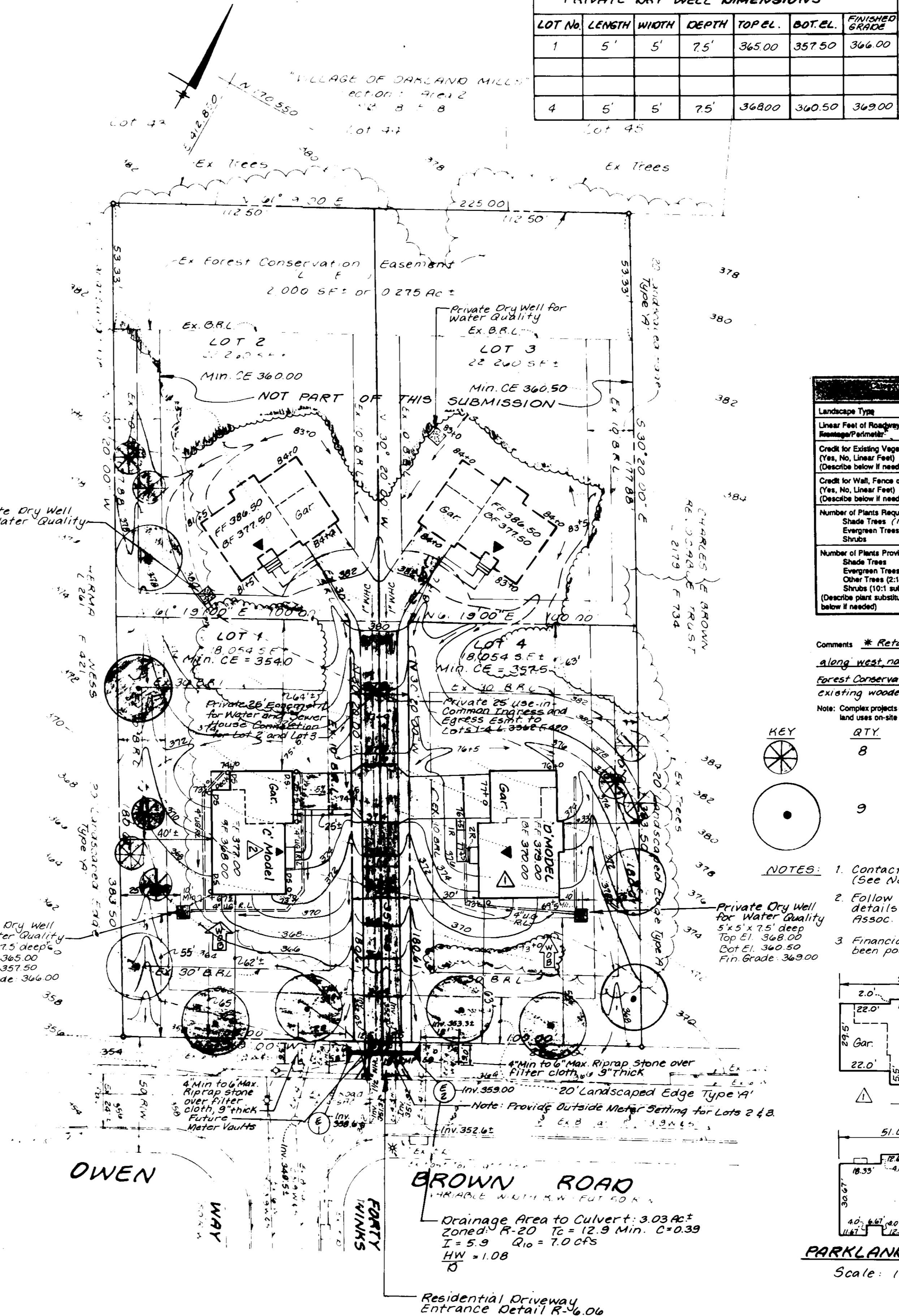
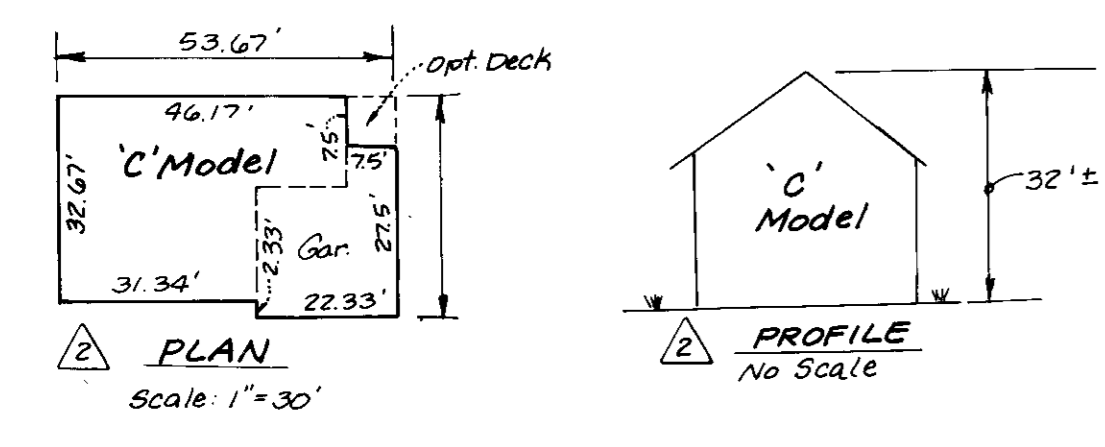
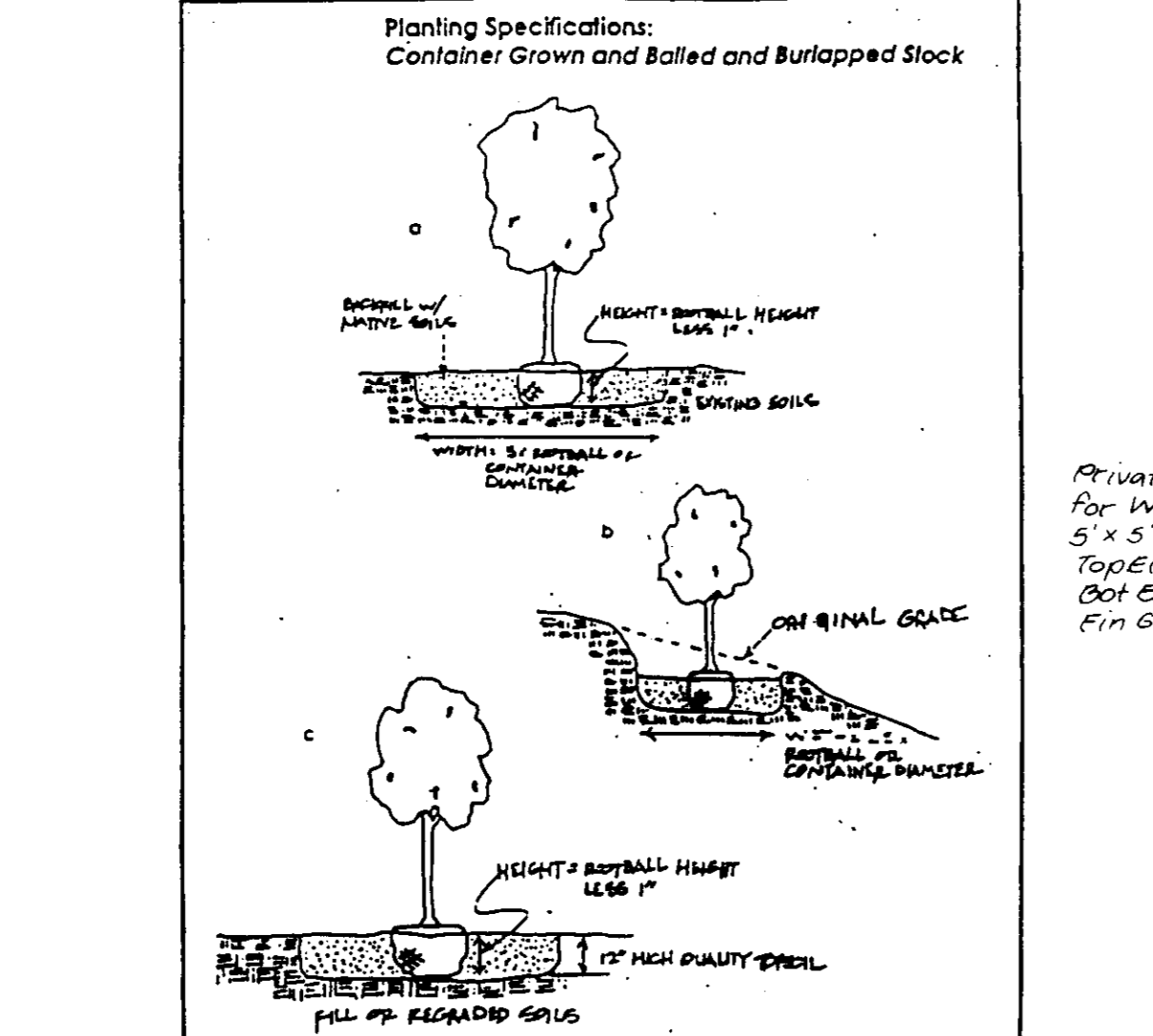
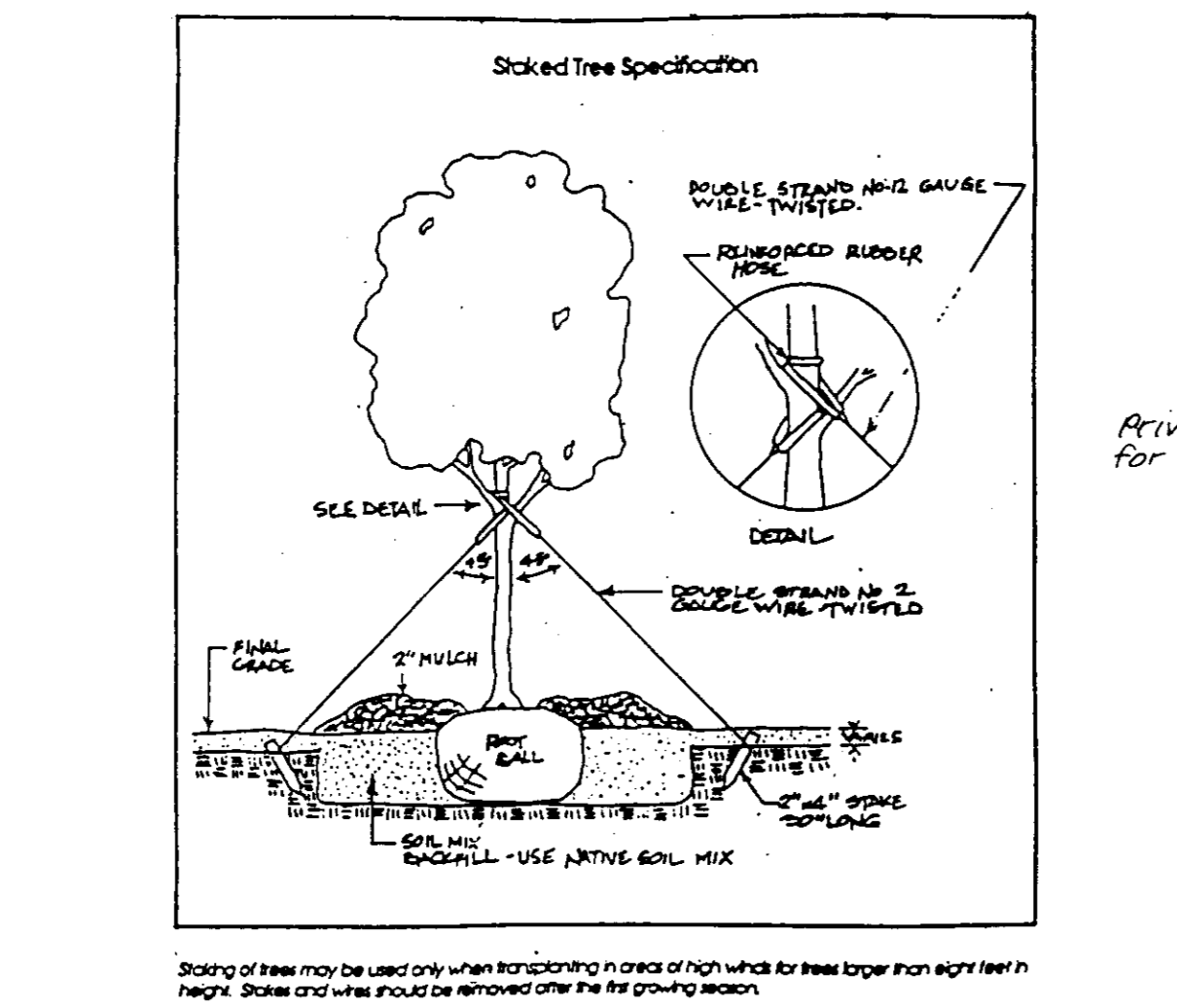
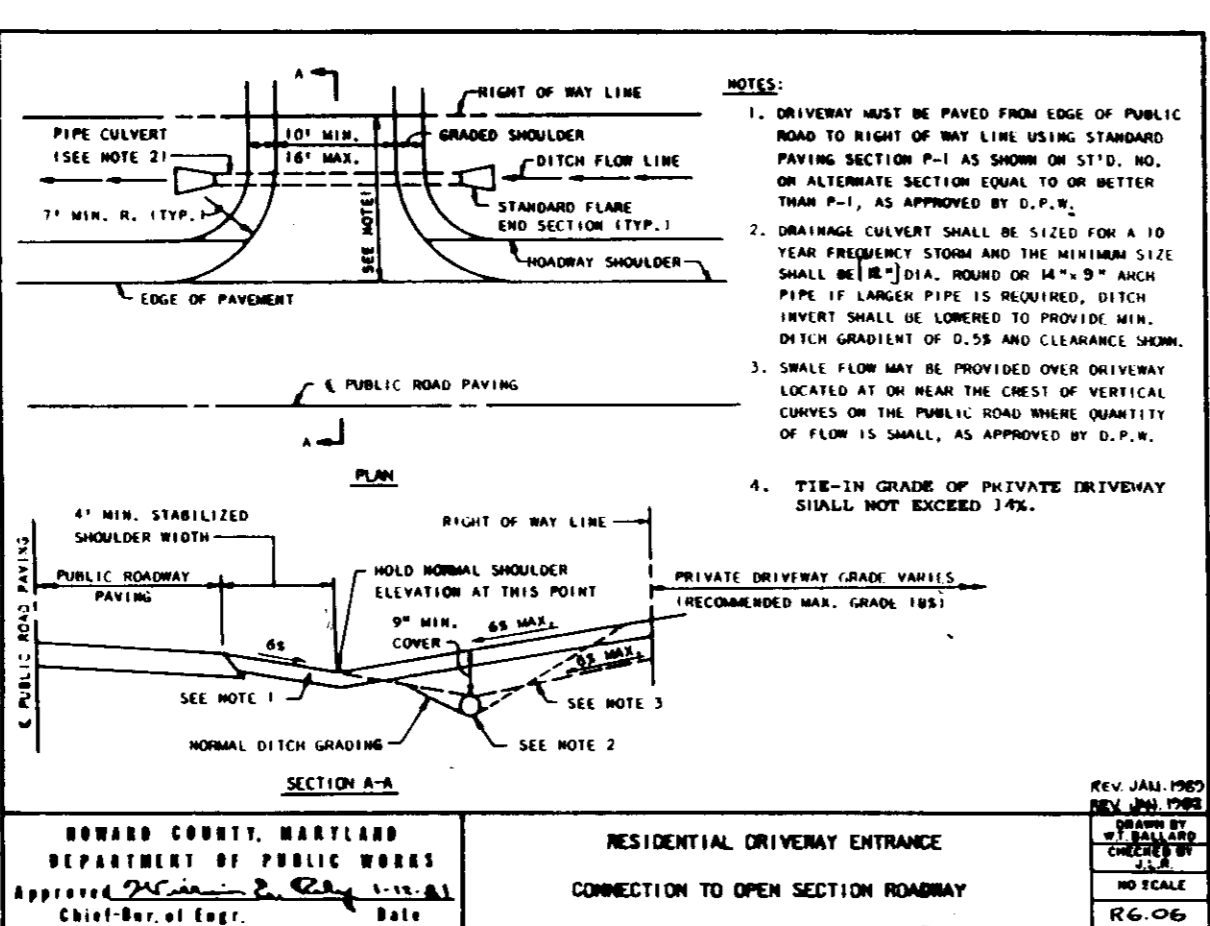


DETAIL DRY WELL
Not To Scale

3.4.4. Construction Specifications

- 3.4.4.1. Timing**
A dry well shall not be constructed or placed in service until all of the contributing drainage area has been stabilized and approved by the responsible inspector.
- 3.4.4.2. Dry Well Preparation**
Excavate the dry well to the design dimensions. Excavated material shall be placed away from the excavated area to enhance wall stability. Large tree roots shall be trimmed flush with the sides in order to prevent fabric puncturing or tearing during subsequent installation procedures. The side walls of the dry well shall be reinforced where checked and noted by heavy equipment.
- 3.4.4.3. Fabric Layout**
The filter fabric roll shall be cut to the proper width prior to installation. The cut width must include sufficient material to conform to wall perimeter irregularities and for a finish minimum top overlap. Place the fabric roll over the wall and unroll a sufficient length to allow placement of the fabric down into the well. Stones or other anchoring objects should be placed on the fabric at the edge of the well to keep the lined well open during windy periods. When overlap is required, the overlap shall be placed on the down slope side of the well. The overlap shall be placed on the down slope side of the well to provide a angled effect. The overlap must ensure fabric continuity or the fabric conforms to the excavation surface during aggregate placement and compaction.
- 3.4.4.4. Aggregate Placement and Compaction**
Drainage aggregate shall be placed in lifts and compacted using plate compactors. As a rule of thumb, a minimum loose lift thickness of 12 inches is recommended. The compaction process requires fabric conformity to the excavation sides, thereby reducing the potential for soil piping and fabric clogging.
- 3.4.4.5. Overlapping and Covering**
Following aggregate placement, the fabric previously weighted by stones should be folded over the aggregate to form a 6" minimum longitudinal lap. The detailed fill soil should be placed over the lap at sufficient intervals to maintain the lap during subsequent backfilling.
- 3.4.4.6. Contamination**
Care shall be exercised to prevent natural or fill soils from intermingling with the drainage aggregate. All contaminated aggregate shall be removed and replaced with uncontaminated aggregate.
- 3.4.4.7. Weeds Behind Fabric**
Weeds can be created between the fabric and excavation sides and should be avoided. Rooting boulders or other obstacles from the trench walls in one corner of each trench. Rooting weeds should be placed in these voids at the most convenient time during construction to ensure fabric conformity to the excavation sides. Soil piping, fabric clogging, and possible surface subsidence will be avoided by this remedial process.
- 3.4.4.8. Suitable Excavation Sides**
Vertically excavated trench walls may be difficult to maintain in areas where the soil moisture is high or where soft cohesive or conglomerate soils predominate. These conditions may require laying back of the side slopes to maintain stability; trapezoidal rather than rectangular cross sections may result.
- 3.4.4.9. Foundation Protection**
Dry wells 3 or more feet deep shall be located at least 10 feet down gradient from foundation walls.
- 3.4.4.10. Observation Well**
An observation well, as described in subsection 3.4.4.8 and Figure 3-5, will be provided. The depth of the well, at the time of installation, will be clearly marked on the well cap.
- 3.4.7. Maintenance**
Dry wells shall be designed to maintain maintenance. However, it is recognized that all infiltration facilities are subject to clogging by sediment, silt, grass, grit and other debris. In addition, the performance and longevity of these structures is not well documented. Consequently, a monitoring observation well is required for all infiltration structures. The observation well should be monitored periodically. For the first year after completion of construction, the well should be monitored on a quarterly basis and after every large storm. It is recommended that a log book be maintained indicating the rate at which the facility detenters after large storms and the depth of the well for each observation. Once the performance characteristics of the structure 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. The individual homeowner is responsible for the operation and maintenance of the facility located on their respective lots.



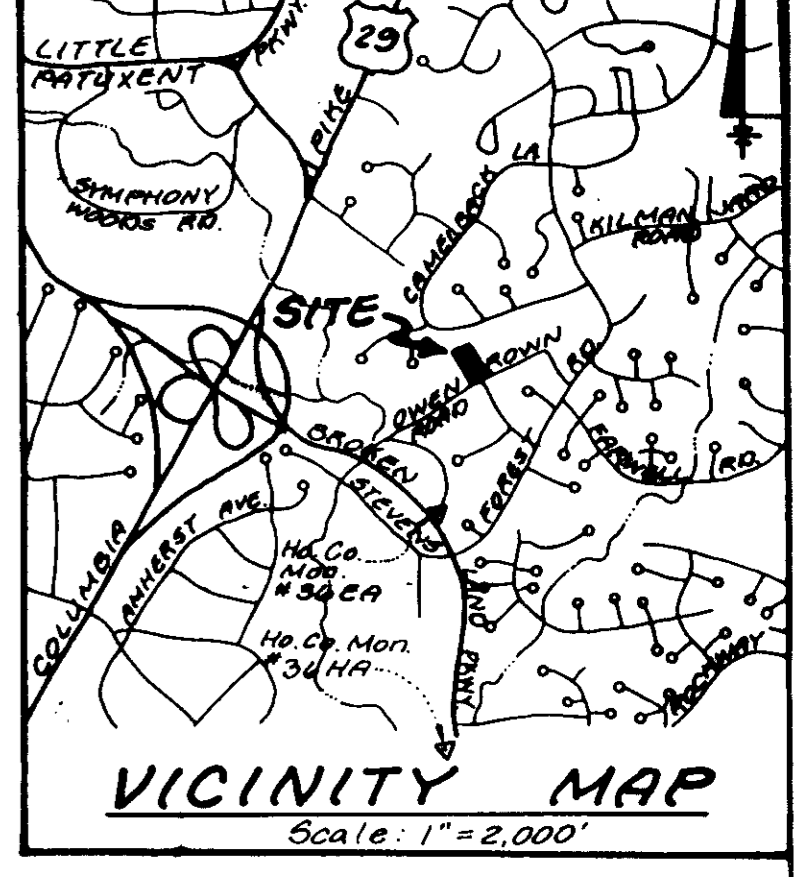
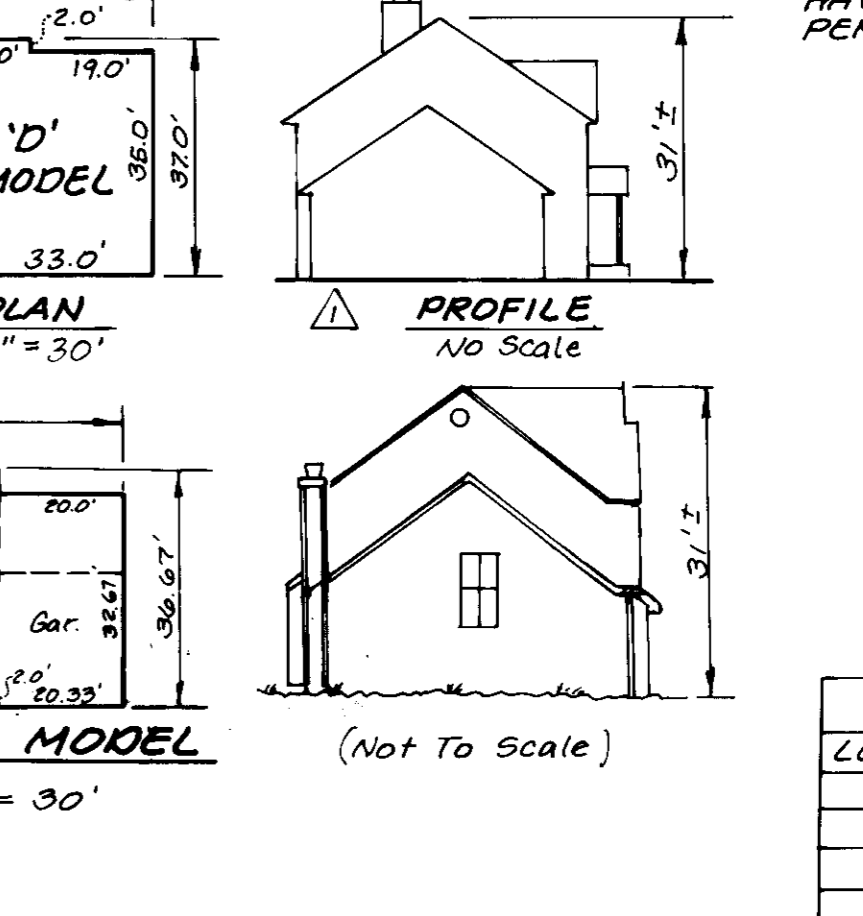
SCHEDULE A PERIMETER LANDSCAPE EDGE

Landscaping Type	A	B
Linear Feet of Roadway (Measure Perimeter)	225 Ft	342 Ft
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	No	Yes 492 Ft *
Credit for Wall, Fence or Barrier (Yes, No, Linear Feet) (Describe below if needed)	No	No
Number of Plants Required	225 LF	450 LF
Number of Plants Provided	4	5
Number of Plants Provided (Shade Trees (2:1) Other Trees (1:1 substitution) Shrubs (10:1 substitution) (Describe plant substitution credits below if needed)		8+2=4

Comments: * Retain 332 LF of existing wooded buffer along west, north and east perimeter (Protected by forest conservation easement). Retain 140 LF of existing wooded buffer along east perimeter of Lot 3.4.

QTY	PLANT NAME	SIZE	REMARKS
8	Cupressocypariss Leylandi	5'-6" Ht	B4B
9	Acer Rubrum 'October Glory'	1 1/2" Cal	B4B
	Red Maple 'October Glory'		

NOTES: 1. Contact "Miss Utility" prior to planting (See Note #5 Below)
2. Follow all specifications, standards and details established by Landscape Contractors Assoc. of Metro Washington.
3. Financial Surety for the required landscaping has been posted as part of the Utility Permit in the amount of \$1200.00



NOTES:

- Site Analysis:
 - Total Area of Lots: 18510 Sq. Ft. or 84,930 S.F.±
 - Limit of Subdivision: 2,850 Ac.± or 36,108 S.F.±
 - Present Zoning: R-20 (Residential: Single)
 - Proposed Use of Structures: Residential: Single Family Detached Dwellings
 - Total Number of Units Allowed: 2
 - Total Number of Units Provided: 2
 - Number of Parking Spaces Required: 2.01101, or 2 ± 2.011 ± 4
 - Number of Parking Spaces Provided:
 - Regular: 4 (2 Car Garages/Unit)
 - Handicapped: N/A
 - Open Space (Green Area to Remain on Site): 23,500 S.F.± or 0.54 Ac.± (65%)
 - Building Coverage of Site: 5340 S.F.± or 0.12 Ac.± (145%)
- Minimum Building Setbacks (Typical)
 - Front: 30 Feet
 - Rear: 10 Feet
 - Side: 10 Feet (Corner Lot: 30 Feet)
- All work shown on these plans shall be done in accordance with Howard County Standards, Specifications and Details for Construction, Volume IV.
- The Contractor shall notify the Department of Public Works, Construction Inspection Division at (410) 313-1880 at least 24 hours prior to the start of any work.
- The Contractor shall notify "Miss Utility" at 1-800-257-7777 at least forty-eight (48) hours prior to any excavation work.
- Any damage to existing public right-of-way, existing paving, existing curb and gutter, existing utilities, etc. shall be corrected at the Contractor's expense.
- The existing utilities shown herein are located from construction drawings of record and the Contractor shall verify the location of all utilities prior to the start of any work. The Contractor shall locate existing utilities to his own satisfaction and well in advance of any construction activities. Additionally, the Contractor shall take all necessary precautions to protect all existing utilities and maintain uninterrupted service.
- Topography shown is taken from a field-run survey dated May 1994 by Land Design Engineering. Two foot contour intervals are shown.
- Horizontal and vertical datums shown are related to the Maryland State Plane Coordinate System as projected from Howard County Control Station 3074 (NAD83).
- Stormwater management study for this site is provided by the "Miss Utility" and the Contractor shall approve the fee-in-lieu for stormwater management on June 21, 1995. All parts of the stormwater management study proposed dwellings on these lots must connect directly to the dry well location shown on this plan. Contractor to place tree protection fence around existing specimen trees prior to beginning any construction shown herein.

NOTE: THIS PLAN PROVIDES COMPREHENSIVE GRADING AND CONSTRUCTION FOR LOTS 1 AND 4 ONLY. SEDIMENT CONTROL AND LANDSCAPE REQUIREMENTS HAVE BEEN SHOWN FOR LOTS 1, 2, 3, AND 4. LOTS 1, 2, 3, AND 4 HAVE BEEN SUBMITTED FOR BUILDING PERMIT BY LOT PLAN.

DEVELOPER LOT 4
ENCORE COMMUNITIES
78A North Avenue
Sykesville, Maryland 21784
(410) 549-2560

BRUCE D. BURTON
10/14/95

LOT #	STREET ADDRESS
1	977B Owen Brown Road
4	977E Owen Brown Road

ENGINEER'S CERTIFICATE
I, the undersigned, Bruce D. Burton, a duly Licensed Professional Engineer in the State of Maryland, do hereby certify that the above described plans and specifications were prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer in the State of Maryland.

DEVELOPER'S CERTIFICATE
I, the undersigned, John R. Roberton, do hereby certify that the above described plans and specifications were prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer in the State of Maryland.

BRUCE D. BURTON 10/14/95
John R. Roberton 10/14/95

PATRICIA ENGLISH 10/21/95
Natural Resources Community Service, Inc.

APPROVED Department of Public Works for public water, public sewer, storm drainage, systems and roads.

APPROVED Department of Planning and Zoning.

APPROVED Department of Planning and Zoning.

REVISIONS

No.	Date	Description
1	7/23/96	Revise Model and Developer - Lot 4
2	4/15/97	Revise Model and Developer - Lot 1

APPROVED Department of Planning and Zoning.

APPROVED Department of Planning and Zoning.

REVISIONS

No.	Date	Description
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2	4/15/97	Revise Model and Developer - Lot 1

APPROVED Department of Planning and Zoning.

APPROVED Department of Planning and Zoning.

LDE, INC.
9250 Rumsey Road Suite 106
(410) 715-1070 (Baltimore) (301) 596-3424 (Washington) (410) 715-9540

SITE DEVELOPMENT AND LANDSCAPE PLAN

GALES PROPERTY
LOTS 1 and 4
Tax Map 36 P/O Parcel No. 37
6th Election District Howard Co., MD
Previous Submittals: P94-121
95-027

OWNER / DEVELOPER
HEARTS & HOMES GROUP, INC.
8550 Route 108 Suite 210
Columbia, MD 21045 (410) 997-4433

ROAD BILT CONSTRUCTION DISTRICT
PERMITTING DISTRICT OFFICE

1. A minimum of 48 hours notice must be given to the Howard County Department of Inspection, Licensing and Permitting, Building Control Division prior to the start of any construction. (800-345)

2. All vegetation and structural practices are to be installed according to the provisions of this plan and to be in accordance with the most restrictive of the following: **REGULATIONS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL**, and **Vegetation Management**.

3. Existing utility lines, structures, or easements, permanent or temporary, shall be protected and shall be replaced within 7 calendar days for all permanent sediment control structures, above, surface slope and all slopes greater than 3:1. If 14 days or more are required, the contractor shall be responsible for the protection and establishment of grasses.

4. All sediment traps/structures shall be placed and working slope placed around their perimeter in accordance with Vol. 1, Chapter 13, of the HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSING AND PERMITTING, BUILDING CONTROL DIVISION.

5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 **REGULATIONS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL**, for permanent erosion (Sec. 11), and for 141, temporary erosion (Sec. 34) and mulching (Sec. 31). Temporary stabilization with such slope shall only be done when commencing working shall do not allow the proper protection and establishment of grasses.

6. All sediment control structures are to remain in place and are to be maintained in operation until such time as the contractor has been notified by the Howard County Department of Inspection, Licensing and Permitting.

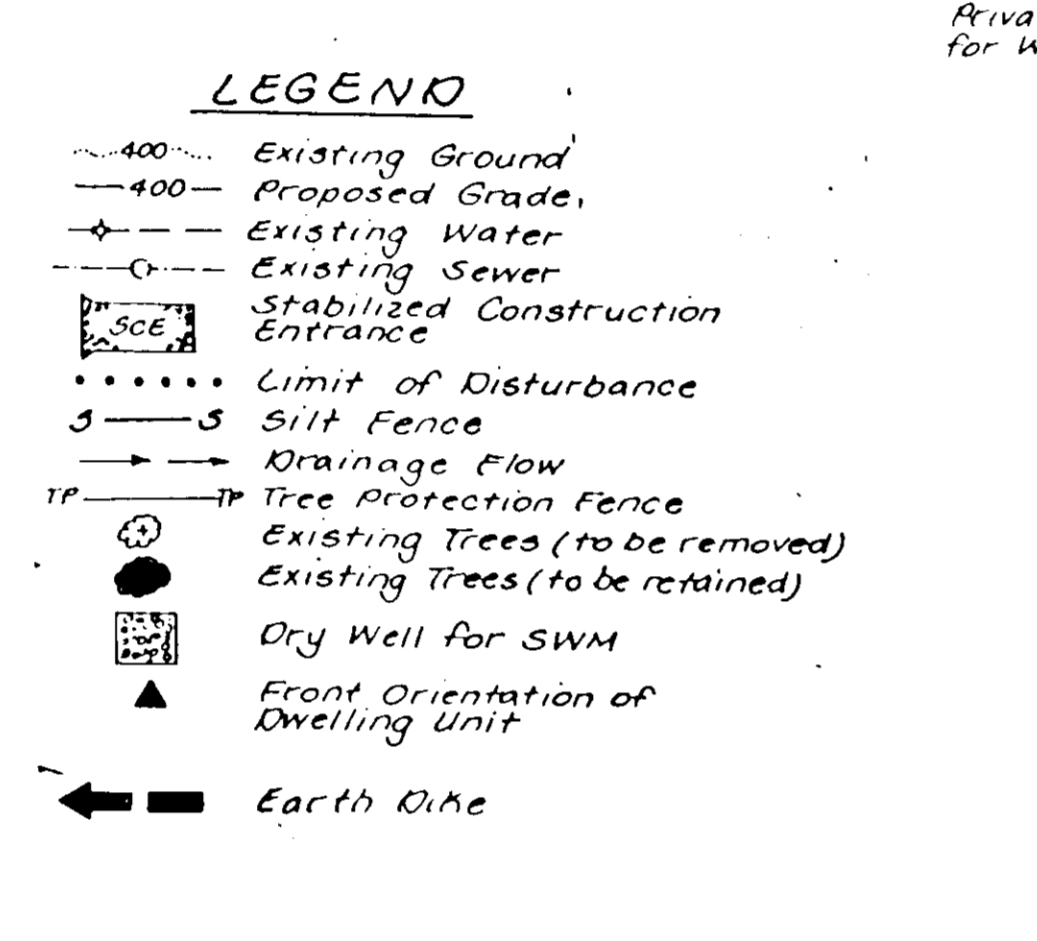
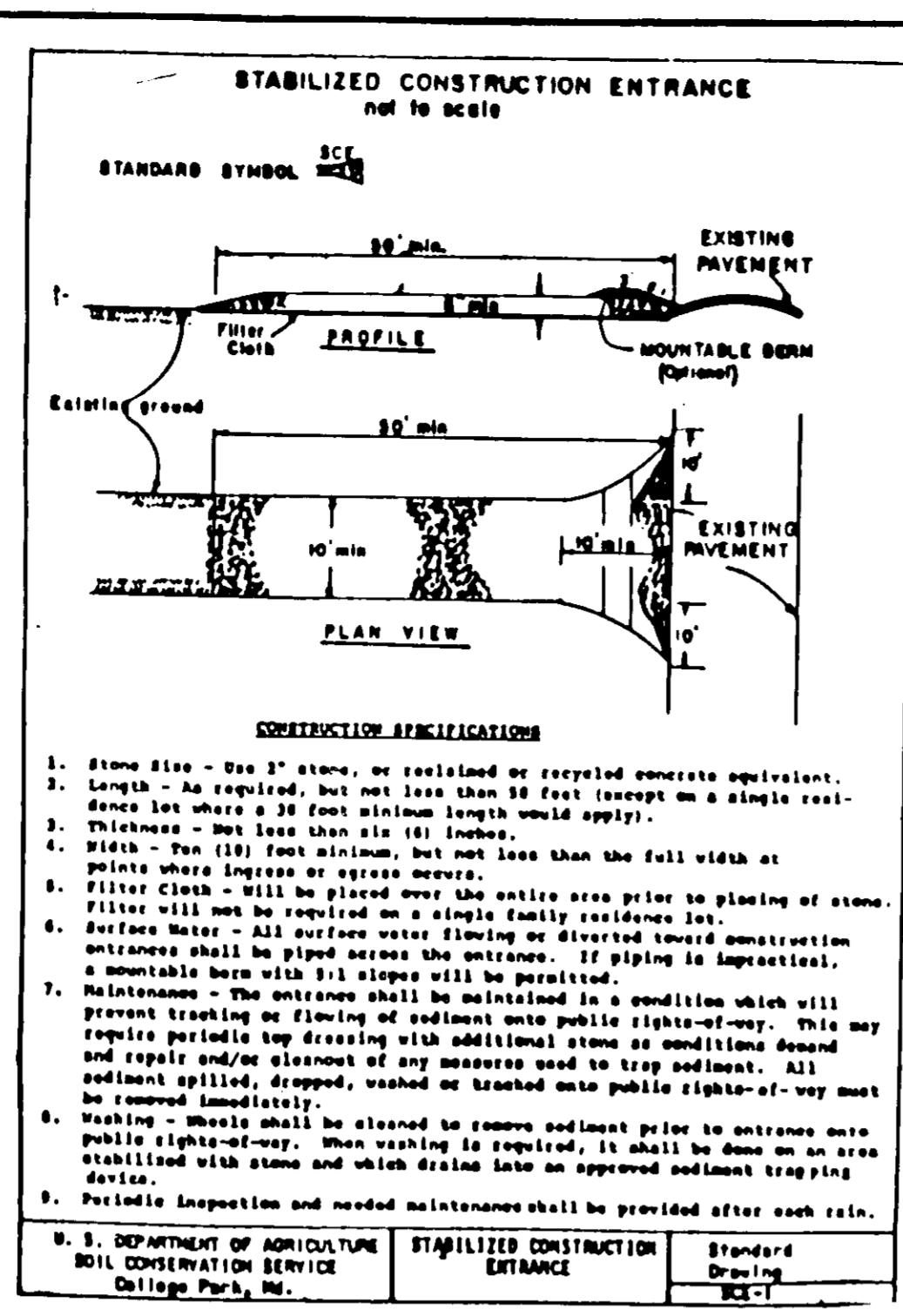
7. **Site Analysis:**
 Entire site (Lots 1-4) / Lots 1 and 4 only
 Total Area of Site: 1.8510 Acres / 0.83 Ac ±
 Area to be graded or paved: 1.2338 Acres / 0.732 Ac ±
 Area to be vegetatively stabilized: 0.6172 Acres / 0.597 Ac ±
 Total Cut: 3600 Cu. Yds.
 Official notes/notes: N/A

8. Any sediment control practice which is disturbed by grading activity or the placement of utilities must be repaired on the same day of disturbance.

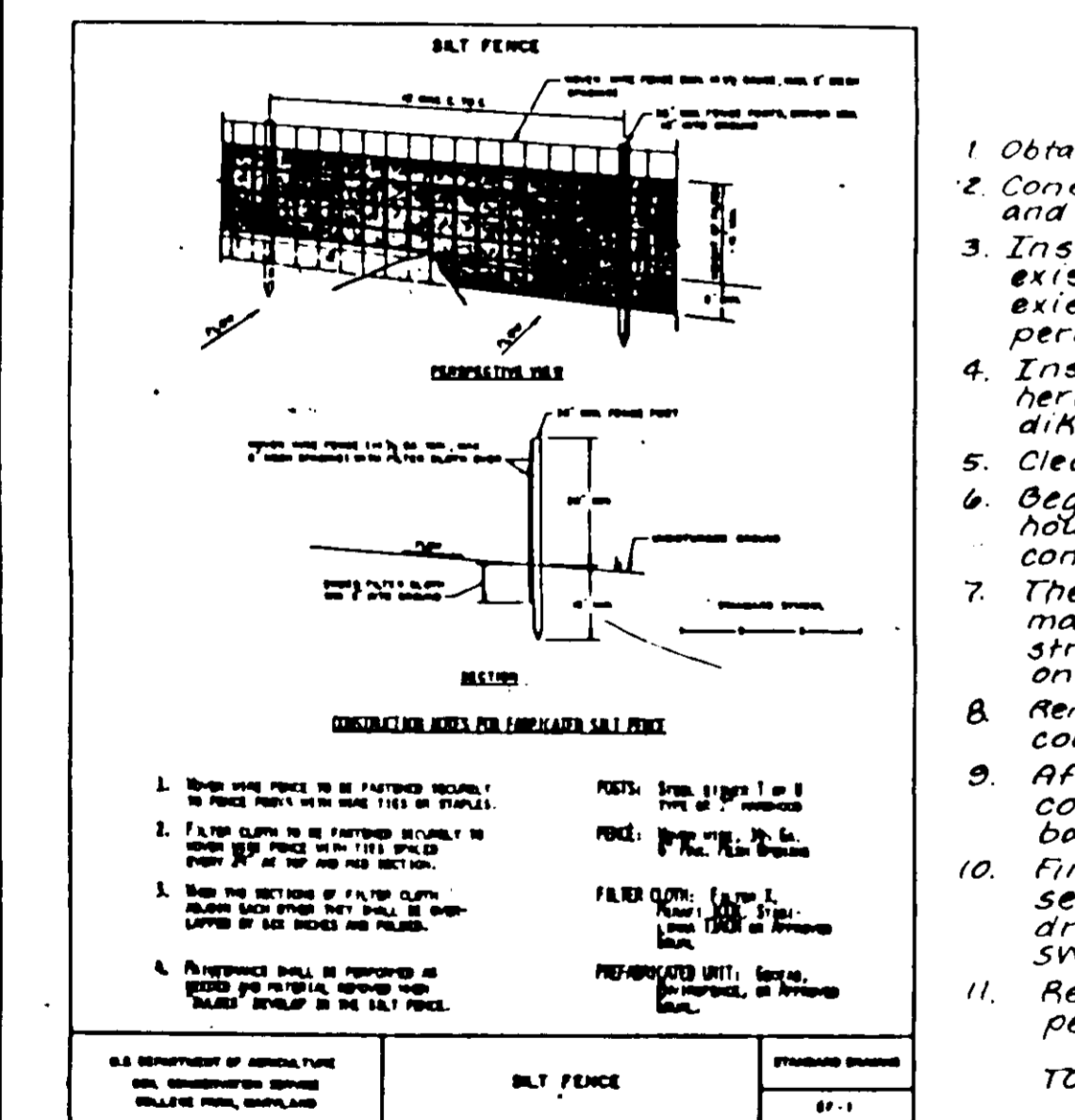
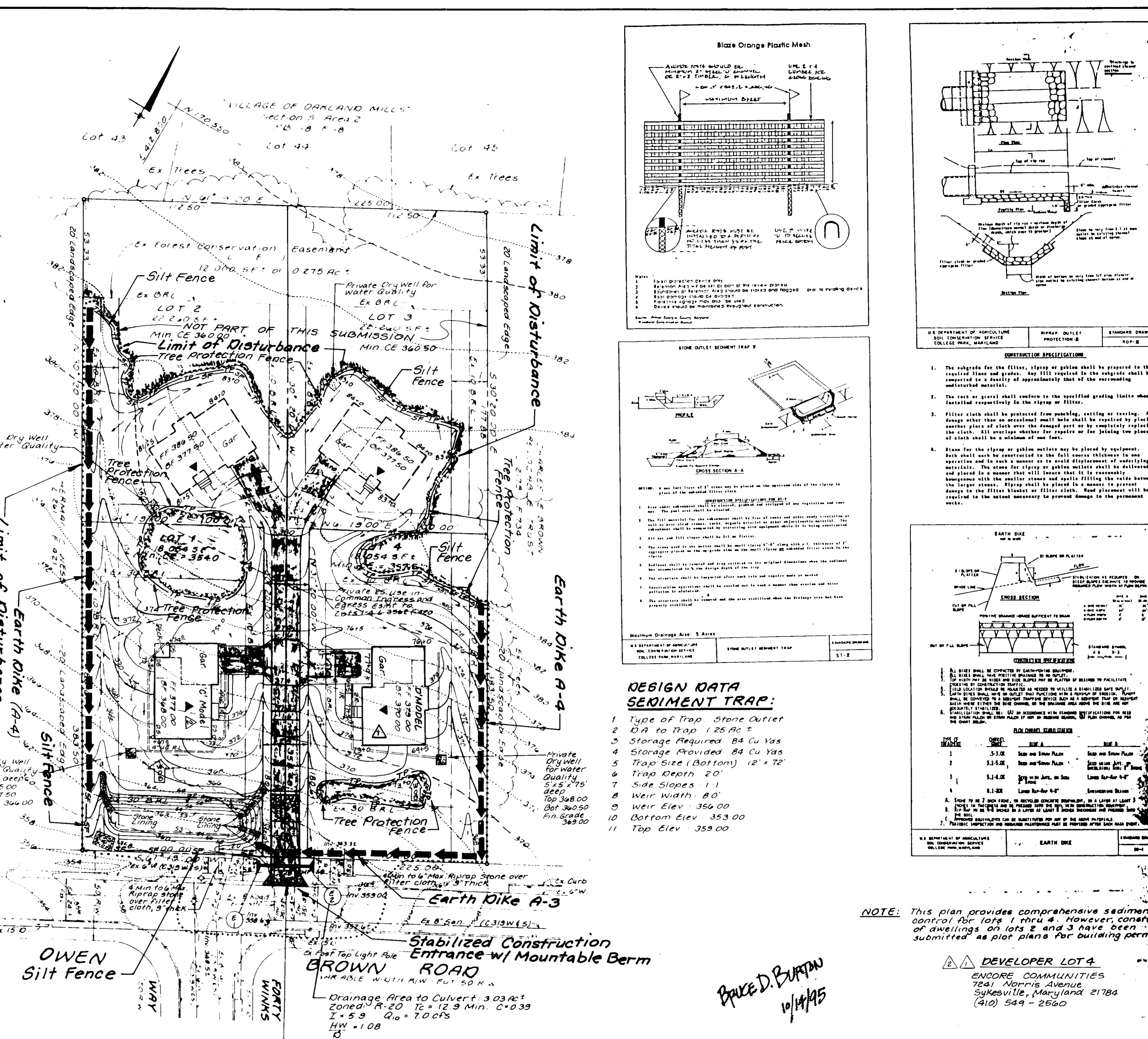
9. All additional sediment control practices to be installed, if deemed necessary by the Howard County Department of Inspection, Licensing and Permitting.

10. On all sites of disturbed areas in excess of 2 acres, approval of the inspection agency shall be required upon completion of installation of permanent erosion and sediment control structures. Before proceeding with any other earth disturbance or grading, the building or grading inspection agency may not be authorized until this initial approval by the inspection agency is made.

11. Trenches for the construction of utilities is limited to three pipe lengths or that which can be back filled and stabilized within one working day, whichever is shorter.



- CONSTRUCTION SEQUENCE**
- Obtain Grading Permit (1 Day).
 - Construct stabilized construction entrance and 18" CMP driveway culvert (1 day).
 - Install tree protection fence at edge of existing wooded areas and/or drip line of existing specimen trees. No disturbance shall be permitted within areas shown as not to be disturbed.
 - Install silt fence at limit of disturbance shown hereon. Excavate sediment trap and install earth dike at project perimeter (5 days).
 - Clear and grub site to subgrade (5 days).
 - Begin excavation for house foundations and begin house construction. Install individual house connections (60 days).
 - The Contractor shall inspect and provide necessary maintenance on the sediment and erosion control structures shown hereon after each rainfall and on a daily basis.
 - Remove sediment from roadways and dress stabilized construction as required (daily maintenance).
 - After permission has been given by the sediment control inspector, remove earth dike and backfill sediment trap.
 - Final grade site and stabilize with permanent seeding mixture and straw mulch. Install individual driveway and house walk. Install dry well for SWM (10 days).
 - Remove silt fence and stabilize disturbed area with permanent seeding mixture and straw mulch (10 days).
- TOTAL TIME: 90 DAYS



ENGINEER'S CERTIFICATE

"I hereby 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 requirements of the Howard Soil Conservation District."

BRUCE D. BURTON 10/14/95
 Signature of Engineer Date

DEVELOPER'S CERTIFICATE

"I hereby certify that all development and/or construction will be done according to these plans, 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 control on the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents as are deemed necessary."

John P. Robertson 3/14/95
 Signature of Developer Date

APPROVED Department of Planning and Zoning

APPROVED Department of Public Works for public water, public sewer, storm drainage systems and roads

APPROVED Department of Public Works for public water, public sewer, storm drainage systems and roads

APPROVED Howard County Health Officer for public water and public sewerage systems

REVISIONS

No.	Date	Description
1	7/23/96	Revise Model and Developer - Lot 4
2	4/15/97	Revise Model and Developer - Lot 1

PROPERTY OF: GALES PROPERTY

ACTION/AREA: Lot Nos. 1 and 4

PLAT/BLK/LOT: 9 R-20 Tax/Eone 30 E/Dist 6th Census Tract 0006 03

Water Code: Sewer Code

DATE: Mar 1995

LDE, INC.

9250 Rumsey Road Suite 106 Columbia, MD 21043
 (410) 715-1070 (Balt.) (301) 596-3424 (Wash.) (410) 715-9540 (Fax)

SEDIMENT CONTROL AND GRADING PLAN

GALES PROPERTY

LOTS 1 and 4

Tax Map 30 P/O Parcel No. 37

6th Election District Howard Co., MD

Previous Submittals: F34-121

Owner: DEVELOPER
 HERITAGE HOMES GROUP, INC.
 8950 Route 108 Suite 100 Gorman Plaza
 Columbia, MD 21043 (410) 397-4323

Scale: 1" = 30'

Sheet: 2 of 2

Job No: 35-02

File No: 89-11

SDP 95-89