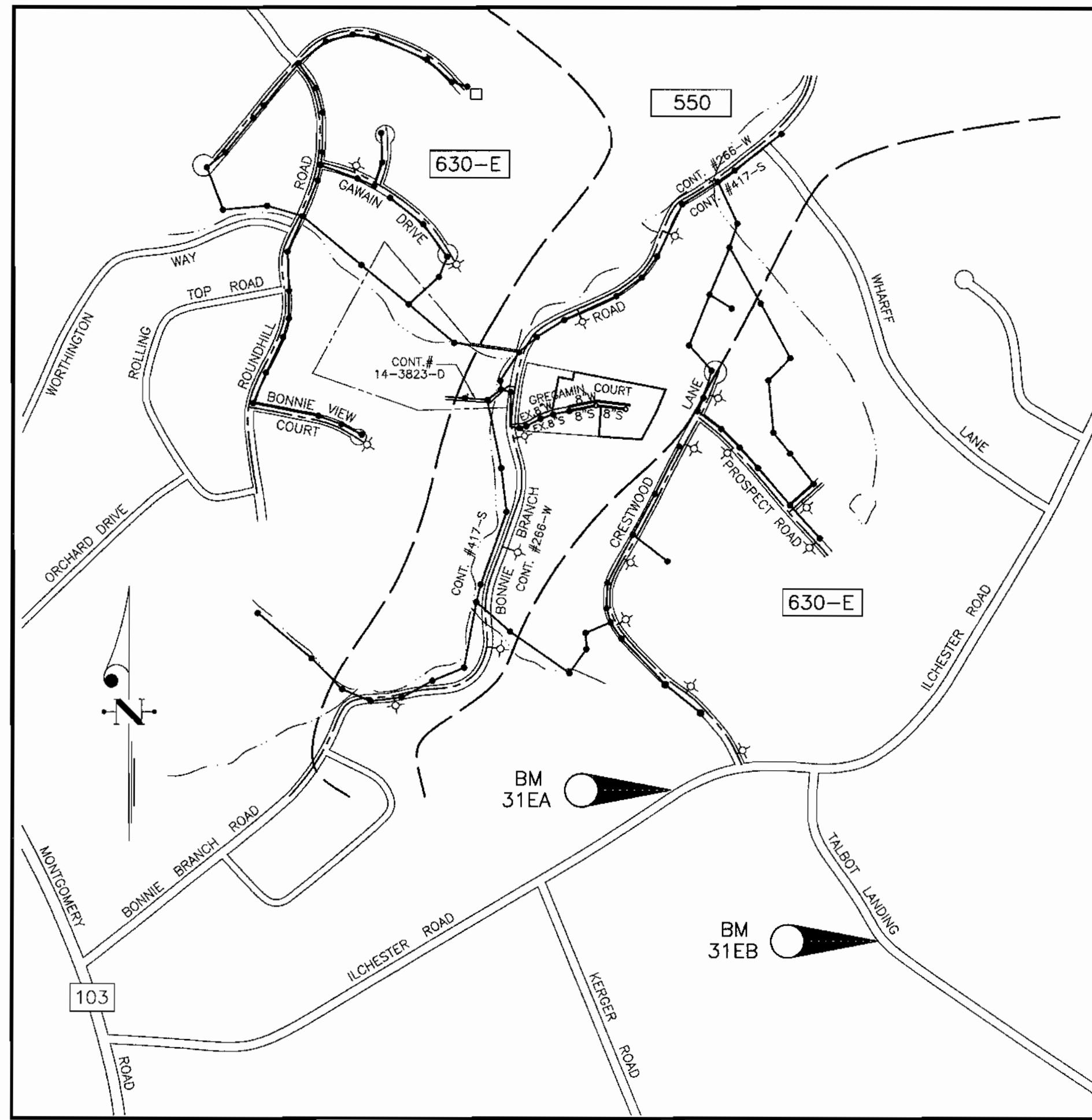


VICINITY MAP
SCALE: 1" = 2,000'

WATER AND SEWER STAKEOUT CHART			
DESCRIPTION	W STA.	NORTH	EAST
6" 1/16 HB	1+49	571,859.587	1,374,506.877
6" CAP	3+30	571,837.689	1,374,686.068
MANHOLE NO. 17		571,849.461	1,374,507.299
MANHOLE NO. 18		571,829.932	1,374,667.110



WATER CODE: G01
SEWER CODE: 1255000
TEST GRADIENT: 700

LOCATION MAP
SCALE: 1" = 600'

BENCH MARKS

MONUMENT	DESCRIPTION	ELEVATION	NORTHING	EASTING
31EA	MONUMENT	469.603	569,641.123	1,374,815.935
31EB	MONUMENT	453.396	568,730.984	1,376,273.491

TYPE OF BUILDING	SINGLE FAMILY DETACHED
NO. OF LOTS/PARCELS	6 BUILDABLE
NO. OF WATER HOUSE CONNECTIONS	8
NO. OF SEWER HOUSE CONNECTIONS	9
DRAINAGE AREA	DEEP RUN (PATAPSCO)
TREATMENT PLANT	PATAPSCO WASTEWATER TREATMENT PLANT

GENERAL NOTES

- PART I - GENERAL
- Approximate locations of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted service. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the contractor's expense.
 - All horizontal controls are based on Maryland State Coordinates, NAD 83/91.
 - All vertical controls are based on NAVD 88.
 - All pipe elevations shown are invert elevations unless otherwise noted on plans.
 - Clear all utilities by a minimum of 12". Clear all poles by 5'-0" minimum or tunnel as required unless otherwise noted. The owner has contacted the utility companies and has made arrangements for bracing of poles as shown on the drawings. In the event the contractor's work requires the bracing of additional poles, any cost incurred by the owner for bracing of additional poles or damages shall be deducted from monies owed the contractor. The contractor shall coordinate with the utility companies to schedule the bracing of the poles.
 - For details not shown on the drawings, and for materials and construction methods, use Howard County Design Manual, Volume IV, Standard Specifications and Details for Construction (Latest Edition). The contractor shall have a copy of Volume IV on the job.
 - Where test pits have been made on existing utilities, they are noted by the symbol \oplus at the locations of the test pits. A note or notes containing the results of the test pit or pits is included on the drawings. Existing utilities in the vicinity of the proposed work for which test pits have not been dug shall be located by the contractor two weeks in advance of construction operations at his own expense.
 - The contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:
 - AT&T 1-800-252-1133
 - BGE (Contractor Services) 410-850-4620
 - BGE (Under Ground Damage Control) 410-787-9068
 - Bureau of Utilities 410-313-4900
 - Colonial Pipeline Co. 410-795-1390
 - Miss Utility 1-800-257-7777
 - State Highway Administration 410-531-5533
 - Verizon 1-800-743-0033 / 410-224-9210
 - Trees and shrubs are to be protected from damage to the maximum extent. Trees and shrubs located within the construction strip are not to be removed or damaged by the contractor.
 - Contractor shall remove trees, stumps and roots along line of excavation. Payment for such removal shall be included in the unit price bid for construction of the main.
 - The contractor shall notify the Bureau of Highways, Howard County, at (410) 313-7450 at least five working days before open cutting or boring/jacking of any County road for laying water/sewer mains or house connections. The approval of these drawings will constitute compliance with DPW requirements per Section 18.114(a) of the Howard County Code.

- PART II - WATER
- All water mains shall be D.I.P. Class 52 unless otherwise noted.
 - Tops of all water mains shall have a minimum of 3'-6" cover unless otherwise noted.
 - Valves adjacent to tees shall be strapped to tees.
 - All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
 - Fire hydrants shall be set to the bury line elevations shown on the drawings. All fire hydrants shall be installed in accordance with Standard Details. The soil around the fire hydrant shall be compacted in accordance with Section 1000 and Section 1005 of the Standard Specifications.
 - The contractor shall not operate any water main valves on the existing water system.

- PART III - SEWER
- All sewer mains shall be D.I.P. or P.V.C. unless otherwise noted.
 - All manholes shall be 4'-0" inside diameter unless otherwise noted.
 - Force mains shall be D.I.P. only.
 - Manholes shown with 12" and 16" walls are for brick manholes only.
 - Manholes designated W.T. in plan and profile shall have watertight frame and cover, Standard Detail GS.52. Where watertight manhole frames and covers are used, set top of frame 1'-6" above finished grade unless otherwise noted on the drawings.
 - House(s) with the symbol "C.N.S." indicates that the cellar cannot be served.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH ROAD CONSTRUCTION PLAN, F-01-208, DRAWINGS 2 & 3, SEDIMENT AND EROSION CONTROL.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

[Signature] 6/7/04
SIGNATURE DATE
Nancy Resner
U.S. SOIL CONSERVATION SERVICE

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

APPROVED: *[Signature]* 6/3/04
HOWARD S. C. D. DATE

OWNER/DEVELOPER

BONNIELASS, L.L.C.
8835-P Columbia 100 Pkwy.
Columbia, Md. 21045
410-730-0810

WATER & SEWER CONSTRUCTION PLANS

BONNIELASS
LOTS 5 - 10

1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

CONTRACT No. 14-4210-D



QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" S	308 LF			
4' DIA. MH	2 EA.			
8" W	330 LF			
4" SHC	90 LF			
1" WHC	110 LF			
NAME OF UTILITY CONTRACTOR:				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE:				

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

CLARK · FINEFROCK & SACKETT, INC.
ENGINEERS · PLANNERS · SURVEYORS
7135 MINSTREL WAY COLUMBIA, MD 21045
(410) 381-7500 BALT. (301) 621-8100 WASH.

DES:	CCM				
DRN:	LAI				
CHK:	CCM				
DATE:	2-18-04	BY	NO.	REVISION	DATE

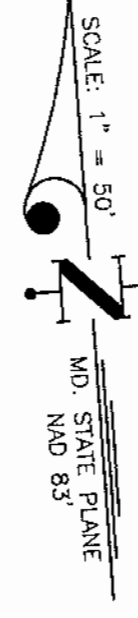
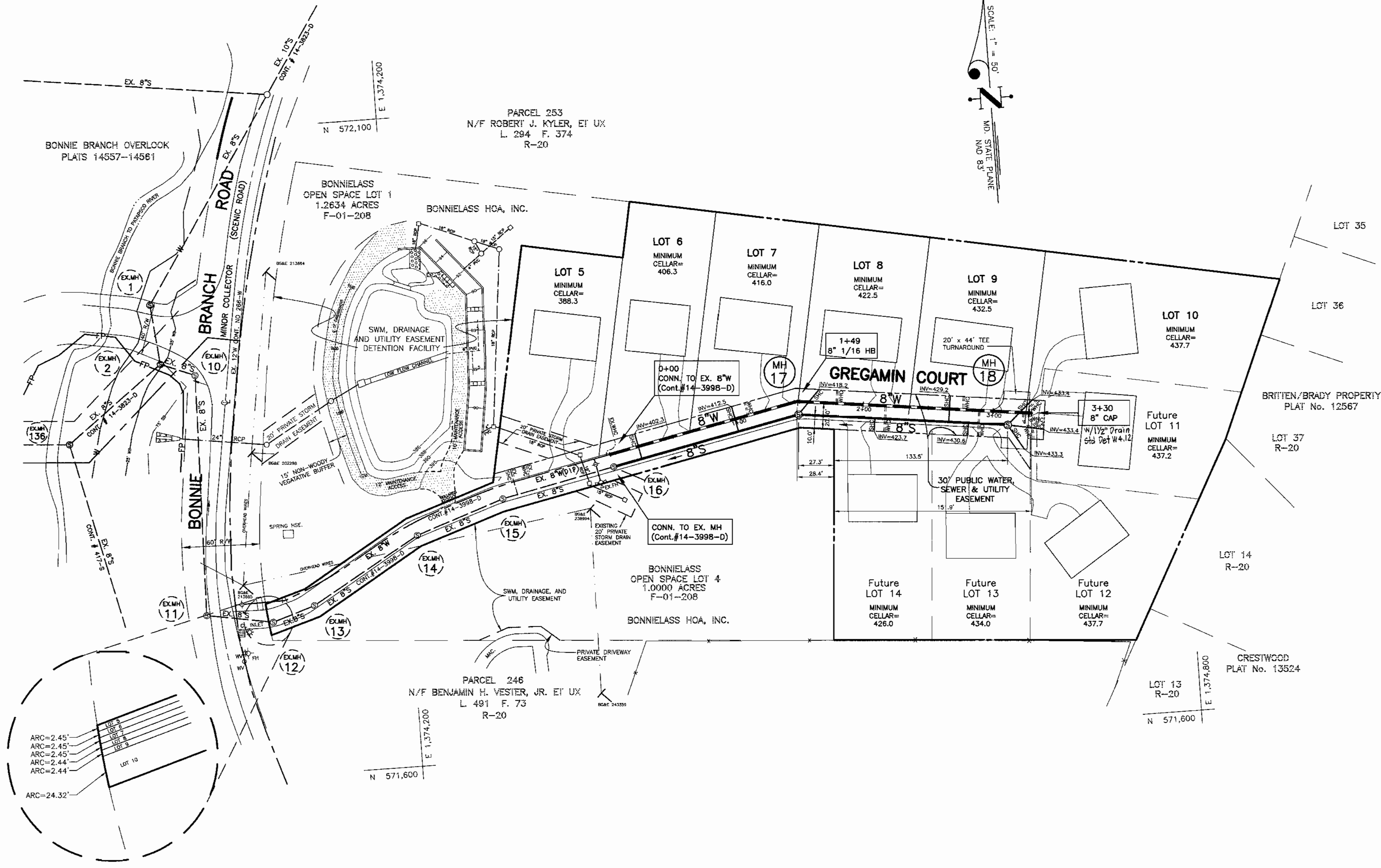
TITLE SHEET

600' SCALE MAP NO. 31 BLOCK NO. 10

BONNIELASS
LOTS 5-10
1ST ELECTION DISTRICT
CONTRACT No. 14-4210-D

SCALE:
AS SHOWN
SHEET
1 OF 3
03-066-W51

J:\03-066-BONNIELASS\W&S\LOTS5-10-WS-COVER.DWG



SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH ROAD CONSTRUCTION PLAN, F-01-20B, DRAWINGS 2 & 3, SEDIMENT AND EROSION CONTROL.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Jim Myers / *las* / *6/7/04*
SIGNATURE / DATE
Natural Resources
U. S. SOIL CONSERVATION SERVICE

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

APPROVED:
Howard S. C. D. / *6/7/04*
HOWARD S. C. D. / DATE



J:\03-066-BONNIELASS\W&S\LOTS5THRU10-WS-PLAN.DWG

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
R. J. ... / *6-4-04*
CHIEF, BUREAU OF UTILITIES / DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
[Signature] / *6/1/04*
CHIEF, DEVELOPMENT ENGINEERING DIVISION / DATE

CFE CLARK · FINEFROCK & SACKETT, INC.
ENGINEERS · PLANNERS · SURVEYORS
7135 MINSTREL WAY COLUMBIA, MD 21045
(410) 381-7500 BALT. (301) 621-8100 WASH.

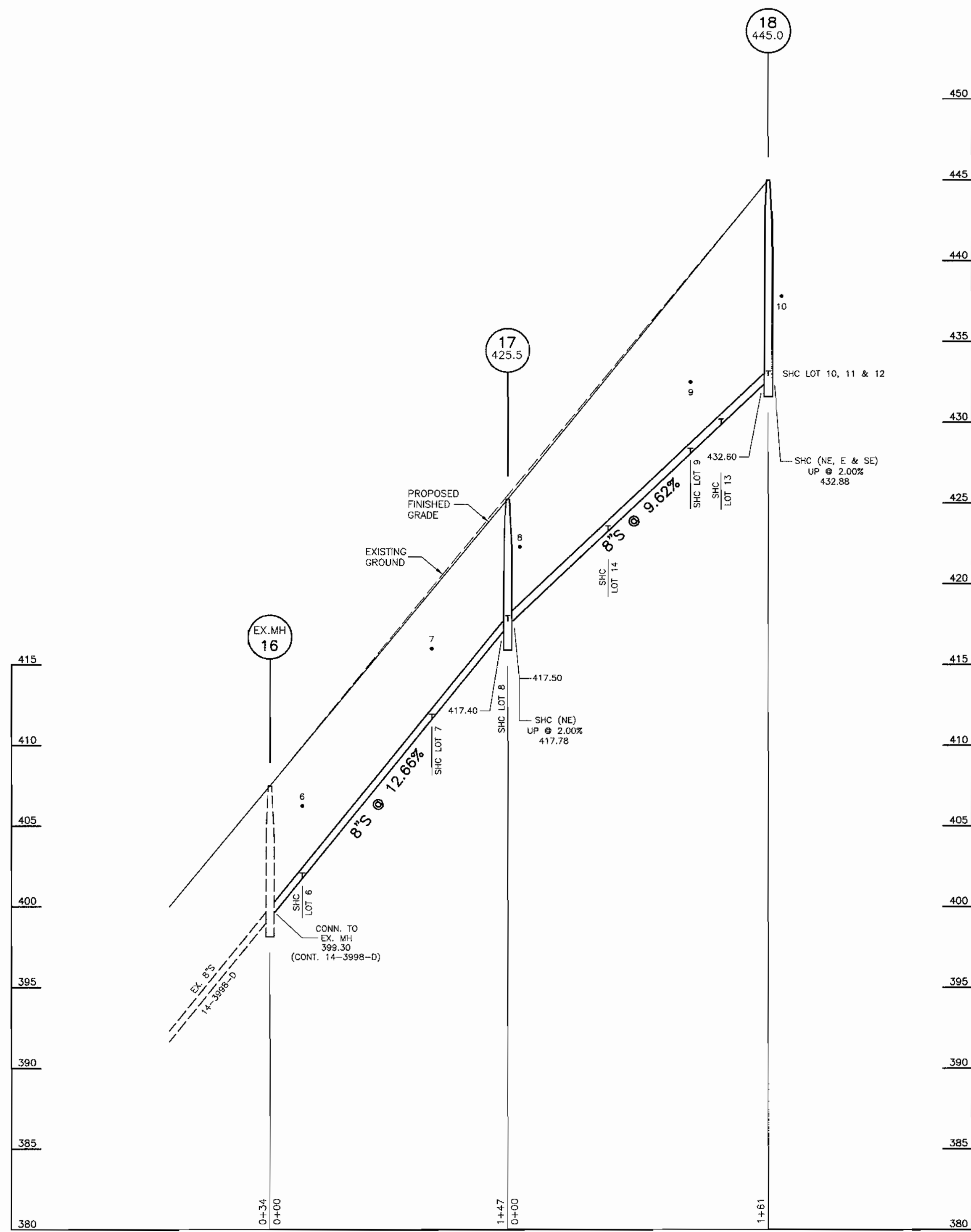
DES:	CCM				
DRN:	LAI				
CHK:	CCM				
DATE:	2-18-04	BY	NO.	REVISION	DATE

PLAN AND PROFILE
600' SCALE MAP NO. 31 BLOCK NO. 10

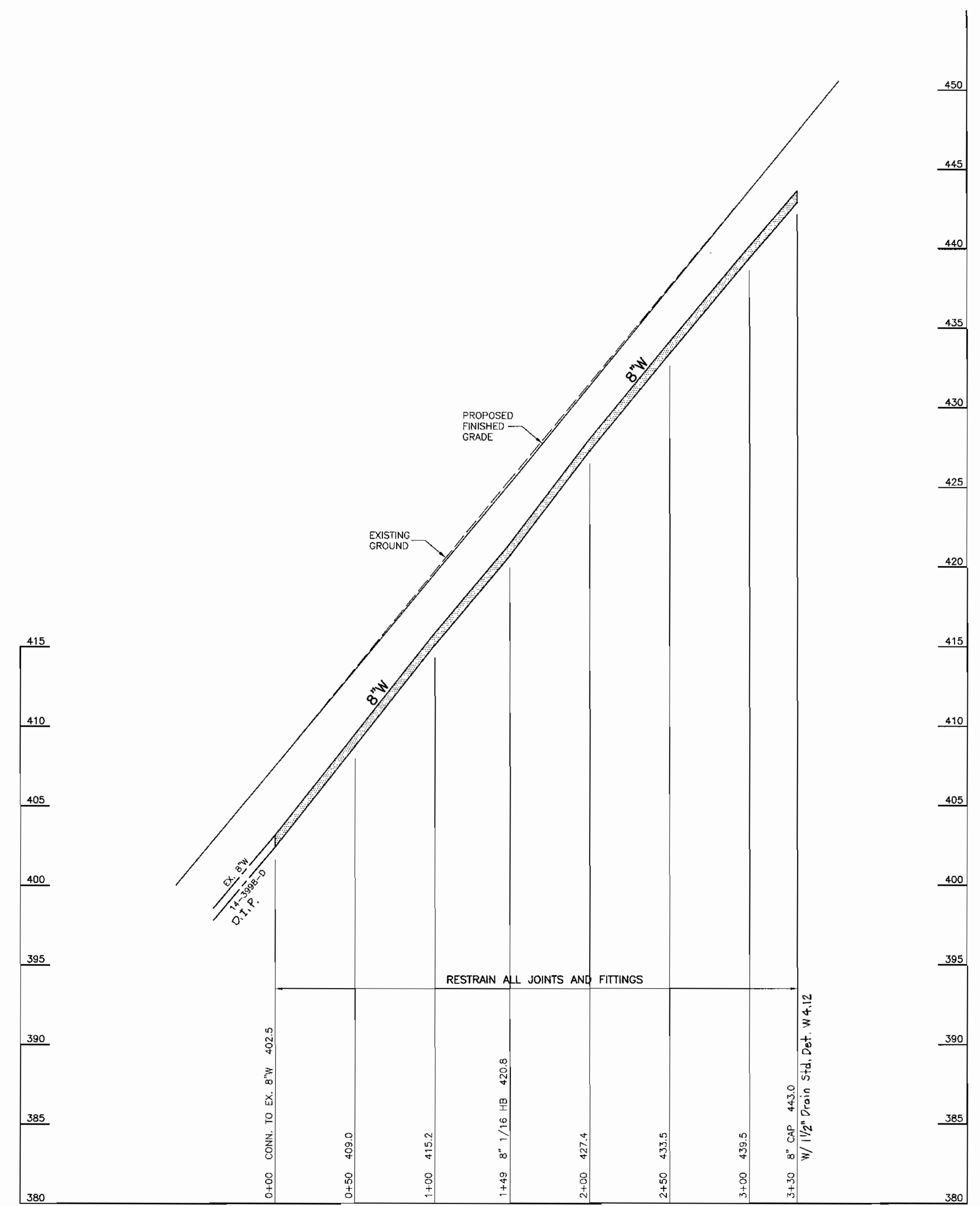
BONNIELASS
LOTS 5-10
1ST ELECTION DISTRICT
CONTRACT No. 14-4210-D

SCALE:
AS SHOWN
SHEET
2 OF 3
03-066-WS2

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PROFILE SCALES: HORIZ.: 1" = 50'
VERT.: 1" = 5'



PROFILE SCALES: HORIZ.: 1" = 50'
VERT.: 1" = 5'

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH ROAD CONSTRUCTION PLAN, F-01-208, DRAWINGS 2 & 3, SEDIMENT AND EROSION CONTROL.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Jim Meyer 6/7/04
SIGNATURE DATE

Nikolas Kasowitz CONSERVATION SERVICE

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

APPROVED: *Howard S. C. D.* 6/7/04
HOWARD S. C. D. DATE



J:\03-066-BONNIELASS\W&S\LOTS5THRU10-WS-PROF.DWG

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

CFE CLARK · FINEFROCK & SACKETT, INC.
ENGINEERS · PLANNERS · SURVEYORS
7135 MINSTREL WAY COLUMBIA, MD 21045
(410) 381-7500 BALT. (301) 621-8100 WASH.

Ruth Berman 6-4-04
CHIEF, BUREAU OF UTILITIES DATE

Jim Meyer 6/7/04
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

DES:	CCM			
DRN:	LAI			
CHK:	CCM			
DATE:	2-18-04			
BY	NO.	REVISION	DATE	

PLAN AND PROFILE

600' SCALE MAP NO. 31 BLOCK NO. 10

BONNIELASS
LOTS 5-10
1ST ELECTION DISTRICT
CONTRACT No. 14-4210-D

SCALE:
AS SHOWN
SHEET
3 OF 3
03-066-WS3