the Northeast side of Highland Road just north of Angus Ct, 14.2' off edge of paving, 29.0' from G/E Pole #334366.
2. Howard County Control Station 344A NAVD 29 Elevation = 561.105' NAD 83 Coordinates: N564468.943, E1318257.375
Standard stamped disc set on a 3' deep column of concrete located on the South side of Triadelphia Mill Rd, 7.4' from the edge of pavement, 57.2' east from CAP pole and 22' west from a post from a gas pipeline right of way.

DENSITY SUMMARY:

- 1. Gross Area: 33.1836 Ac ±
2. Area of 100 Year Floodplain: 2,808 Ac ±
3. Area of Steep Slopes: 1,0437 Ac ±
4. Net Area of Property: 29,3310 Ac ±
5. By Right Density: 33.1836 Ac / 4.25 = 7.8 or 7 Units (FII-022 & ECP 11-020)
6. The Owner Proposes: 4 Cluster Lots and 1 Buildable Preservation Parcel 1 Non-Buildable Preservation Parcel

MINIMUM LOT SIZE TABULATION table with columns: LOT NO., GROSS AREA, PIPESTEM, MINIMUM LOT SIZE, LENGTH. Rows for lots 3, 4, and 5.



INDEX OF SHEETS table with columns: No., Description. Lists sheets 1 through 9 including Supplemental Plan - Cover Sheet, Supplemental, Grading & Landscape Plan, Supplemental, Grading & Landscape Plan, Supplemental Plan - Use-in-Common Driveway Details, Supplemental Plan - Stormwater Management Plan & Details, Forest Conservation Plan, Forest Conservation Plan - Notes & Details, Forest Conservation Mitigation Plan - Lots 4 & 5, Forest Conservation Mitigation Plan - Forest Conservation Esmt. #11.

GENERAL NOTES (con't)

- 47. The Articles of Incorporation for the HEDGEROW FARM Home Owners Association, Inc., Identification No: D 1387244 has been accepted and approved by the State Department of Assessment and Taxation on January 4, 2011.
48. The purpose of Buildable Preservation Parcel 'A' is the preservation of the remaining property, left over which will house the pool, barns and pastures of the historic properties, known as 'Left Out', 'Left Over' or 'Hedgerow'. The purpose of Non-Buildable Preservation Parcel 'C' is the preservation of the remaining environmental features located within the project.
49. The Environmental Concept Plan (ECP10-015 & ECP11-020) review was based on ECP checklist requirements. Zoning Regulations and Subdivision and Land Development Regulations have been evaluated and approved under this final plan submission.
50. Proposed activities within the environmental buffers were determined essential or necessary disturbance per Subsection 16.116.c of the Subdivision and Land Development Regulations as part of the approval of ECP 10-015.
51. Non-Buildable Preservation Parcel 'C' is encumbered by an easement agreement with HEDGEROW FARM Home Owners Association, Inc. and Howard County, Maryland. This agreement prohibits further subdivision of this parcel, outlines the maintenance responsibilities of their owners and enumerates the uses permitted on the parcel. Non-Buildable Preservation Parcel 'C' will be owned by HEDGEROW FARM, LLC.
52. In accordance with Section 105.1.e.c of the Howard County Zoning Regulations, the Health Department supports the recommendation to increase the maximum lot size of Lot 3 (previously approved as Lot 2/ F 11-022) to a maximum of 60,000 square feet. (the 60,000 square feet maximum lot size does not include the pipestem).

DEVELOPER'S / BUILDER'S CERTIFICATION: I CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. I FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, AND A COPY OF THIS PLAN WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

SIGNATURE OF DEVELOPER / BUILDER: [Signature] DATE: 11/15/12

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION: [Signature] DATE: 12/1/12

CHIEF, DIVISION OF LAND DEVELOPMENT: [Signature] DATE: 1/4/13

REVISIONS table with columns: No., By, Date, Description. Includes revisions for GENERAL NOTE #20.

LDE Inc. Engineers • Surveyors • Planners. Historic Carriage House • 7520 Main Street • Suite 203 • Spysville, Maryland • 21784 (410) 795-6391 • (410) 795-6392 • FAX (410) 795-9540 • www.LandSurveyorMD.com

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19184, EXPIRATION DATE: 6/30/13.

THIS AREA DESIGNATES A PRIVATE SEWAGE AREA OF AT LEAST 10,000 SQ.FT. AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT.

**SOILS LEGEND:**

GgB - Glenelg Loom, 3 to 8 percent slopes  
 GgC - Glenelg Loom, 8 to 15 percent slopes  
 4' - 10' depth to bedrock; 10' to water table; slight to severe limitations for sewage disposal fields and homes w/ basements depending on slopes; erosion hazard.  
 GmB - Glenville Silt Loom, 3 to 8 percent slopes  
 GmC - Glenville-Baile silt loams, 0 to 8 percent slopes  
 4' - 10' depth to bedrock; 15' to 3' to water table; severe limitations for sewage disposal fields; moderate limitations for homes w/ basements; impeded drainage; seasonal wetness; erosion hazard.  
 MaC - Manor Loom, 8 to 15 percent slopes  
 MaD - Manor Loom, 15 to 25 percent slopes  
 6' - 10' depth to bedrock; 20' to water table; slight to severe limitations for sewage disposal fields and homes w/ basements depending on slopes; erosion hazard.

**\* NOTE:**

Lot 3 shown hereon is former Lot 2 F 11-022, except for the Lot 2 pipetern which has been resubdivided to provide Fee Simple road frontage to Lot 4 & Lot 5.

**LANDSCAPING NOTE:**

Compliance with the required landscaping components is met by the retention of the existing landscape specimens / plantings located on Buildable Preservation Parcel "A" (F11-022) adjacent to and located on cluster Lots 4 & 5.

Rather than artificially define proposed lot lines with plants, the plan permits the project to retain the Historic Properties feeling of unity.

Desirable views are retained, wooded areas are to be retained with exception of that required for house construction.

**NOTE:** Buildable Preservation Parcel "A" is included to show the extent of the addition & revisions to Forest Conservation Easements as shown hereon.

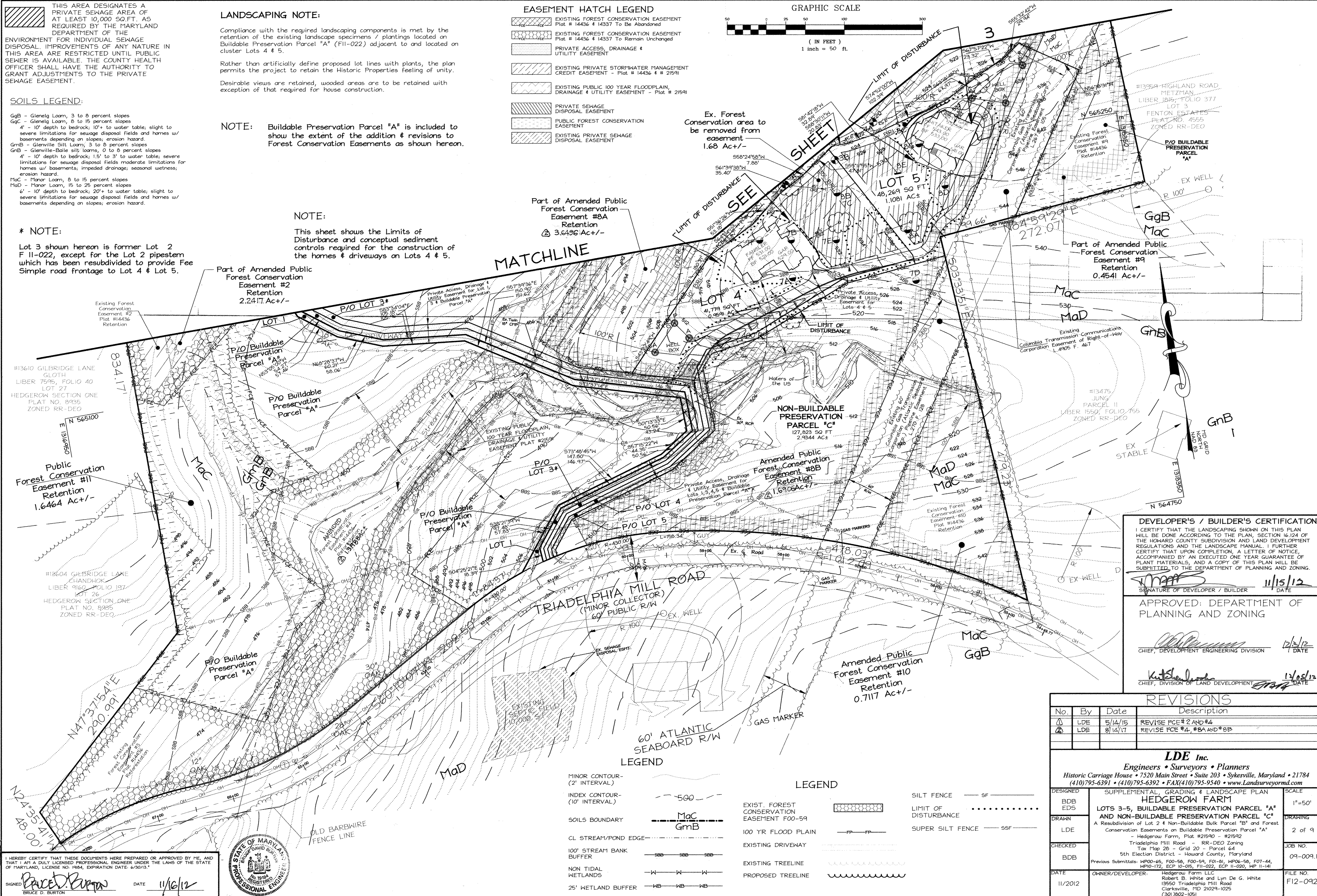
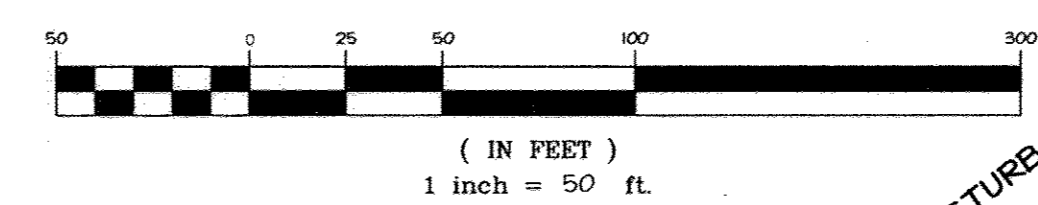
**NOTE:**

This sheet shows the Limits of Disturbance and conceptual sediment controls required for the construction of the homes & driveways on Lots 4 & 5.

**EASEMENT HATCH LEGEND**

- EXISTING FOREST CONSERVATION EASEMENT Plat # 14436 & 14337 To Be Abandoned
- EXISTING FOREST CONSERVATION EASEMENT Plat # 14436 & 14337 To Remain Unchanged
- PRIVATE ACCESS, DRAINAGE & UTILITY EASEMENT
- EXISTING PRIVATE STORMWATER MANAGEMENT CREDIT EASEMENT - Plat # 14436 & 21591
- EXISTING PUBLIC 100 YEAR FLOODPLAIN, DRAINAGE & UTILITY EASEMENT - Plat # 21591
- PRIVATE SEWAGE DISPOSAL EASEMENT
- PUBLIC FOREST CONSERVATION EASEMENT
- EXISTING PRIVATE SEWAGE DISPOSAL EASEMENT

**GRAPHIC SCALE**



Part of Amended Public Forest Conservation Easement #8A Retention 3.6436 Ac +/-

Ex. Forest Conservation area to be removed from easement 1.68 Ac +/-

MATCHLINE

Part of Amended Public Forest Conservation Easement #2 Retention 2.2417 Ac +/-

NON-BUILDABLE PRESERVATION PARCEL "C" 127,823 SQ FT 2.9344 AC +/-

Amended Public Forest Conservation Easement #8B Retention 1.6906 Ac +/-

Amended Public Forest Conservation Easement #10 Retention 0.7117 Ac +/-

TRIADELPHIA MILL ROAD (MINOR COLLECTOR) 60' PUBLIC R/W

**LEGEND**

- MINOR CONTOUR - (2' INTERVAL) - - - - -
- INDEX CONTOUR - (10' INTERVAL) - - - - -
- SOILS BOUNDARY - - - - -
- CL STREAM/POND EDGE - - - - -
- 100' STREAM BANK BUFFER - - - - -
- NON TIDAL WETLANDS - - - - -
- 25' WETLAND BUFFER - - - - -

**LEGEND**

- EXIST. FOREST CONSERVATION EASEMENT F00-59
- 100 YR FLOOD PLAIN
- EXISTING DRIVEWAY
- EXISTING TREELINE
- PROPOSED TREELINE
- SILT FENCE - SF
- LIMIT OF DISTURBANCE - - - - -
- SUPER SILT FENCE - SSF

**DEVELOPER'S / BUILDER'S CERTIFICATION**  
 I CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. I FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, AND A COPY OF THIS PLAN WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

*[Signature]* 11/15/12  
 SIGNATURE OF DEVELOPER / BUILDER DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 12/3/12  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 11/16/12  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

**REVISIONS**

No.	By	Date	Description
1	LDE	5/14/15	REVISE FCE #2 AND #4
2	LDE	8/14/17	REVISE FCE #4, #8A AND #8B

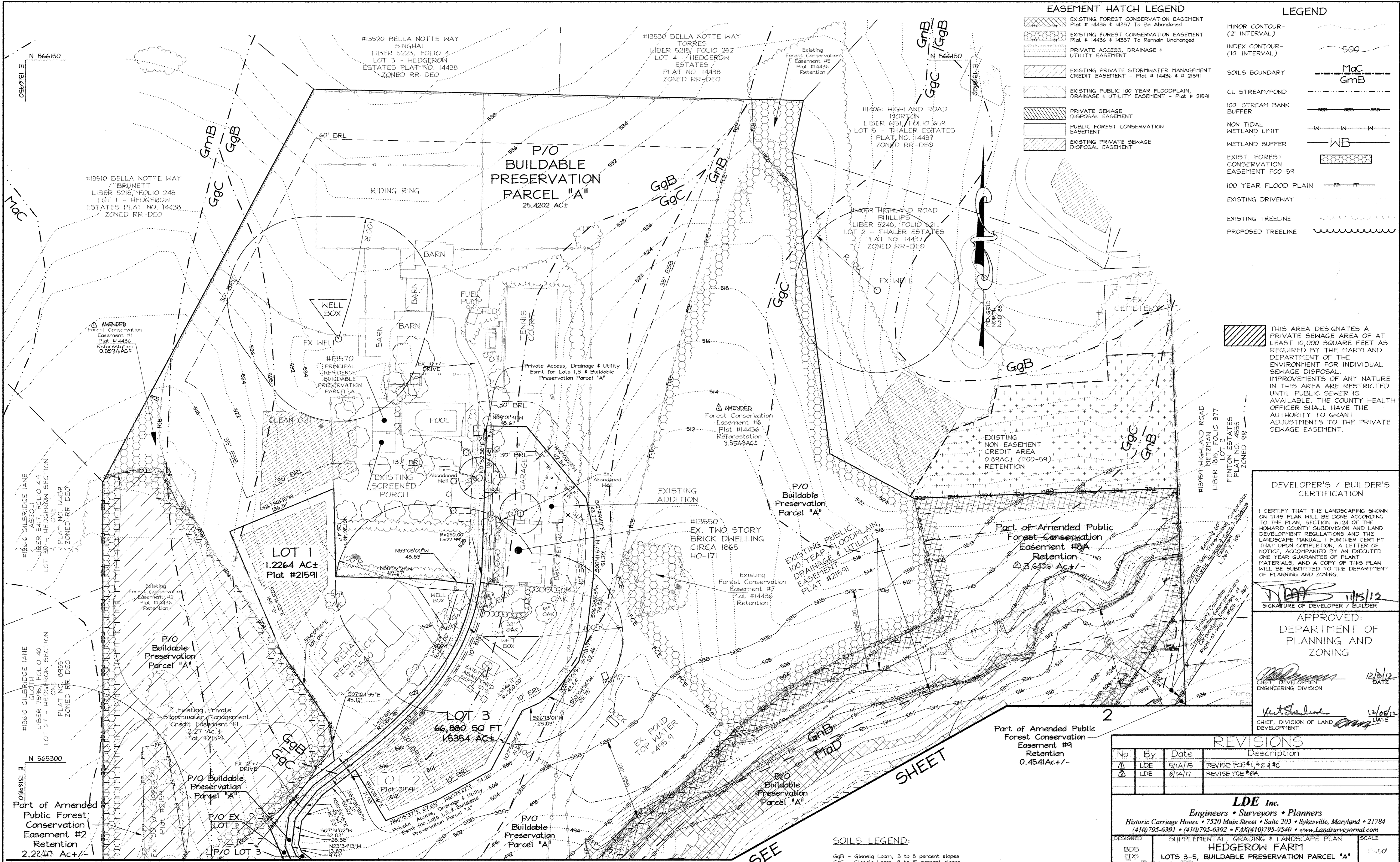
**LDE Inc.**  
 Engineers • Surveyors • Planners  
 Historic Carriage House • 7520 Main Street • Suite 203 • Sykesville, Maryland • 21784  
 (410)795-6391 • (410)795-6392 • FAX (410)795-9540 • www.Landsurveyormd.com

DESIGNED	SUPPLEMENTAL, GRADING & LANDSCAPE PLAN	SCALE	1"=50'
BDB	HEDGEROW FARM	DRAWING	2 of 9
EDS	LOTS 3-5, BUILDABLE PRESERVATION PARCEL "A" AND NON-BUILDABLE PRESERVATION PARCEL "C"	JOB NO.	09-009.1
LDE	A Resubdivision of Lot 2 & Non-Buildable Bulk Parcel "B" and Forest Conservation Easements on Buildable Preservation Parcel "A"	FILE NO.	F12-092
CHECKED	Triadelphia Mill Road - RR-DEO Zoning Tax Map 28 - Grid 20 - Parcel 64		
BDB	5th Election District - Howard County, Maryland		
DATE	11/2012	OWNER/DEVELOPER:	Hadgerow Farm LLC, Robert B. White and Lyn De G. White, 13550 Triadelphia Mill Road, Clarksville, MD 21029-1025 (301)822-1051

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. 19184, EXPIRATION DATE: 6/30/13.

SIGNED *[Signature]* DATE 11/16/12  
 BRUCE D. BURTON





EASEMENT HATCH LEGEND		LEGEND	
[Hatch]	EXISTING FOREST CONSERVATION EASEMENT Plat # 14436 & 14337 To Be Abandoned	[Symbol]	MINOR CONTOUR- (2' INTERVAL)
[Hatch]	EXISTING FOREST CONSERVATION EASEMENT Plat # 14436 & 14337 To Remain Unchanged	[Symbol]	INDEX CONTOUR- (10' INTERVAL)
[Hatch]	PRIVATE ACCESS, DRAINAGE & UTILITY EASEMENT	[Symbol]	SOILS BOUNDARY
[Hatch]	EXISTING PRIVATE STORMWATER MANAGEMENT CREDIT EASEMENT - Plat # 14436 & # 21591	[Symbol]	CL STREAM/POND
[Hatch]	EXISTING PUBLIC 100 YEAR FLOODPLAIN, DRAINAGE & UTILITY EASEMENT - Plat # 21591	[Symbol]	100' STREAM BANK BUFFER
[Hatch]	PRIVATE SEWAGE DISPOSAL EASEMENT	[Symbol]	NON TIDAL WETLAND LIMIT
[Hatch]	PUBLIC FOREST CONSERVATION EASEMENT	[Symbol]	WETLAND BUFFER
[Hatch]	EXISTING PRIVATE SEWAGE DISPOSAL EASEMENT	[Symbol]	EXIST. FOREST CONSERVATION EASEMENT F00-59
		[Symbol]	100 YEAR FLOOD PLAIN
		[Symbol]	EXISTING DRIVEWAY
		[Symbol]	EXISTING TREELINE
		[Symbol]	PROPOSED TREELINE

THIS AREA DESIGNATES A PRIVATE SEWAGE AREA OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT.

**DEVELOPER'S / BUILDER'S CERTIFICATION**

I CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. I FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, AND A COPY OF THIS PLAN WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

*[Signature]* 11/15/12  
SIGNATURE OF DEVELOPER / BUILDER

APPROVED:  
DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 12/1/12  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 12/05/12  
CHIEF, DIVISION OF LAND DEVELOPMENT

**REVISIONS**

No.	By	Date	Description
1	LDE	5/14/15	REVISE FCE #1 #2 & 6
2	LDE	8/14/17	REVISE FCE #8A

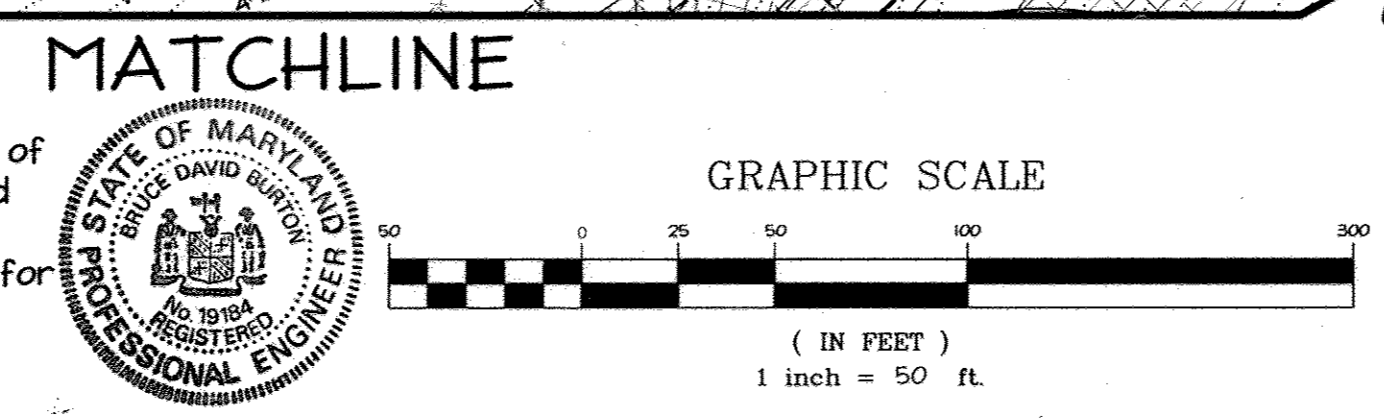
**LDE Inc.**  
Engineers • Surveyors • Planners

Historic Carriage House • 7520 Main Street • Suite 203 • Sykesville, Maryland • 21784  
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DESIGNED	SUPPLEMENTAL, GRADING & LANDSCAPE PLAN	SCALE
BDB EDS	<b>HEDGEROW FARM</b> LOTS 3-5, BUILDABLE PRESERVATION PARCEL "A" AND NON-BUILDABLE PRESERVATION PARCEL "C"	1"=50'
DRAWN	A Resubdivision of Lot 2 & Non-Buildable Bulk Parcel "B" and Forest Conservation Easements on Buildable Preservation Parcel "A"	DRAWING
LDE		3 of 9
CHECKED	Triadelphia Hill Road - RR-DEO Zoning Tax Map 28 - Grid 20 - Parcel 64	JOB NO.
BDB	5th Election District - Howard County, Maryland	09-009.1
DATE	Previous Submittals: WP00-65, F00-56, F00-54, F01-81, WP06-56, F07-44, WP10-172, ECP 10-015, F11-022, ECP 11-020, WP 11-141	FILE NO.
11/2012	OWNER/DEVELOPER: Hedgerow Farm LLC Robert B. White and Lyn De G. White 13550 Triadelphia Hill Road Clarksville, MD 21024-1025 (301)862-1051	F12-092

**SOILS LEGEND:**

GgB - Glenelg Loam, 3 to 8 percent slopes  
GgC - Glenelg Loam, 8 to 15 percent slopes  
4' - 10' depth to bedrock; 10' to water table; slight to severe limitations for sewage disposal fields and homes w/ basements depending on slopes; erosion hazard.  
GmB - Glenville Silt Loam, 3 to 8 percent slopes  
GmC - Glenville-Bate silt loams, 0 to 8 percent slopes  
4' - 10' depth to bedrock; 1.5' to 3' to water table; severe limitations for sewage disposal fields moderate limitations for homes w/ basements; impeded drainage; seasonal wetness; erosion hazard.  
Mac - Planor Loam, 8 to 15 percent slopes  
MacD - Planor Loam, 15 to 25 percent slopes  
6' - 10' depth to bedrock; 20' to water table; slight to severe limitations for sewage disposal fields and homes w/ basements depending on slopes; erosion hazard.

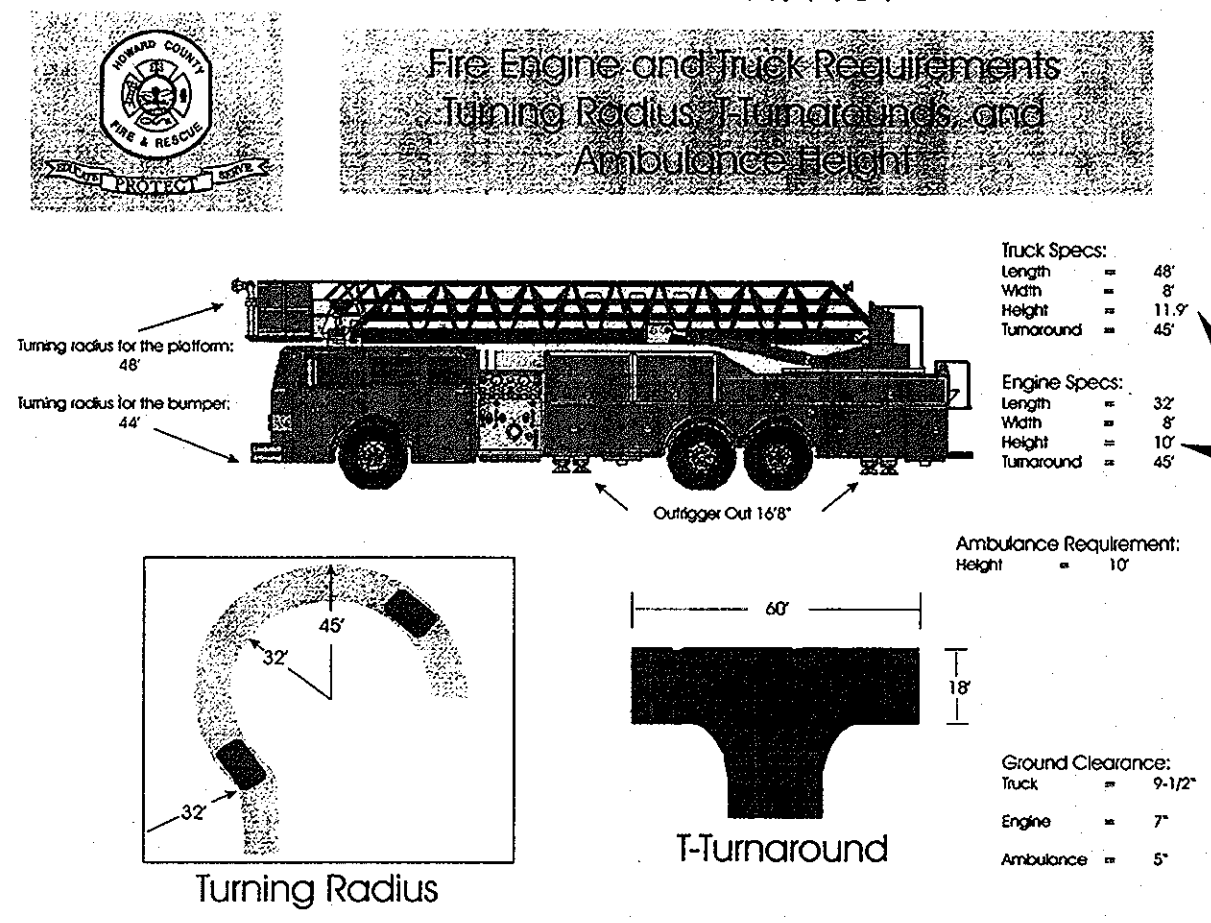
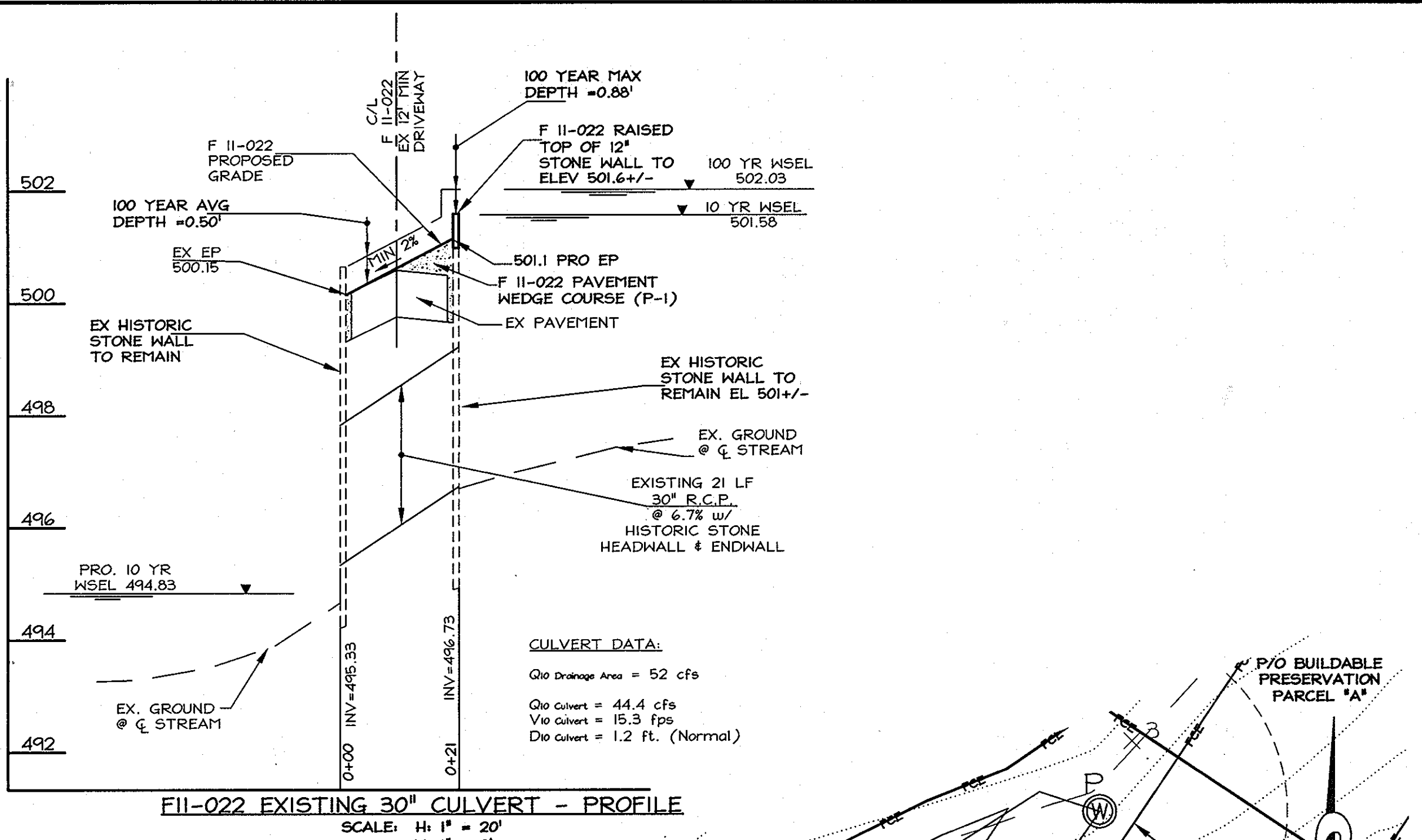
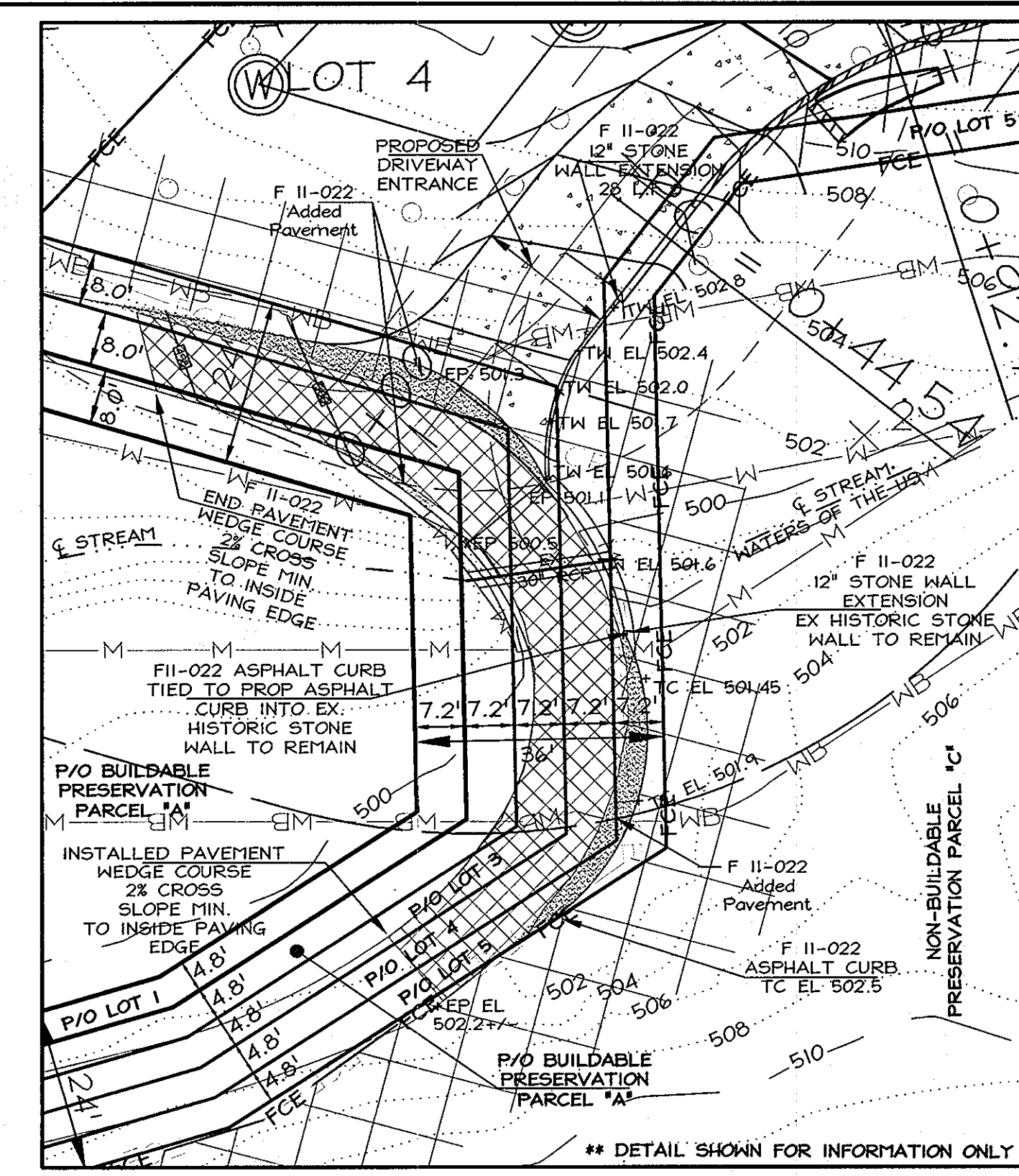
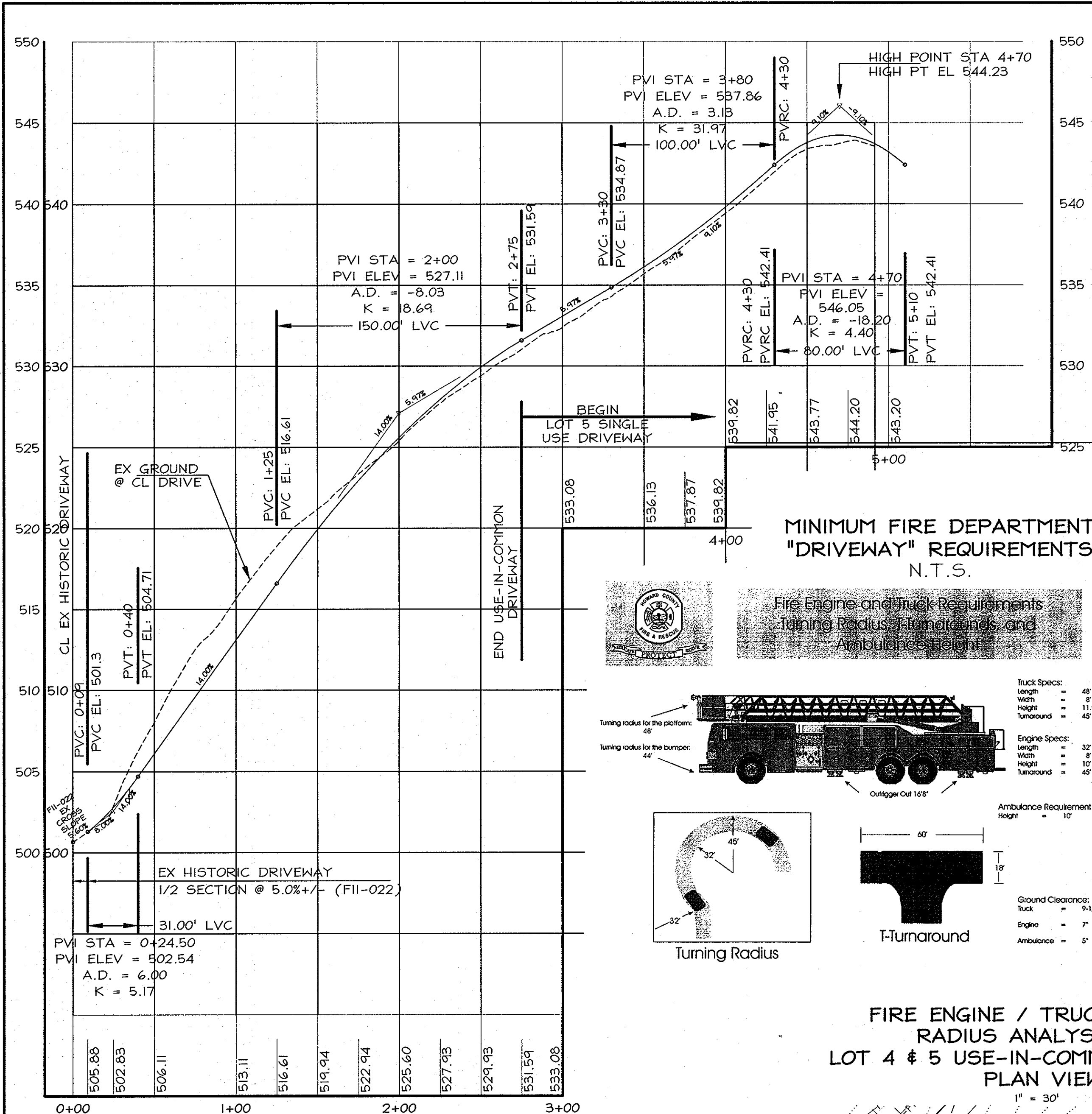


**NOTE:** No Disturbance is proposed on this sheet. This sheet is included in the set to show the extent of existing Lot 2 (Plat # 21592) being resubdivided into Lot 3; as well as the extent of Buildable Preservation Parcel "A" (Plat # 21591 & 21592) for the addition & revisions to Forest Conservation Easement as shown hereon.

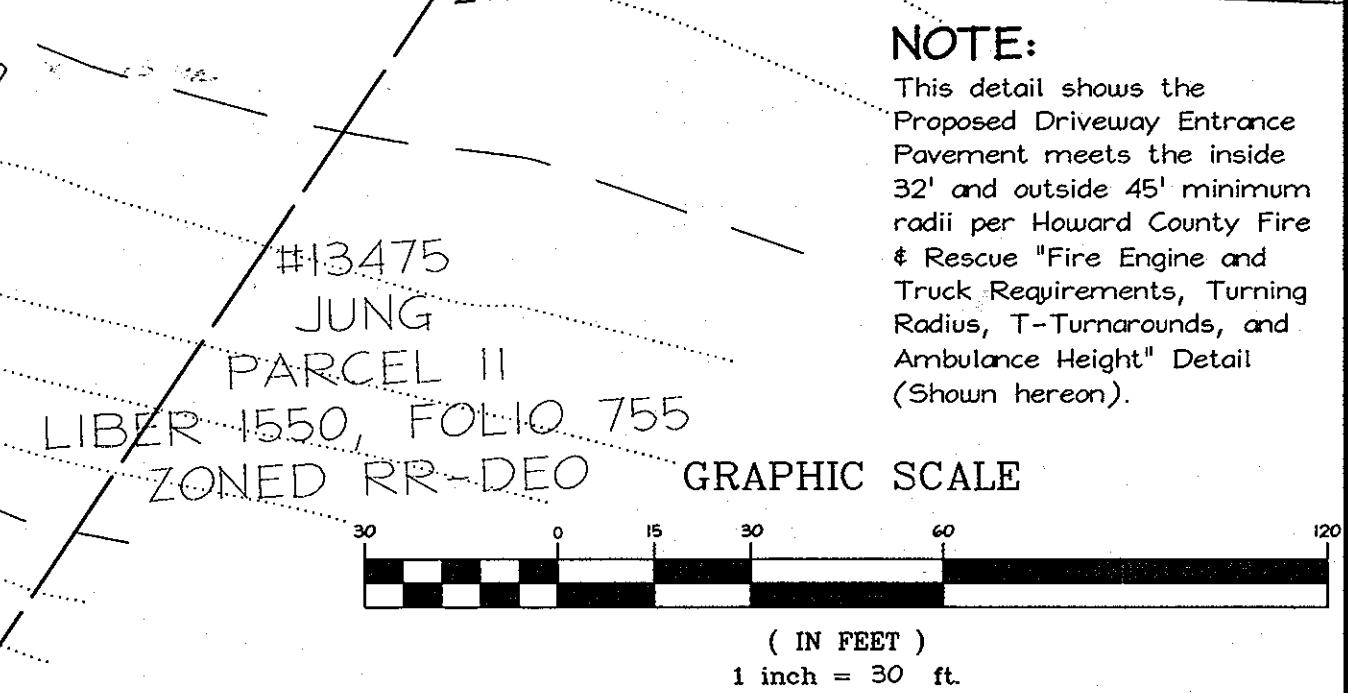
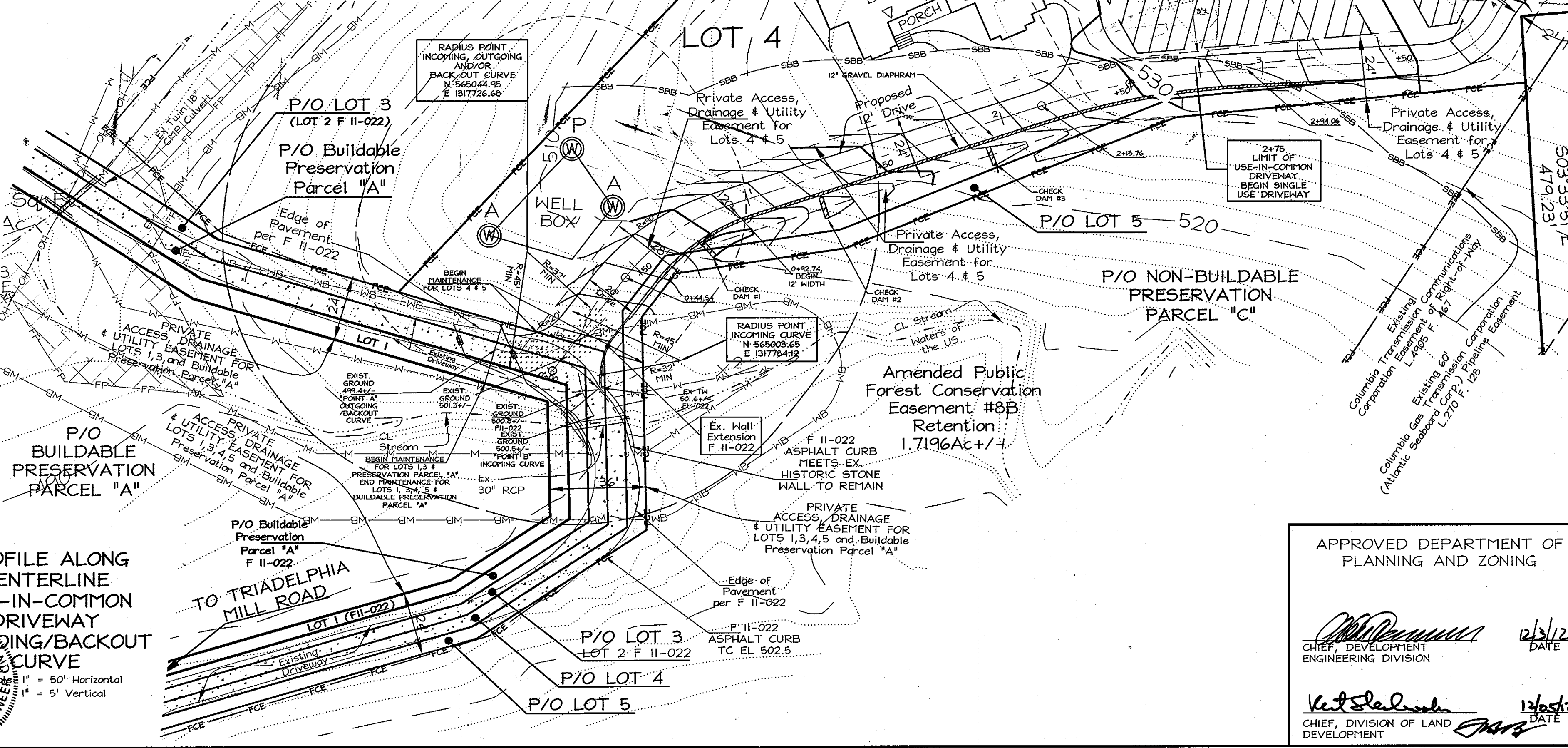
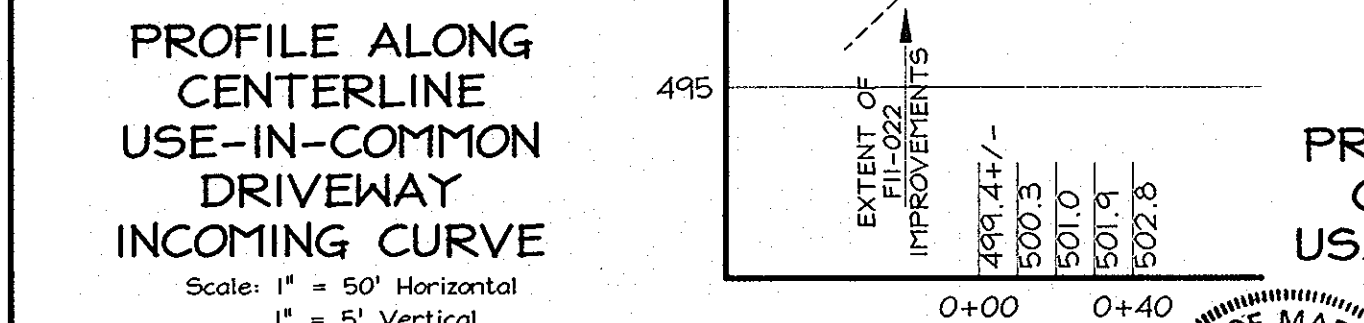
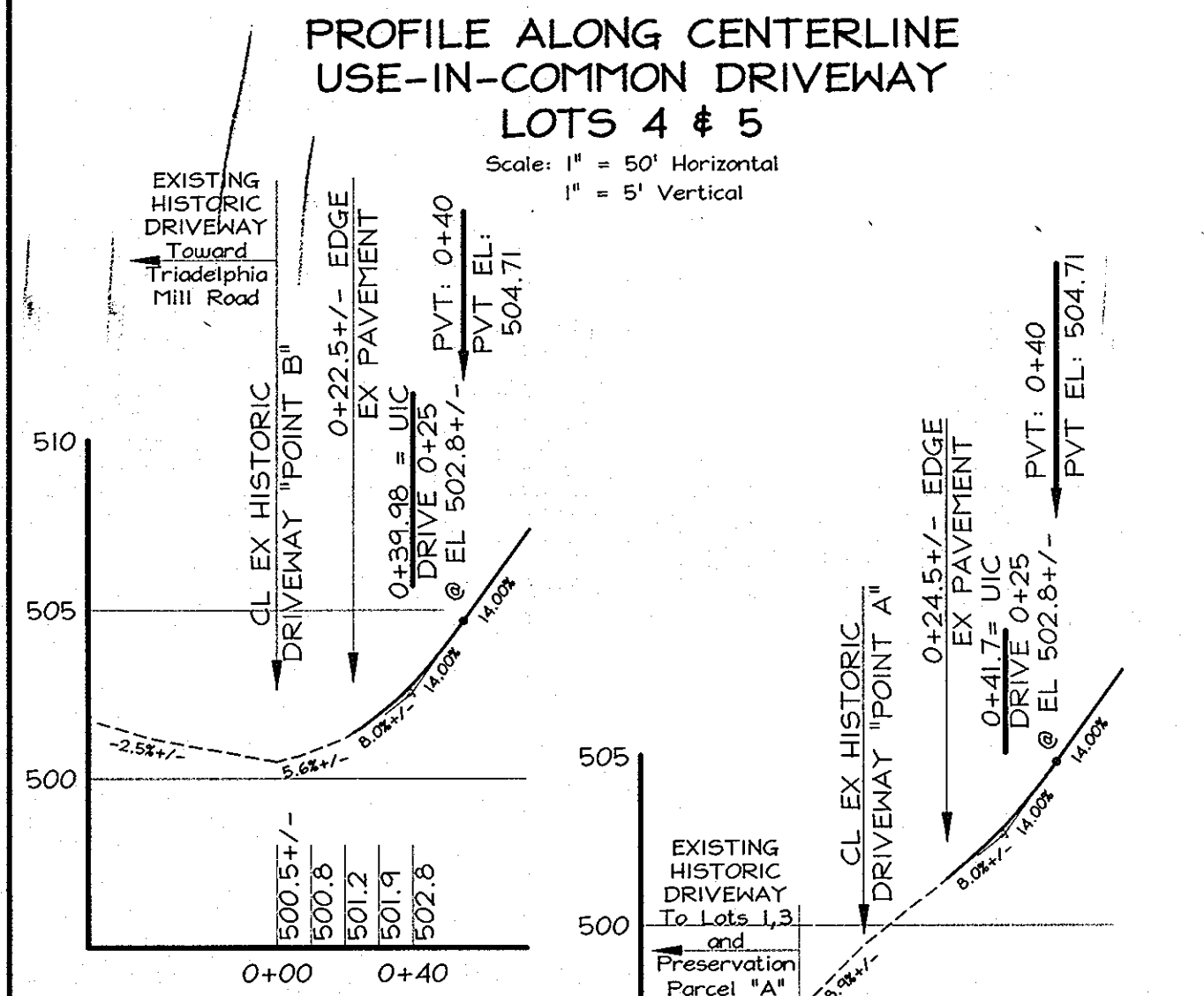
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19184, EXPIRATION DATE: 6/30/15.

SIGNED: *[Signature]* DATE: 11/16/12  
BRUCE D. BURTON





**FIRE ENGINE / TRUCK TURNING RADIUS ANALYSIS FOR LOT 4 & 5 USE-IN-COMMON DRIVEWAY PLAN VIEW**  
Scale 1" = 30'

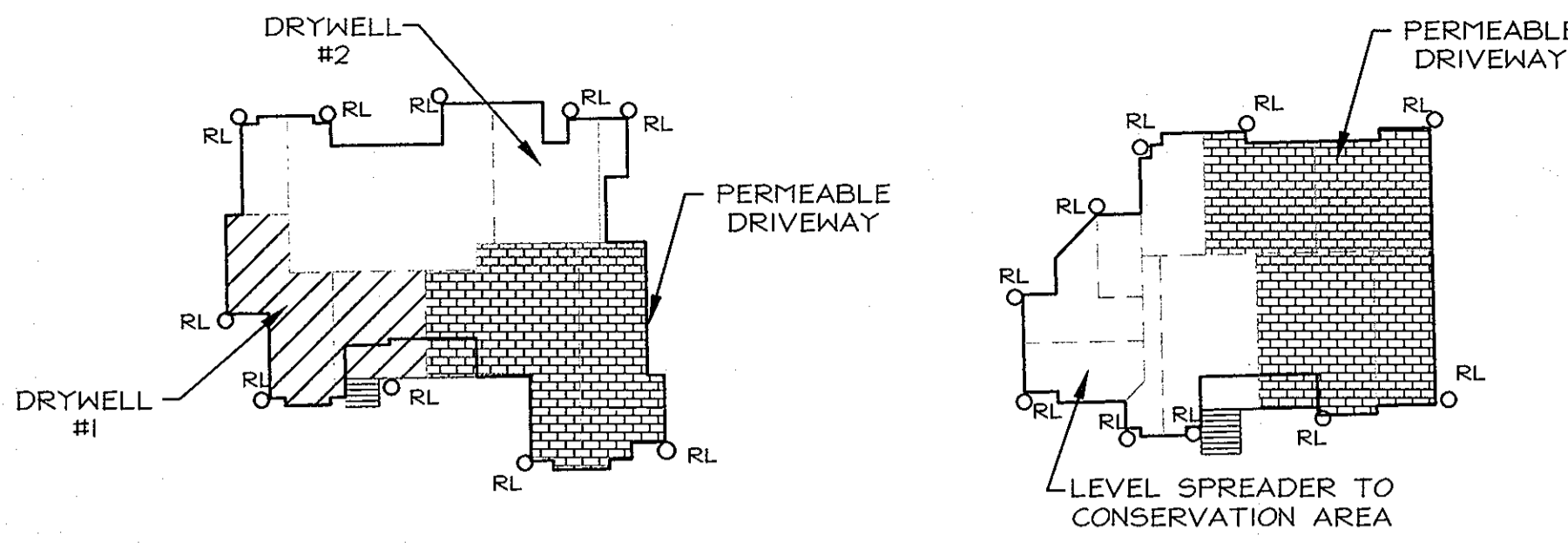


REVISIONS			
No.	By	Date	Description

LDE Inc. Engineers • Surveyors • Planners			
Historic Carriage House • 7520 Main Street • Suite 203 • Sykesville, Maryland • 21784 (410) 795-6391 • (410) 795-6392 • FAX (410) 795-9540 • www.Landsurveyormd.com			
DESIGNED	BDB	EDS	SUPPLEMENTAL PLAN - USE IN COMMON DRIVEWAY DETAILS
DRAWN	LDE		HEDGEROW FARM
CHECKED	BDB		LOTS 3-5, BUILDABLE PRESERVATION PARCEL "A" AND NON-BUILDABLE PRESERVATION PARCEL "C" A Resubdivision of Lot 2 & Non-Buildable Bulk Parcel "B" and Forest Conservation Easements on Buildable Preservation Parcel "A"
DATE	11/2012		Hedgerow Farm, Plat #21540 - #21542 Triadelphia Mill Road - RR-DEO Zoning Tax Map 23 - Grid 20 - Parcel 64 5th Election District - Howard County, Maryland Previous Submittals: WP00-65, F00-58, F00-54, F01-81, WP06-56, F07-44, WP10-172, ECP 10-015, FII-022, ECP 11-020, WP 11-141
OWNER/DEVELOPER:	Hedgerow Farm LLC Robert B. White and Lyn De G. White 19550 Triadelphia Mill Road Clarksville, MD 21029-1025 (301) 802-1051	SCALE	A5 SHOWN DRAWING 4 of 9 JOB NO. 09-009.1 FILE NO. F12-092

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19184, EXPIRATION DATE: 6/30/13.  
SIGNED: *Bruce D. Burton* DATE: 11/16/12  
BRUCE D. BURTON

APPROVED DEPARTMENT OF PLANNING AND ZONING  
*[Signature]* 12/12 DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT  
*[Signature]* 11/2012 DATE



ROOF PLAN LOT 4  
PLAN VIEW - 1" = 30'

ROOF PLAN LOT 5  
PLAN VIEW - 1" = 30'

**NOTE:**  
LDE, Inc. provides that listed in Appendix B.4. of the 2000 Maryland Stormwater Design Manual Volume 2 as guidelines to contractor and guidance in the shown overdrain & underdrain system. The contractor shall provide verification that the materials used meet the specifications shown within Appendix B.4.

**B.4.B Specifications for Permeable Surfaces**

These specifications include information on acceptable materials for typical applications and are not exclusive or limiting.

**1. Pervious Concrete Specifications**

**Design Thickness** - Pervious concrete applications shall be designed so that the thickness of the concrete slab shall support the traffic and vehicle types that will be carried. Applications may be designed using either standard pavement procedures (e.g., AASHTO, ACI 325.9R, ACI 330R) or using structural values derived from flexible pavement design procedures.

**Mix & Installation** - Traditional Portland cements (ASTM C 150, C 1157) may be used in pervious concrete applications. Phosphorus admixtures may also be used. Materials should be tested (e.g., trial batching) prior to construction so that critical properties (e.g., setting time, rate of strength development, porosity, permeability) can be determined.

**Aggregate** - Pervious concrete contains a limited fine aggregate content. Commonly used gradations include ASTM C 33 No. 67 (3/4 in. to No. 4), No. 8 (3/8 in. to No. 16) and No. 89 (3/8 in. to No. 50) sieves. Single-sized aggregate (up to 1 inch) may also be used.

**Water Content** - Water-to-cement ratios between 0.27 and 0.30 are used routinely with proper inclusion of chemical admixtures. Water quality should meet ACI 30a. As a general rule, potable water should be used although recycled concrete production water meeting ASTM C 94 or AASHTO M 157 may also be used.

**Admixtures** - Chemical admixtures (e.g., retarders or hydration-stabilizers) are used to obtain special properties in pervious concrete. Use of admixtures should meet ASTM C 494 (chemical admixtures) and ASTM C 260 (air entraining admixtures) and closely follow manufacturer's recommendations.

**Base Course** - The base course shall be AASHTO No. 3 or 4 course aggregate with an assumed open pore space of 30% (a = 0.30).

**2. Permeable Interlocking Concrete Pavements (PICP)**

**Paver Blocks** - Blocks should be either 3 in. or 4 in. thick, and meet ASTM C 936 or CSA A231.2 requirements. Applications should have 20% or more (40% preferred) of the surface area open. Installation should follow manufacturer's instructions, except that infill and base course materials and dimensions specified in this Appendix shall be followed.

**Infill Materials and Leveling Course** - Openings shall be filled with ASTM C-33 graded sand or sandy loam. PICP blocks shall be placed on a one-inch thick leveling course of ASTM C-33 sand.

**Base Course** - The base course shall be AASHTO No. 3 or 4 course aggregate with an assumed open pore space of 30% (n = 0.30).

**3. Overdrain / Underdrain**

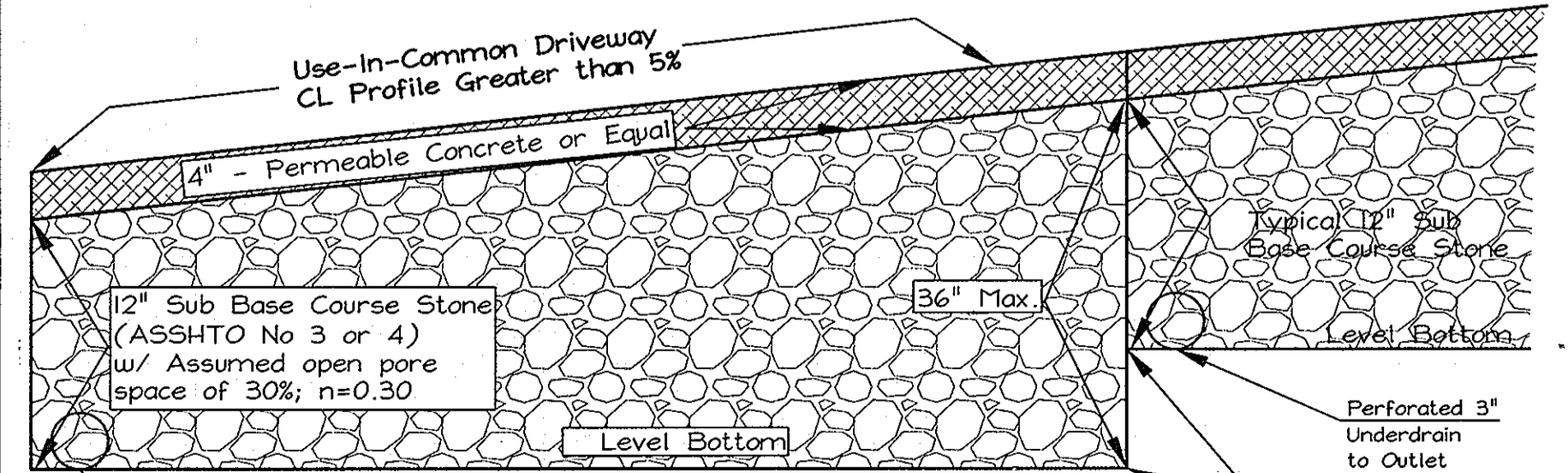
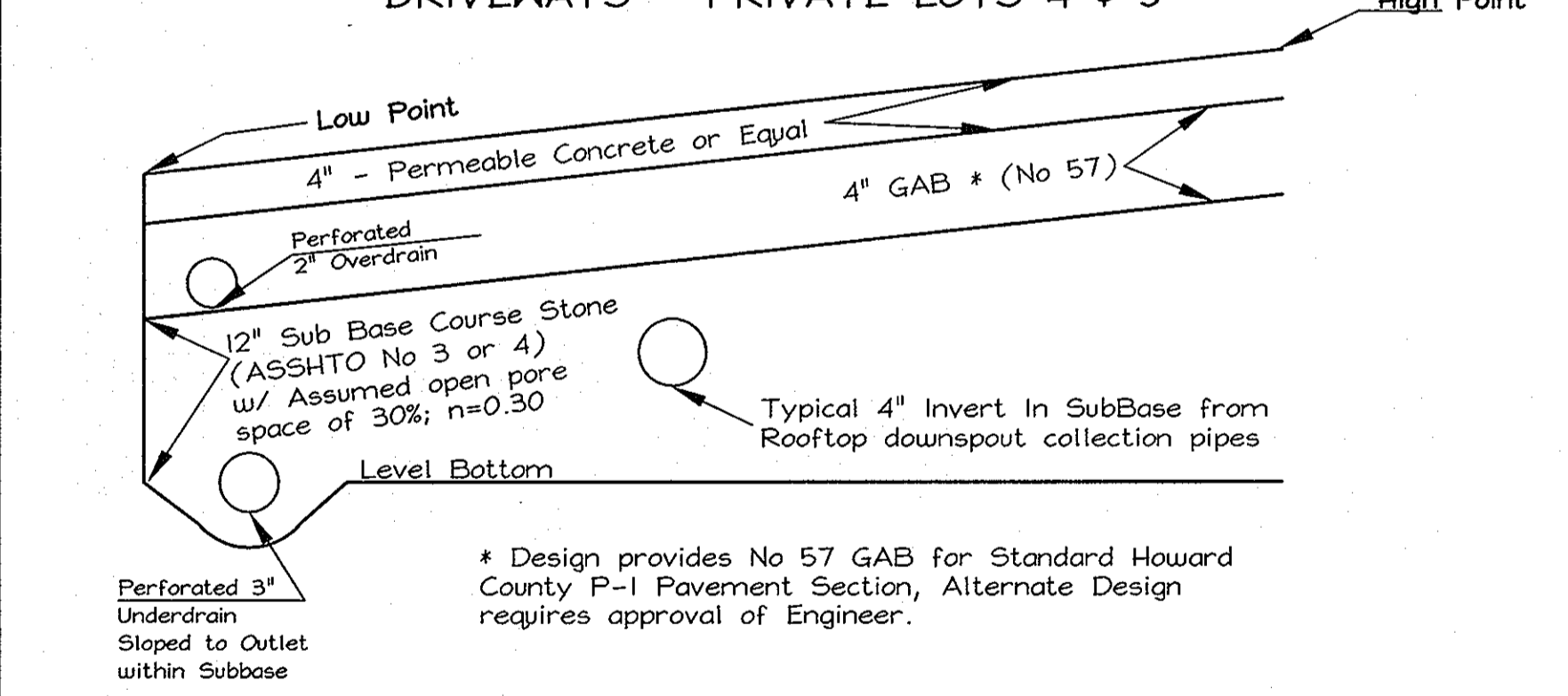
Drains should meet the following criteria:

- Pipe - Should be 2" & 3" diameter, perforated rigid plastic pipe (ASTM F 758, Type PS 28, or AASHTO M-278) in a gravel layer. The preferred material is rigid pipe (e.g., PVC, HDPE or SDR35).
- Perforations - Perforations should be 3/8" diameter located 6" on center with a minimum of four holes per row for 3" pipe & minimum of three holes per row for 2" pipe. Pipe shall be wrapped with a 1/2" (No. 4 or 4x4) galvanized hardware cloth.
- Gravel - The gravel layer (No. 57 stone preferred) shall be at least 3" thick above and below the underdrain.
- The main collector pipe shall be at a minimum 0.5% slope.
- Rigid, non-perforated observation wells must be provided (one per every 1,000 square feet) to provide a clean-out port and monitor performance.

**4. Miscellaneous**

These practices may not be constructed until all contributing drainage area has been stabilized.

**TYPICAL SECTION - PERMEABLE SURFACE DRIVEWAYS - PRIVATE LOTS 4 & 5**



**TYPICAL SECTION PERMEABLE SURFACE PRIVATE LOT 5**

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. 1984, EXPIRATION DATE: 6/30/13.

SIGNED: *Bruce D. Burton* DATE: 11/2/16  
BRUCE D. BURTON



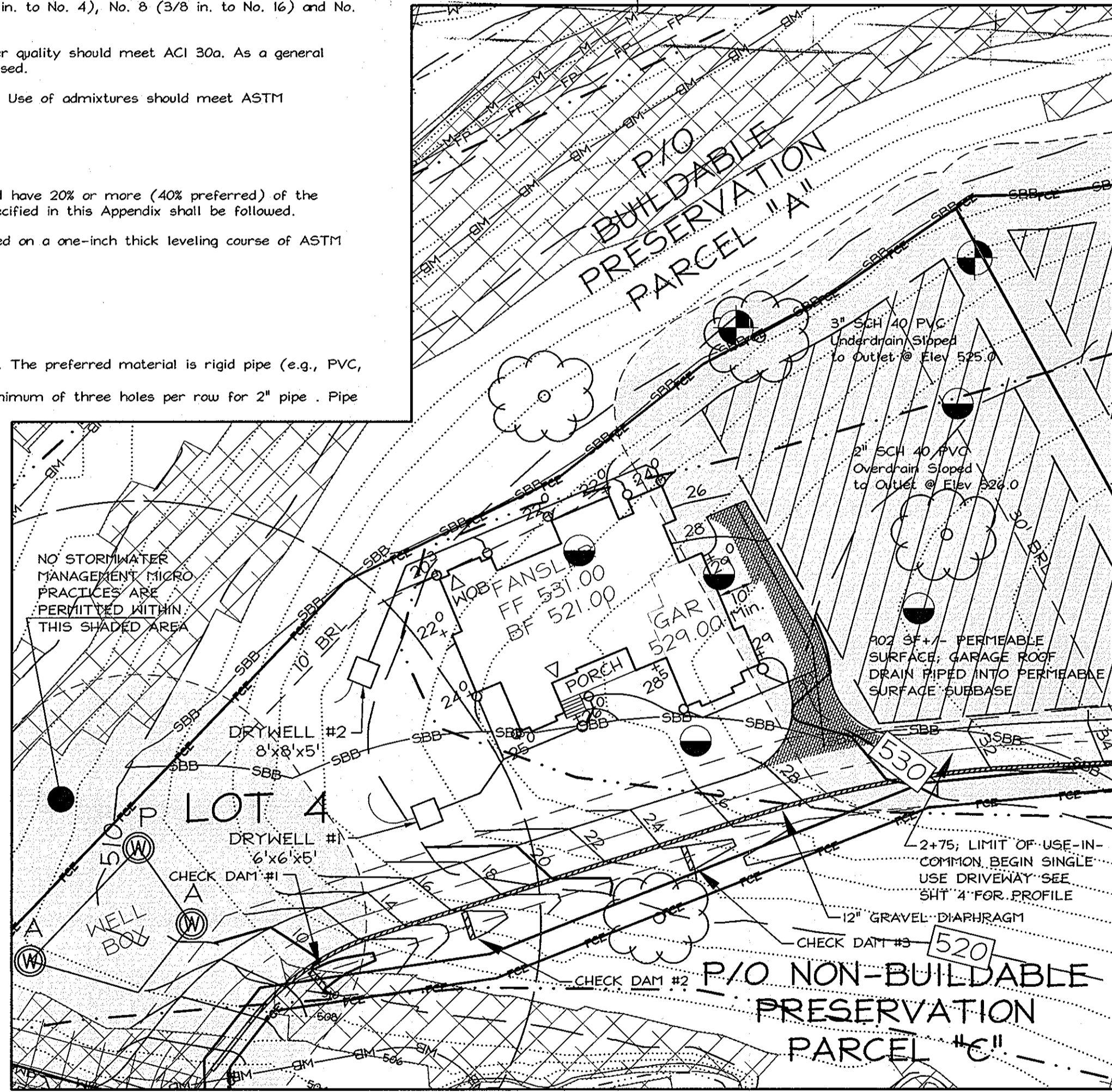
NOTE: THE DESIGNER PROVIDES COMPLIANCE WITH ENVIRONMENTAL SITE DESIGN AS REQUIRED BY 5/9/10. FINAL DESIGN OF ALL STORMWATER CONTROLS AND FEATURES SHALL BE PROVIDED PRIOR TO BUILDING PERMIT ISSUANCE.

**MAINTENANCE CRITERIA FOR PERMEABLE SURFACES**

1. PAVEMENTS SHOULD BE USED WHEN REGULAR MAINTENANCE CAN BE PERFORMED TO ENSURE LONG TERM PERFORMANCE.
2. MAINTENANCE TO INCLUDE, SHEEP AND VACUUMING TO REMOVE SEDIMENT ACCUMULATION TO ENSURE SURFACE POROSITY. SHEEPING SHOULD BE COMPLETED TWICE ANNUALLY WITH A COMMERCIAL CLEANING UNIT. DO NOT USE COMPRESSED AIR OR WASHING SYSTEMS.
3. DRAINAGE PIPES, INLETS, STONE EDGES AND ANY OTHER STRUCTURES WITHIN OR DRAINING TO THE SUBBASE SHOULD BE CLEANED REGULARLY.
4. AVOID TRUCKS FROM TRACKING AND SPILLING MATERIALS WHICH CAN BE GROUND INTO THE PERMEABLE PAVEMENT.
5. DEICERS SHOULD BE USED IN MODERATION. DEICERS SHALL BE NON TOXIC AND ORGANIC. FLOWING SHALL BE DONE CAREFULLY WITH BLADES SET 1" HIGHER THAN NORMAL. SNOW PILE SHALL NOT BE PLACED ON THE PERMEABLE PAVEMENT.

**CONSTRUCTION CRITERIA FOR PERMEABLE SURFACES**

1. Final grading for installation should not take place until surrounding site is stabilized. If this can not be accomplished, runoff from disturbed areas shall be diverted around proposed pavement location.
2. Sub soils shall not be compacted. Construction should be performed with lightweight, wide tracked equipment to minimize compaction. Excavated materials should be placed in a contained area.
3. Distribution Pipes - N/A.
4. Subbase aggregate shall be clean and free of fines. The subbase shall be placed in lifts and lightly rolled according to the specifications (Appendix B.4).



**PERMEABLE DRIVEWAY SURFACE & DRY WELLS**  
PLAN VIEW - 1" = 30'

**STORMWATER MANAGEMENT SUMMARY TABLE**

	LOT 4	LOT 5	USE-IN-COMMON DRIVEWAY
1. Site Area	40,000 SF	44,115 SF	17,150 SF
2. Developable Area(s)	#1 5276 SF / #2 2150 SF	#1 4610 SF / #2 1690 SF	17,150 SF
3. Target RCN	55	55	56
4. Total Measured Impervious	2781 SF	3124 SF	6090 SF
5. Calculated RCN	63.6	63.6	74.3
6. Practice applied for RCN reduction ESDV provided	Permeable Surface 902 SF	Permeable Surface 1224 SF	--
7. Required ESD Volume	54.3 cu.ft.	52.3 cu.ft.	96.0 cu.ft.
8. Provided ESD Volume	65 cu.ft.	95 cu.ft.	146.0 cu.ft.
9. Other Micro-Scale Practices Used	Dry Well Design	Level Spreader	Sualls w/ Check Dams

Table B.3.3 Open Channel Systems and Filter Strip Materials Specifications

Material	Specification	Size	Notes
dry swale soil	USCS: ML, SM, SC	n/a	soil with a higher percent organic content is preferred
dry swale sand	ASTM C-33 fine aggregate sand	0.02" to 0.04"	
check dam (pressure treated)	ASTM Standard C6 Black Locust, Red Mulberry, Cedar, Carya, White Oak, Chestnut Oak, Black Walnut	6" by 6" or 8" by 8"	do not coat with creosote; embed at least 3" into side slopes
check dam (natural wood)	Black Locust, Red Mulberry, Cedar, Carya, White Oak, Chestnut Oak, Black Walnut	6" to 12" diameter; notch as necessary	do not use the following, as these species have a predisposition towards rot: Ash, Birch, Birch, Elm, Hackberry, hemlock, Hickories, Maples, Red and Black Oak, Pines, Poplar, Spruce, Sycamore, Willow
filter strip sand/gravel pervious berm	sand: per dry swale sand; gravel: AASHTO M-43	sand: 0.02" to 0.04" gravel: 1/4" to 1"	mix with approximately 25% loam soil to support grass cover crop; sand (35-40%), silt (10-55%), and gravel (10-25%) see filter/retention planting soil notes for more detail.
pea gravel diaphragm and curtain drain	ASTM D 448	varies (No. 6) or (1/8" drain)	use clean back-wash gravel
underdrain gravel	AASHTO M-43	0.25" to 0.75"	
underdrain	F 758 Type PS 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	3/8" perf. @ 6" on center. 4 holes per row; minimum of 3" of gravel over pipes; see necessary underdrain pipes
geotextile	Class "C" - apparent opening size (ASTM-D-4753), grab tensile strength (ASTM-D-4633), puncture resistance (ASTM-D-4833)	n/a	
rip rap	per county criteria; if none given, use MSHA Standards and Specs Section 905	size per county DOT requirements based on 10-year design flows	

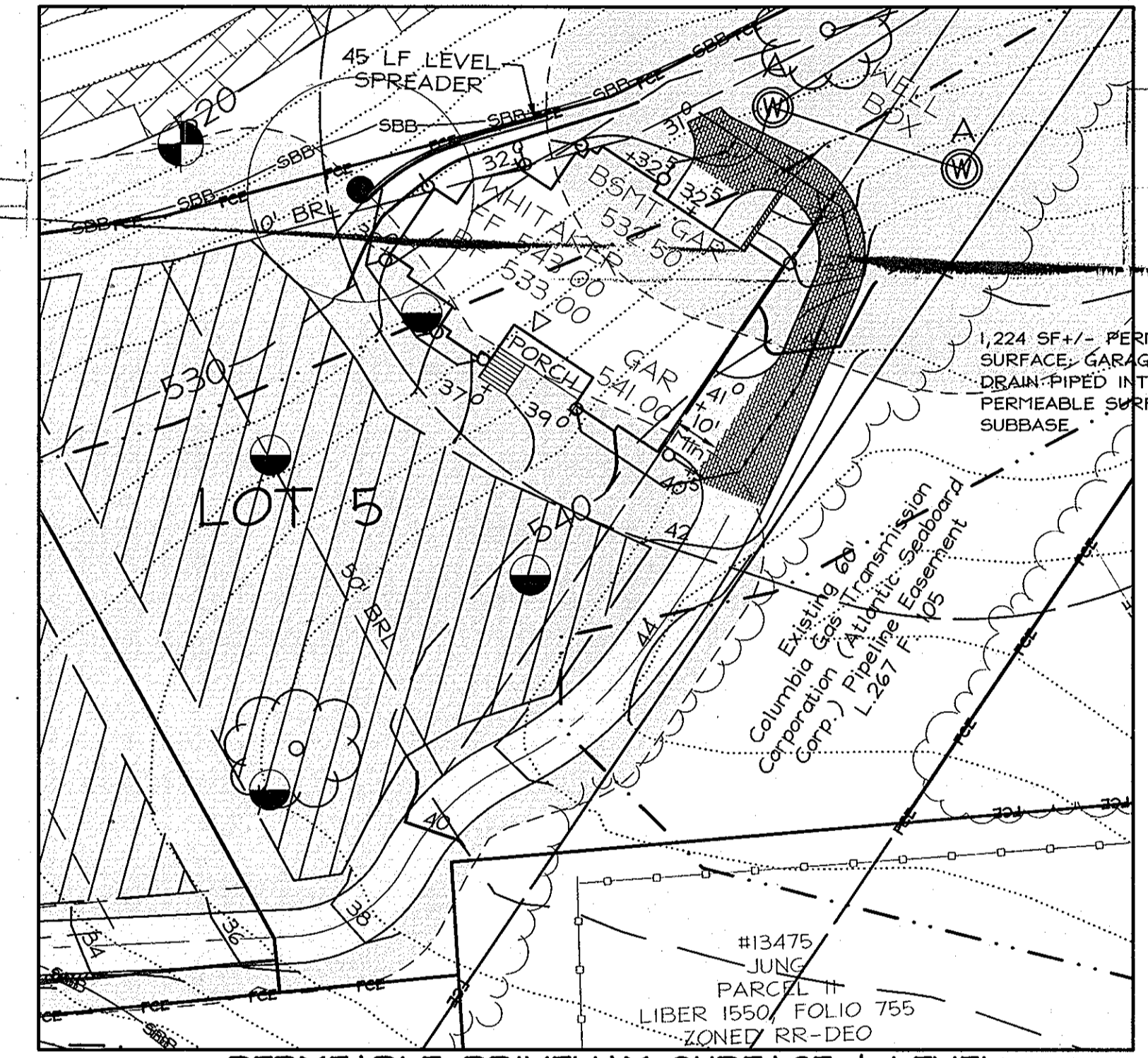
Table B.4.1 Materials Specifications for Micro-Bioretenation, Rain Gardens & Landscape Infiltration

Material	Specification	Size	Notes
Plantings	see Appendix A, Table A.4	n/a	plantings are site specific
Planting soil (12-18" deep) 12" Deep	loamy sand (60-65%) & compost (35-40%) or sandy loam (30%), coarse sand (20%) & compost (60%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum; no pine or wood chips
Pea gravel diaphragm	pea gravel ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")	
Curtain drain	emamental stone; washed cobblets	stone: 2" to 5"	
Geotextile		n/a	PE Type I nonwoven
Gravel (underdrains and infiltration beams)	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" to 3/4")	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" x 100' schedule 40 PVC or SDR35	Slotted or perforated pipe, 3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underdrain pipes. Perforated pipe shall be wrapped with 1/2-inch galvanized hardware cloth.
Poured in place concrete (if required)	MSHA Mix No. 3; F, ~3500 psi @ 28 days, normal weight, air-entrained; reinforcing to meet ASTM-615-60	n/a	on-site testing of poured-in-place concrete required; 28 day strength and slump test; all concrete design (cast-in-place or precast) not using previously approved State or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI Code 350.8R9; vertical loading (H-10 or H-20); allowable horizontal loading (based on soil assumptions) and analysis of potential cracking.
Sand	AASHTO-M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone (AASHTO #10) are not acceptable. No calcium sulfonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.

Per Howard County SWM Seminar Example Packet - April 2010;

"MDE has indicated that ... For residential detached developments with small amounts of impervious areas the impervious areas should be treated at the source using ESD practices. If the ESD practices address the calculated P<sub>e</sub> for the site impervious area and the ESDV, then the remaining grass areas of the site shall be considered adequate and no further treatment will be required."

No additional management required for Septic Area portion of site.

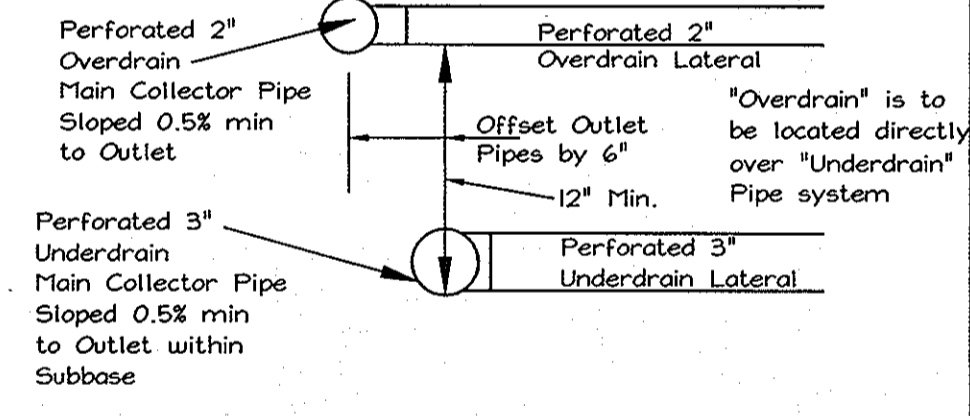


**PERMEABLE DRIVEWAY SURFACE & LEVEL SPREADER TO CONSERVATION AREA**  
PLAN VIEW - 1" = 30'

**SWM LEGEND**

- PERMEABLE SURFACE
- PRIVATE DRIVEWAY
- NON-PERMEABLE SURFACE AREA
- EXCLUSION ZONE (SWM PRACTICES NOT PERMITTED)

**TYPICAL SECTION OVERDRAIN / UNDERDRAIN LOCATIONS**



**APPROVED DEPARTMENT OF PLANNING AND ZONING**

*[Signature]* 12/3/12  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 12/07/12  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

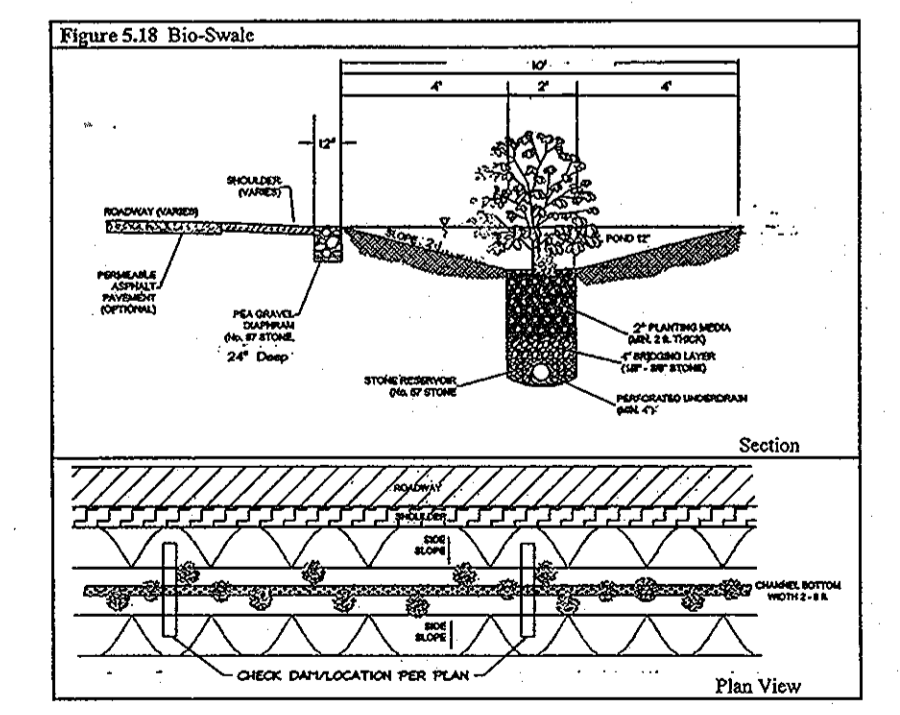
**REVISIONS**

No.	By	Date	Description

**LDE Inc.**  
Engineers • Surveyors • Planners  
Historic Carriage House • 7520 Main Street • Suite 203 • Sykesville, Maryland • 21784  
(410)795-6391 • (410)795-6392 • FAX(410)795-9540 • www.Landsurveyormd.com

DESIGNED	SUPPLEMENTAL PLAN-STORMWATER MANAGEMENT PLAN # DETAILS	SCALE
EDS	LOTS 3-5, BUILDABLE PRESERVATION PARCEL "A" AND NON-BUILDABLE PRESERVATION PARCEL "C"	AS SHOWN
DRAWN	DRAWING	
LDE	A Resubdivision of Lot 2 & Non-Buildable Bulk Parcel "B" and Forest Conservation Easements on Buildable Preservation Parcel "A" - Hedgerow Farm, Plot #21590 - #21592 Triadelphia Mill Road - RR-DEO Zoning	5 of 9
CHECKED	JOB NO.	
BDB	Tax Map 28 - Grid 20 - Parcel 64	09-009.1
DATE	OWNER/DEVELOPER:	FILE NO.
11/2012	Hedgerow Farm LLC Robert B. White and Lynn De G. White 13550 Triadelphia Mill Road Clarksville, MD 21024-1025 (301)802-1051	F12-092

Chapter 5. Environmental Site Design Nonstructural and Micro-Scale Practices

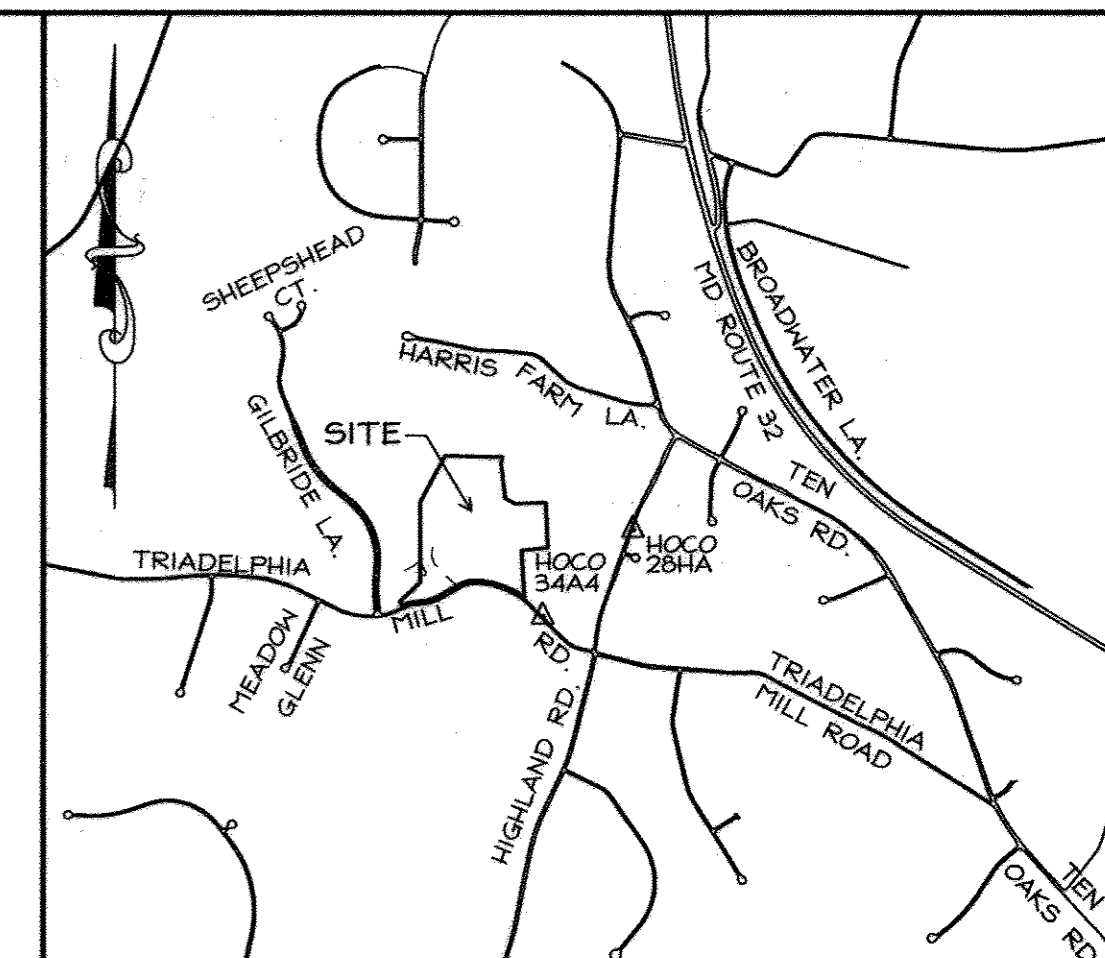


Maintenance Criteria:  
The following items should be addressed to ensure proper maintenance and long-term performance of swales:  

- > For grassed swales, regular mowing (at least bi-annually) is critical in order to reduce competition from weeds and irrigation may be needed during dry weather to establish vegetation. Sparsely vegetated areas need to be re-seeded to maintain dense coverage.
- > If water does not drain within 48 hours, the bottom soil should be tilled and revegetated.
- > Inspections should be performed once a year to assess slope integrity, vegetative health, soil stability, compaction, erosion, ponding, and sedimentation. Periodic removal of sediment, litter, or obstructions should be done as needed. Eroded side slopes and the swale bottom should be repaired and stabilized where needed.

**LEGEND**

- MINOR CONTOUR- (2' INTERVAL)
- INDEX CONTOUR- (10' INTERVAL)
- SOILS BOUNDARY
- CL. STREAM/POND
- 100' STREAM BANK BUFFER
- NON TIDAL WETLAND LIMIT
- WETLAND BUFFER
- 100 YR FLOOD PLAIN
- EXISTING DRIVEWAY
- EXISTING TREELINE
- PROPOSED TREELINE
- APPROXIMATE LOCATION EXISTING SEPTIC EASEMENTS

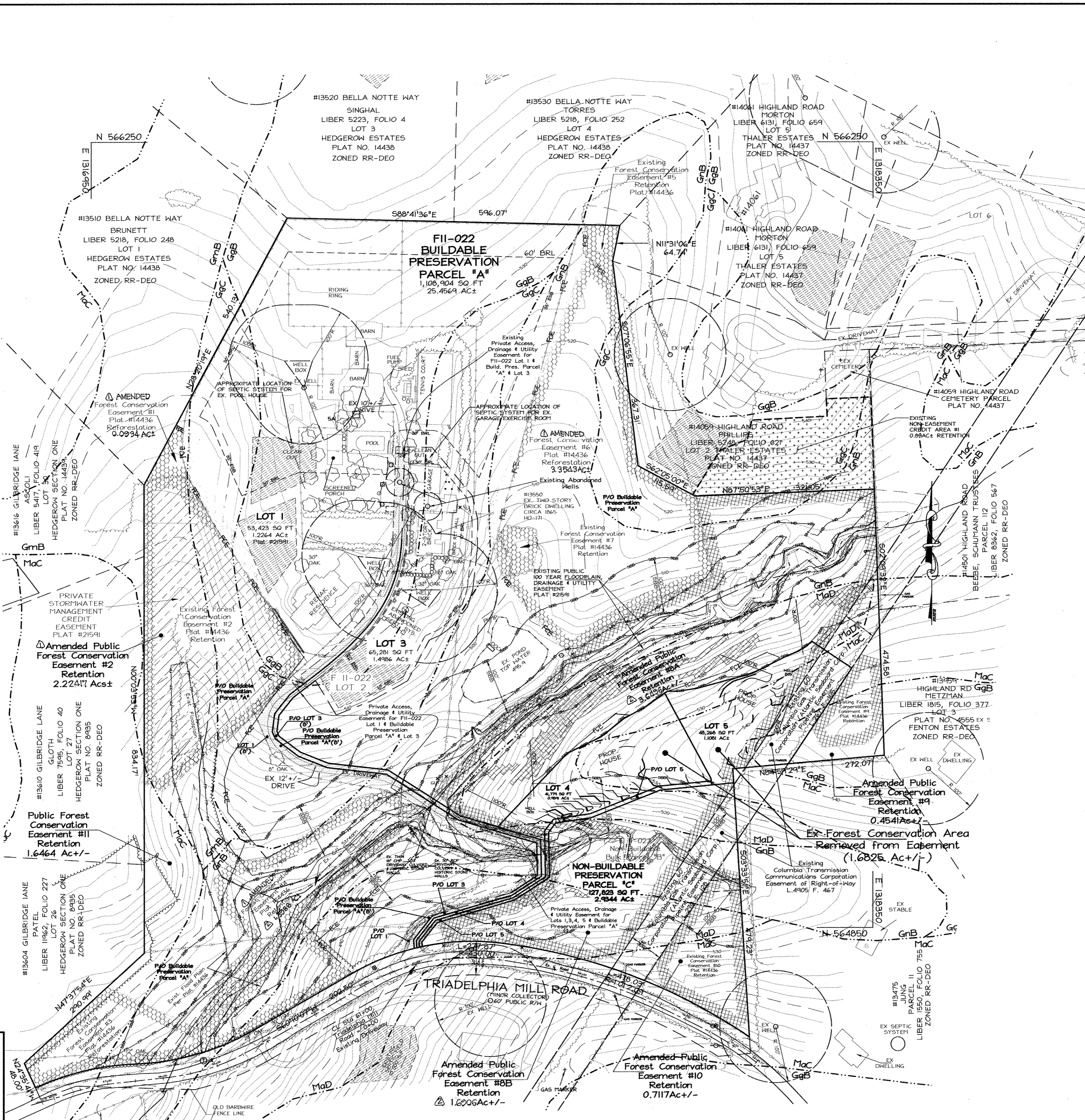


ADC Map 4933 D-6  
**VICINITY MAP**  
SCALE: 1"=2000'

FOREST CONSERVATION EASEMENT TABULATION					
EASEMENT NO	TYPE	GROSS AREA	FLOODPLAIN	NET AREA	REMARKS
FCE-1	REFORESTATION	0.0334 AC.	--	0.0334 AC.	AMENDED
FCE-2	RETENTION	2.2417 AC.	0.1840 AC.	2.0577 AC.	AMENDED
FCE-3	REFORESTATION	1.1916 AC.	0.3230 AC.	0.8766 AC.	--
FCE-4	RETENTION	1.3988 AC.	0.8510 AC.	0.5478 AC.	AMENDED
FCE-5	RETENTION	0.1000 AC.	--	0.1000 AC.	--
FCE-6	REFORESTATION	3.3543 AC.	--	3.3543 AC.	AMENDED
FCE-7	RETENTION	0.0969 AC.	--	0.0969 AC.	--
FCE-8	--	--	--	--	ABANDONED
FCE-8A	RETENTION	3.6496 AC.	0.3590 AC.	3.2906 AC.	AMENDED
FCE-8B	RETENTION	1.6906 AC.	--	1.6906 AC.	AMENDED
FCE-9	RETENTION	0.4541 AC.	--	0.4541 AC.	AMENDED
FCE-10	RETENTION	0.7117 AC.	--	0.7117 AC.	AMENDED
FCE-11	RETENTION	1.6464 AC.	0.2300 AC.	1.4164 AC.	NEW
NCE-1	RETENTION	0.8900 AC.	--	0.8900 AC.	--
NCE-2	RETENTION	0.2200 AC.	--	0.2200 AC.	--
<b>TOTAL</b>		<b>17.7471 AC.</b>	<b>1.9470 AC.</b>	<b>15.8001 AC.</b>	

- EASEMENT HATCH LEGEND**
- EXISTING FOREST CONSERVATION EASEMENT Plat # 14436 & 14337 To Be Abandoned
  - EXISTING FOREST CONSERVATION EASEMENT Plat # 14436 & 14337 To Remain Unchanged
  - PRIVATE ACCESS, DRAINAGE & UTILITY EASEMENT
  - EXISTING PRIVATE STORMWATER MANAGEMENT CREDIT EASEMENT - Plat # 14436 & # 21591
  - EXISTING PUBLIC 100 YEAR FLOODPLAIN, DRAINAGE & UTILITY EASEMENT - Plat # 21591
  - PRIVATE SEWAGE DISPOSAL EASEMENT
  - PUBLIC FOREST CONSERVATION EASEMENT
  - EXISTING PRIVATE SEWAGE DISPOSAL EASEMENT

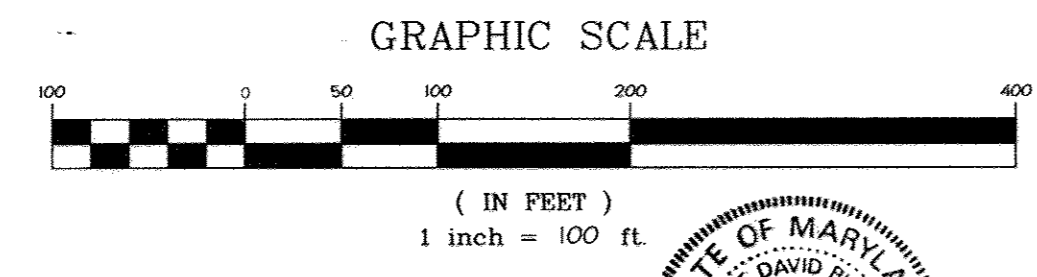
- SOILS LEGEND:**
- GgB - Glenelg Loam, 3 to 8 percent slopes
  - GgC - Glenelg Loam, 8 to 15 percent slopes
  - 4' - 10' depth to bedrock; 10' to water table; slight to severe limitations for sewage disposal fields and homes w/ basements depending on slopes; erosion hazard.
  - GmB - Glenville Silt Loam, 3 to 8 percent slopes
  - GnB - Glenville-Baile silt loams, 0 to 8 percent slopes
  - 4' - 10' depth to bedrock; 1.5' to 3' to water table; severe limitations for sewage disposal fields moderate limitations for homes w/ basements; impeded drainage; seasonal wetness; erosion hazard.
  - MaC - Manor Loam, 8 to 15 percent slopes
  - MaD - Manor Loam, 15 to 25 percent slopes
  - 6' - 10' depth to bedrock; 20' to water table; slight to severe limitations for sewage disposal fields and homes w/ basements depending on slopes; erosion hazard.



APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 12/3/12

CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 12/03/12



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. 19164, EXPIRATION DATE: 6/30/15.

SIGNED: Bruce D. Burton  
DATE: 11/16/12

PROFESSIONAL CERTIFICATION:  
Steve Heiss, Qualified Professional, MDECA



REVISIONS			
No.	By	Date	Description
1	LDE	5/12/15	REVISE FCE #1, #2, #4 AND #6, FCE TABULATION
2	LDE	8/12/17	REVISE FCE #4, #8A AND #8B, FCE TABULATION

**LDE Inc.**  
Engineers • Surveyors • Planners  
Historic Carriage House • 7520 Main Street • Suite 203 • Sykesville, Maryland • 21784  
(410)795-6391 • (410)795-6392 • FAX(410)795-9540 • www.Landsurveyormd.com

DESIGNED			SCALE
BDB	EDS	FORREST CONSERVATION PLAN HEDGEROW FARM	1"=100'
LOTS 3-5, BUILDABLE PRESERVATION PARCEL "A" AND NON-BUILDABLE PRESERVATION PARCEL "C"			
DRAWN			DRAWING
LDE	A Resubdivision of Lot 2 & Non-Buildable Bulk Parcel "B" and Forest Conservation Easements on Buildable Preservation Parcel "A"		6 of 9
CHECKED			JOB NO.
BDB	Triadelphia Mill Road - RR-DEO Zoning Tax Map 28 - Grid 20 - Parcel 64 5th Election District - Howard County, Maryland		09-009.1
DATE			FILE NO.
11/2012	OWNER/DEVELOPER: Hedgerow Farm LLC Robert B. White and Lyn De G. White 13550 Triadelphia Mill Road Clarksville, MD 21029-1025 (301)802-1051		F12-092

**DEVELOPER'S / BUILDER'S CERTIFICATION**  
I CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. I FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, AND A COPY OF THIS PLAN WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

SIGNATURE OF DEVELOPER / BUILDER: [Signature]  
DATE: 11/15/12

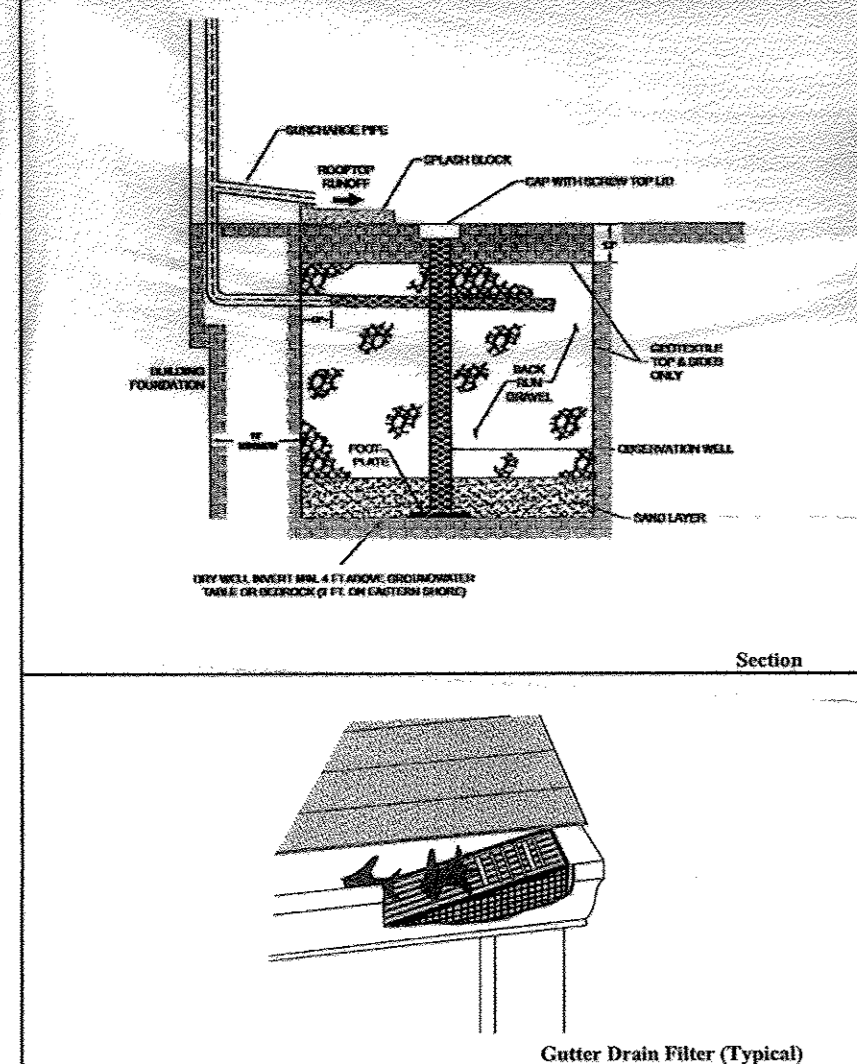


LANDSCAPE SCHEDULE

SYMBOL	QUANT.	COMMON NAME/BOTANICAL NAME	SIZE	REMARKS
⊗	3	BALD CYPRESS/TAXODIUM DISTICHUM	2 1/2'-3' CAL.	B & B
⊗	9	AMERICAN HOLLY/ILEX OPACA	4'-5' HT.	B & B
⊗	3	EASTERN REDBUD/CERCIS CANADENSIS	2 1/2'-3' CAL.	B & B
⊗	5	DOGWOOD 'CHEROKEE BRAVE'/CORNUS FLORIDA 'CHEROKEE BRAVE'	1 3/4' CAL.	B & B
⊗	10	COMMON WITCH HAZEL/HAMAMELIS VIRGINIANA	3'-4' HT.	B & B
⊗	3	BOTTLEBRUSH BUCKEYE/AESCULUS PARVIFLORA	4'-5' HT.	B & B
⊗	14	ARROWWOOD VIBURNUM/VIBURNUM DENTATUM	3'-4' HT.	B & B
⊗	5	SPIKE WINTER HAZEL/CORYLOPSIS SPICATA	3'-4' HT.	5 GAL.
⊗	14	HYDRANGEA LIMELIGHT/HYDRANGEA PANICULATA	2'-3' HT.	5 GAL.
⊗	20	COMMON SWEETSHRUB/CALYCATHUS FLORIDUS	2'-3' HT.	5 GAL.

THE LANDSCAPE SURETY OF \$9810.00 FOR THE 12 SHADE TREES, 8 FLOWERING TREES AND 66 SHRUBS WILL BE INCLUDED WITH THE SURETY POSTED FOR FOREST CONSERVATION.

Figure S.13 Dry Well



Section

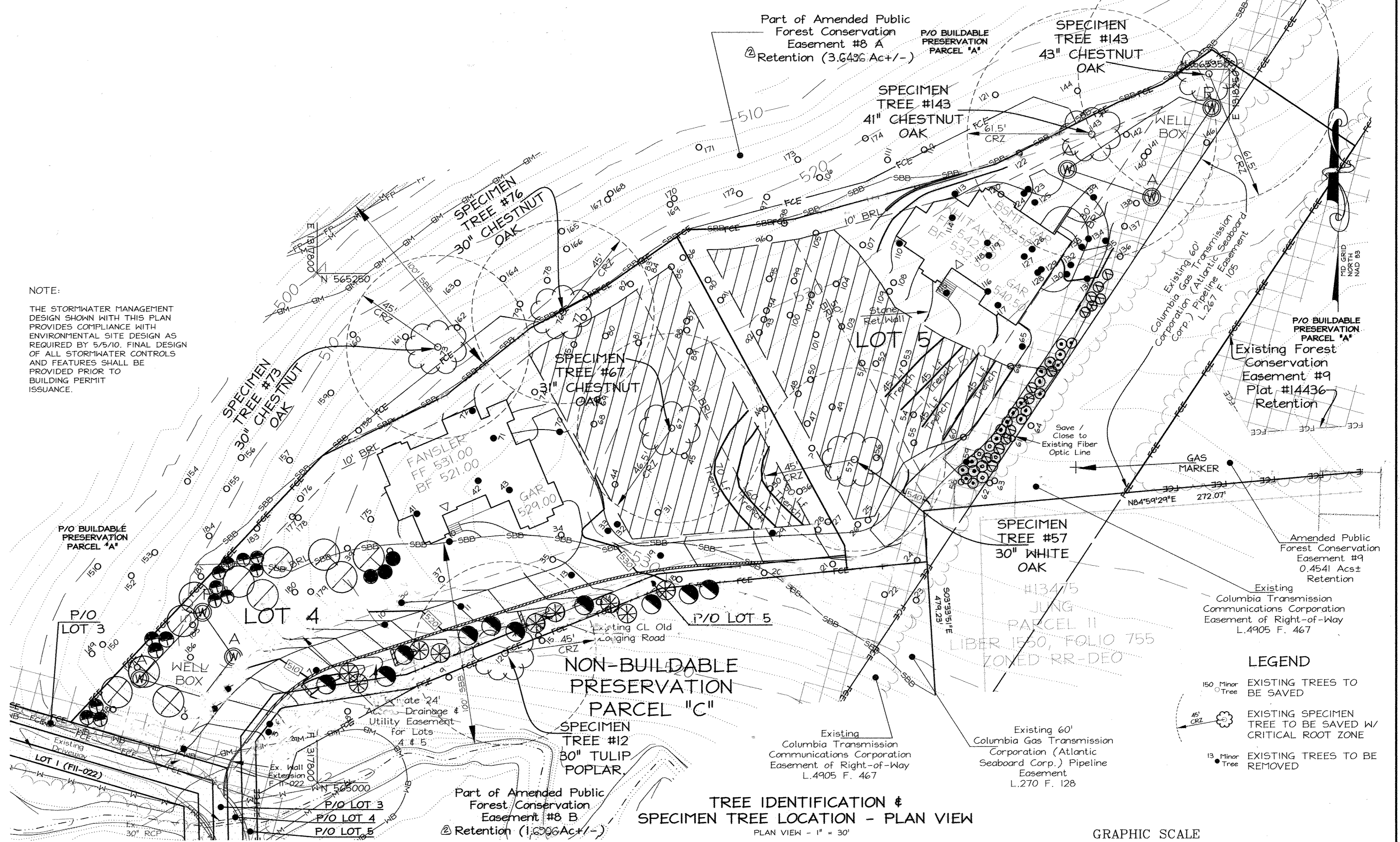
Cutter Drain Filter (Typical)

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAIN STORMWATER INFILTRATION TRENCHES (I-1), DRY WELLS (M-5)

- The Owner shall inspect the monitoring wells and structures on a quarterly basis and after every heavy storm event.
- The Owner shall record the water levels and sediment build up in the monitoring wells over a period of several days to insure trench drainage.
- The Owner shall maintain a log book to determine the rate at which the facility drains.
- When the facility becomes clogged so that it does not drain down within a seventy-two (72) hour time period, corrective action shall be taken.
- The maintenance log book shall be available to Howard County for inspection to insure compliance with operation and maintenance criteria.
- Once the performance characteristics of the infiltration facility have been verified, the monitoring schedule can be reduced to an annual basis unless the performance data indicates that a more frequent schedule is required.

NOTE:

THE STORMWATER MANAGEMENT DESIGN SHOWN WITH THIS PLAN PROVIDES COMPLIANCE WITH ENVIRONMENTAL SITE DESIGN AS REQUIRED BY 5/5/10. FINAL DESIGN OF ALL STORMWATER CONTROLS AND FEATURES SHALL BE PROVIDED PRIOR TO BUILDING PERMIT ISSUANCE.



TREE IDENTIFICATION & SPECIMEN TREE LOCATION - PLAN VIEW  
PLAN VIEW - 1" = 30'

GRAPHIC SCALE  
(IN FEET)  
1 inch = 30 ft

- Setbacks:**
  - Dry wells shall be located down gradient of building structures and shall be setback at least 10 feet from buildings, 50 feet from confined water supply wells, 100 feet from unconfined water supply wells, and 25 feet from septic systems.
  - Dry wells shall be setback a minimum of 100 feet from fill slopes of 15% and 200 feet from fill slopes of 25%.
- Observation Wells:** An observation well consisting of an anchored, 4 to 6-inch diameter perforated pipe shall be required. The top of the observation well shall be at least six inches above grade.
- Underground Distribution Pipe:** This pipe (4 to 6 inch diameter) will be perforated to fill the trench along its entire length.
- Landscaping:** A minimum one-foot of soil cover shall be provided from the top of the trench to the ground surface elevation. The soil should be stabilized with a dense cover of vegetation. In areas where frost heave is a concern, soil cover may need to be as much as four feet. In these cases, a geotechnical engineer should be consulted.

Construction Criteria:

The following items should be addressed during construction of projects with dry wells:

- Erosion and Sediment Control:** Final grading for proposed dry wells should take place until the surrounding site is completely stabilized. If this cannot be accomplished, runoff from disturbed areas shall be diverted.
- Soil Compaction:** Excavation should be conducted in dry conditions with equipment located outside of the practice to minimize bottom and sidewall compaction. Construction of a dry well shall be performed with lightweight, wide-tracked equipment to minimize disturbance and compaction. Excavated materials shall be placed in a contained area.
- Underground Chamber:** A subsurface prefabricated chamber may be used.
- Dry Well Bottoms:** The bottom shall be as level as possible to minimize pooled water in small areas that may reduce overall infiltration and longevity.
- Filter Cloth:** Filter cloth shall not be installed on the bottom of the well. Non-woven filter cloth should be used to line the top and sides of the dry well to prevent the pore space between the stones from being blocked by the surrounding material.
- Gravel Media:** The aggregate shall be composed of an 18 to 48-inch layer of clean washed, open graded material with 40% porosity (e.g., ASTM D448 4.5, or 6 stone or equal).

Inspection:

- Regular inspections shall be made during the following stages of construction:
  - During excavation to subgrade.
  - During placement of backfill and perforated inlet pipe and observation well.
  - During placement of geotextiles and all filter media.
  - During construction of the aggregate conveyance.
  - Upon completion of final grading and establishment of permanent stabilization.

Maintenance Criteria:

- The following items should be addressed to ensure proper maintenance and long-term performance of dry wells:
  - Privately owned practices shall have a maintenance plan and shall be protected by easement, deed restriction, ordinance, or other legal means preventing its neglect, adverse alteration, and removal.
  - Dry wells shall be inspected and cleaned annually. This includes pipes, gutters, downspouts, and all filters.
  - Pending, standing water, or algal growth on the top of a dry well may indicate failure due to sedimentation in the gravel media. If water ponds for more than 48 hours after a major storm or more than six inches of sediment has accumulated, the gravel media should be excavated and replaced.

Tree No.	Tree Type	Dia @ Breast Height	Condition
1	White Oak	28"	Fair
2	Chestnut Oak	23"	Good
3	Chestnut Oak	28"	Fair
4	White Oak	7"	Excellent
5	Scarlett Oak	21"	Fair
6	Red Maple	6"	Good
7	Scarlett Oak	17"	Good
8	Tulip Poplar	9"	Good
9	White Oak	27"	Fair
10	Scarlett Oak	17"	Poor
11	Scarlett Oak	13"	Fair
*12	Tulip Poplar	30"	Excellent
13	White Oak	9"	Good
14	White Oak	10"	Good
15	White Oak	8"	Good
16	White Oak	24"	Good
17	White Oak	23"	Good
18	White Oak	26"	Fair
19	Chestnut Oak	10"	Good
20	Chestnut Oak	14"	Good
21	White Oak	27"	Fair
22	White Oak	21"	Good
23	Chestnut Oak	24"	Excellent
24	Chestnut Oak	15"	Good
25	Chestnut Oak	12"	Good
26	Chestnut Oak	21"	Good
27	Chestnut Oak	11"	Good
28	Chestnut Oak	21"	Good
29	White Oak	22"	Good
30	Chestnut Oak	27"	Good
31	White Oak	19"	Fair
32	White Oak	19"	Fair
33	White Oak	29"	Fair
34	Chestnut Oak	18"	Good
35	Black Oak	13"	Fair
36	Chestnut Oak	24"	Fair
37	White Oak	17"	Good
38	White Oak	27"	Good
39	Scarlett Oak	16"	Good
40	White Oak	23"	Fair
41	White Oak	24"	Good
42	White Oak	25"	Good
43	White Oak	22"	Good
44	White Oak	21"	Fair
45	DT Chestnut Oak	42"	Good
46	White Oak	15"	Good
47	White Oak	15"	Good
48	White Oak	14"	Good
49	Chestnut Oak	17"	Good
50	Chestnut Oak	9"	Good
51	White Oak	26"	Fair
52	Chestnut Oak	10"	Good
53	White Oak	20"	Good
54	White Oak	25"	Good
55	Scarlett Oak	27"	Good
56	Chestnut Oak	12"	Excellent
*57	White Oak	30"	Good
58	Scarlett Oak	18"	Fair
59	Scarlett Oak	11"	Good
60	Black Oak	14"	Good
61	Pin Oak	14"	Good
62	Pin Oak	11"	Good
63	Pin Oak	23"	Good
64	Pin Oak	19"	Good
65	Scarlett Oak	21"	Good
66	Black Gum	9"	Good
*67	Chestnut Oak	31"	Good
68	DT Chestnut Oak	52"	Good
69	Chestnut Oak	24"	Good
70	Chestnut Oak	19"	Good
71	White Oak	17"	Good
72	Chestnut Oak	20"	Good
*73	Chestnut Oak	30"	Good
74	Chestnut Oak	25"	Fair
75	Black Oak	18"	Good
*76	Chestnut Oak	30"	Good
77	Chestnut Oak	14"	Excellent
78	Chestnut Oak	27"	Good
79	Scarlett Oak	15"	Good
80	Chestnut Oak	15"	Good
81	Chestnut Oak	18"	Good
82	Chestnut Oak	22"	Good
83	Chestnut Oak	27"	Good
84	Chestnut Oak	24"	Excellent
85	Chestnut Oak	24"	Good
86	Chestnut Oak	25"	Good
87	White Oak	14"	Good
88	Chestnut Oak	22"	Good
89	Chestnut Oak	19"	Excellent
90	Chestnut Oak	16"	Excellent
91	Chestnut Oak	22"	Poor
92	Chestnut Oak	18"	Good
93	Chestnut Oak	19"	Good
94	Chestnut Oak	18"	Good
95	Chestnut Oak	23"	Excellent
96	Chestnut Oak	17"	Good
97	Chestnut Oak	20"	Good
98	Chestnut Oak	20"	Good
99	Scarlett Oak	26"	Good
100	Black Oak	22"	Fair
101	Chestnut Oak	17"	Excellent
102	Chestnut Oak	17"	Good
103	Chestnut Oak	11"	Excellent
104	Chestnut Oak	20"	Good
105	Chestnut Oak	21"	Good
106	Chestnut Oak	25"	Fair
107	Chestnut Oak	22"	Good
108	Black Oak	12"	Good
109	White Oak	27"	Fair
110	DT Chestnut Oak	48"	Good
111	Scarlett Oak	15"	Excellent
112	White Oak	16"	Good
113	Chestnut Oak	19"	Good
114	Chestnut Oak	26"	Fair
115	Chestnut Oak	11"	Good
116	Chestnut Oak	22"	Fair
117	Black Oak	22"	Good
118	Chestnut Oak	11"	Excellent
119	Black Oak	11"	Excellent
120	Chestnut Oak	11"	Good
121	Black Oak	25"	Fair
122	Scarlett Oak	22"	Good
123	Chestnut Oak	9"	Fair
124	Scarlett Oak	19"	Good
125	Red Maple	17"	Good
126	Chestnut Oak	19"	Excellent
127	Chestnut Oak	13"	Excellent
128	Black Oak	19"	Good
129	Chestnut Oak	10"	Good
130	Chestnut Oak	14"	Excellent
131	Chestnut Oak	19"	Good
132	Chestnut Oak	15"	Excellent
133	Chestnut Oak	10"	Good
134	Chestnut Oak	13"	Good
135	Chestnut Oak	15"	Excellent
136	Chestnut Oak	20"	Good
137	Chestnut Oak	23"	Excellent
138	White Oak	14"	Good
139	Chestnut Oak	16"	Good
140	Chestnut Oak	22"	Good
141	Tulip Poplar	12"	Good
142	Chestnut Oak	13"	Good
*143	Chestnut Oak	41"	Fair
144	Red Maple	20"	Good
*145	Chestnut Oak	43"	Good
146	Black Oak	19"	Good
147	White Oak	25"	Good
148	Scarlett Oak	17"	Good
149	Scarlett Oak	29"	Fair
150	Chestnut Oak	6"	Good
151	Scarlett Oak	29"	Good
152	White Oak	19"	Good
153	Chestnut Oak	18"	Good
154	Chestnut Oak	17"	Good
155	Red Oak	19"	Good
156	Chestnut Oak	17"	Good
157	Chestnut Oak	11"	Good
158	Chestnut Oak	25"	Fair
159	Chestnut Oak	19"	Good
160	Chestnut Oak	18"	Fair

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Steve Heiss, Qualified Professional, MDFCA

12/12/12 DATE

12/05/12 DATE

No.	By	Date	Description
1	LDE	10/20/14	REVISE PLANTING ON LOT 4 AND LOT 5
2	LDE	8/14/17	REVISE PCE #8A AND #8B

**LDE inc.**  
Engineers • Surveyors • Planners  
Historic Carriage House • 7520 Main Street • Suite 203 • Sykesville, Maryland • 21784  
(410)795-6391 • (410)795-6392 • FAX(410)795-9540 • www.Landsurveyor.com

DESIGNED: FOREST CONSERVATION MITIGATION PLAN - LOTS 4 & 5 SCALE: AS SHOWN  
DRAWING: HEDGEROW FARM LOTS 3-5, BUILDABLE PRESERVATION PARCEL "A" AND NON-BUILDABLE PRESERVATION PARCEL "C" DRAWING: 8 of 9  
CHECKED: A Resubdivision of Lot 2 & Non-Buildable Bulk Parcel "B" and Forest Conservation Easements on Buildable Preservation Parcel "A" JOB NO: 09-009.1  
DATE: 11/2012 OWNER/DEVELOPER: Robert B. White and Lyn De G. White 13550 Triadelphia Mill Road Clarksville, MD 21029-1025 (301)302-1051 FILE NO: F12-092

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. 19184, EXPIRATION DATE: 6/30/13.

SIGNED: BRUCE D. BURTON DATE: 11/16/12





**LEGEND**

- MINOR CONTOUR- (2' INTERVAL)
- INDEX CONTOUR- (10' INTERVAL)
- SOILS BOUNDARY
- CL. STREAM/POND
- 100' STREAM BANK BUFFER
- NON TIDAL WETLAND LIMIT
- WETLAND BUFFER
- 100 YR FLOOD PLAIN
- EXISTING DRIVEWAY
- EXISTING TREELINE
- PROPOSED TREELINE
- APPROXIMATE LOCATION EXISTING SEPTIC EASEMENTS F11-022

**EASEMENT HATCH LEGEND**

- EXISTING FOREST CONSERVATION EASEMENT Plat # 14436 & 14337 To Be Abandoned
- EXISTING FOREST CONSERVATION EASEMENT Plat # 14436 & 14337 To Remain Unchanged
- PRIVATE ACCESS, DRAINAGE & UTILITY EASEMENT
- EXISTING PRIVATE STORMWATER MANAGEMENT CREDIT EASEMENT - Plat # 14436 & # 21591
- EXISTING PUBLIC 100 YEAR FLOODPLAIN, DRAINAGE & UTILITY EASEMENT - Plat # 21591
- PRIVATE SEWAGE DISPOSAL EASEMENT
- PUBLIC FOREST CONSERVATION EASEMENT
- EXISTING PRIVATE SEWAGE DISPOSAL EASEMENT

AMENDED PUBLIC FOREST CONSERVATION EASEMENT #2 RETENTION

LOT 27  
HEDGEROW SECTION ONE  
PLAT NO. 8935  
ZONED RR-DEO

PUBLIC FOREST CONSERVATION EASEMENT #11 RETENTION  
1.6464 ACRES±

EXISTING FOREST CONSERVATION EASEMENT REFORESTATION

P/O Buildable Preservation Parcel "A"

P/O LOT 3 (8')  
P/O Buildable Preservation Parcel "A" (8')

Exist. Flood Plain Per Plat #14436

LANDSCAPE SCHEDULE				
SYMBOL	QUANT.	COMMON NAME/BOTANICAL NAME	SIZE	REMARKS
⊗	5	RED MAPLE/ACER RUBRA	1" CAL	5 @ 5
⊗	4	BLACK GUM/NYSSA SYLVATICA	1" CAL	5 @ 5
⊗	3	RED OAK/QUERCUS RUBRA	1" CAL	5 @ 5
⊗	13	WHITE PINE/PINUS STROBUS	2"-3" HT	1 YR SEEDLING
⊗	7	RED CEDAR/JUNIPERUS VIRGINIANA	1"-2" HT	2 YR SEEDLING
⊗	9	EASTERN REDBUD/CORONIS GRANDIFLORA	1"-2" HT	2 YR SEEDLING
⊗	10	FLOWERING DOGWOOD/CORONIS FLORIDA	1"-2" HT	2 YR SEEDLING
⊗	7	PIN OAK/QUERCUS BALUSTIAG	1" CAL	5 @ 5
⊗	9	AMERICAN SWEETGUM/LICHTENHEIMIA	1" CAL	5 @ 5
⊗	10	CAROLINA SIBBELL/MALESIA CAROLINA	1" CAL	5 @ 5

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 12/1/12  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 12/05/12  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

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. 14184, EXPIRATION DATE: 6/30/15.

SIGNED: *[Signature]* DATE: 11/16/12  
BRUCE D. BURTON

GRAPHIC SCALE  
( IN FEET )  
1 inch = 30 ft.

PROFESSIONAL CERTIFICATION:  
*[Signature]*  
Steve Heiss, Qualified Professional, MDPCA

STATE OF MARYLAND  
BRUCE D. BURTON  
REGISTERED PROFESSIONAL ENGINEER  
No. 19196  
EXPIRES 6/30/15

**DEVELOPER'S / BUILDER'S CERTIFICATION**

I CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. I FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, AND A COPY OF THIS PLAN WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

*[Signature]* 11/15/12  
SIGNATURE OF DEVELOPER / BUILDER DATE

REVISIONS			
No.	By	Date	Description
1	LDE	5/14/15	REVISE LANDSCAPE/PLANTING SCHEDULE

**LDE Inc.**  
Engineers • Surveyors • Planners  
Historic Carriage House • 7520 Main Street • Suite 203 • Sykesville, Maryland • 21784  
(410)795-6391 • (410)795-6392 • FAX(410)795-9540 • www.Landscapeurymd.com

DESIGNED	FOREST CONSERVATION MITIGATION PLAN	SCALE	1"=30'
BDB	HEDGEROW FARM	DRAWING	9 of 9
EDS	LOTS 3-5, BUILDABLE PRESERVATION PARCEL "A" AND NON-BUILDABLE PRESERVATION PARCEL "C"	JOB NO.	09-009.1
DRAWN	A Resubdivision of Lot 2 & Non-Buildable Bulk Parcel "B" and Forest Conservation Easements on Buildable Preservation Parcel "A"	FILE NO.	F12-092
LDE	Triadelphia Mill Road - RR-DEO Zoning Tax Map 28 - Grid 20 - Parcel 64 5th Election District - Howard County, Maryland		
CHECKED	Previous Submittals: WPO0-65, F00-58, F00-59, F01-81, WPO6-58, F07-44, WPO10-172, ECP 10-015, F11-022, ECP 11-020, WPO 11-141		
BDB	OWNER/DEVELOPER: Hedgerow Farm LLC Robert B. White and Lyn De G. White 13550 Triadelphia Mill Road Clarksville, MD 21029-1025 (301)802-1051		
DATE	11/2012		