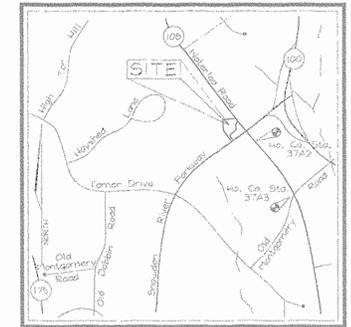
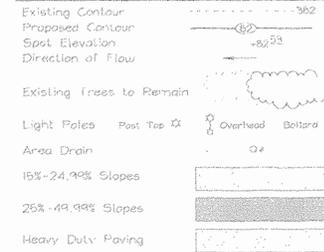


GENERAL NOTES

- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications, if applicable.
- The contractor shall notify "Miss Utility" at 1-800-267-7777 at least 48 hours prior to any excavation work.
- The contractor is to notify the following utilities or agencies at least five days before starting work on these drawings:
 - Miss Utility: 1-800-267-7777
 - C & P Telephone Company: 725-49476
 - Howard County Bureau of Utilities: 313-2366
 - AT&T Cable Location Division: 393-3553
 - B.G.E. Co. Contractor Services: 850-4620
 - B.G.E. Co. Underground Damage Control: 787-4620
 - State Highway Administration: 531-5533
- Site analysis:
 - Area of parcel: 2.69 Ac.±
 - Present zoning: NT (employment center commercial)
 - Use of structure: Assisted Living
 - Building area: Proposed Building 28,200.21sf
 - Building coverage on site: 0.65 Ac. or 24.2% of gross area
 - Paved parking lot/area: 0.98 Ac. or 36.5% of gross area
 - Area of landscape island: 0.02 Ac. ± 974.2sf
- Project background:
 - Location: Columbia, Md.; Tax Map 37, Parcel A-1
 - Zoning: NT
 - Section/Area: 17
 - Site Area: 2.69 Acres
 - DPZ references: SP-98-05; WP-98-34; GP-97-142; WP-97-107; PB-315; F-00-78
- 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 start of work.
- Any damage to public right-of-ways, paving, or existing utilities will be corrected at the contractor's expense.
- Existing utilities located from Road Construction Plans, Field Surveys and available record drawings. Approximate location of existing utilities are shown for the contractor's information. Contractor shall locate existing utilities well in advance of construction activities and take all necessary precautions to protect the existing utilities and to maintain uninterrupted service. Any damage incurred due to contractor's operation shall be repaired immediately at the contractor's expense.
- All reinforced concrete for storm drain structures shall have a minimum of 28 days strength of 3,500 p.s.i.
- Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
- Estimates of earthwork quantities are provided solely for the purpose of calculating fees.
- Soil compaction specifications, requirements, methods and materials are to be in accordance with the recommendations of the project Geotechnical Engineer. Geotechnical Engineer to confirm acceptability of proposed paving section, based on soil test.
- All storm drain pipe bedding shall be Class 'C'.
- Coordinates and elevations are based on Howard County Right-of-Way Monuments.
- A noise study has been provided for this project.
- Existing topography is based on a Topographic Survey performed by Vogel & Associates, Inc. in December 1999 and record drawings.
- All paving to be light duty paving per detail, sheet 2 of 10, unless otherwise noted.
- All curb and gutter to be Howard County Standard concrete Detail 3.01 unless otherwise specified.
- Contractor responsible to construct all handicap parking and handicap access in accordance with current ADA requirements.
- Where drainage flows away from curb, contractor to reverse the gutter pan.
- Public water available from Snowden River Parkway Contract No. 24-3659-D.
- Public Sewer available from Snowden River Parkway Contract No. 24-3659-D.
- Stormwater Management is provided per F-98-101, Route 108 Commercial, Section One/Area One; Water Quality is provided per F-98-101.
- All exterior lighting shall conform to Zoning Regulations Section 134.
- All elevations are to finished/bottom of curb unless otherwise noted.
- All dimensions are to face of curb unless otherwise noted.
- Building to have inside Water Meter settings.
- This site passed the APFO traffic test on May 8, 1998 as a condition of approval for SP-98-05.
- This site is exempt from the Forest Conservation Ordinance in accordance with 16.1202(b)(1)(iv).
- All setbacks and other bulk regulation requirements will be in accordance with FDP-229.
- Proposed Cross Access Easement to benefit Parcels A-1 and A-2, L5099 F.188.

SITE DEVELOPMENT PLAN COLUMBIA ROUTE 108 COMMERCIAL

LEGEND



VICINITY MAP
SCALE: 1"=2000'

BENCHMARKS

Howard County Station 37A2
N 562,120.83 E 1,369,300.26 Elev. 405.71
40'± northwest of MD Route 108, 100'± northwest of Old Montgomery Road

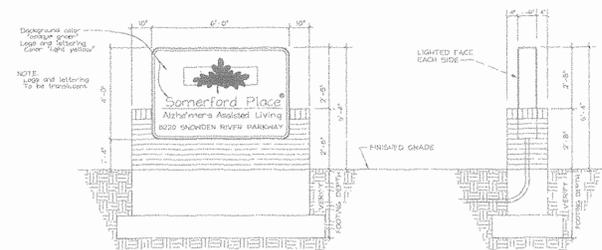
Howard County Station 37A3
N 561,131.07 E 1,369,413.29 Elev. 385.66
southwest of the intersection of MD Route 108 and Old Montgomery Road

SHEET INDEX

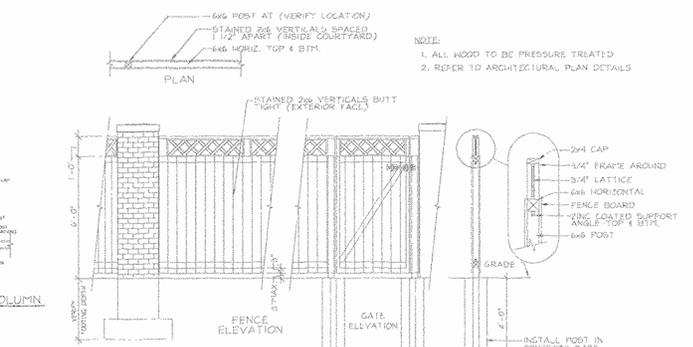
DESCRIPTION	SHEET NO.
Cover Sheet	1 of 7
Site Development Plan	2 of 7
Sediment and Erosion Control Plan	3 of 7
Sediment and Erosion Control Details	4 of 7
Storm Drain Drainage Area Map	5 of 7
Storm Drain, Water and Sewer Profiles	6 of 7
Landscape Plan	7 of 7



LOCATION MAP
SCALE: 1"=100'

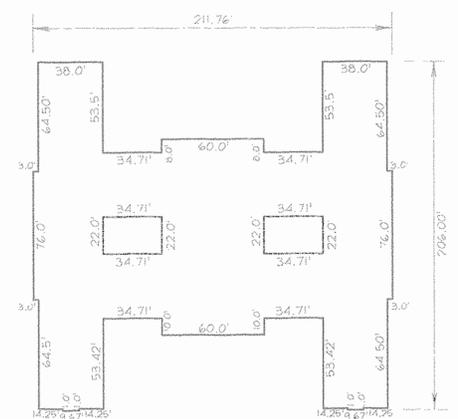


MONUMENT SIGN
No Scale



PERIMETER FENCE COLUMN
No Scale

PERIMETER FENCE
No Scale



BUILDING PLAN VIEW
SCALE: 1"=50'



BUILDING ELEVATION (TYPICAL)
SCALE: 1"=20'

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE April 6, 2000

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE April 6, 2000

OWNER DEVELOPER

Somerset Corp.
19642 Club House Road, Suite 620
Gaithersburg, MD 20886
301.963.6500

APPROVED: For Public Water and Public Sewerage systems
Howard County Health Department

David L. Metcalf 10-23-00
County Health Officer *ML* Date

ADDRESS CHART
STREET ADDRESS
8220 Snowden River Parkway

SUBDIVISION NAME	SECTION/AREA	PARCEL NUMBER
Columbia Route 108 Commercial	1/1	A-1
PLAT NO. BLOCK NO. ZONE TAX/ZONE ELECT. DIST. CENSUS TR.		
14127 1 NT 37 6th 6066.27		
WATER CODE: E66	SEWER CODE: 3550000	

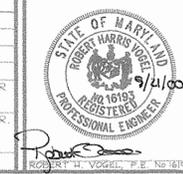
COVER SHEET
COLUMBIA ROUTE 108
COMMERCIAL

TAX MAP #37 GRID #1
6TH ELECTION DISTRICT

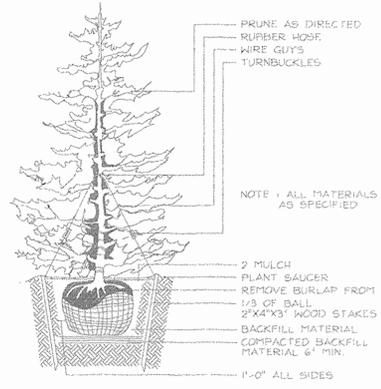
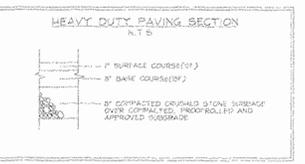
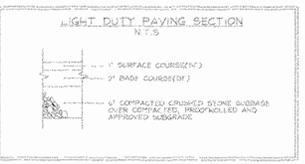
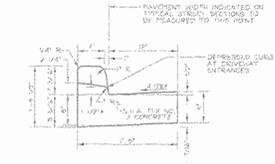
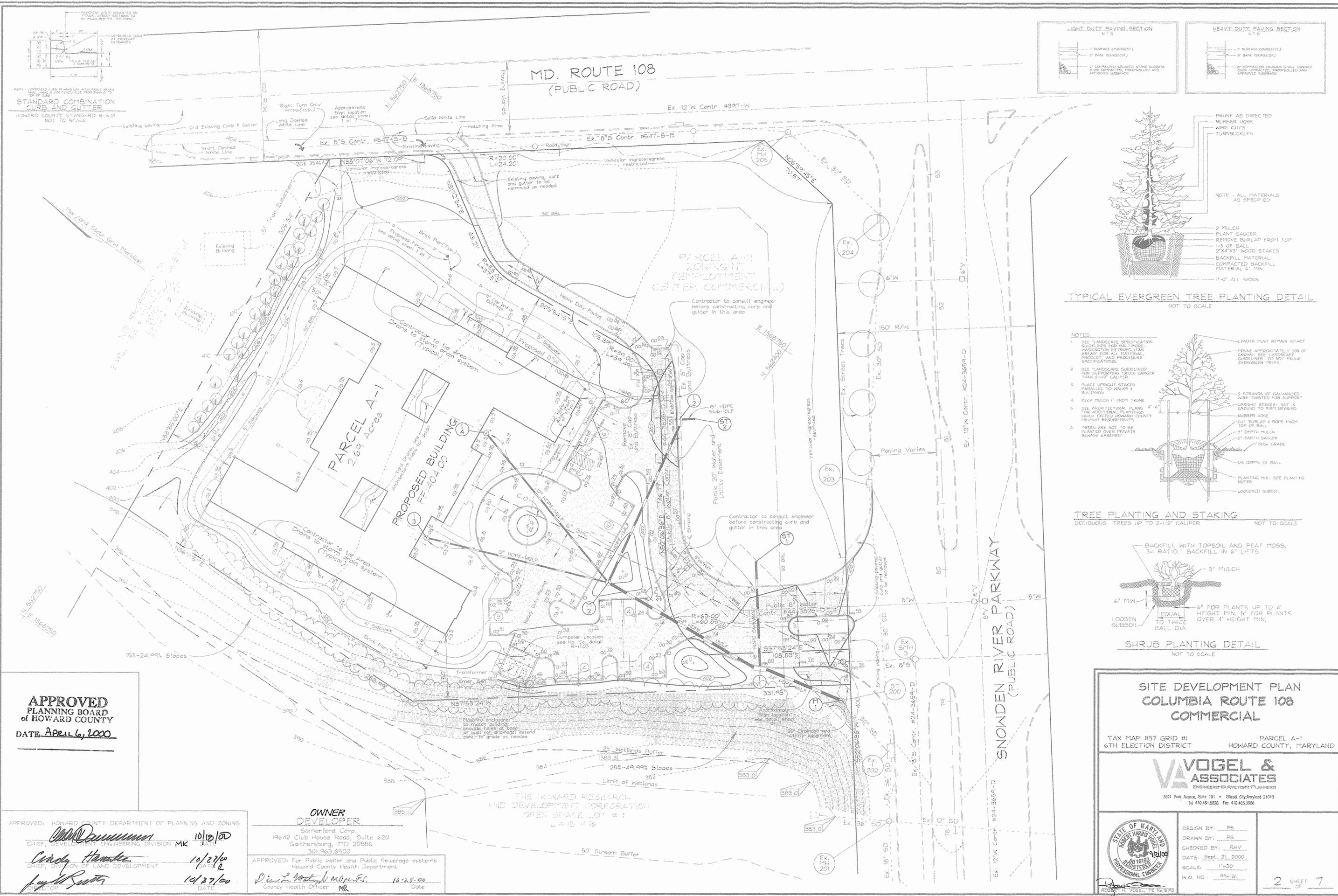
PARCEL A-1
HOWARD COUNTY, MARYLAND

VOGEL & ASSOCIATES
ENGINEERS-PLANNERS

3091 Park Avenue, Suite 101 • Ellicott City, Maryland 21043
Tel 410.661.5828 Fax 410.663.3566



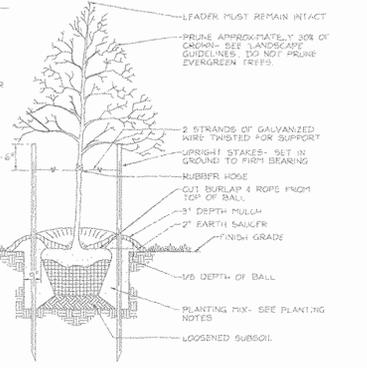
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DRAWN BY: *PS*
CHECKED BY: *RHV*
DATE: Sept 21, 2000
SCALE: As Shown
W.O. NO.: 09-151



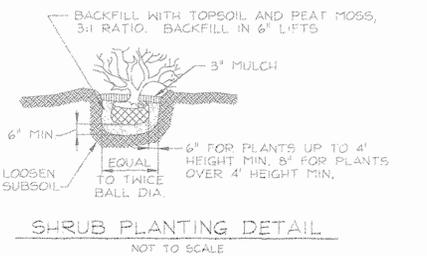
TYPICAL EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE

NOTES

1. SEE 'LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE, MARYLAND' FOR MATERIALS, 'LANDSCAPE GUIDELINES FOR ALL MATERIALS, PRODUCTS, AND PROCEDURE SPECIFICATIONS'.
2. SEE 'LANDSCAPE GUIDELINES' FOR SUPPORTING TREES LARGER THAN 2-1/2" CALIBER.
3. PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS.
4. KEEP MULCH 1" FROM TRUNK.
5. SEE ARCHITECTURAL PLANS FOR ADDITIONAL PLANTINGS WHICH EXCEED HOWARD COUNTY MINIMUM REQUIREMENTS.
6. TREES ARE NOT TO BE PLANTED OVER PRIVATE SEWER EASEMENT.



TREE PLANTING AND STAKING
DECIDUOUS TREES UP TO 2-1/2" CALIBER NOT TO SCALE



SHRUB PLANTING DETAIL
NOT TO SCALE

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE April 6, 2000

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK 10/12/00
 Cecily Hamden 10/27/00
 Director DATE

OWNER
DEVELOPER
Somarford Corp.
19642 Club House Road, Suite 620
Gaithersburg, MD 20886
301.963.6500
 APPROVED: For Public Water and Public Sewerage systems
 Howard County Health Department
 Diana L. Matlock M.D. P.E. 10-25-00
 County Health Officer DATE

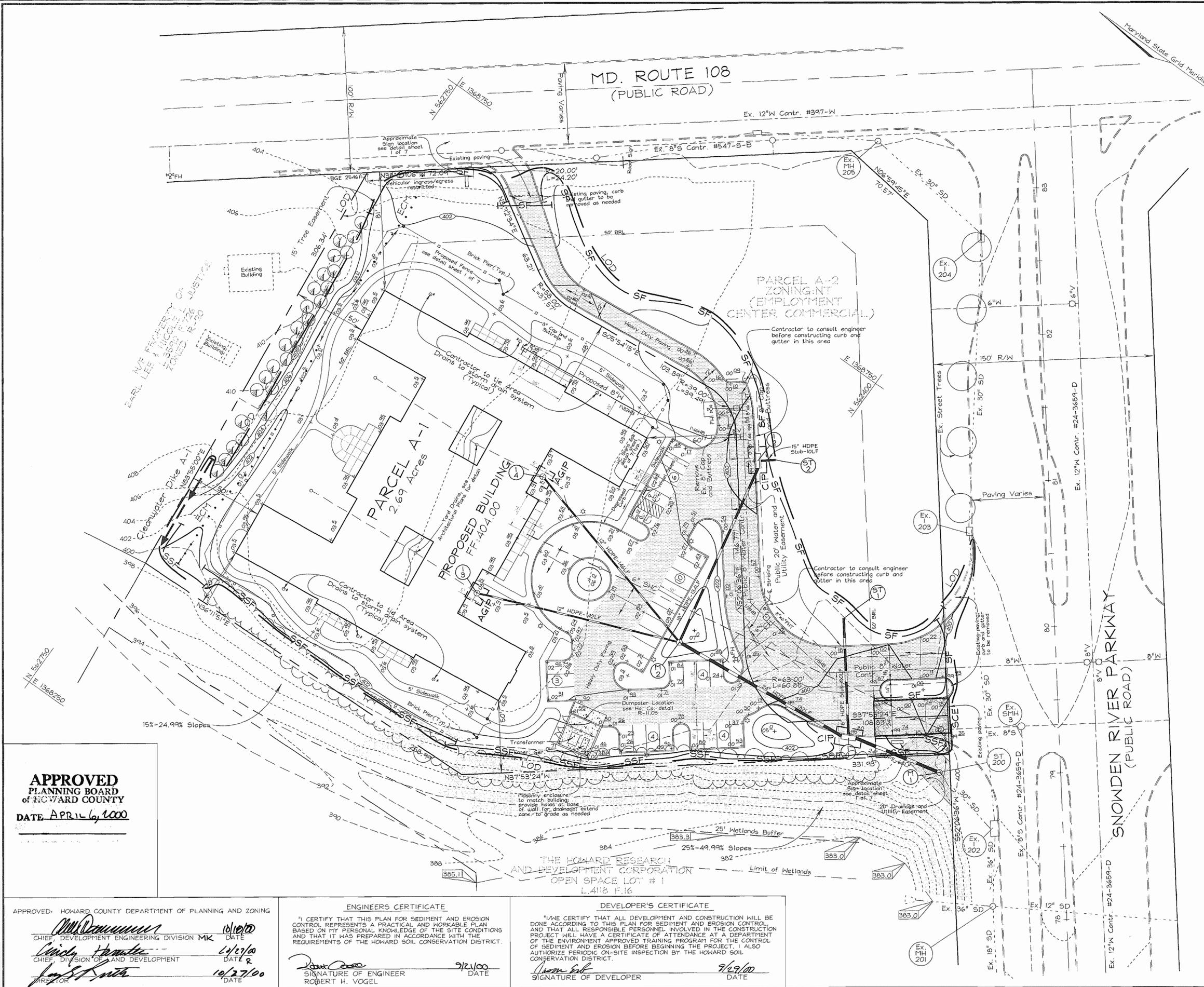
SITE DEVELOPMENT PLAN
COLUMBIA ROUTE 108
COMMERCIAL
 TAX MAP #37 GRID #1
6TH ELECTION DISTRICT
 PARCEL A-1
HOWARD COUNTY, MARYLAND

VOGEL & ASSOCIATES
ENGINEERS/SURVEYORS/PLANNERS
 3081 Park Avenue, Suite 101 • Elkton City, Maryland 21043
 Tel 410-461-5028 Fax 410-465-3566

DESIGN BY: PS
 DRAWN BY: PS
 CHECKED BY: RHY
 DATE: Sept. 21, 2000
 SCALE: 1"=30'
 W.O. NO.: 99-131
 2 SHEET OF 7

LEGEND

Existing Contour	---	-382
Proposed Contour	---	-82.53
Spot Elevation	+	
Direction of Flow	→	
Tree Protection Fence	⊕	
Existing Trees to Remain	⊕	
Light Poles	⊕	Overhead
Stabilized Construction Entrance	⊕	
Silt Fence	— SF —	SF
Super Silt Fence	— SSF —	SSF
Earth Dike	— ED A-1 —	ED A-1
Erosion Control Matting	•••••	ECM
Limit of Disturbance	---	LOD
Curb Inlet Protection	⊕	CIP
At Grade Inlet Protection	⊕	AGIP



OWNER DEVELOPER
 Somerford Corp.
 19642 Club House Road, Suite 620
 Gaithersburg, MD 20886
 301.963.6500

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.
J. H. Warfield 10/12/00
 HOWARD SOIL CONSERVATION SERVICE DATE

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
John R. Roberts 10/12/00
 HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT AND EROSION CONTROL PLAN
COLUMBIA ROUTE 108 COMMERCIAL
 TAX MAP #37 GRID #1 PARCEL A-1
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

VOGEL & ASSOCIATES
 ENGINEERS/SURVEYORS/PLANNERS
 3681 Park Avenue, Suite 101 • Ellicott City, Maryland 21043
 Tel 410.461.5828 Fax 410.465.3966

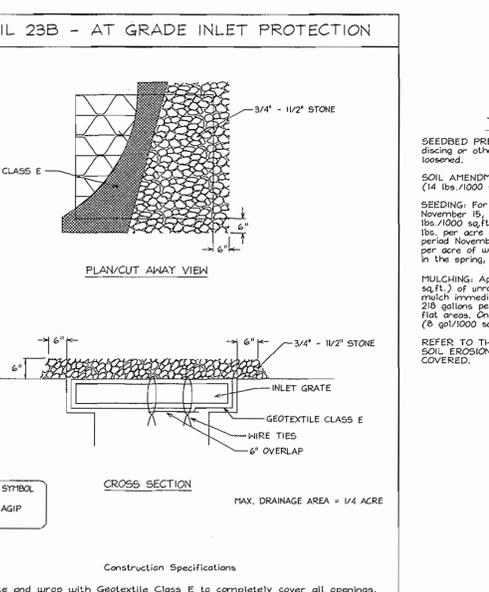
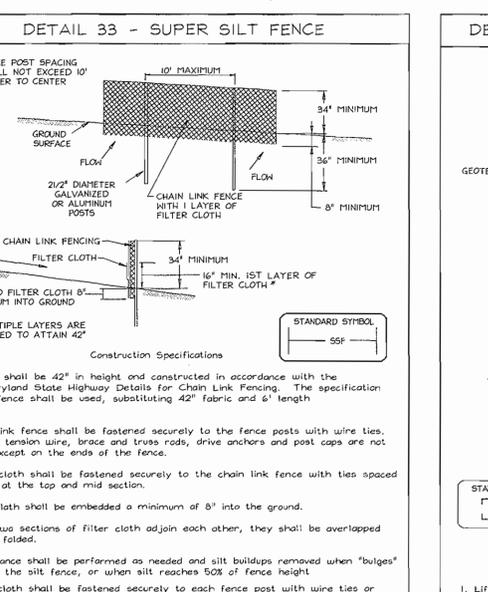
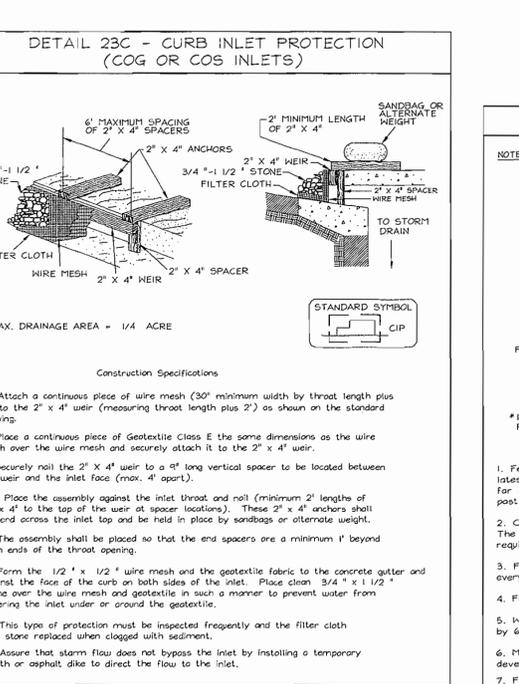
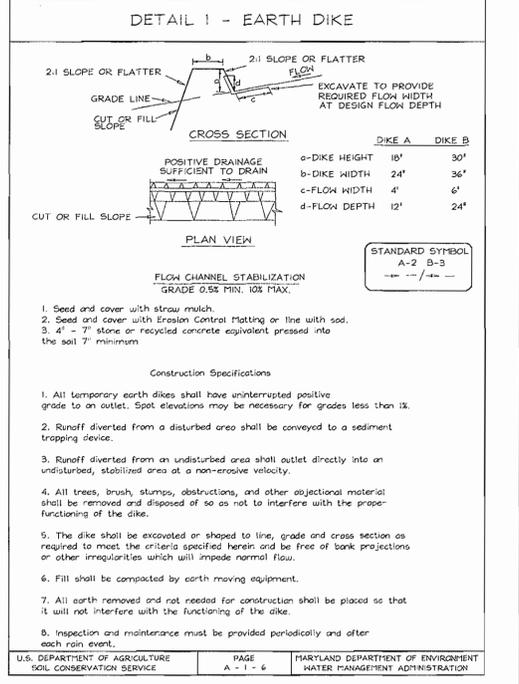
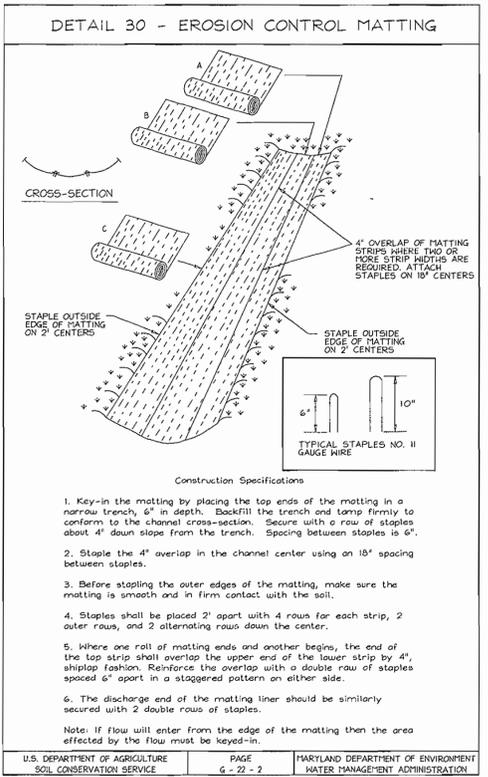
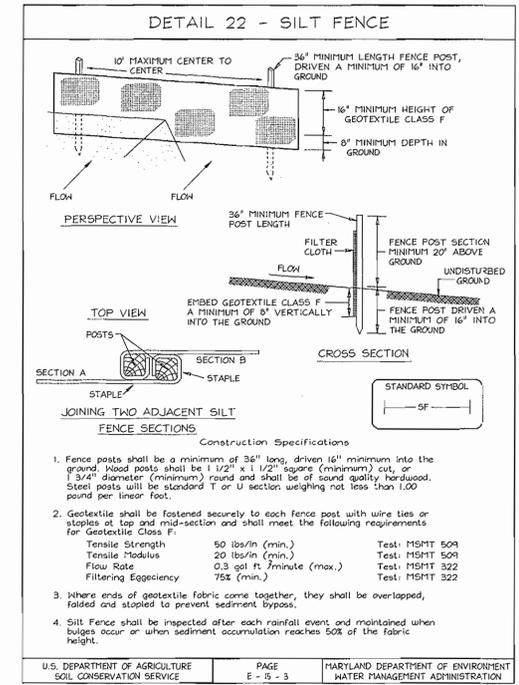
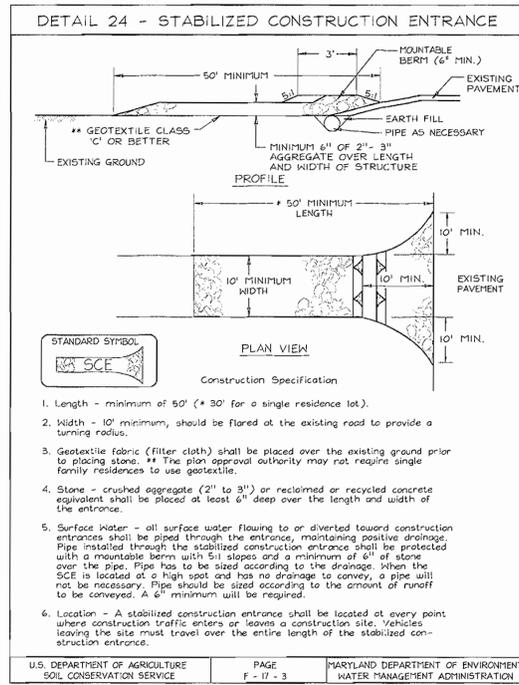
DESIGN BY: PS
 DRAWN BY: PS
 CHECKED BY: RHV
 DATE: Sept. 21, 2000
 SCALE: 1"=50'
 W.C. NO.: 99-131
 3 SHEET OF 7

APPROVED PLANNING BOARD
 of HOWARD COUNTY
 DATE APR 16, 2000

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Michael J. ... 10/10/00
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE
Conny ... 10/27/00
 CHIEF, DIVISION OF PLANNING AND DEVELOPMENT DATE
John ... 10/27/00
 DIRECTOR DATE

ENGINEERS CERTIFICATE
 I CERTIFY THAT THIS PLAN 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 SOIL CONSERVATION DISTRICT.
Robert H. Vogel 9/29/00
 SIGNATURE OF ENGINEER DATE
 ROBERT H. VOGEL

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.
John ... 9/29/00
 SIGNATURE OF DEVELOPER DATE



21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition
Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose
To provide a suitable soil medium for vegetable growth. Soils of concern have low moisture content, low nutrient levels, low pH, moderate toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies

- This practice is limited to areas having 21 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.
- For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - Topsoil shall be a loam, sandy loam, clay loam, silty loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or a soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, sticks, twigs, roots, trash, or other materials longer than 1 and 1/2" in diameter.
 - Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutgrass, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- For sites having disturbed areas under 5 acres:
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

SEDIMENT CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspection, License and Permits Sediment Control Division prior to the start of any construction (313-1855).
- All vegetation and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: (a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes, and all slopes greater than 3:1; (b) 14 days or all other disturbed or graded areas on the project site.
- All sediment traps/basins shall be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 7, 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, sod, temporary seeding, and mulching (Sec. G). Temporary stabilization with mulch alone shall 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.
- Site Analysis:

Total Area	2.69 Acres
Area Disturbed	3.03 Acres
Area to be roofed or paved	1.63 Acres
Area to be vegetatively stabilized	1.46 Acres
Total Fill	435CY
Total Excavation	243CY
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 controls must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other grading 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 within one working day, whichever is shorter.
- To be determined by contractor, with pre-approval of the Sediment Control Inspector with an approved and active grading permit.

SEQUENCE OF CONSTRUCTION

- Obtain grading permit.
- Notify Howard County Bureau of Inspections and Permits at (410)313-1800 at least 24 hours before starting any work.
- Install Stabilized Construction Entrances, Silt Fence and Earth Dike. (3 days)
- Rough grade site. (1 week)
- Construct Water, Sewer and Storm Drain, and install Inlet Protection. (4-6 weeks)
- Begin building construction. (6 mo. - 1 year)
- As building construction continues fine grade site. (4 days)
- Install curb and gutter, paving and sidewalks. (2 days)
- Final Landscaping. (1 week)
- With permission of the inspector, remove all Sediment Controls from the site. Stabilize all disturbed areas immediately. (1 week)
- During grading and after each rainfall, contractor will inspect and provide necessary maintenance to the Sediment Control measures on this plan.
- Following initial soil disturbances or redistribution permanent or temporary stabilization shall be completed within:
 - 7 calendar days for all perimeter Sediment Control Structures, Dikes, Swales and all slopes greater than 3:1.
 - 14 calendar days for all other disturbed areas.

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDING PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.).

SEEDING: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushel per acre of annual rye (3.2 lbs./1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (07 lbs./1000 sq.ft.). For the period November 1 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring or use sod.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq. ft.) of untreated small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 200 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 340 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

SEEDING: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs./1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (.05 lbs./1000 sq.ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by Option (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq. ft.) of untreated small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gallons per acre (5.25 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 340 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

MAINTENANCE: Inspect all seeded areas and make needed repairs, replacements and reseedings.

APPROVED PLANNING BOARD OF HOWARD COUNTY
DATE: APRIL 6, 2000

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division MK
Chief, Division of Land Development
Director

ENGINEERS CERTIFICATE

I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN 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.

Signature of Engineer: Robert H. Vogel
Date: 9/2/00

DEVELOPER'S CERTIFICATE

I 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.

Signature of Developer: John R. Robertson
Date: 9/2/00

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

Signature: J. G. Warfield
Date: 10/12/00

Signature: John R. Robertson
Date: 10/12/00

OWNER
DEVELOPER

Bonnerford Corp.
1942 Clithers Road, Suite 620
Gaithersburg, MD 20896
301.963.6500

SEDIMENT AND EROSION CONTROL DETAILS
COLUMBIA ROUTE 108 COMMERCIAL

TAX MAP #37 GRID #1
6TH ELECTION DISTRICT

PARCEL A-1
HOWARD COUNTY, MARYLAND

VOGEL & ASSOCIATES
ENGINEERS/PLANNERS

3691 Park Avenue, Suite 101 • Ellicott City Maryland 21043
Tel 410.461.8828 Fax 410.465.9566

DESIGN BY: PS
DRAWN BY: PS
CHECKED BY: RHV
DATE: Sept. 21, 2000
SCALE: As Shown
W.O. NO.: 99-131

4 SHEET OF 7

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division MK
Chief, Division of Land Development
Director

ENGINEERS CERTIFICATE

I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN 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.

Signature of Engineer: Robert H. Vogel
Date: 9/2/00

DEVELOPER'S CERTIFICATE

I 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.

Signature of Developer: John R. Robertson
Date: 9/2/00

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

Signature: J. G. Warfield
Date: 10/12/00

Signature: John R. Robertson
Date: 10/12/00

OWNER
DEVELOPER

Bonnerford Corp.
1942 Clithers Road, Suite 620
Gaithersburg, MD 20896
301.963.6500

SEDIMENT AND EROSION CONTROL DETAILS
COLUMBIA ROUTE 108 COMMERCIAL

TAX MAP #37 GRID #1
6TH ELECTION DISTRICT

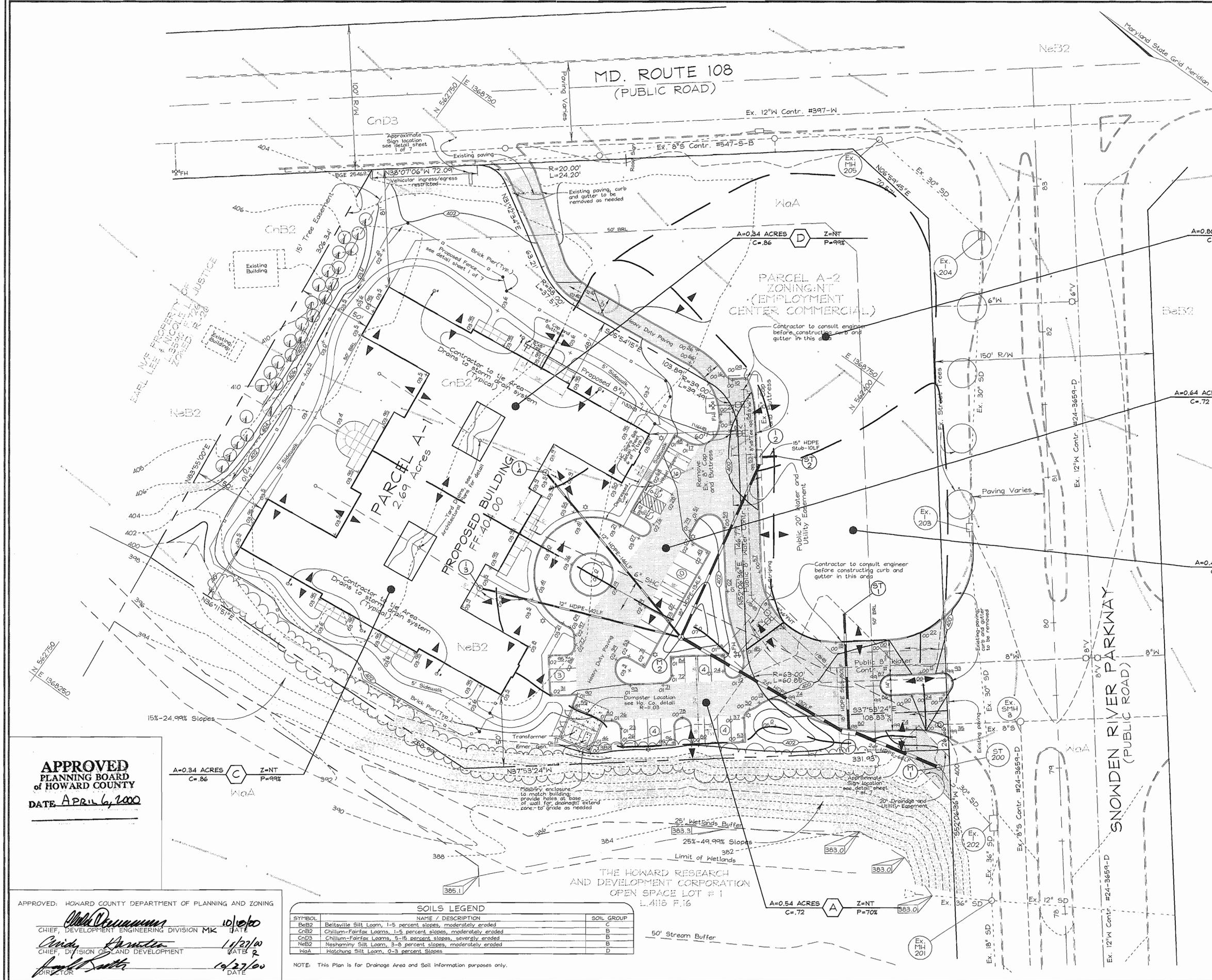
PARCEL A-1
HOWARD COUNTY, MARYLAND

VOGEL & ASSOCIATES
ENGINEERS/PLANNERS

3691 Park Avenue, Suite 101 • Ellicott City Maryland 21043
Tel 410.461.8828 Fax 410.465.9566

DESIGN BY: PS
DRAWN BY: PS
CHECKED BY: RHV
DATE: Sept. 21, 2000
SCALE: As Shown
W.O. NO.: 99-131

4 SHEET OF 7



LEGEND

- Existing Contour: ---
- Proposed Contour: - - -
- Spot Elevation: +82.33
- Direction of Flow: →
- Existing Trees to Remain: (Tree symbol)
- Light Poles: Post Top (circle with cross), Overhead (circle with dot)
- Soils Divide: KeB2
- Proposed Drainage Divide: NeB2

APPROVED
PLANNING BOARD
of HOWARD COUNTY
 DATE April 6, 2000

A=0.34 ACRES C Z=NT
 C=.86 P=99%

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	SOIL GROUP
EuB2	Beltville Silt Loam, 1-5 percent slopes, moderately eroded	C
CnB2	Chillum-Fairfax Loams, 1-5 percent slopes, moderately eroded	B
CnD3	Chillum-Fairfax Loams, 5-15 percent slopes, severely eroded	B
NeB2	Neshaminy Silt Loam, 3-8 percent slopes, moderately eroded	B
WaA	Wachung Silt Loam, 0-3 percent slopes	D

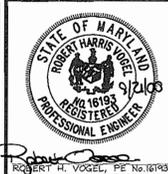
NOTE: This Plan is for Drainage Area and Soil Information purposes only.

OWNER DEVELOPER
 Somerford Corp.
 19642 Club House Road, Suite 620
 Gaithersburg, MD 20886
 301.963.6500

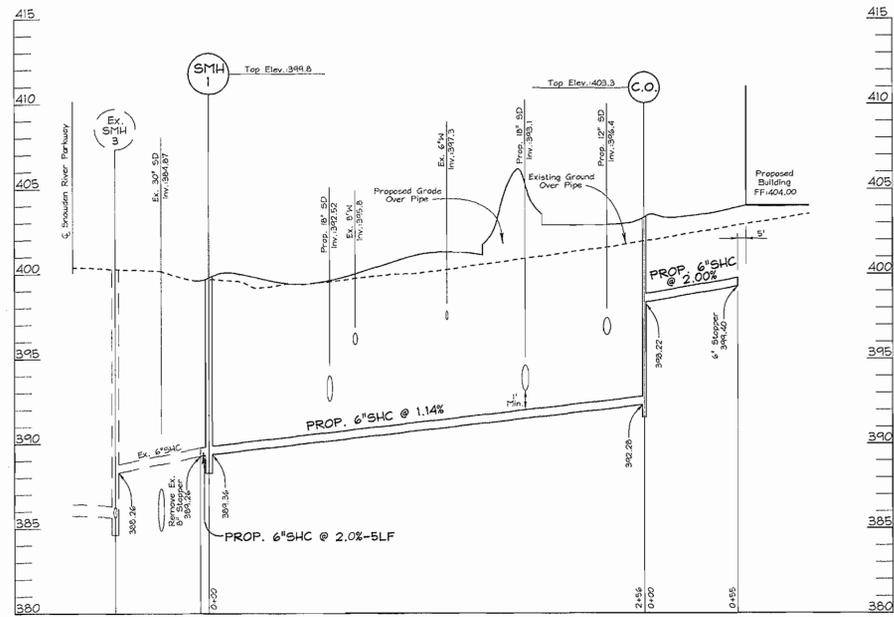
STORM DRAIN DRAINAGE AREA MAP
COLUMBIA ROUTE 108 COMMERCIAL

TAX MAP #37 GRID #1 PARCEL A-1
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

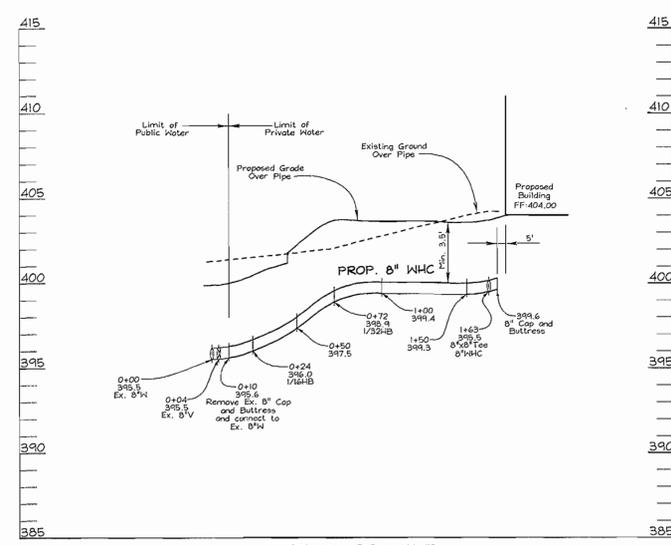
VOGEL & ASSOCIATES
 ENGINEERS-PLANNERS-REGISTERED
 3691 Park Avenue, Suite 101 • Ellicott City, Maryland 21043
 Tel 410.461.5828 Fax 410.465.3956



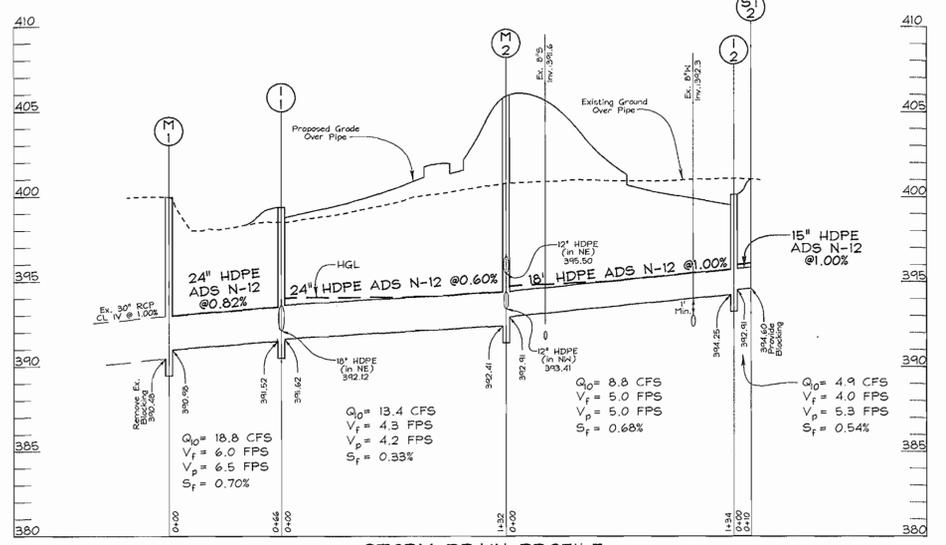
DESIGN BY: RHW
 DRAWN BY: PS
 CHECKED BY: RHW
 DATE: Sept. 21, 2000
 SCALE: 1"=30'
 W.O. NO.: 99-131



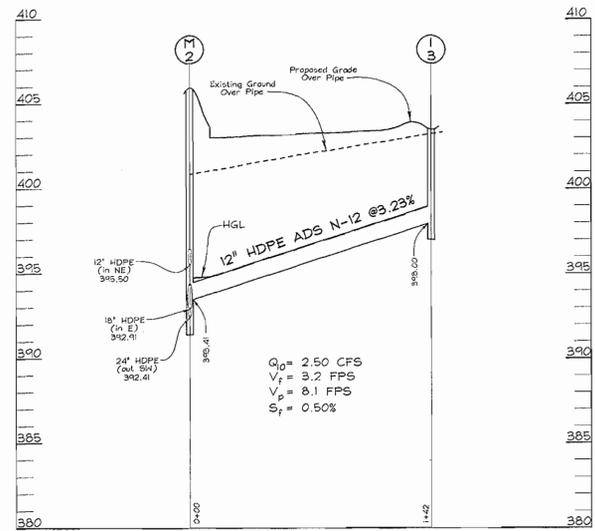
SEWER PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



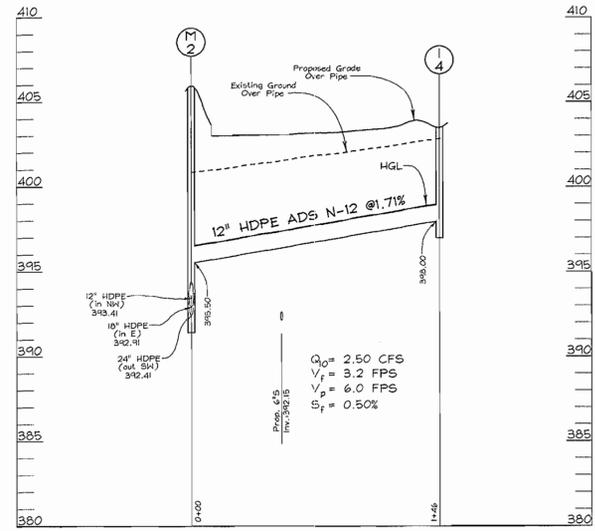
WATER PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



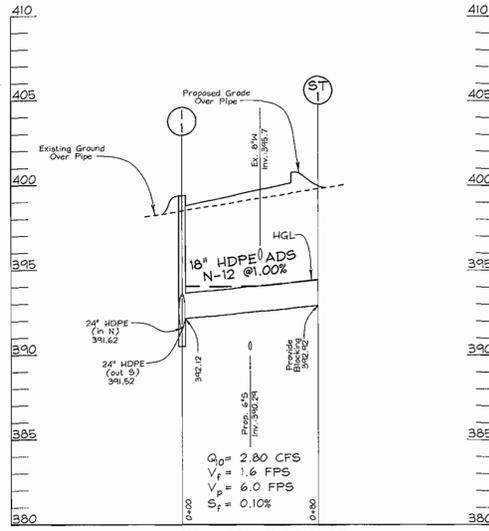
STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



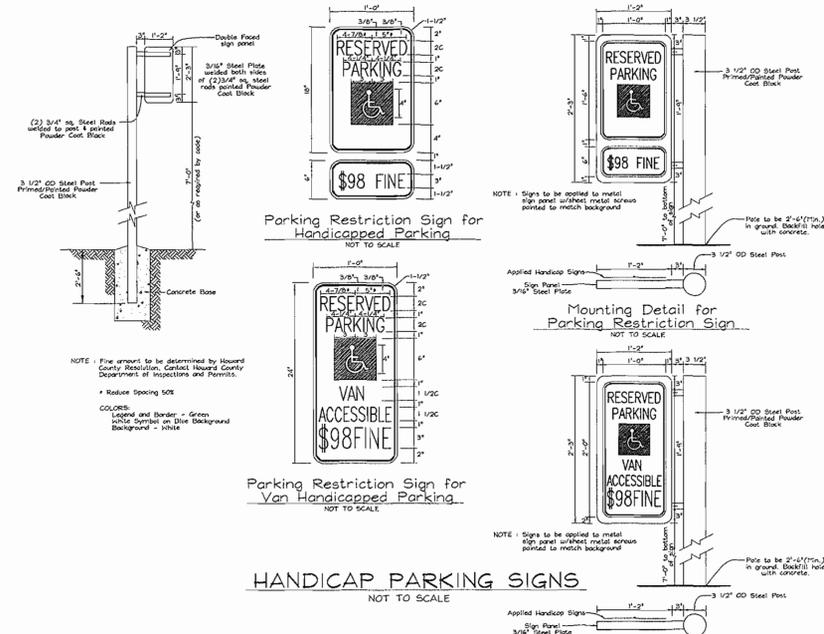
STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'

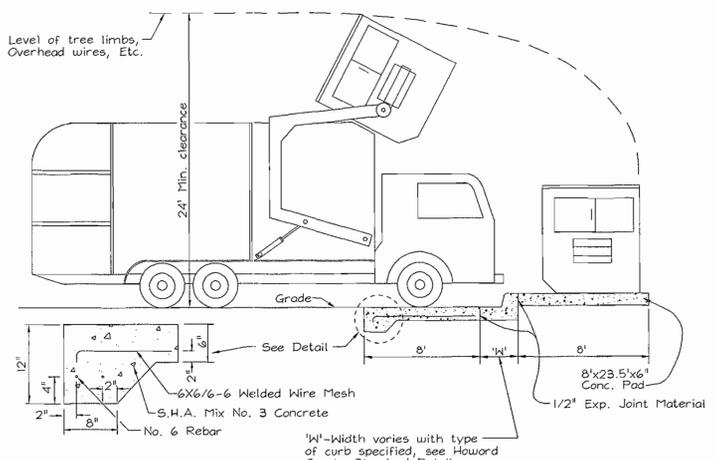
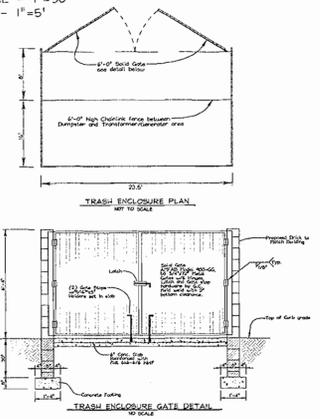


HANDICAP PARKING SIGNS
NOT TO SCALE

PIPE SCHEDULE						
FROM	TO	SIZE	TYPE	LENGTH	REMARKS	
M-1	I-1	24"	HDPE ADS N-12	66 LF		
I-1	M-2	24"	HDPE ADS N-12	132 LF		
M-2	I-2	18"	HDPE ADS N-12	134 LF		
I-2	ST-2	15"	HDPE ADS N-12	10 LF		
I-1	ST-1	15"	HDPE ADS N-12	80 LF		
M-2	I-3	12"	HDPE ADS N-12	142 LF		
M-2	I-4	12"	HDPE ADS N-12	146 LF		

STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	REMARKS
I-1	Precast Standard A-10	N 562,274 E 1,368,543	399.40	392.12	391.52	SD 4.41
I-2	Precast Standard A-10	N 562,436 E 1,368,659	400.13	392.91	394.25	SD 4.41
I-3	Yard Inlet	N 562,547 E 1,368,567	403.5	-	398.00	SD 4.14
I-4	Yard Inlet	N 562,537 E 1,368,476	403.5	-	398.00	SD 4.14
M-1	Standard 5'-0" Manhole	N 562,210 E 1,368,559	400.0	390.98	390.48	G 5.13
M-2	Standard 4'-0" Manhole	N 562,406 E 1,368,529	405.92	395.50	392.41	G 5.12

NOTE: Top elevations are to the center of the structure at top of curb for A-10 inlets, and top of grate for Yard inlets.



SOLID WASTE SERVICE PAD
HOWARD COUNTY STD. R 11.01
NOT TO SCALE

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE APRIL 6, 2000

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 10/27/00
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK
 [Signature] 10/27/00
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 10/27/00
 DIRECTOR

OWNER DEVELOPER
Somersford Corp.
19642 Club House Road, Suite 620
Gaithersburg, MD 20886
301.963.6500

STORM DRAIN, WATER AND SEWER PROFILES
COLUMBIA ROUTE 108 COMMERCIAL

TAX MAP #37 GRID #1
6TH ELECTION DISTRICT

PARCEL A-1
HOWARD COUNTY, MARYLAND

VOGEL & ASSOCIATES
ENGINEERS/SURVEYORS/PLANNERS
3591 Park Avenue, Suite 101 • Ellicott City, Maryland 21043
Tel 410.461.5828 Fax 410.465.3966

DESIGN BY: PS
DRAWN BY: PS
CHECKED BY: RHV
DATE: Sept. 21, 2000
SCALE: As Shown
W.O. NO.: 99-131

STATE OF MARYLAND
ROBERT H. VOGEL, PE No. 6193
PROFESSIONAL ENGINEER

6 SHEET OF 7

GENERAL NOTES

- This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual. The required parking and perimeter landscaping will be bonded per this submission.
- Financial Surety for the required landscaping must be posted as part of the Development Agreement in the amount of \$9,750.00 for 23 shade trees and 19 evergreen trees.
- Drive lighting to be Kim Entablature ET Luminaire; 25' black steel round poles; 250 Watt Metal Halide.
- Landscaping within HRD Open Space Lot #1 is to be in addition to existing plantings.
- HRD requirement for a 2.69 acre commercial site is 30 shade trees (or equivalent) per acre or 81 shade trees. Credit for 40 shade trees taken for existing screening, which leaves a net requirement of 41 shade trees or their equivalent.
- Planting details are located on Sheet 2 of 7.
- Sign & Fence details are located on Sheet 1 of 7.
- When choosing flowers, bulbs and shrubs for color, the majority shall be reds, yellows & oranges which the elderly can see. Blues & violets are less visible to seniors so these colors should be used less often.
- Existing trees in buffer along boundary shall be replaced if damaged during construction.

CATEGORY	ADJACENT TO			
	ROADS	PERIMETER PROPERTIES		
Perimeter/Frontage Designation	1	2	3	4
Landscape Type	B	C	A	C
Linear Feet of Roadway Frontage/Perimeter	92	306	558	33
Credit for Existing Vegetation* (Yes, No, Linear Feet Describe below if needed)	No	Yes* 192'	No	No
Credit for Wall, Fence or Berm (Yes, No, Linear Feet Describe below if needed)	No	No	No	No
Number of Plants Required				
Shade Trees	1:50 2	1:40 8	1:60 9	1:40 1
Evergreen Trees	1:40 2	1:20 15	-	1:20 2
Shrubs	-	-	-	-
Number of Plants Provided				
Shade Trees	2	2	5	4
Evergreen Trees	2	15	8	-
Other Trees (2:1 Substitution)	-	-	-	-
Shrubs (10:1 Substitution)	-	-	-	-
Describe Plant Substitution Credits Below if needed	-	25*	-	-

* 25 Existing 6-8' Tall Spruce

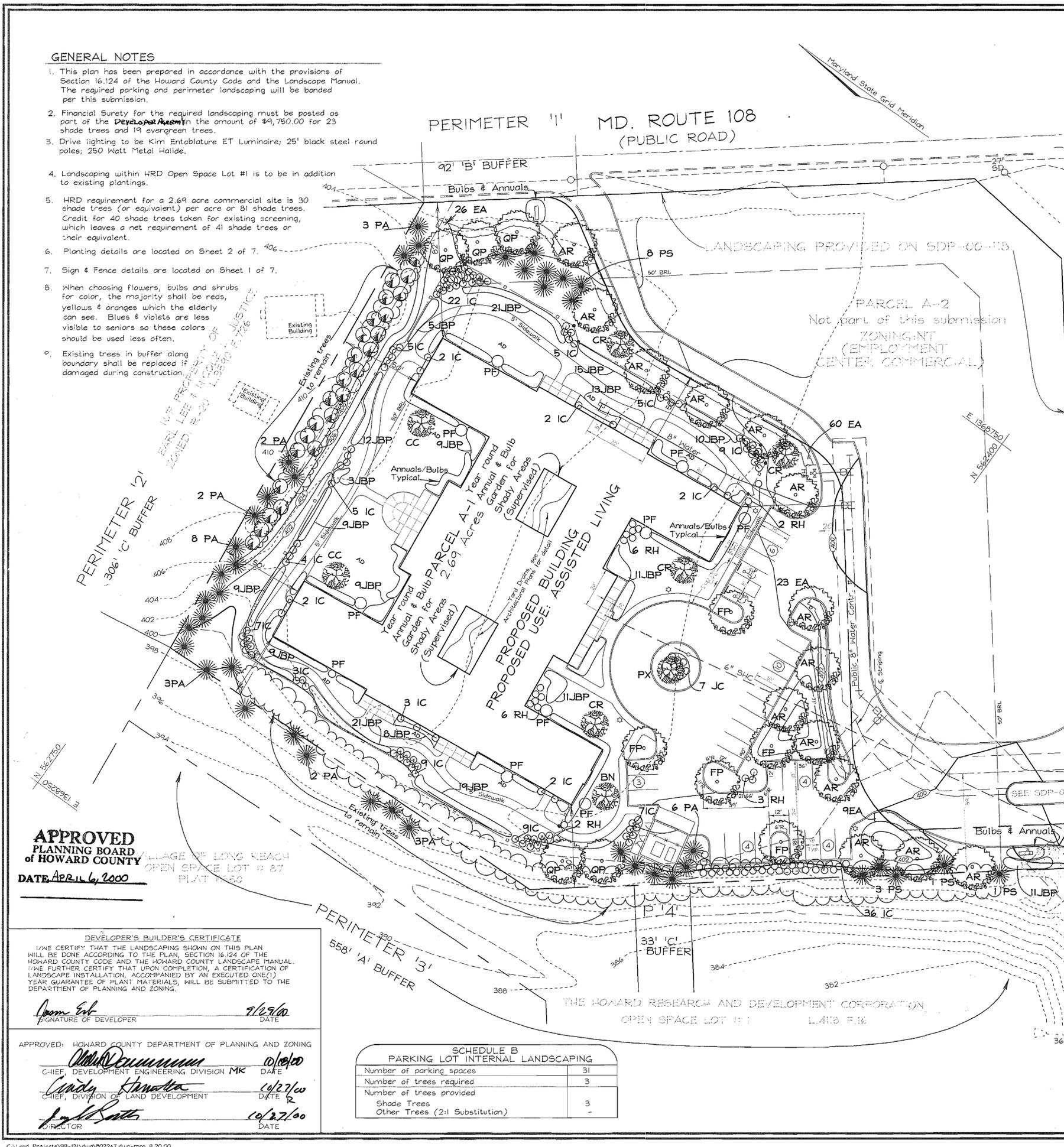
LEGEND

Existing Contour - - - - -382
 Proposed Contour - - - - -382.53
 Spot Elevation - - - - -
 Direction of Flow - - - - -

Existing Trees to Remain - - - - -
 Light Poles Post Top - - - - - Overhead - - - - -
 Shade Trees - - - - -
 Evergreen Trees - - - - - 2PS Existing
 Shrubs/Hedge - - - - - 5RH 13EA
 Flowering Trees - - - - - PY
 Ground Cover - - - - - 57JBP
 Perimeter Landscape Edge - - - - - PERIMETER '1'

KEY	QUAN.	BOTANICAL NAME	SIZE	REM.
AR	14	Acer rubrum October Glory Red Maple	3-3 1/2" Cal.	B # B
BN	1	Betula nigra 'Heritage' Heritage River Birch	14 - 16' Ht.	B # B
CC	2	Carpinus caroliniana American Hornbeam	2 - 2 1/2" Cal.	B # B
CR	4	Cornus rutgersensis 'Aurora' White Steller Dogwood	9 - 11' Ht.	B # B
EA	118	Euonymus alata 'Compacta' Compact Winged Euonymus at 3' o.c.	30" - 36" Ht.	B # B
FP	5	Fraxinus p. 'Patmore' Patmore Green Ash	3-3 1/2" Cal.	B # B
IC	139	Ilex crenata 'Glory' Male Japanese Holly	30" - 36" Ht.	B # B
JC	7	Juniperus d.e. 'Parsonii' Parsons Juniper	18"-24" Spd.	B # B
JBP	183	Juniperus c. var. sargentii 'Glauda' Blue Sargent Juniper	2 Gallon	4' o.c.
PA	29	Picea abies Norway Spruce	7 - 9' Ht.	B # B
PF	10	Photinia 'Fraseri' Fraser Photinia	30" - 36" Ht.	B # B
PS	13	Pinus strobus Eastern White Pine	7 - 9' Ht.	B # B
PX	1	Prunus c. 'Thundercloud' Purpleleaf Flowering Plum	2 1/2"-3" Cal.	B # B
QP	5	Quercus phellos Willow Oak	3-3 1/2" Cal.	B # B
RH	19	Rhododendron hy. 'PJM' PJM Rhododendron	18"-24" Spd.	B # B

- ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AAN SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH HRD PLANTING SPECIFICATIONS.
- MAINTENANCE TO INCLUDE MONITORING AND HAND WATERING AS NEEDED FOR THE FIRST TWO GROWING SEASONS TO ESTABLISH WOODY PLANTS. SPECIALIZED PLANTING AREAS INCLUDING INTERIOR COURTYARDS AND ANNUAL BEDS MAY REQUIRE REGULAR HAND WATERING OR IRRIGATION.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
- FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
- CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.
- INDIGENOUS PLANT SPECIES, AS REQUESTED BY OWNER, SHALL BE USED WHEN AVAILABLE IN THE TRADE.
- ALL PLANT MATERIALS WITHIN THE FENCED AREA ARE TO BE FREE FROM HARMFUL CHARACTERISTICS SUCH AS TOXINS, AND/OR SHARP OR ABRASIVE EDGES.
- ALL PLANT MATERIALS WITHIN THE FENCED AREA SHALL NOT HAVE ATTRACTIVE FEATURES SUCH AS BERRIES OR FRUIT.



APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE: APR 14, 2000

DEVELOPER'S BUILDER'S CERTIFICATE
 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. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE(1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Open Ent
 SIGNATURE OF DEVELOPER
 9/29/00
 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chris DeMunnich 10/29/00
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

Christa Hester 10/27/00
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Frank Satter 10/27/00
 DIRECTOR DATE

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING	
Number of parking spaces	31
Number of trees required	3
Number of trees provided	3
Shade Trees	3
Other Trees (2:1 Substitution)	-

LANDSCAPE PLAN
COLUMBIA ROUTE 108
COMMERCIAL

TAX MAP #37 GRID #1 PARCEL A-1
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

VOGEL & ASSOCIATES
 ENGINEERS/SURVEYORS/PLANNERS
 3691 Park Avenue, Suite 101 • Elkoff City, Maryland 21043
 Tel 410.461.5628 Fax 410.465.3966

DESIGN BY: MHM
 DRAWN BY: PS/TMM
 CHECKED BY: RHV
 DATE: September 20, 2000
 SCALE: 1"=30'
 W.O. NO.: 99-131

7 SHEET OF 7