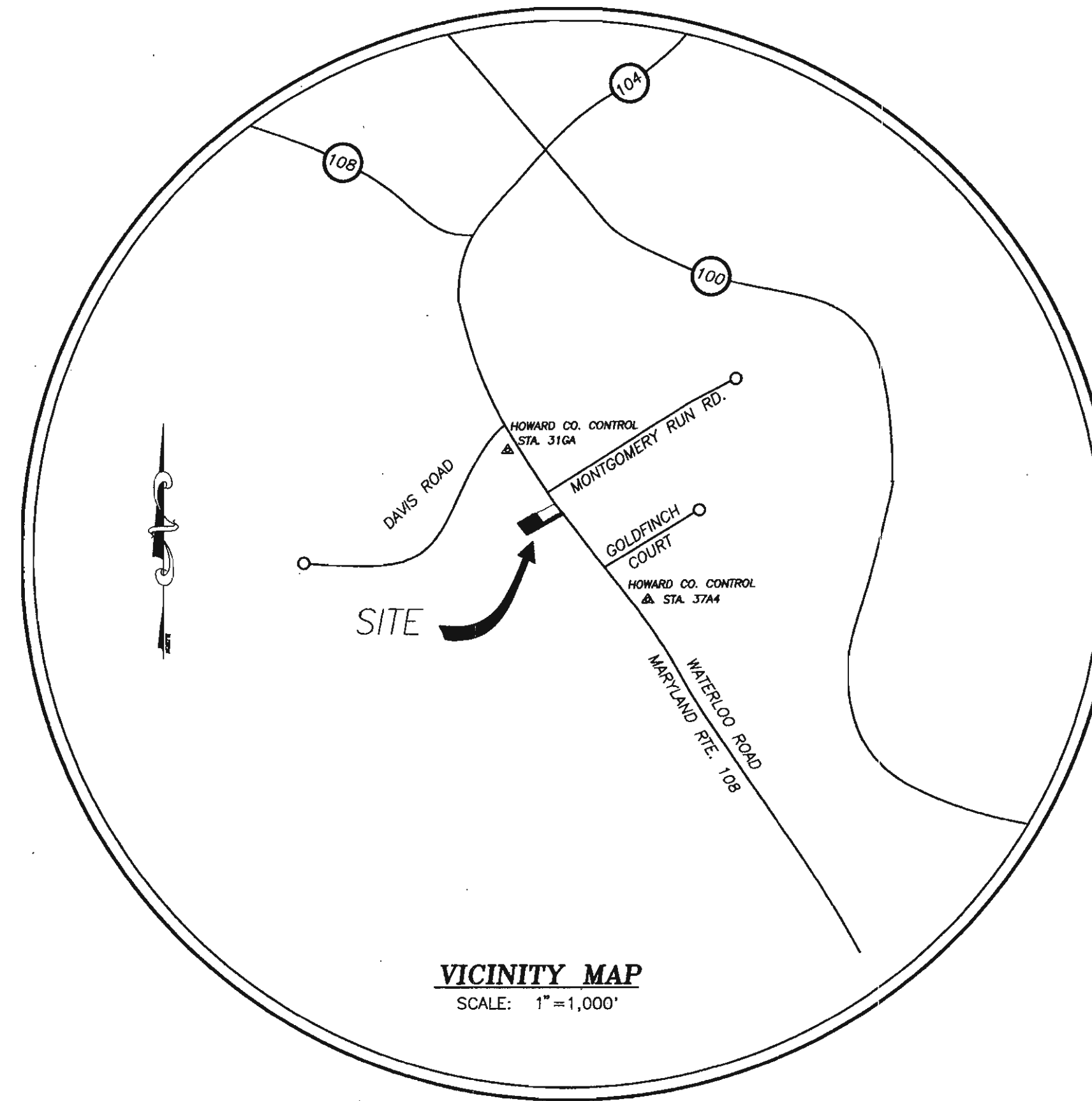


CONTROL STATION	N	E	ELEV.
31GA	563835.92	1367971.65	437.25
37A4	564925.76	1367087.66	511.63



SITE DEVELOPMENT PLAN

LOT 2

GRAY SUBDIVISION

(PLAT # MDR 11949)

#4673 WATERLOO ROAD

GENERAL NOTES RESIDENTIAL SITE DEVELOPMENT PLAN

- 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.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work being done.
- The existing topography is a field run topographic survey with two (2) foot contour intervals prepared by VanMar Associates, Inc. dated January 13, 2003.
- The coordinates shown hereon are based on Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System. Howard County Monument Nos. 31GA and 37A4 were used for this project.
- Existing Utilities are based on Water Contract No. 248-W and Sewer Contract No. 547-S-B and a field run survey by VanMar Associates, Inc. on January 13, 2003.
- Any damage to the County's right-of-way shall be corrected at the developer's expense.
- For driveway entrance details refer to Howard County Design Manual, Volume IV, Standard Detail R-6.06.
- B.R.L. - Represents building restriction line.
- Public water and sewer are available to this site.
- Driveways shall be provided prior to issuance of occupancy permit to insure safe access for fire and emergency vehicles per the following minimum requirements:
 - Width - 12 feet wide (14' serving more than one residence)
 - Surface - 6 inches of compacted crusher run base with a tar and chip coating
 - Geometry - Maximum 15% grade, maximum 8% grade change and minimum 45 foot turning radius
 - Maintenance - Sufficient to insure all weather use
 - Structures (culverts/bridges) - capable of supporting 25 gross tons (H25 loading).
 - Drainage elements - capable of safely passing 100 - year flood with no more than 1 foot depth over driveway surface.
- Covenants governing the use-in-common driveway as recorded in Howard County Land Records in L. 2824 F. 343 and L. 3257, F. 361. The driveway will be privately maintained by Lots 1 and 2.
- These lots are in a noise sensitive area and prolonged outdoor exposure may result in hearing impairment.
- Any proposed principal dwelling constructed on this lot shall be architectural design to reduce exterior noise levels to maximum of 45dBA within the dwelling.
- Water and sewer service to these lots will be granted under the provisions of Section 18.122B of the Howard County Code. Public water and public sewer allocation will be granted at the time of the issuance of the building permit if capacity is available at that time.
- Owner/Developer is required to obtain a residential Use-in-Common driveway permit. Contact Andrew McKenzie @ 301-624-8121, District 7, State Highway Administration.
- Financial surety for the required landscaping shall be posted as a part of the grading permit in the amount of \$5,250.00.
- Stormwater management water quality volume and recharge volume is provided by using the Roof Top Disconnection Credit as outlined in Section 5.2 of the 2000 MD Stormwater Design Manual.
- SITE ANALYSIS DATA CHART:
 - Total Project Area: 22,914 SF or 0.5260 Ac±
 - Area of plan submission, same as above
 - Limit of Disturbed area: 16,050 SF
 - Zoned: R-20
 - Improvement to Property: Single Family Residence
 - Total number of units allowed per final plot: 1
 - Total number of units proposed on submission: 1
 - Final Plan Approval Date: 12/01/1995
 - DPZ Reference Number: SDP-04-050, F-96-59, F-92-14
- Subject property is zoned "R-20", per the Feb. 2, 2004 Comprehensive Rezoning (Council Bill 75-2003).
- SHC elevations shown are located at the property line.
- In accordance with Section 12B of the Howard County Zoning Regulations, bay windows, chimneys or exterior stairways not more than 16 feet in width may project not more than 4 feet into any setbacks, porches or decks, open or enclosed may project not more than 10 feet into the front or rear setback.
- This Site Development Plan is subject to WP - 92 - 201, which permitted disturbance within the wetland and stream buffer for the purpose of a driveway and permitted the creation of 2 lots within the 65dBA unmitigated noise line. Conditions of the waiver petition include but not limited to:
 - The developer must obtain all necessary water quality or wetlands permits from the State for the proposed construction activity.
 - The applicant shall provide planting within the streambank buffer to replace the vegetation removed by the driveway construction.
- Stormwater Management is required prior to the issuance of a Building Permit.
- For Lot 2, refuse collection, snow removal and road maintenance are provided at the junction of the flag or pipe steam lot driveway and the Waterloo Rd. R/W line.
- Signage will be arranged by the owner/developer with the Howard County Department of Public Works, Bureau of Highways.
- No gravity sewer service provided. Sewer service provided by private on-site pump and private low pressure sewer.
- Plan subject to Maryland Department of Environment (MDE) Permit No. 03-NF-0398/200366202

Landscape and Forest Conservation Notes

- This plan has been prepared in accordance with the provisions of Section 18.124 of the Howard County Code and the Landscape Manual.
- Financial surety for the required landscaping shall be posted as part of the Grading Permit, in the amount of \$5,250.00 for 10 Shade Trees and 15 Evergreen Trees.
- This project is exempt from the requirements of Section 16.1200 of the Howard County Code for Forest Conservation because grading permit on land is less than 40,000 sq. ft. per Section 16.1202 (b)(1)(i) of the Howard County Code.

SHEET INDEX

- Sheet 1 of 3 - Cover Sheet
- Sheet 2 of 3 - Site Development Plan & Profiles
- Sheet 3 of 3 - Sediment Control Plan, Notes & Details

ADDRESS CHART

LOT/PARCEL #	STREET ADDRESS
LOT #2, PARCEL P/O 616	#5642 WATERLOO ROAD

PERMIT INFO CHART

Subdivision Name: GRAY SUBDIVISION	Section/Area: LOT 2, P/O 616
Plot # of LOTS: M.D.R. 11949	Grid: 01
Zoning: R20	Tax Map No.: 37
Election Distr.: 6TH	Census Tract:
SEWER CONTRACT No: 248-W	SEWER CONTRACT No: 547-S-B

OWNER/DEVELOPER:
THE PALMETTO GROUP, INC.
P.O. BOX 841
ELLCOTT CITY, MARYLAND 21043
(410) 446-0993

TAX MAP: #37, BLOCK: #1, PARCEL: P/O #616

SITE DEVELOPMENT PLAN
LOT 2
GRAY SUBDIVISION
(PLAT-M.D.R. #11949)
5642 WATERLOO ROAD (MD. RTE. 108)
SIXTH (6) ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: 1"=20'
SEPTEMBER, 2003

VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Mount Airy, Maryland 21771
(301) 823-2800 (410)831-5015 (410) 548-2751

Sheet 1 of 3



ENGINEER'S CERTIFICATE:

"I CERTIFY THAT THESE PLANS FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PERFERED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Sourabh G. Munshi 11/29/04
SOURABH G. MUNSHI, P.E. DATE

DEVELOPER'S CERTIFICATE:

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

Be President 12/1/04
DEVELOPER DATE

SOIL CONSERVATION SERVICE

REVIEW FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

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

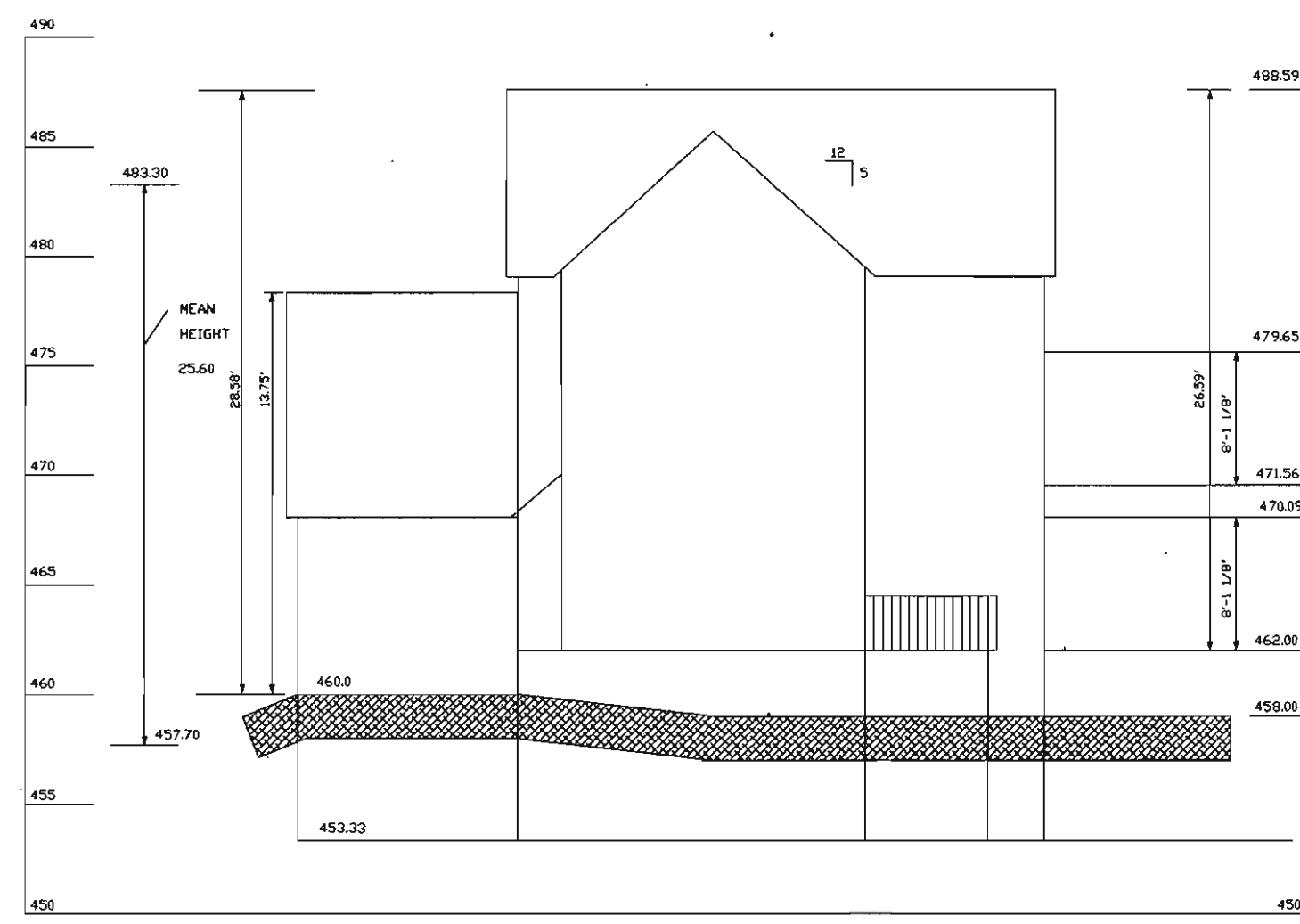
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chad W. Mumman 1/20/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION 970 DATE

Chris Hamstra 1/25/05
CHIEF, DIVISION OF LAND DEVELOPMENT 970 DATE

Mark Douglas 1/26/05
DIRECTOR DATE



BUILDING ELEVATION
NOT TO SCALE

THIS PLANTING PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.

SURETY WILL BE PAID AT THE TIME OF GRADING PERMIT APPLICATION.

Be President 12/1/04
DEVELOPER/OWNER SIGNATURE DATE

DEVELOPER'S / OWNER'S CERTIFICATION

"I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE, AND THE HOWARD COUNTY LANDSCAPE MANUAL."

Be President 12/1/04
DEVELOPER/OWNER SIGNATURE DATE

SURVEYOR'S CERTIFICATE

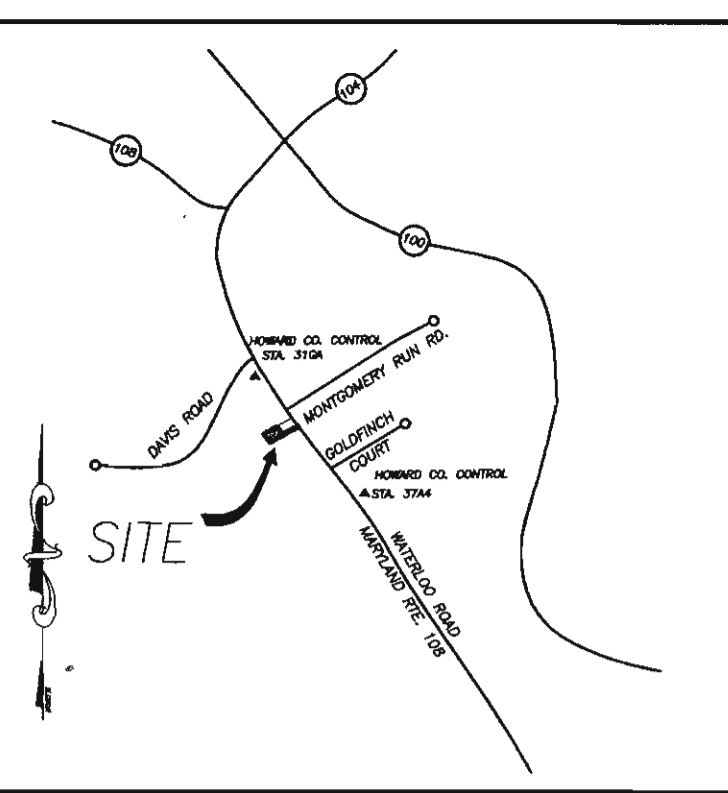
I, HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON IS CORRECT; THAT IT IS A SITE DEVELOPMENT PLAN OF ALL OF THE LANDS CONVEYED WALTER F. CLOSSEN AND IRENE J. CLOSSEN UNTO THE PALMETTO GROUP, INC. AND RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY, MARYLAND IN LIBER 6844 FOLIO 0337, AND THAT IT IS A RESULT OF AN ACTUAL FIELD SURVEY, BASED ON THE DATA FOUND AMONG THE LAND RECORDS OF HOWARD COUNTY, MARYLAND AS REFERENCED HEREON, AND IN ACCORDANCE WITH THE ANNOTATED CODE OF MARYLAND AS AMENDED.

Sourabh G. Munshi 11/29/04
Sourabh G. Munshi, Prof. L.S. #10770

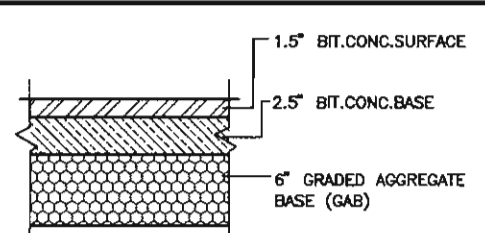
Plot Name: 11/29/04; 03-NT-0398/200366202-4673

CENTERLINE CURVE DATA						
NUMBER	RADIUS	ARC LENGTH	DELTA ANGLE	TANGENT	CHORD DIRECTION	CHORD LENGTH
C1	45.00	14.33	18°14'23"	7.22	N 51°31'58" E	14.27
C2	45.47	14.29	18°00'33"	7.20	S 51°36'05" W	14.23
C3	45.00	37.69	47°59'14"	20.03	S 84°56'09" W	36.60
C4	45.00	43.09	64°51'28"	23.35	S 81°30'02" W	41.46

NOTE: BASEMENT WALLS TO BE WATERPROOFED.



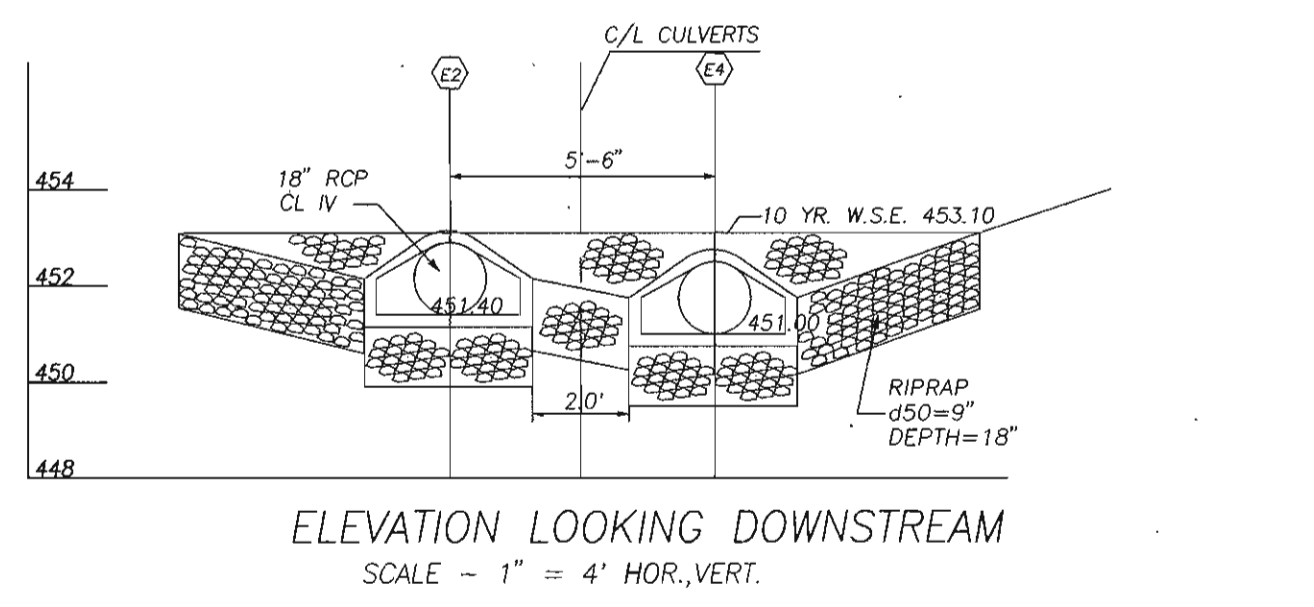
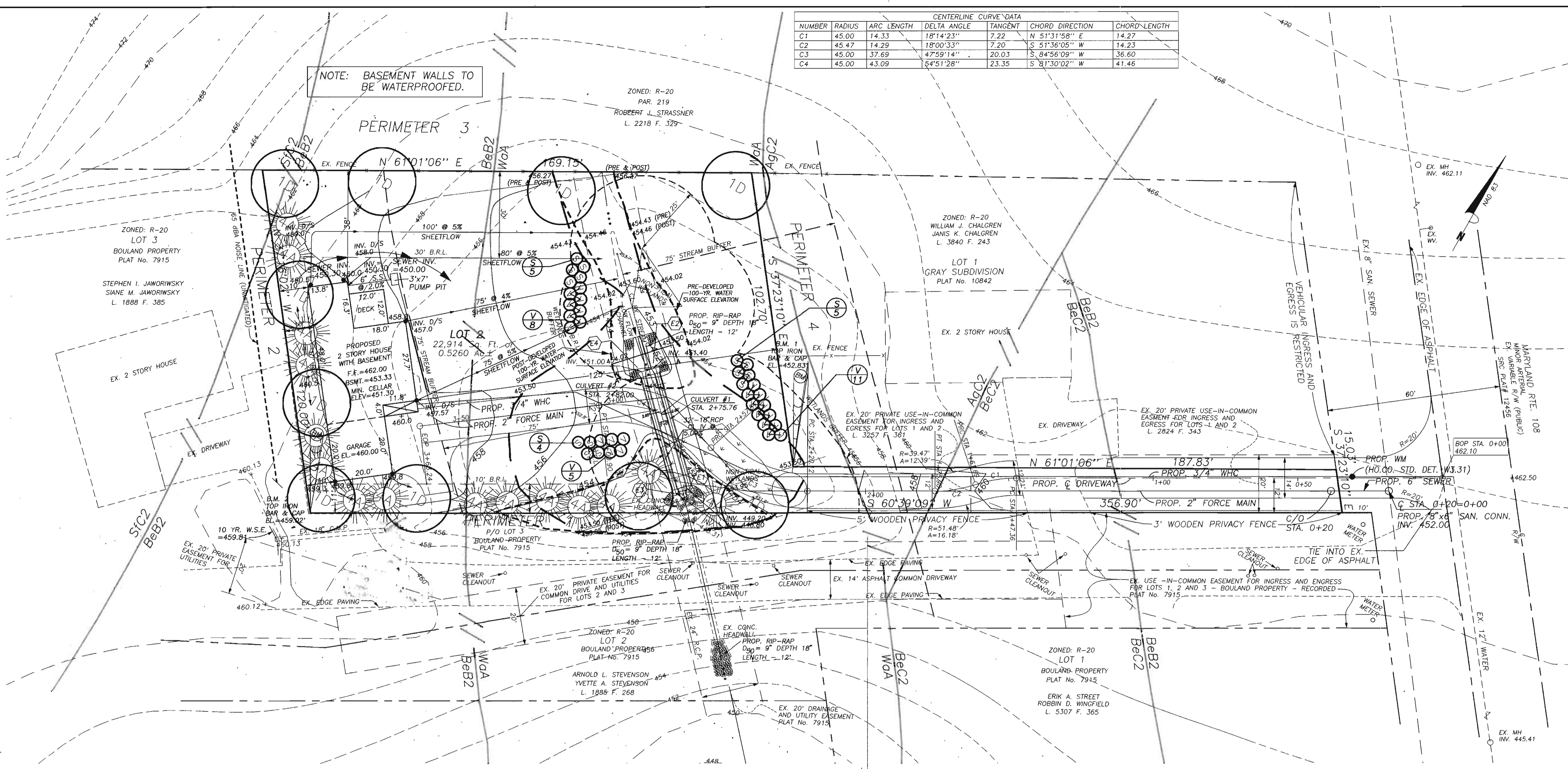
VICINITY MAP
SCALE: 1" = 2000'



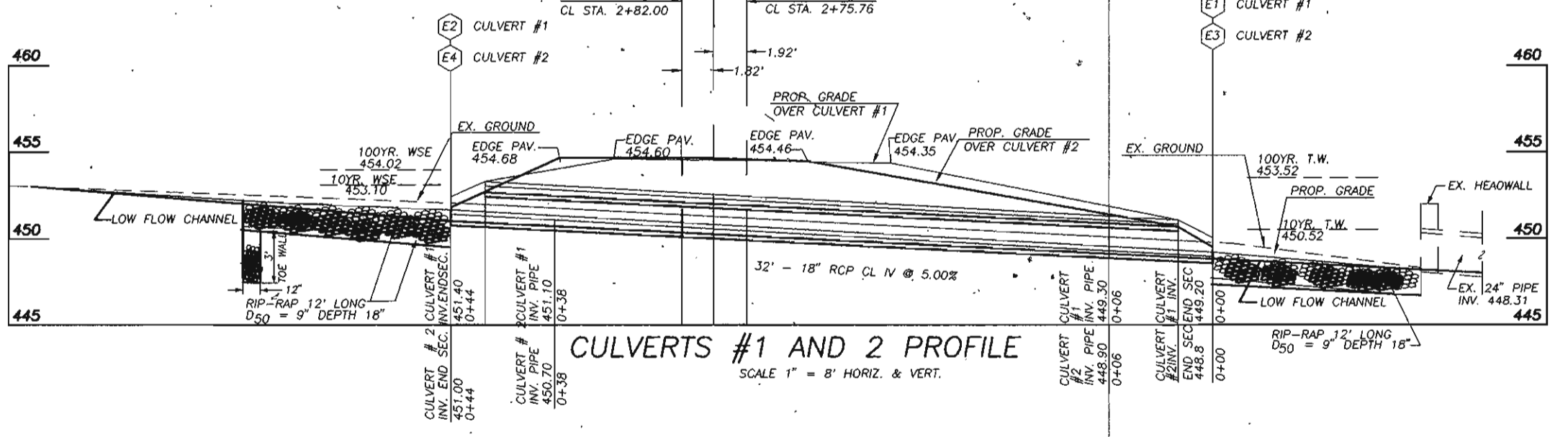
PAVING SECTION FOR DRIVEWAY - LOT 2 (N.T.S.)

STRUCTURE SCHEDULE			
E1	STD.	CONC. END SEC. FOR 18" RCP.	INV. 449.04
E2	STD.	CONC. END SEC. FOR 18" RCP.	INV. 451.40
E3	STD.	CONC. END SEC. FOR 18" RCP.	INV. 449.04
E4	STD.	CONC. END SEC. FOR 18" RCP.	INV. 451.40

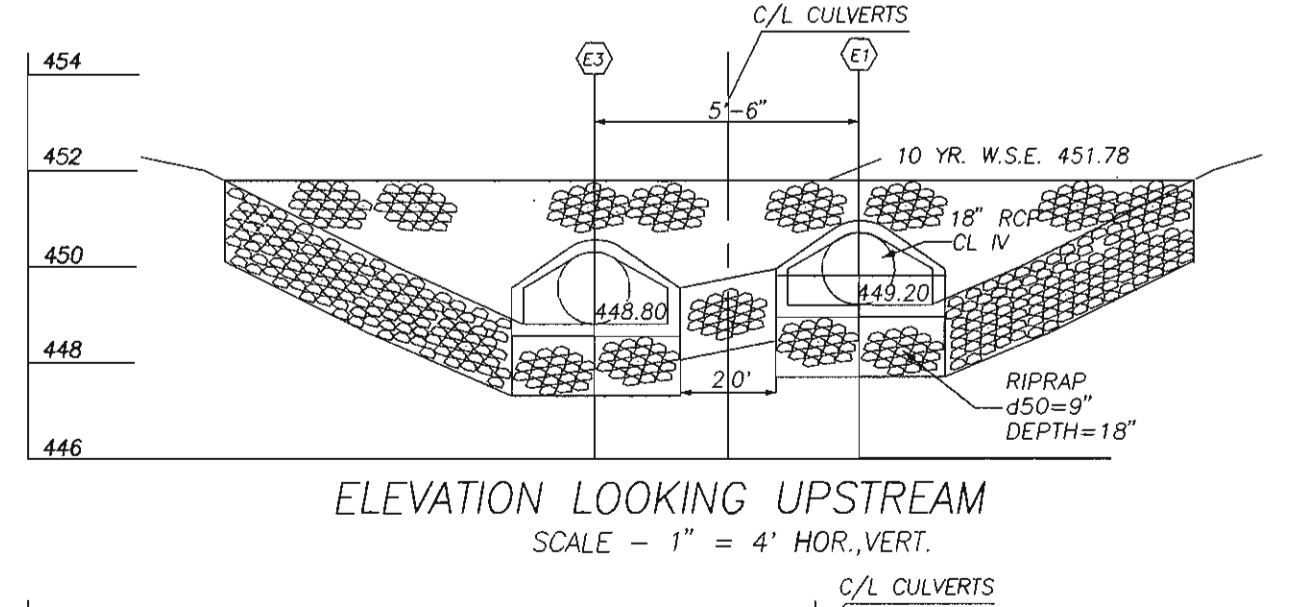
PIPE SCHEDULE	
64 FT.	18" RCP CL IV



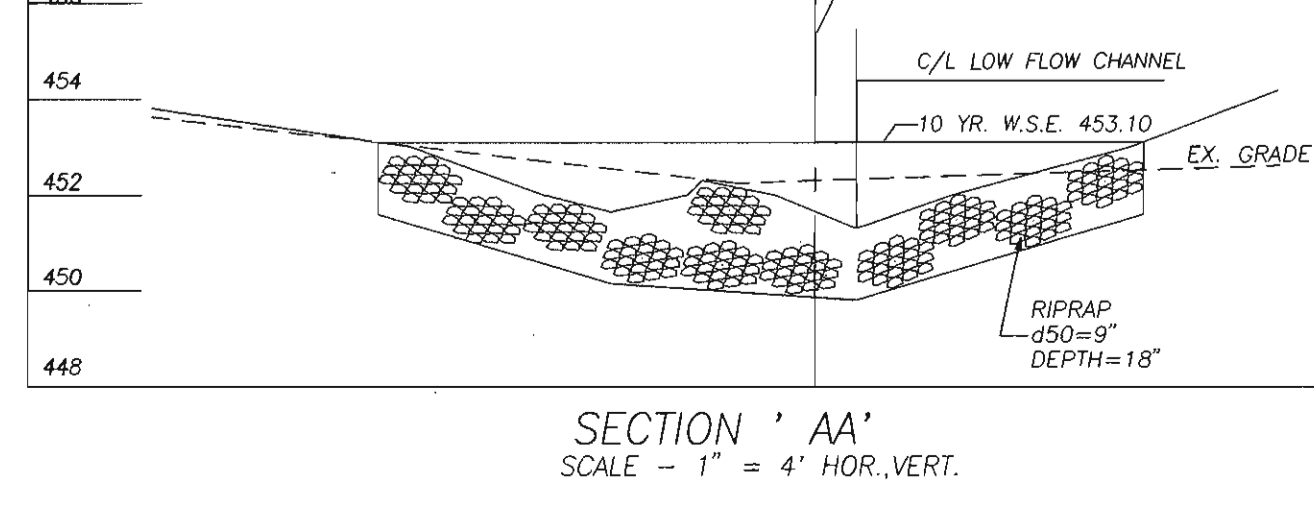
ELEVATION LOOKING DOWNSTREAM
SCALE - 1" = 4' HOR. VERT.



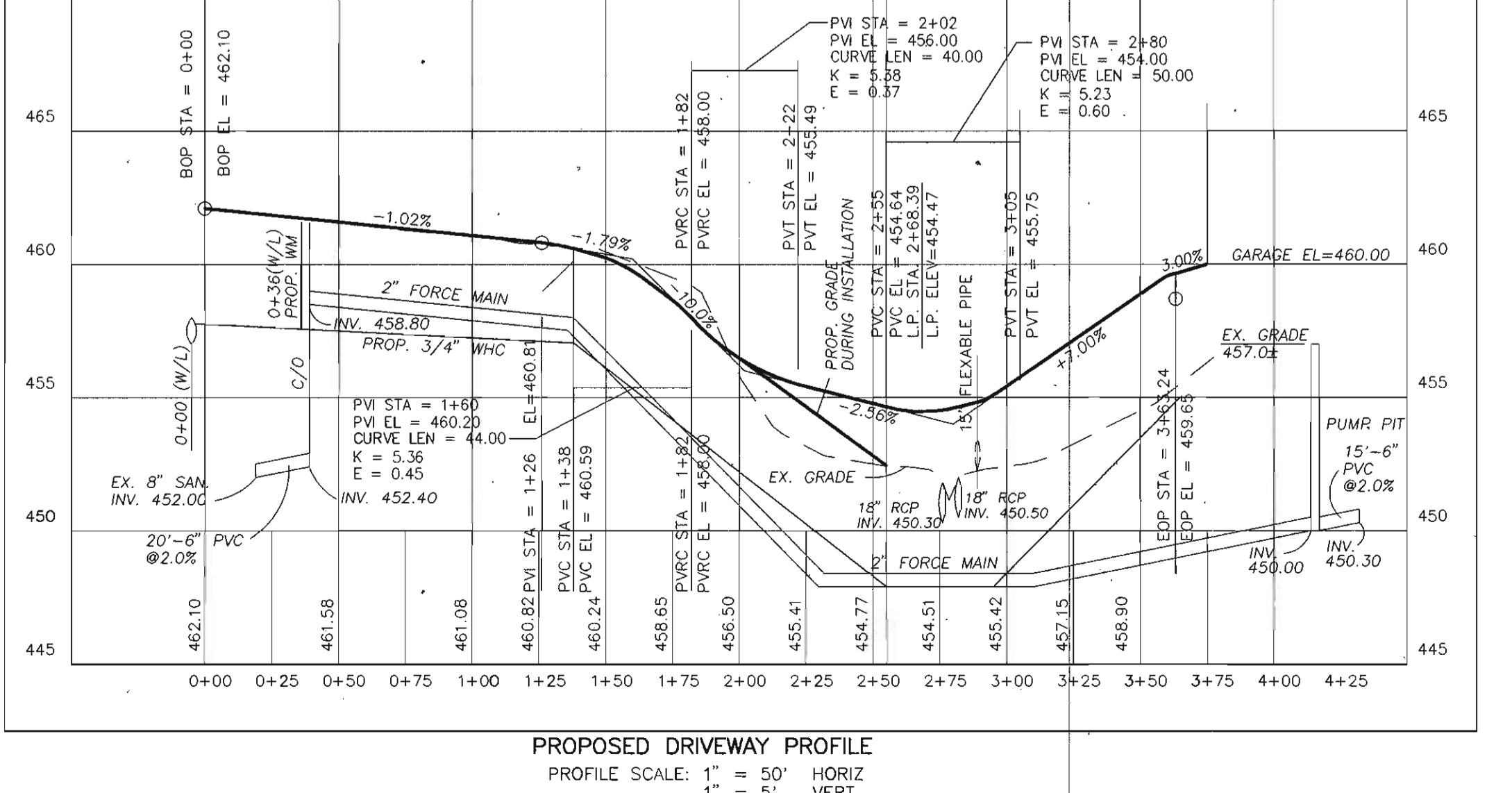
CULVERTS #1 AND 2 PROFILE
SCALE 1" = 8' HORIZ. & VERT.



ELEVATION LOOKING UPSTREAM
SCALE - 1" = 4' HOR. VERT.



SECTION 'AA'
SCALE - 1" = 4' HOR. VERT.



PROPOSED DRIVEWAY PROFILE
PROFILE SCALE: 1" = 50' HORIZ. 1" = 5' VERT.

SCHEDULE A - PERIMETER LANDSCAPE EDGE

LANDSCAPE TYPE	ROADWAYS				ADJACENT TO PERIMETER PROPERTIES			
	PER 1	PER 2	PER 3	PER 4	PER 1	PER 2	PER 3	PER 4
LANDSCAPE TYPE	B (1:50')	C	C	A	N/A	N/A	N/A	N/A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	NONE	170'	120'	170'				
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO				
CREDIT FOR WALL, FENCE OR BEAM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO				
NUMBER OF PLANTS REQUIRED (SHADE TREES, EVERGREEN TREES, SHRUBS)	(NONE REQUIRED SEE TABLE #2 Pg. #18 of Manual)	4 Shade Trees 9 Evergreens	3 Shade Trees 6 Evergreens	3 Shade Trees	None Required			
NUMBER OF PLANTS PROVIDED (SHADE TREES, EVERGREEN TREES, OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	NONE REQUIRED	4 Shade Trees 9 Evergreens	3 Shade Trees 6 Evergreens	3 Shade Trees				

APPROVED: DEPARTMENT OF PLANNING AND ZONING

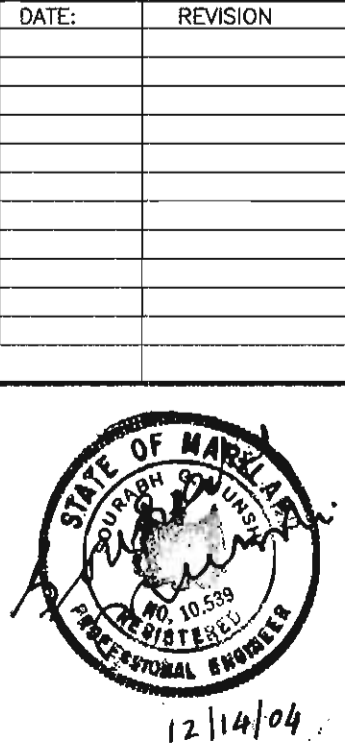
[Signature] 1/20/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 1/25/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 1/26/05
DIRECTOR DATE

PLANT LIST				
SYMBOL	QUANTITY	BOTANICAL NAME COMMON NAME	SIZE	CONDITION SPACING
RM	10	ACER RUBRUM RED SUNSET RED MAPLE	2-1/2" - 3" CAL. 13'-15' HT.	B & B AS SHOWN
+	15	PICEA ABIES (EXCELSA) NORWAY SPRUCE	6"-8" HT.	B & B AS SHOWN
UV	24	VIBURNUM CARLISII X BURKWOOD FRAGRANT VIBURNUM	24"-30"	3 GAL. CAN AS SHOWN
SS	14	SPIREA PRUNIFOLIA PLENA BRIDALWREATH SPIREA (WHITE)	24"-36"	3 GAL. CAN AS SHOWN

NOTE: * TO REPLACE STREAM BUFFER VEGETATION REMOVED BY DRIVEWAY CONSTRUCTION.



OWNER/DEVELOPER:
THE PALMETTO GROUP, INC.
P.O. BOX 841
ELLCOTT CITY, MARYLAND 21043
(410) 446-0993

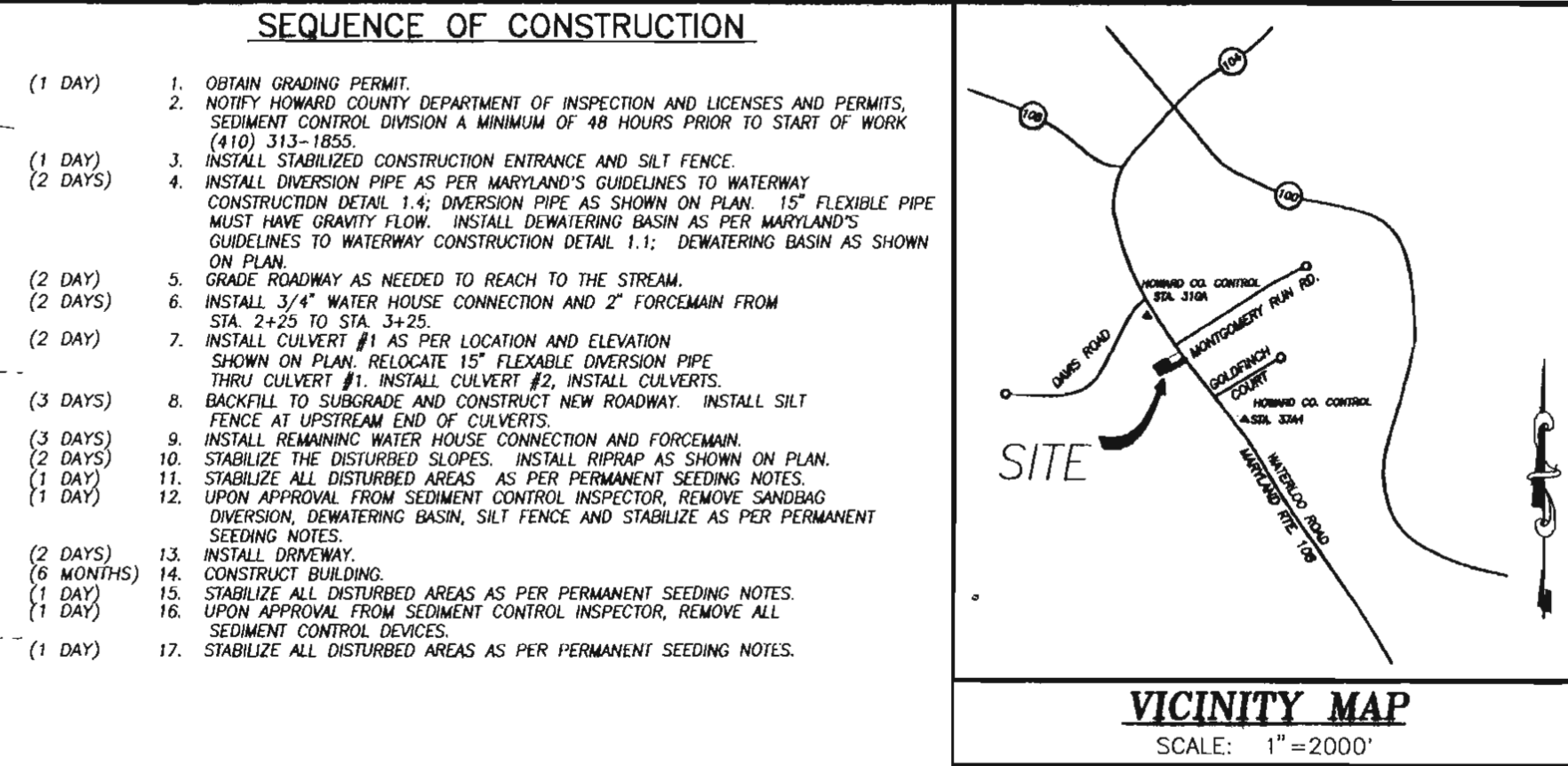
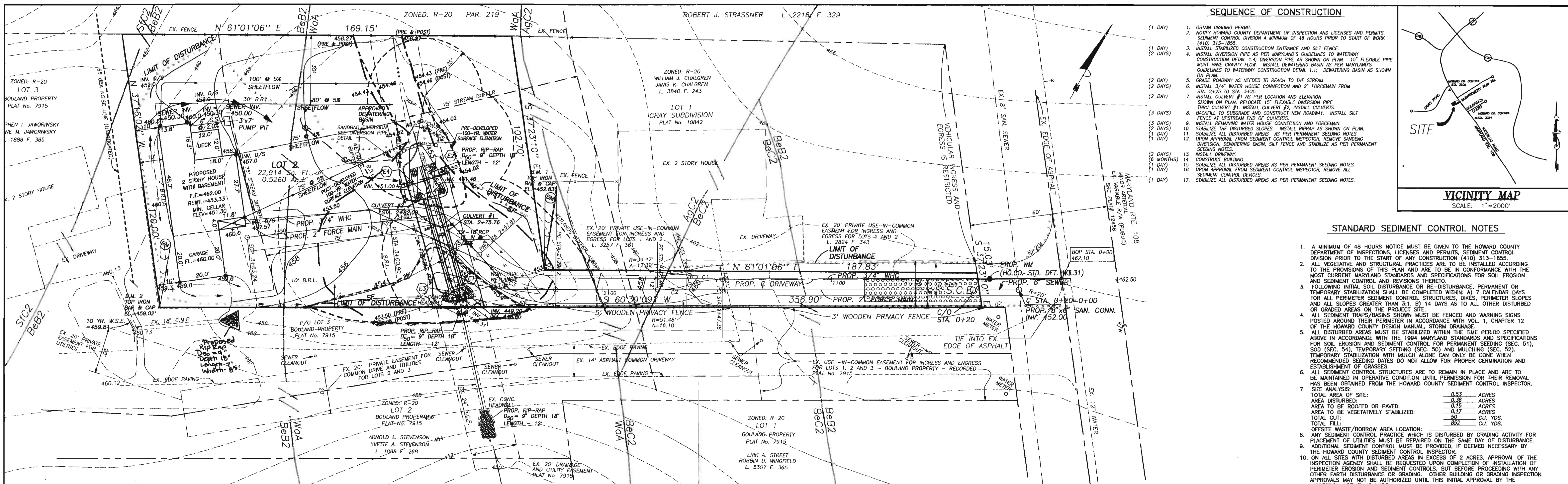
TAX MAP: #37, BLOCK: #1, PARCEL: P/O #616

SITE DEVELOPMENT PLAN
LOT 2
GRAY SUBDIVISION
(PLAT-M.D.R. #11949)
5642 WATERLOO ROAD (MD. RTE. 108)
SIXTH (6) ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: 1" = 20' SEPTEMBER, 2003

VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Main Street P.O. Box 328
Mount Airy, Maryland 21771
(301) 629-2890 (301) 631-5015 (410) 548-2751

Sheet 2 of 3

File Name: T:\EP\005102-4873\AC-4873.dwg
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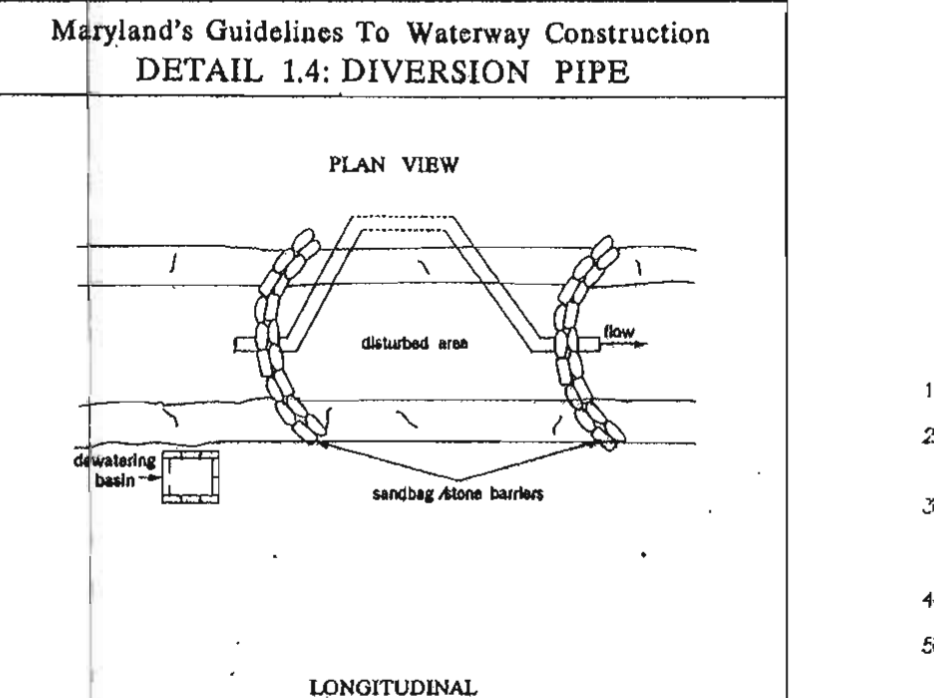
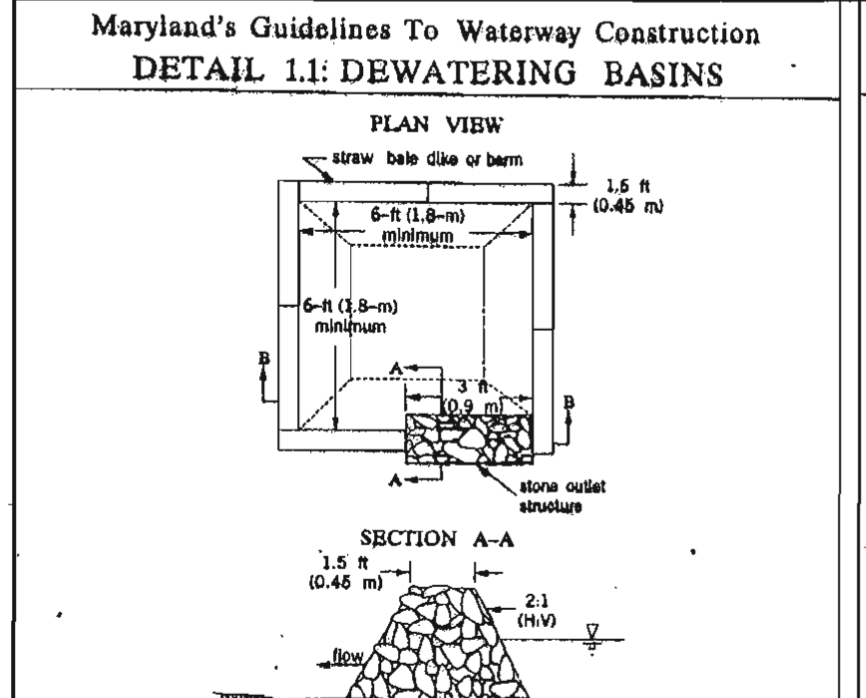
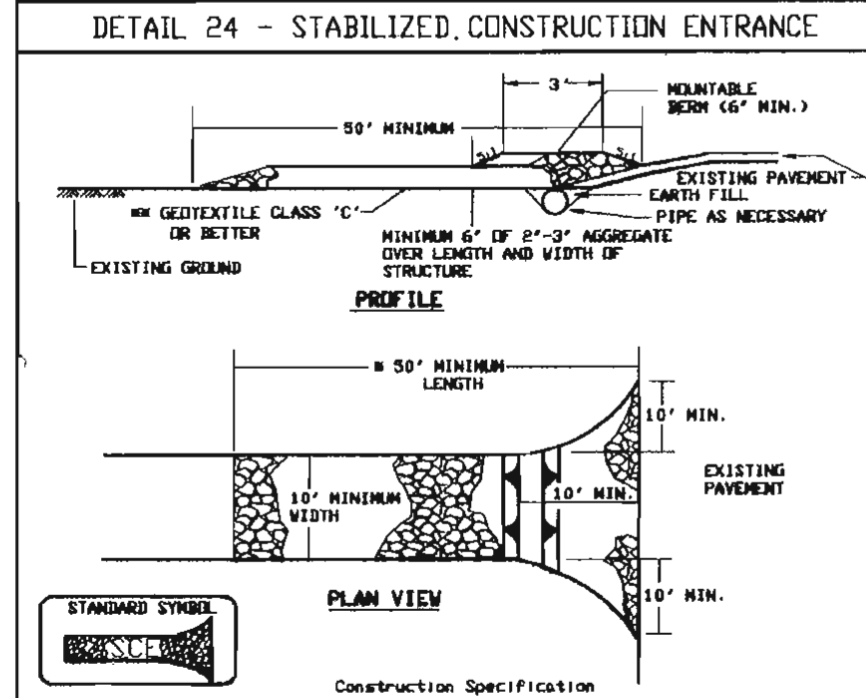
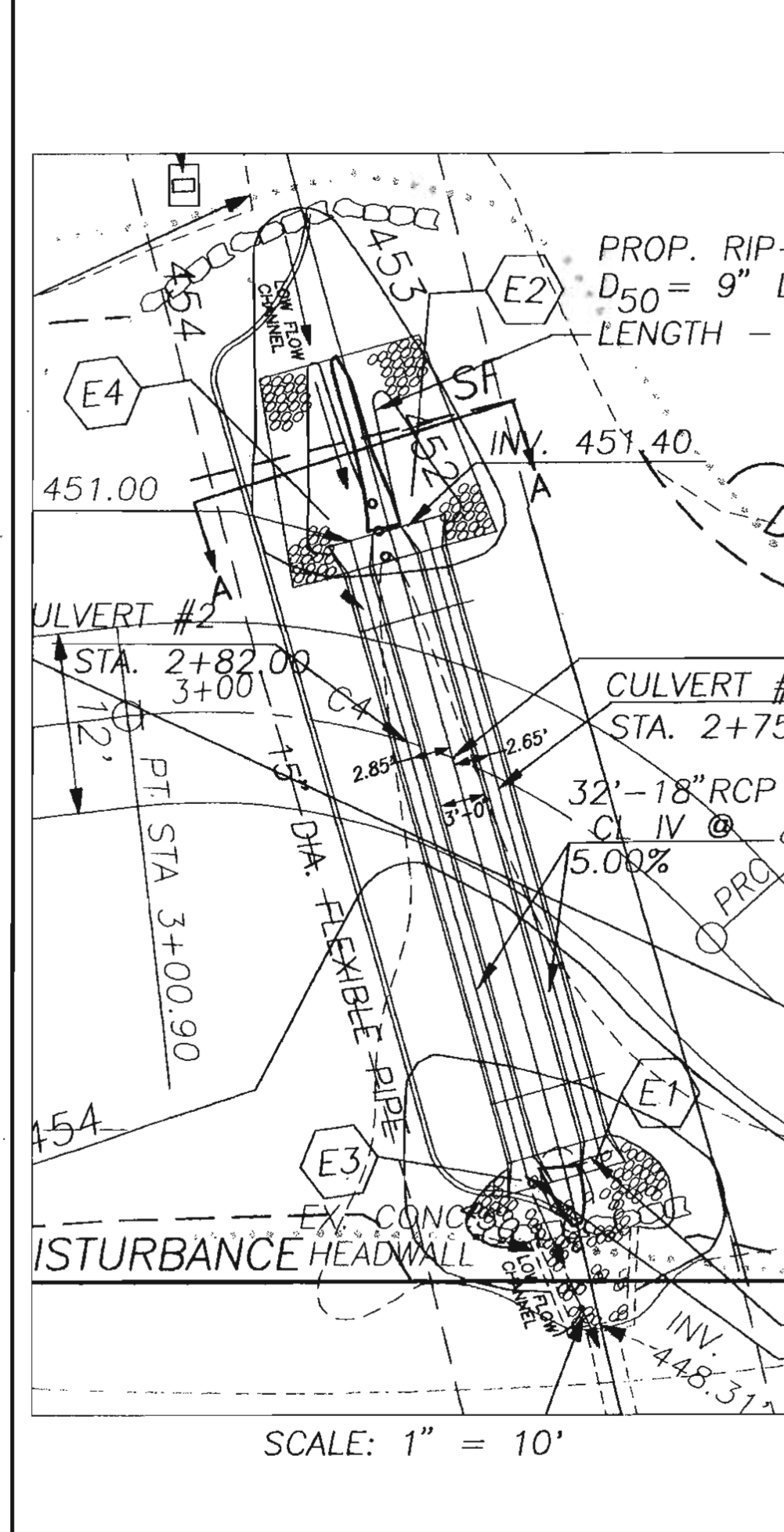


STANDARD SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION A MINIMUM OF 48 HOURS PRIOR TO START OF WORK (410) 313-1855.
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. STRUCTURES, DIKES, PERMEABLE SLOPES AND ALL SLOPES GREATER THAN 3:1, 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERMEABLE SLOPES AND ALL SLOPES GREATER THAN 3:1, 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/FUNNELS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12 OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOIL (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

TOTAL AREA OF SITE:	0.53 ACRES
AREA DISTURBED:	0.36 ACRES
AREA TO BE ROOFED OR PAVED:	0.15 ACRES
AREA TO BE VEGETATIVELY STABILIZED:	0.02 ACRES
TOTAL CUT:	50 CU. YDS.
TOTAL FILL:	852 CU. YDS.

- OFFSITE WASTE/BORROW AREA LOCATION:
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE GRADING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORK DAY, WHICHEVER IS SHORTER.



APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND DEVELOPMENT

DIRECTOR

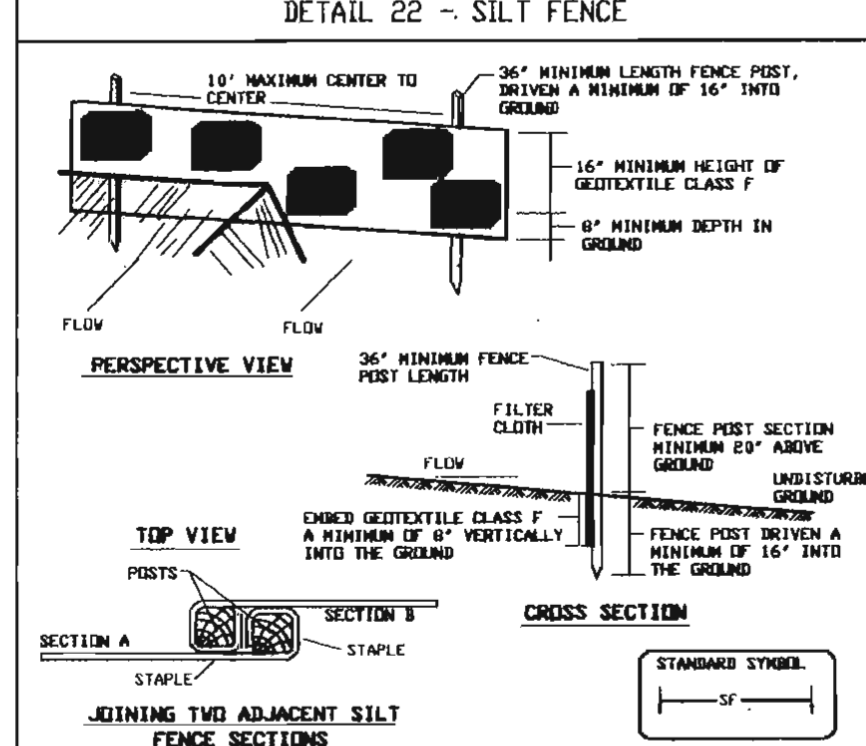
DATE: 1/20/05

DATE: 1/25/05

DATE: 1/24/05

CONSTRUCTION SPECIFICATIONS

- Length - minimum of 50' (30') for single residence lots.
- Width - 18" minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may require single family residences to use geotextile.
- Stone - crushed aggregate (1/2" to 3/4") or reclaimed or recycled concrete aggregate shall be placed at least 4" deep over the length and width of the entrance.
- Surface water - all surface water flowing to or diverted toward construction entrance shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a measurable term 1/2" slope and a minimum of 4" of cover over the pipe. Pipe has to be sized according to the drainage. When the SEC is located at a high spot and has no drainage to convey a pipe it is not necessary. Pipe should be required according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.



CONSTRUCTION SPECIFICATIONS

- Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) or 1 1/2" diameter (minimum) round and shall be spaced 6' on center by handwood. Steel posts will be 1 1/2" x 1 1/2" x 1/8" thick (minimum) or 1 1/2" x 1 1/2" x 1/8" thick (minimum) steel pipe.
- Geotextile fabric shall be fastened securely to each fence post with wire ties or staples at top and bottom and shall meet the following requirements:
 - Geotextile Class F
 - Tensile Strength 30 lbs/in (min.)
 - Flow Rate 20 lbs/in (min.)
 - Flow Rate 0.2 gal ft / minute (max.)
 - Filtering Efficiency 75% (min.)
 - Filtering Efficiency 90% (min.)
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

DESCRIPTION

The work shall consist of installing dewatering basins with a 1.5 R slope and 6-8 inch aggregate in the sanding slope.

PERFORMANCE CRITERIA

Underdrain dewatering basins will be adequately filter sediment laden water from the construction site.

MATERIAL SPECIFICATIONS

Materials for dewatering basins should meet the following requirements:

- Aggregate: Riprap should be washed and have a minimum grading from 1/2" to 3/4" (18 to 24) (minimum).
- Filter Cloth: Filter cloth should be a woven or non-woven fabric consisting only of synthetic fibers polypropylene, polyethylene or polypropylene. The fabric should be tested in commonly recognized laboratories, hydro-erosion, ultraviolet light, and color and should be tested in accordance with the 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control.

INSTALLATION GUIDELINES

Due to the danger of oversteering by front grader when the design flow, dewatering basins require a negative batter only to filter sediment-laden overflow. A 50-foot (15-meter) minimum grade-covered batter will be required for slopes less than 20 degrees (12.7% when slope is not indicated). The slope greater than 20 degrees, batter should have a 100-foot (30-meter) minimum batter width when placed.

All waste and sediment control devices should be installed in the first order of business according to a plan approved by the State Management Administration (SMA) in the local authority. Dewatering basins should be constructed as follows (refer to Detail 11):

- Recessed silt fence should be placed in the center of the batter and should be installed in an approved area outside the 100-year floodplain unless otherwise authorized by the SMA.
- The dewatering basins should be placed in the center of the batter and should be installed in an approved area outside the 100-year floodplain unless otherwise authorized by the SMA.
- Once the dewatering basins have been filled in accordance with the approved design, unexcavated sediment should be removed and disposed of in an approved area outside the 100-year floodplain unless otherwise authorized by the SMA.
- Bottom removal devices should be placed in place until all disturbed areas are stabilized and the topsoiling authority approval shall be received. All disturbed areas should be returned to their original condition which includes approved by the SMA or local authority.

DESCRIPTION

The work shall consist of installing flow diversion pipes in combination with sanding slope diversion when construction activities occur within the stream channel.

PERFORMANCE CRITERIA

Diversion pipes with an unclassified flow capacity can cause the channel diversion to flow resulting in an over erosion of the channel channel section under construction. Therefore, in-stream construction activities should occur only during periods of low flow.

MATERIAL SPECIFICATIONS

Materials for diversion pipes should meet the following requirements:

- Aggregate: Riprap should be washed and have a minimum grading from 1/2" to 3/4" (18 to 24) (minimum).
- Filter Cloth: Filter cloth should be a woven or non-woven fabric consisting only of synthetic fibers polypropylene, polyethylene or polypropylene. The fabric should be tested in commonly recognized laboratories, hydro-erosion, ultraviolet light, and color and should be tested in accordance with the 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control.

INSTALLATION GUIDELINES

All erosion and sediment control devices including mandatory dewatering basins should be installed at the first order of business according to a plan approved by the State Management Administration (SMA) in the local authority. Diversion pipes should be installed as follows (refer to Detail 14):

- Sanding slope diversion should be installed in accordance with MHWFC 1.3 Sanding Slope Diversion. The sanding slope should be installed in a stabilized sanding slope.
- All erosion and sediment control devices should be installed in an approved area outside the 100-year floodplain unless otherwise authorized by the SMA.
- The diversion pipe should have a minimum capacity sufficient to convey the design flow plus a 25% safety factor. The diversion pipe should be installed in a stabilized sanding slope.
- If necessary, all flow or straw bales should be installed across the perimeter of the water.
- Secondary control devices are to be placed in place until all disturbed areas are stabilized and topsoiling authority approval shall be received.

DESCRIPTION

The work shall consist of installing flow diversion pipes in combination with sanding slope diversion when construction activities occur within the stream channel.

PERFORMANCE CRITERIA

Diversion pipes with an unclassified flow capacity can cause the channel diversion to flow resulting in an over erosion of the channel channel section under construction. Therefore, in-stream construction activities should occur only during periods of low flow.

MATERIAL SPECIFICATIONS

Materials for diversion pipes should meet the following requirements:

- Aggregate: Riprap should be washed and have a minimum grading from 1/2" to 3/4" (18 to 24) (minimum).
- Filter Cloth: Filter cloth should be a woven or non-woven fabric consisting only of synthetic fibers polypropylene, polyethylene or polypropylene. The fabric should be tested in commonly recognized laboratories, hydro-erosion, ultraviolet light, and color and should be tested in accordance with the 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control.

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- If necessary, all flow or straw bales should be installed across the perimeter of the water.
- Secondary control devices are to be placed in place until all disturbed areas are stabilized and topsoiling authority approval shall be received.

ENGINEER'S CERTIFICATE:

"I CERTIFY THAT THESE PLANS FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT."

Sourabh C. Munshi, P.E. 12/14/04

DATE

DEVELOPER'S CERTIFICATE:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/WE ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY CONSERVATION DISTRICT."

Developer's Signature: 12/14/04

DATE

SOIL CONSERVATION SERVICE

REVIEW FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

LEARN: NATURAL RESOURCES CONSERVATION SERVICE DATE

12/14/04

OWNER/DEVELOPER:

THE PALMETTO GROUP, INC.

P.O. BOX 841

ELLCOTT CITY, MARYLAND 21043

(410) 446-0993

TAX MAP: #37, BLOCK: #1, PARCEL: P/O #618

SEDIMENT CONTROL PLAN, PROFILE, NOTES & DETAILS

LOT 2

GRAY SUBDIVISION

(PLAT-M.D.R. #11949)

5642 WATERLOO ROAD (MD. RTE. 108)

SUITE (S) ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

SCALE: 1"=20' SEPTEMBER, 2003

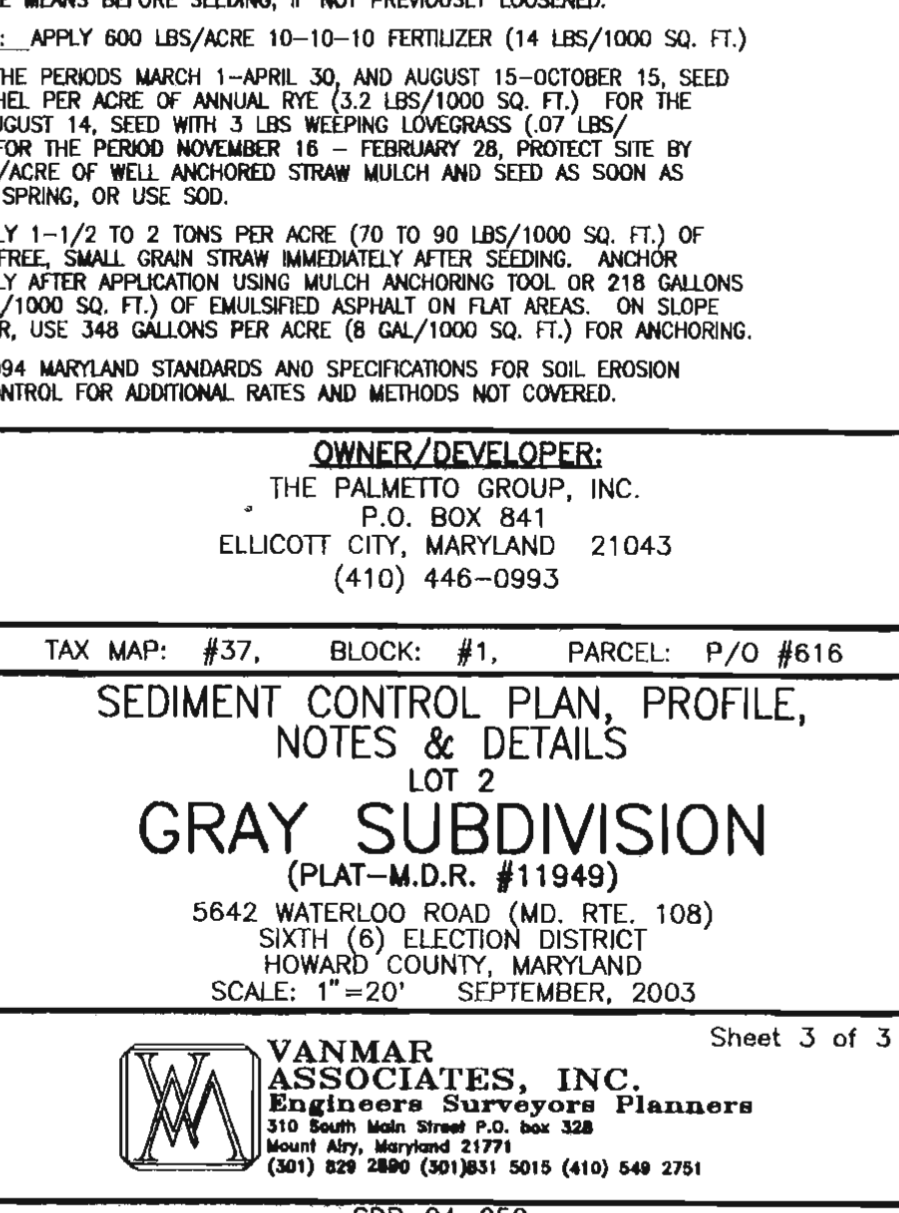
VANMAR ASSOCIATES, INC.

Engineers Surveyors Planners

110 South Middle Street, P.O. Box 528

North Annapolis, Maryland 21403

(410) 291-2800 (301)851-5015 (410) 546-2751



SHEET NO. 12/20/04
 DATE: 12/20/04
 SCALE: 1"=20'
 SHEET 3 OF 3