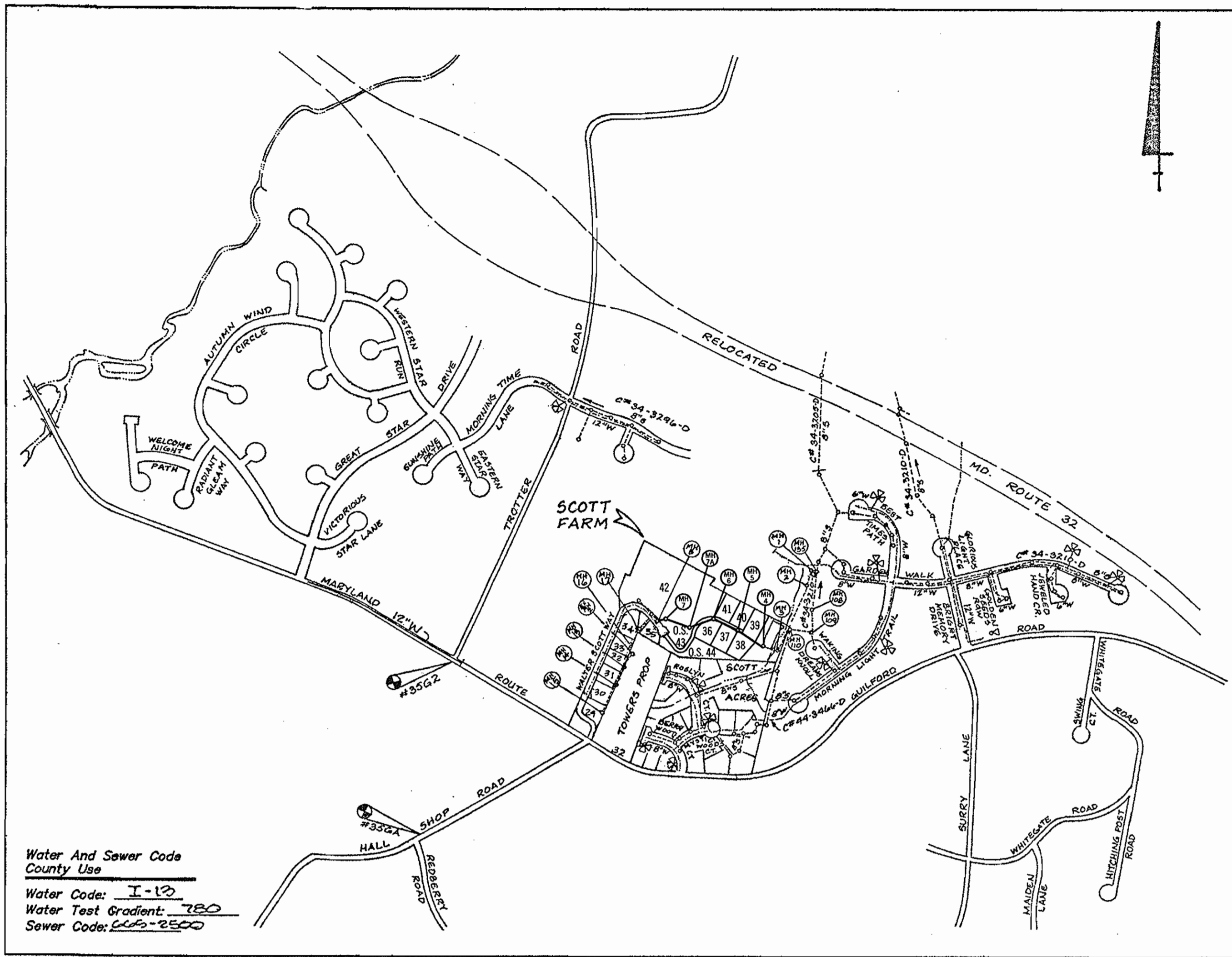


Bench Marks:

Ho. Co. Monument # 35G2
Elev 477.63
Concrete Monument NW Corner of Inter-
section of Guilford Road & Trotter Road.

Ho. Co. Monument # 35GA
Elev 482.11
Concrete Monument N Side of Hall Shop
Road Past Redberry Road.

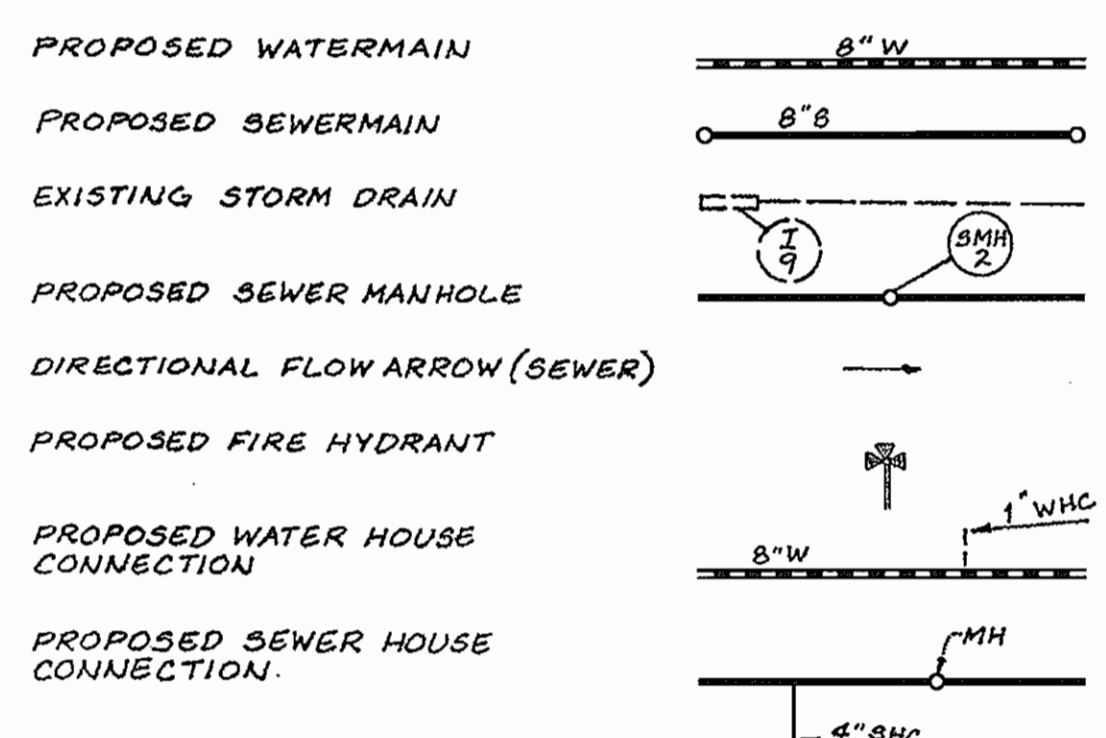
Index of Sheets	
Sheet No.	Title
1	Cover Sheet
2	Plan View (Lots 29-35)
3	Plan View (Lots 36-44)
4	Water Profiles
5	Sewer Profiles
6	Soil Erosion & Sediment Control Plan, Details & Notes



General Notes

- PART I**
- Approximate location of existing mains are shown. The Contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted supply. 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.
 - All vertical controls are based on U.S.G.S. data.
 - All pipe elevations shown are invert elevations.
 - Clear all utilities by a minimum of 6". Clear all poles by 2'0" minimum or tunnel as required. 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 money 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 at the location of the test pit. 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 which test pits have not been dug shall be located by the Contractor two weeks in advance of construction operations at his own expense.
 - Contractor shall notify the following utility companies or agencies at least five (5) working days before starting work shown on these plans:
 - SHA: (410) 531-5533
 - BGE (Contractor Services): (410) 850-4620
 - BGE (Underground damage control): (410) 787-9068
 - Miss Utility: 1-800-257-7777
 - Colonial Pipeline Company: (410) 795-1390
 - Howard County Dept. of Public Works, Bureau of Utilities: 313-4900
 - Trees and shrubs are to be protected from damage to maximum extent. Trees and shrubs 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.
- PART II: WATER**
- All water mains to be D.I.P. Class 52 unless otherwise noted.
 - Tops of all water mains to have a minimum of 3 1/2' cover unless otherwise noted.
 - Valves adjacent to the tees shall be strapped to the tees.
 - All fittings shall be strapped 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 stressed with concrete in accordance with the Standard Details. Soil around the fire hydrant shall be compacted in accordance with Section 1000 and 1005 of the Standard Specifications.
 - The Contractor shall not operate any water main valves on the existing water system.
 - All water house connections shall be for inside meter setting unless otherwise noted on plans or in specifications.
- PART III: SEWER**
- All sewer mains to be D.I.P. and P.V.C. unless otherwise noted.
 - All proposed sewers shall be public.
 - All manholes shall be 4'0" inside diameter unless otherwise noted.
 - Force mains shall be D.I.P. only.
 - Manholes designated W.T. in plan and profile shall have water tight frame and covers; Standard Detail SS-52. Where watertight manhole frame and cover is used, set top of frame 1'6" above finished ground unless otherwise noted on the drawings.
 - Houses with the symbol "C.N.S." indicates that cellar cannot be served.
 - Manholes shown with 12" and 18" walls are for brick manholes only.
 - Offsite Public Utility Easement from the Columbia Association to Howard County recorded among the Land Records of Howard County on _____ in L. _____.
 - The Maryland Department of the Environment granted Permit No. 99-NI-0424/199966191 on April 3, 2000 to construct sewermain across Nontidal Wetlands and adjacent buffers between SHM Nos. 2 & 3.
 - All SHC's shall be constructed at a 2% grade to the Right-of-Way line, Property line or edge of Easement.

LEGEND



Water And Sewer Code
County Use
Water Code: I-13
Water Test Gradient: 780
Sewer Code: 642-2500

Type of Buildings:
Number of Lots/Parcels:
Number of W.H.C.'S:
Number of S.H.C.'S:
Drainage Area:
Treatment Plant:

Single Family Detached
8 Lots (1 Lot with Existing Dwelling, 7 New Dwellings & 0.5 G.P.)
14
Middle Patuxent
Little Patuxent Water Reclamation Plant
Somers, Howard County, MD

Vicinity Map
Scale: 1"=600'

**Water & Sewer Construction Plans
Scott Farm
Lots 27-44**

Tax Map No. 35 P/O Parcel 354
5th Election District Howard County, Maryland
Contract No. 34-3793-D

AS BUILT
DATE: AUGUST 17, 2005

Quantities				
As Built				
Item	Quantities Estimated	Quantities	Type	Manufacturer/Supplier
1" WHC	350 L.F.	221 L.F.	COPPER	
4" SHC	210 L.F.	143.56 L.F.	PVC SDR 35	DIAMOND PLASTICS
8" San Sewer	2023 L.F.	1522 L.F.	PVC SDR 35	DIAMOND PLASTICS
8" Watermain	1076.5 L.F.	651 L.F.		GRIFFIN PIPE
6" Watermain	68 L.F.	68 L.F.		GRIFFIN PIPE
Std. Fire Hydrant	4 Ea.	4 EACH		MUELLER
8"x6" F.H.T.	4 Ea.	4 EACH		
8"x8" Tee	2 Ea.	2 EACH		
8" Plug & Buttress	2 Ea.	2 EACH		
Horz. Bends	9 Ea.	9 EACH		
Type 'A' Drop Connection	1	1	TYPE 'A'	
Type 'B' Drop Connection	2	1	TYPE 'B'	HANSON
Manholes	14	13	PRECAST CONC.	HANSON
8"x18" Plug & Buttress	1	1		
Name of Utility Contractor:				

Check Box: Survey & Drafting Division
As Built Date: 8-17-2005

Reviewed For Howard Soil Conservation District
And Meets Technical Requirements.
Jim Meyer 4/16/04
Signature Date
Natural Resources Conservator

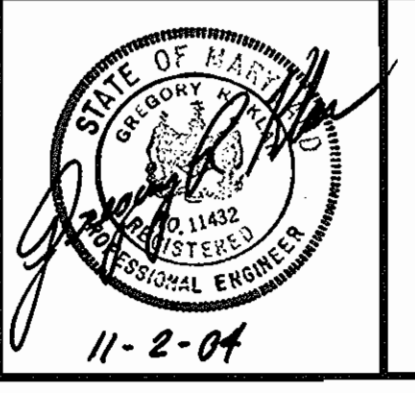
This Development Plan is Approved For Soil Erosion And Sediment Control
By The Howard County Soil Conservation District.
John R. Robertson 4/16/04
Signature Date
HOWARD COUNTY SOIL CONSERVATION DISTRICT

Sediment Control Measures for this Contract will be implemented in accordance with
Section 219 of The Standard Specification. Sediment Control Measures For The Onsite
Portion of The Proposed Utility Alignments will be implemented Under Final Road
Construction Plans: F-00-73. Sediment Control Measures For The Offsite Portion
of The Proposed Sewer Alignment Are Shown Hereon.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
R. J. Beaman 11-4-04
CHIEF - BUREAU OF UTILITIES - DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
William J. ... 4/21/04
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

No.	REVISION	DATE	BY



ENGINEERS • PLANNERS • SCIENTISTS • SURVEYORS
GREENHORNE & O'MARA, INC.
200 HARRY S TRUMAN PKWY. SUITE 200 ANNAPOLIS, MARYLAND 21401
(410) 266-0066
Greenbelt, MD - Annapolis, MD - Allentown, GA - Fairfax, VA - Fredericksburg, VA - Mechanicsburg, PA
Raleigh, NC - Rockville, MD - Tampa, FL - West Palm Beach, FL

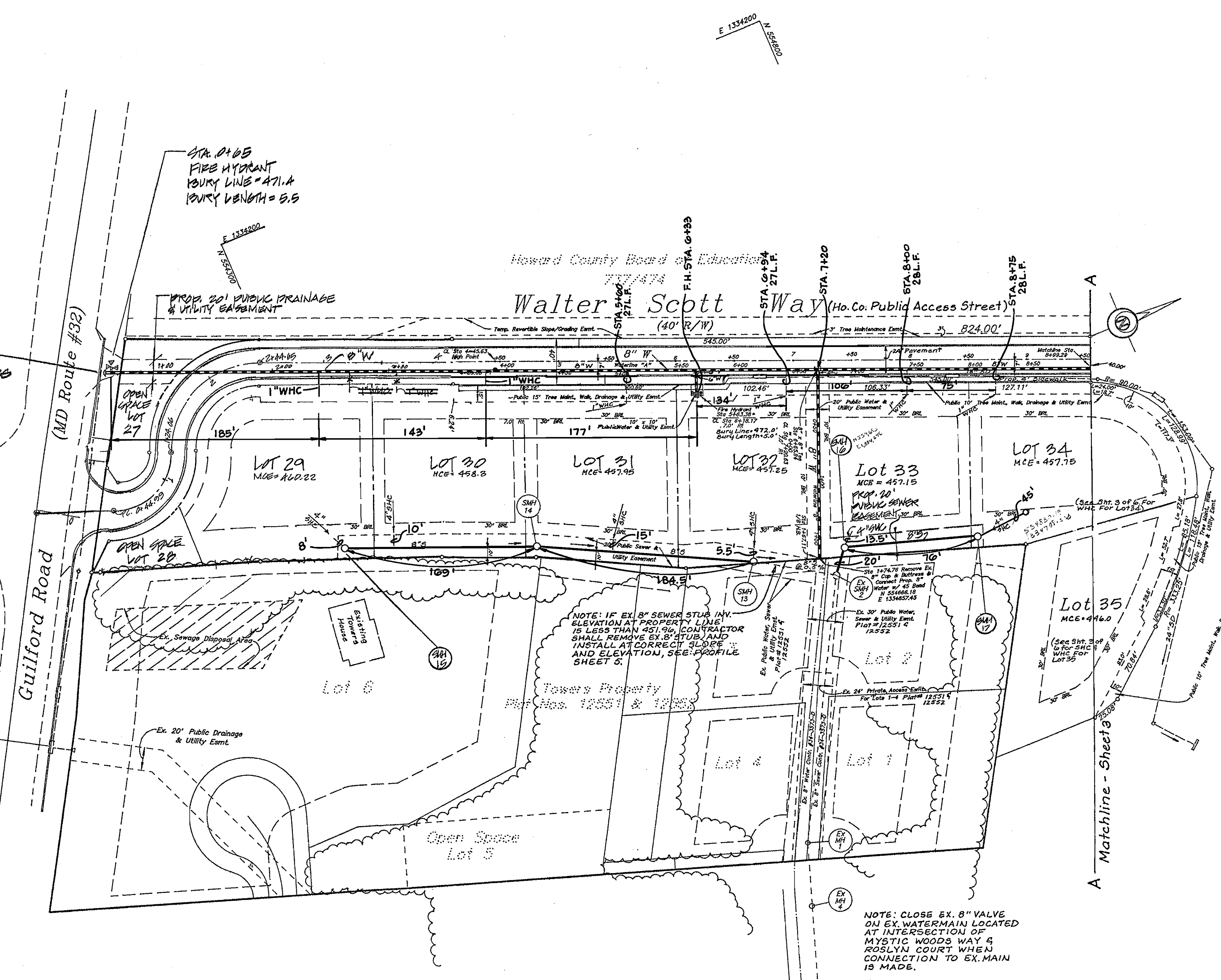
FINAL WATER AND SEWER CONSTRUCTION PLANS
SCOTT FARM
LOTS 27-44
WALTER SCOTT WAY AT GUILFORD ROAD
TAX MAP NO. 35 P/O PARCEL 354
OWNER/DEVELOPER
SCARLET HOLDINGS AND EARL OMER
4700 GUILFORD ROAD
CLARKSVILLE, MARYLAND 21039
CONTRACT NO. 34-3793-D

CVF DESIGN	AS SHOWN SCALE
LMM DRAWN	1 OF 6
GRK CHECKED	SHEET
NOV, 2004 DATE	PROJ No. FILE No.

WATER AND SEWER AS-BUILTS

- 49' SHC LOT 35 TO SMH #8
- 7' WHC LOT 35 TO SMH #8
- 6'-0" SMH #8 TO M WATER VALVE
- SMH #7 TO LOT 35 SHC
- 92'-0" SMH #7 TO LOT 35 WHC
- 44'-0" LOT 35 WHC TO LOT 35 SHC
- 53' M WV TO LOT 35 SHC
- 9' M WV TO LOT 35 WHC
- 13' M WV TO SMH #8
- 58' SMH #7 TO LOT 42 WHC
- 130' SMH #7A TO LOT 42 WHC
- 69'-0" SMH #7A TO LOT 42 SHC
- 112'-0" SMH #6 TO LOT 42 SHC
- 61' SMH #6 TO LOT 41 WHC
- 78' SMH #6 TO LOT 44 SHC
- 17'-0" LOT 41 WHC TO LOT 41 SHC
- 45' SMH #6 TO LOT 36 SHC
- 55' SMH #6 TO LOT 36 WHC
- 39'-0" LOT 36 SHC TO LOT 41 WHC
- 50' LOT 36 SHC TO LOT 41 SHC
- 14' LOT 36 WHC TO LOT 36 SHC
- 30' LOT 36 WHC TO LOT 41 WHC
- 37' LOT 36 WHC TO LOT 41 SHC
- 54' SMH 5 TO LOT 40 WHC
- 20' SMH 5 TO LOT 40 SHC
- 28'-0" SMH 5 TO FIRE HYDRANT
- 15' SMH 5 TO FIRE HYDRANT VALVE
- 39' LOT 40 SHC TO LOT 40 WHC
- 50'-0" SMH 5 TO LOT 37 SHC
- 32'-0" SMH 5 TO LOT 37 WHC
- 12' LOT 37 WHC TO LOT 37 SHC
- 11' FIRE HYDRANT TO LOT 40 SHC
- 3' FIRE HYDRANT TO LOT 40 WHC
- 47' FIRE HYDRANT TO LOT 37 WHC
- 62'-0" FIRE HYDRANT TO LOT 37 SHC
- 13' FIRE HYDRANT TO FIRE HYDRANT VALVE
- 7'-0" SMH 5 TO LOT 38 WHC
- 77' SMH 5 TO LOT 38 SHC
- 71'-0" LOT 38 SHC TO LOT 38 WHC
- 87'-0" FIRE HYDRANT TO LOT 38 SHC
- 35' FIRE HYDRANT TO LOT 38 WHC
- 42'-0" FIRE HYDRANT TO LOT 39 WHC
- 105' FIRE HYDRANT TO LOT 39 SHC
- 70'-0" LOT 39 SHC TO LOT 39 WHC
- 109'-0" SMH 5 TO LOT 39 SHC
- 47' SMH 5 TO LOT 39 WHC

NOTE: WATER LINE STATIONING EQUIVALENCY AT 8" CAP & BUTTRESS



SEWER HOUSE CONNECTION TABLE

LOT NO.	INV. @ MAIN	INV. @ PL/ EASMT	MIN. C.E.
29	455.22	455.42	460.22
30	454.75	454.95	459.00
31	452.75	452.95	457.75
32	452.10	452.26	457.25
33	452.15	452.35	457.15
34	452.04	453.32	457.15
35	437.60	438.30	442.00
36	422.16	422.26	426.50
37	416.50	416.60	421.00
38	400.33	400.43	406.00
39	398.25	398.35	404.00
40	407.20	407.30	412.00
41	420.24	420.34	423.00
42	427.00	427.40	434.50
43		OPEN SPACE	
44		OPEN SPACE	

SEWER STRUCTURE SCHEDULE

MANHOLE NO.	TOP RIM ELEV.	INV. IN	INV. OUT	LOCATION	REMARKS
1	393.15	385.10	384.95	N 555270.27 E 1335908.27	See Ho. Co. Std. G-3.11
2	394.80	386.21	386.11	N 655079.84 E 1335830.63	See Ho. Co. Std. G-5.11
3	403.90	388.34	388.14	N 644728.08 E 1335678.70	See Ho. Co. Std. G-5.11
4	400.80	391.31	391.11	N 564756.29 E 1335578.14	See Ho. Co. Std. G-5.11
5	419.30	413.80	407.00	N 554877.88 E 1335420.88	See Ho. Co. Std. G-1.32
6	434.70	425.10	424.80	N 554898.04 E 1335254.15	See Ho. Co. Std. G-3.11
7A	437.10	428.60	428.40	N 554898.00 E 1335090.62	See Ho. Co. Std. G-5.11
7	445.80	435.20	435.00	N 554857.90 E 1334926.39	See Ho. Co. Std. G-5.11
8	444.90	437.80	437.60	N 554906.70 E 1334894.08	See Ho. Co. Std. G-5.11
14	460.90	453.10	452.99	N 554445.62 E 1334548.46	See Ho. Co. Std. G-5.11
15	464.00	452.02	451.99	N 554910.65 E 1334530.82	See Ho. Co. Std. G-5.11
EX. MH# 2	454.50	451.60	451.50	N 554570.82 E 1334669.70	Existing Manhole
EX. MH# 135	397.40	384.90	384.70	N 555270.27 E 1335908.27	Existing Manhole

* The "Inverts In" shown on this schedule are for the public 8" main only. No SHC inverts are shown. Refer to the sewer house connection table for SHC inverts at the main.

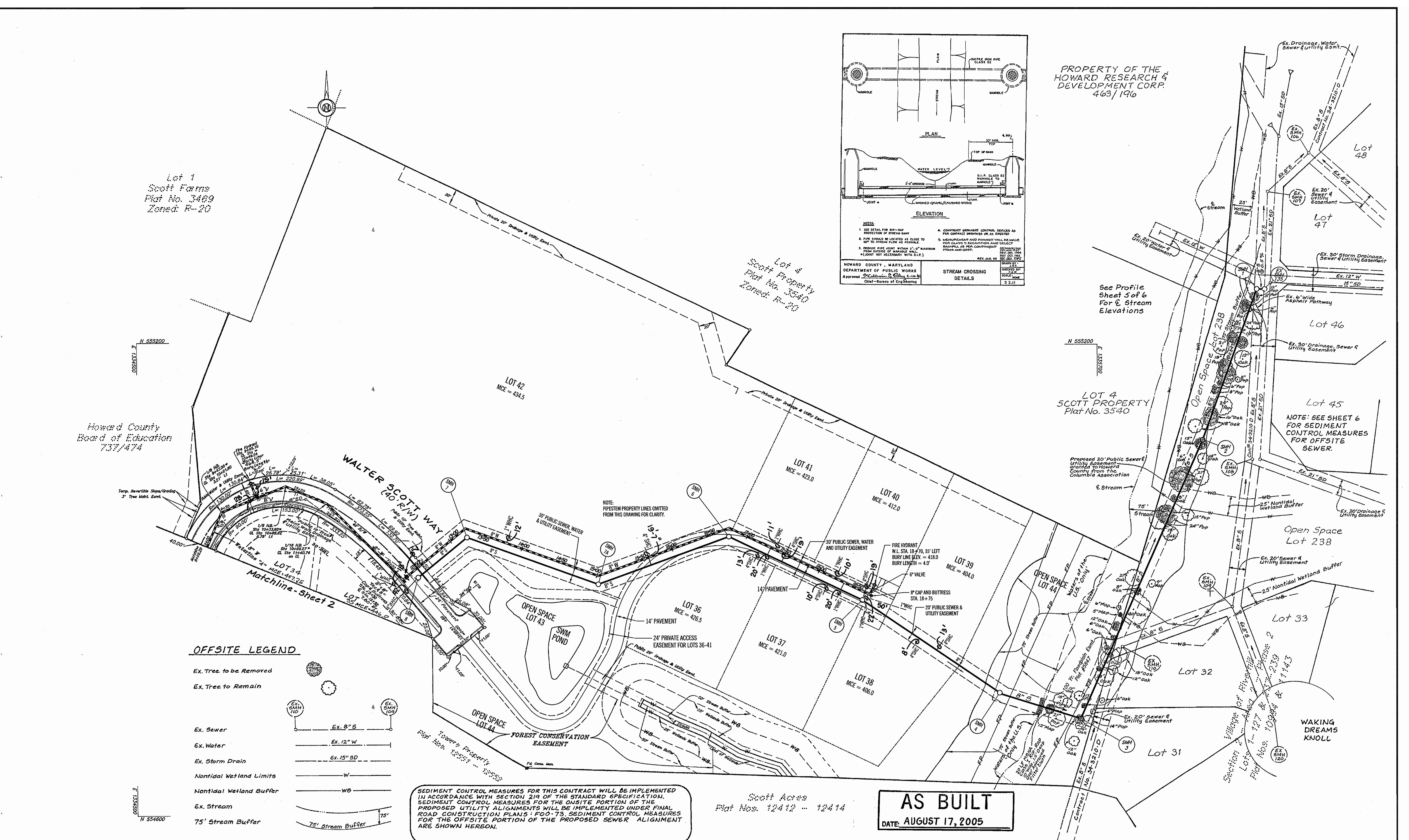
** Sewer Manhole # 11 has an ultimate top elevation of 430.20. This elevation will not be established until #8 for lots 15-19 is imported. Contractor shall set the manhole cover at a temporary elevation of 422.50. In conjunction with the fill operation for the surrounding lots, the contractor shall raise the manhole to the ultimate elevation.

15	463.00	460.22	N 554351.42 E 1334488.20	See Ho. Co. Std. G-5.11
16	462.00	461.75	N 554403.16 E 1334460.00	See Ho. Co. Std. G-5.11
17	457.00	462.30	N 55468.80 E 1334708.60	See Ho. Co. Std. G-5.11

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATION. SEDIMENT CONTROL MEASURES FOR THE ONSITE PORTION OF THE PROPOSED UTILITY ALIGNMENTS WILL BE IMPLEMENTED UNDER FINAL ROAD CONSTRUCTION PLANS: F-00-73. SEDIMENT CONTROL MEASURES FOR THE OFFSITE PORTION OF THE PROPOSED SEWER ALIGNMENT ARE SHOWN HEREBY.

AS BUILT
DATE: AUGUST 17, 2005

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Ruth Benner</i> 11-9-04 CHIEF - BUREAU OF UTILITIES - DATE	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND <i>John P. ...</i> 11/22/04 CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE	<table border="1"> <thead> <tr><th>No.</th><th>REVISION</th><th>DATE</th><th>BY</th></tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	No.	REVISION	DATE	BY						ENGINEERS • PLANNERS • SCIENTISTS • SURVEYORS GREENHORNE & O'MARA, INC. 200 HARRY S. TRUMAN PKWY. SUITE 200 ANNAPOLIS, MARYLAND 21401 (410) 266-0066 Greenbelt, MD - Annapolis, MD - Atlanta, GA - Fairfax, VA - Fredericksburg, VA - Mechanicsburg, PA Raleigh, NC - Rockville, MD - Tampa, FL - West Palm Beach, FL	FINAL WATER AND SEWER CONSTRUCTION PLANS SCOTT FARM LOTS 27-44 WALTER SCOTT WAY AT GUILFORD ROAD TAX MAP NO. 35 P/O PARCEL 354 SCHAFFEL DEVELOPMENT AND ESTATE OWNER 6300 GUILFORD ROAD CLARKSVILLE, MARYLAND 21033 CONTRACT NO. 34-3793-D	CVF DESIGN SCALE 1" = 50' LMM DRAWN 2 OF 6 GRK CHECKED SHEET NOV, 2004 DATE PROJ. No. FILE No.
No.	REVISION	DATE	BY											



PROPERTY OF THE
HOWARD RESEARCH &
DEVELOPMENT CORP.
463/196

Lot 1
Scott Farms
Plat No. 3489
Zoned R-20

Lot 4
Scott Property
Plat No. 3540
Zoned R-20

LOT 4
SCOTT PROPERTY
Plat No. 3540

Howard County
Board of Education
737/474

OFFSITE LEGEND

- Ex. Tree to be Removed
- Ex. Tree to Remain
- Ex. Sewer
- Ex. Water
- Ex. Storm Drain
- Nontidal Wetland Limits
- Nontidal Wetland Buffer
- Ex. Stream
- 75' Stream Buffer

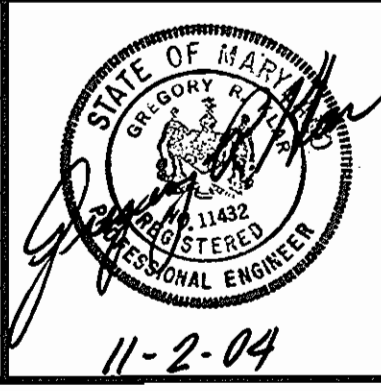
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AS BUILT
DATE: AUGUST 17, 2005

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Robert Benjamin 11-4-04
CHIEF - BUREAU OF UTILITIES - DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
Michael P. ... 11/22/04
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

No.	REVISION	DATE	BY

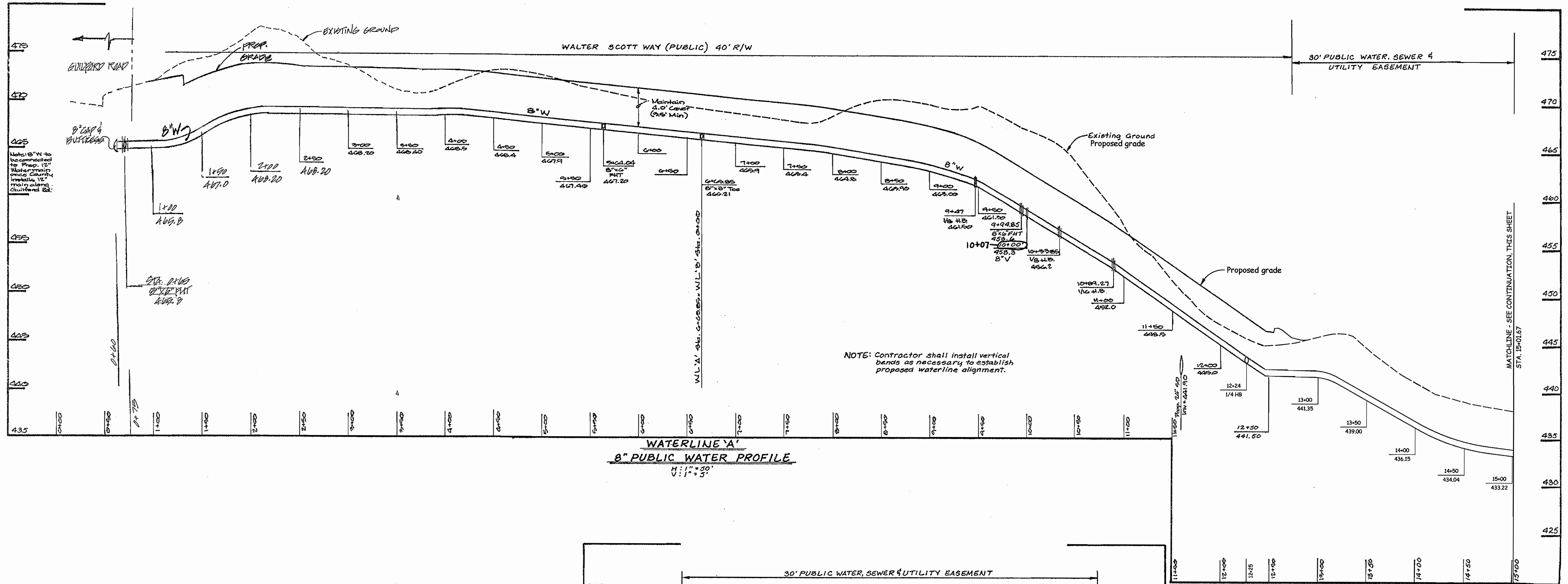


ENGINEERS • PLANNERS • SCIENTISTS • SURVEYORS
GREENHORNE & O'MARA, INC.
200 HARRY S TRUMAN PKWY. SUITE-200 ANNAPOLIS, MARYLAND 21401
(410) 266-0066
Greenbelt, MD • Annapolis, MD • Atlanta, GA • Fairfax, VA • Fredericksburg, VA • Mechanicsburg, PA
Raleigh, NC • Rockville, MD • Tampa, FL • West Palm Beach, FL

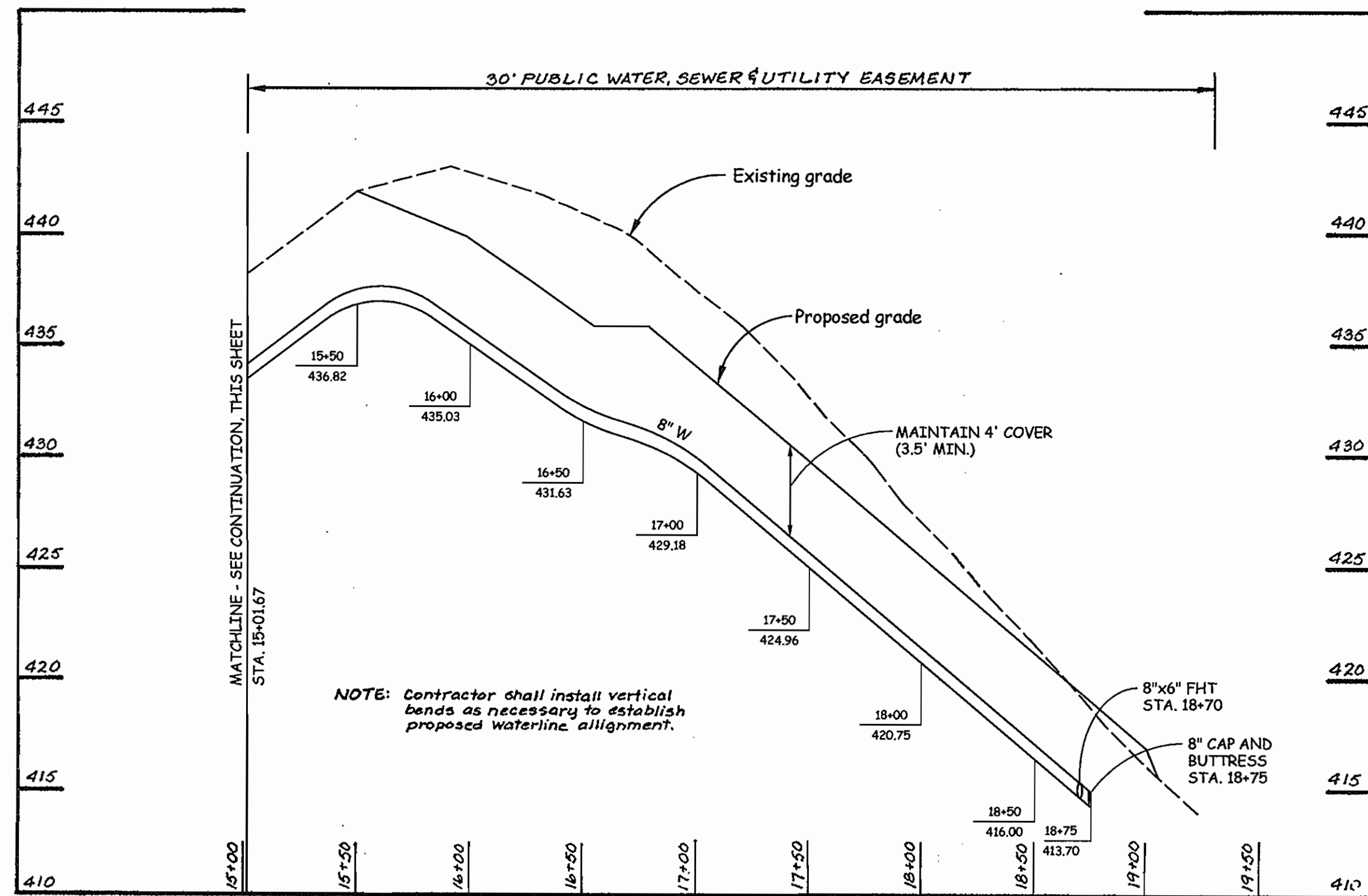
FINAL WATER AND SEWER CONSTRUCTION PLANS
SCOTT FARM
LOTS 27-44
WALTER SCOTT WAY AT GUILFORD ROAD
TAX MAP NO. 35 P/O PARCEL 354
CONTRACT NO. 34-3793-D

CVF DESIGN	SCALE	1" = 50'
LMM DRAWN	3 OF 6	
GRK CHECKED	SHEET	
NOV. 2004 DATE	PROJ. No.	FILE No.

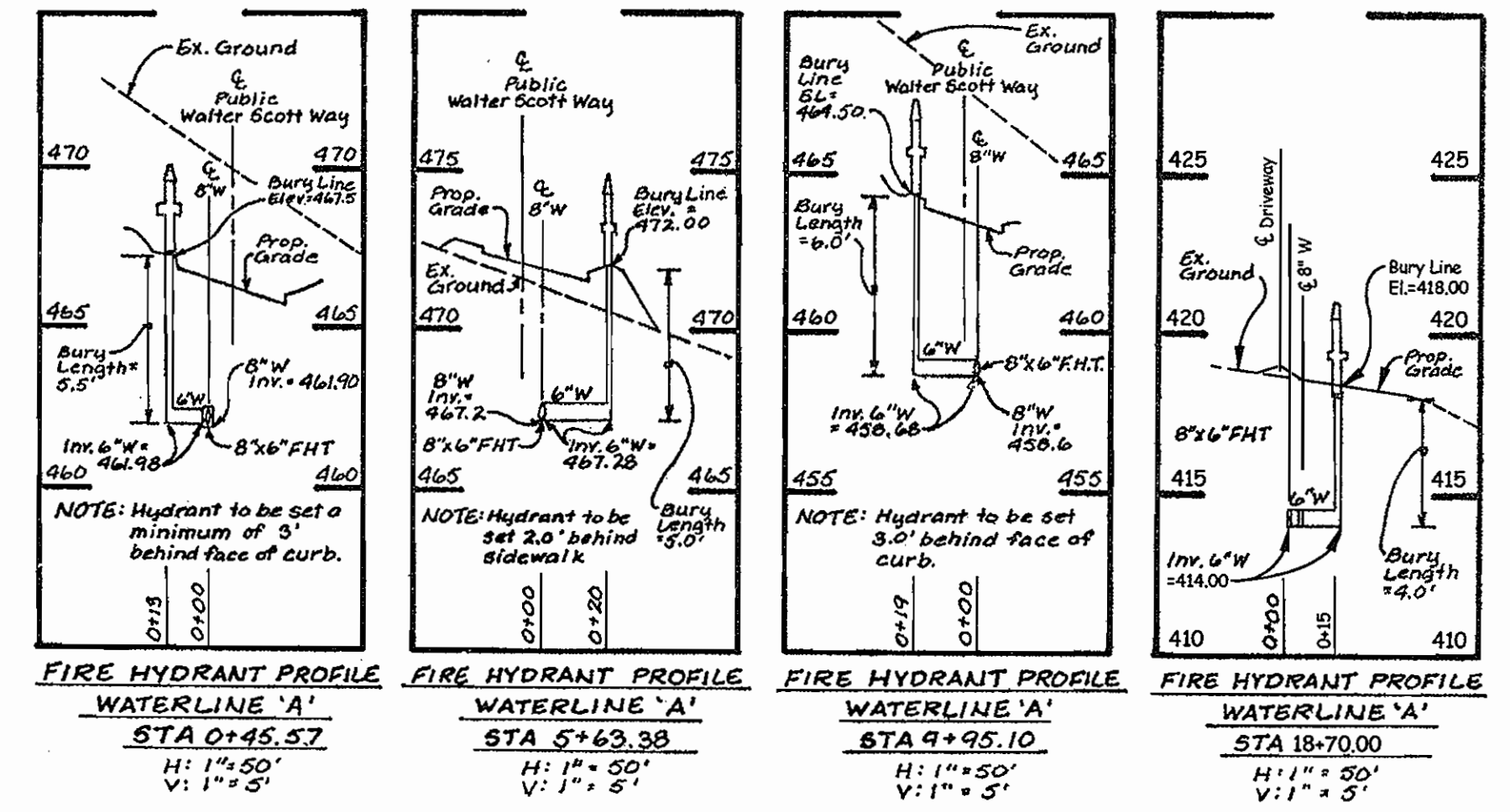
REPLACES SHEET SIGNED IN JUNE, 2000



WATERLINE 'A'
8" PUBLIC WATER PROFILE
 H: 1" = 30'
 V: 1" = 3'



WATERLINE 'A'
8" PUBLIC WATER PROFILE
 H: 1" = 30'
 V: 1" = 3'



AS BUILT
 DATE: AUGUST 17, 2005

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 R. H. ... 11-4-04
 CHIEF - BUREAU OF UTILITIES - DATE

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
 ... 11/2/04
 CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

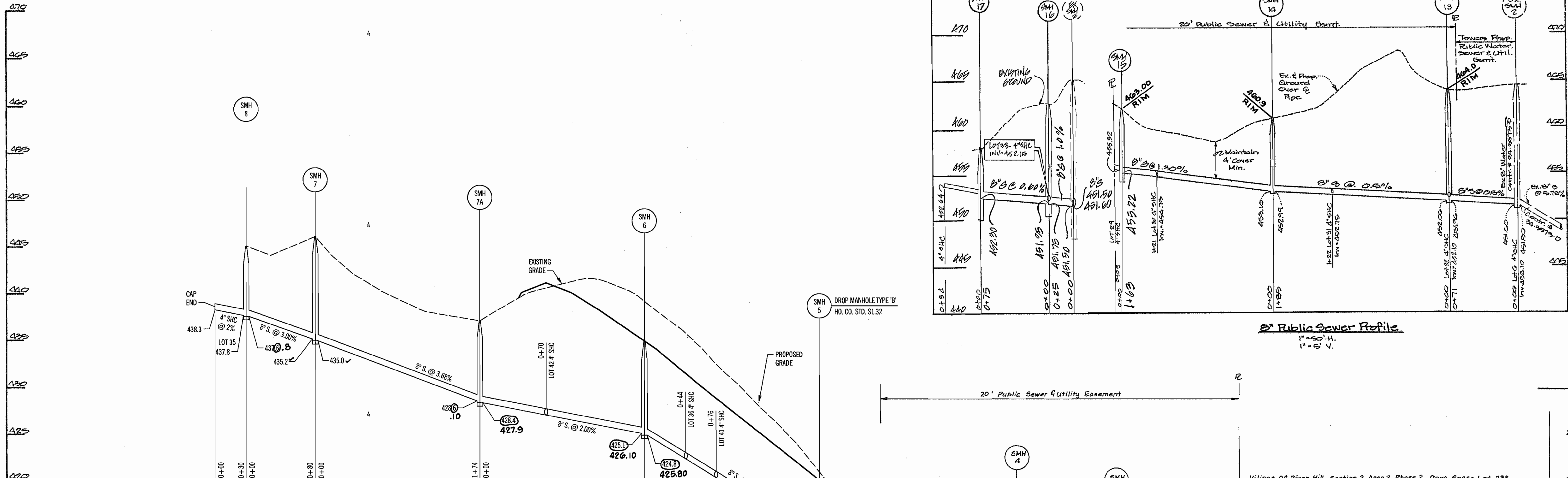
No.	REVISION	DATE	BY



ENGINEERS • PLANNERS • SCIENTISTS • SURVEYORS
GREENHORNE & O'MARA, INC.
 200 HARRY S TRUMAN PKWY. SUITE-200 ANNAPOLIS, MARYLAND 21401
 (410) 266-0066
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 Raleigh, NC - Rockville, MD - Tampa, FL - West Palm Beach, FL

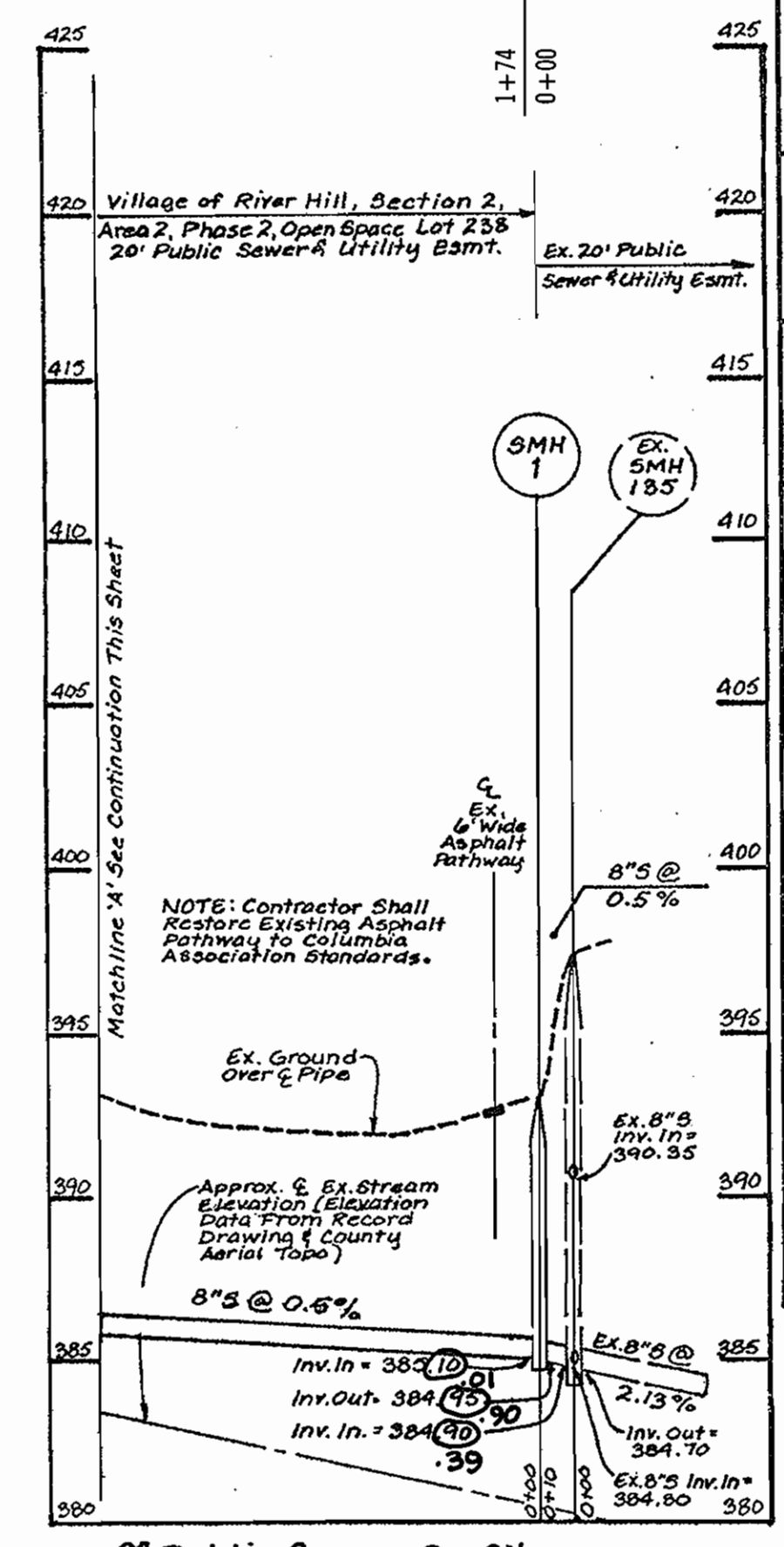
FINAL WATER AND SEWER CONSTRUCTION PLANS
SCOTT FARM
 LOTS 27-44
 WALTER SCOTT WAY AT GUILFORD ROAD
 TAX MAP NO. 35 P/O PARCEL 354
 NOV. 2004
 CONTRACT NO. 34-3793-D

CVF DESIGN	AS SHOWN
LMM DRAWN	SCALE
GRK CHECKED	4 OF 6
NOV. 2004 DATE	SHEET
PROJ No.	FILE No.



8" Public Sewer Profile
1" = 50' H.
1" = 5' V.

8" Public Sewer Profile
1" = 50' H.
1" = 5' V.



8" Public Sewer Profile
1" = 50' H.
1" = 50' V.

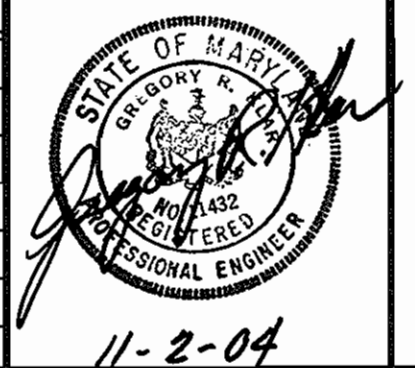
AS BUILT
DATE: AUGUST 17, 2005

NOTE: SEE SHEET 2 FOR SEWER STRUCTURE SCHEDULE AND SEWER HOUSE CONNECTION TABLE.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Ruth Benja 11-4-04
CHIEF - BUREAU OF UTILITIES - DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
[Signature] 11/2/04
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

No.	REVISION	DATE	BY



ENGINEERS • PLANNERS • SCIENTISTS • SURVEYORS
GREENHORNE & O'MARA, INC.
200 HARRY S TRUMAN PKWY. SUITE-200 ANNAPOLIS, MARYLAND 21401
(410) 266-0066
Greenbelt, MD - Annapolis, MD - Atlanta, GA - Fairfax, VA - Fredericksburg, VA - Mechanicsburg, PA
Raleigh, NC - Rockville, MD - Tampa, FL - West Palm Beach, FL

FINAL WATER AND SEWER CONSTRUCTION PLANS
SCOTT FARM
LOTS 27-44
WALTER SCOTT WAY AT GUILFORD ROAD
TAX MAP NO. 35 P/O PARCEL 354
OWNER/DEVELOPER: SCOTT FARM HOLDINGS AND REAL ESTATE, 6799 GUILFORD ROAD, CLARKSPVILLE, MARYLAND 21031
CONTRACT NO. 34-3793-D

CVF DESIGN	SCALE	AS SHOWN
LMM DRAWN	5 OF 6	
GRK CHECKED	SHEET	
NOV, 2004 DATE	PROJ No.	FILE No.

REPLACES SHEET SIGNED IN JUNE, 2000

HOWARD SOIL CONSERVATION DISTRICT
STANDARD SEDIMENT CONTROL NOTES

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction. (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", 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 as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 7, 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 (Section C) for permanent seeding, sod, temporary seeding, and mulching. 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.
- Site Analysis (Applicable work only. See F-00-78 for Offsite Sediment Control Measures):
 - Total Area of Site: 0.22 Acres
 - Area Disturbed: 0.21 Acres
 - Area to be roofed or paved: 0.21 Acres
 - Area to be vegetatively stabilized: 0.21 Acres
 - Total Cut: 1567 Cu. Yds.
 - Total Fill: 1567 Cu. Yds.
 - Offsite waste/borrow area location: N/A
- 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 proceeding with any other earth disturbing 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 can be back filled and stabilized within one working day, whichever is shorter.

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

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

Conditions Where Practice Applies
This practice is limited to areas having 2:1 or flatter slopes where:
a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
b. 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.
c. The original soil to be vegetated contains material toxic to plant growth.
d. The soil is so acidic that treatment with limestone is not feasible.

Construction and Material Specifications
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 flatter than 2:1 shall have the appropriate stabilization shown on the plans.

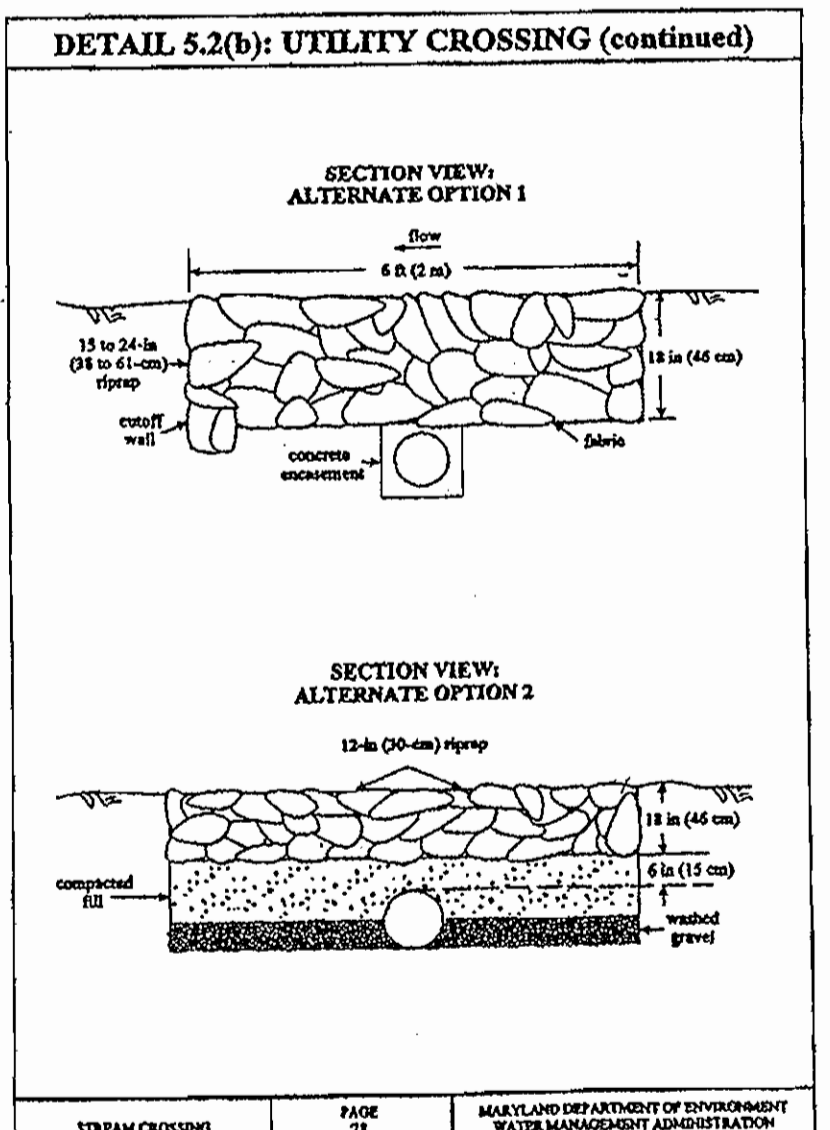
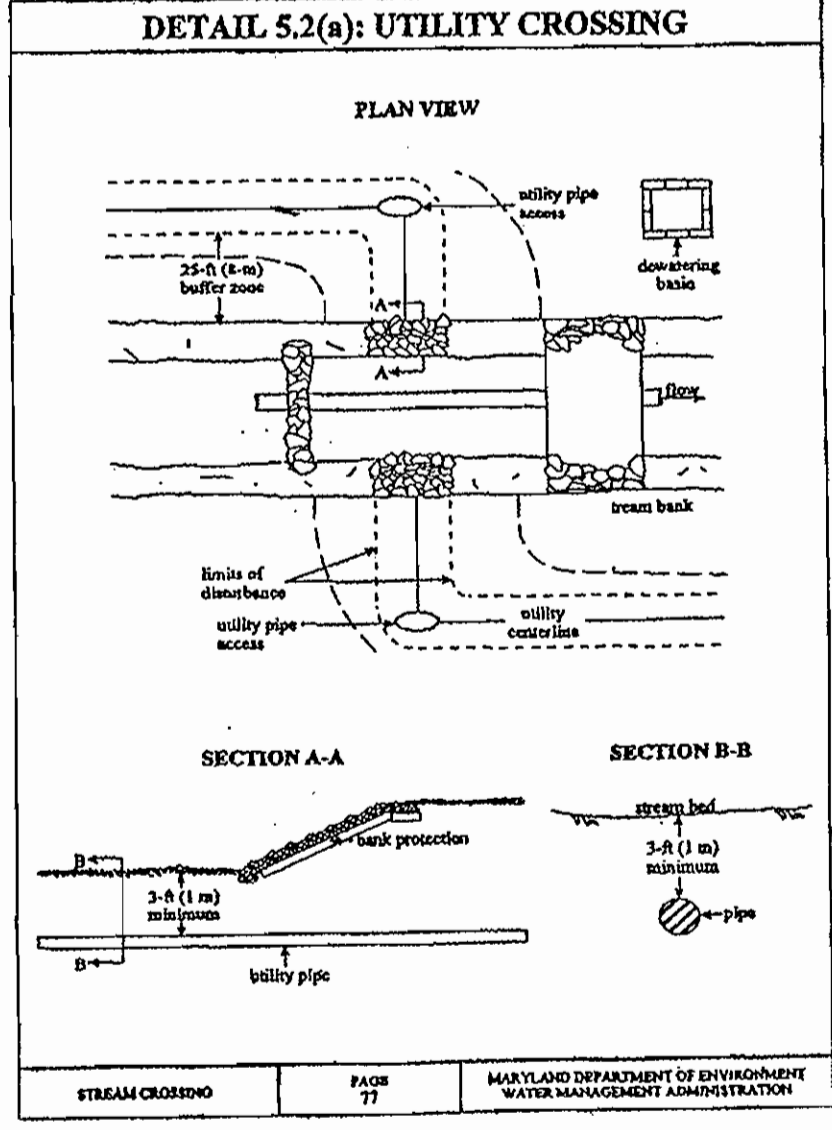
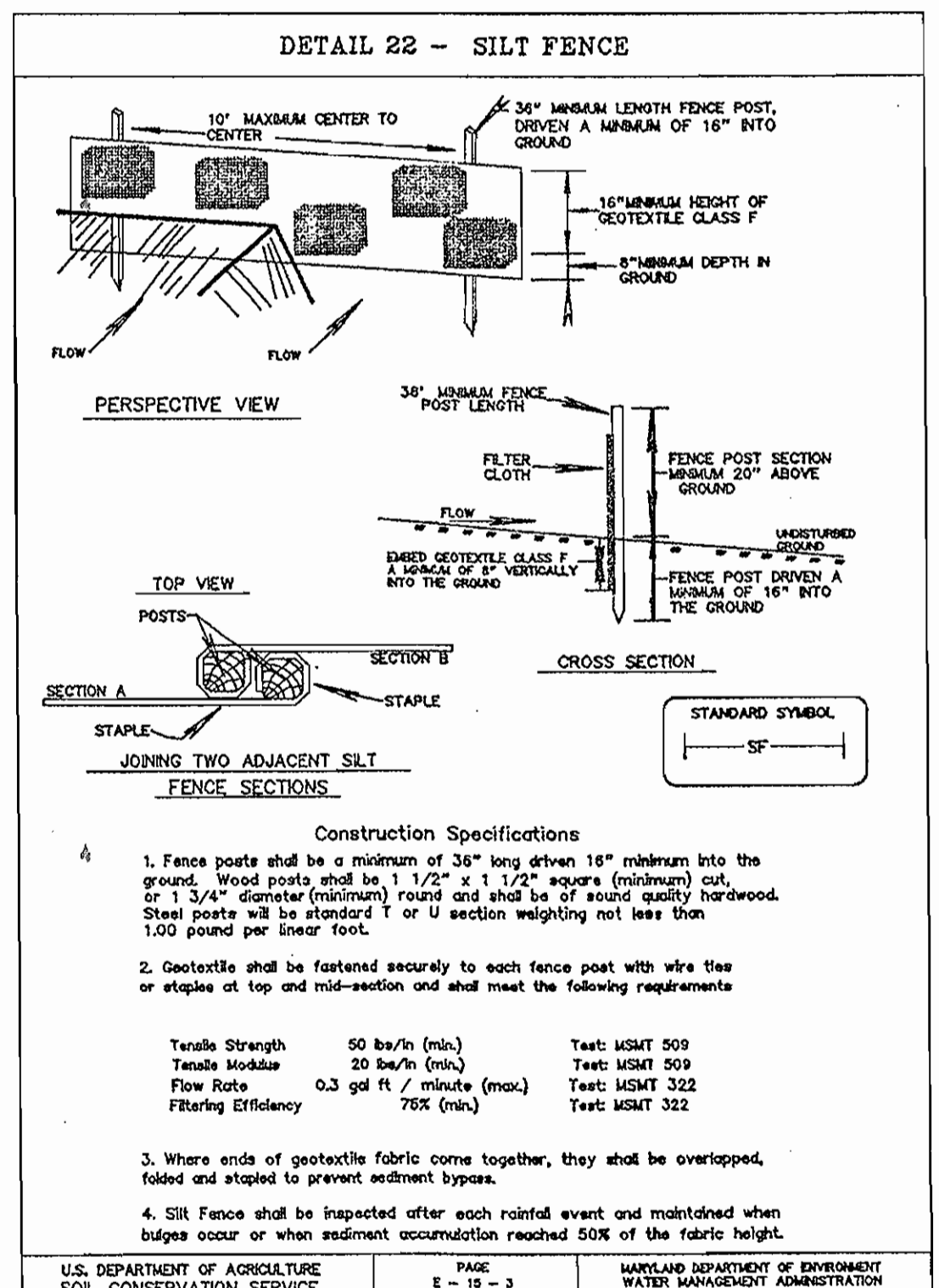
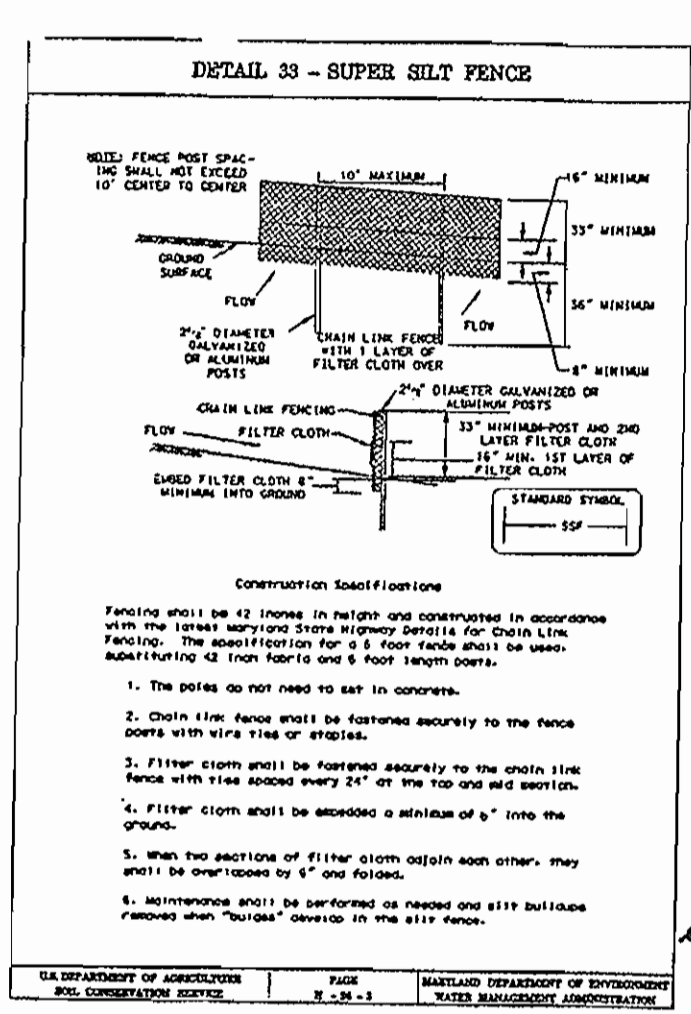
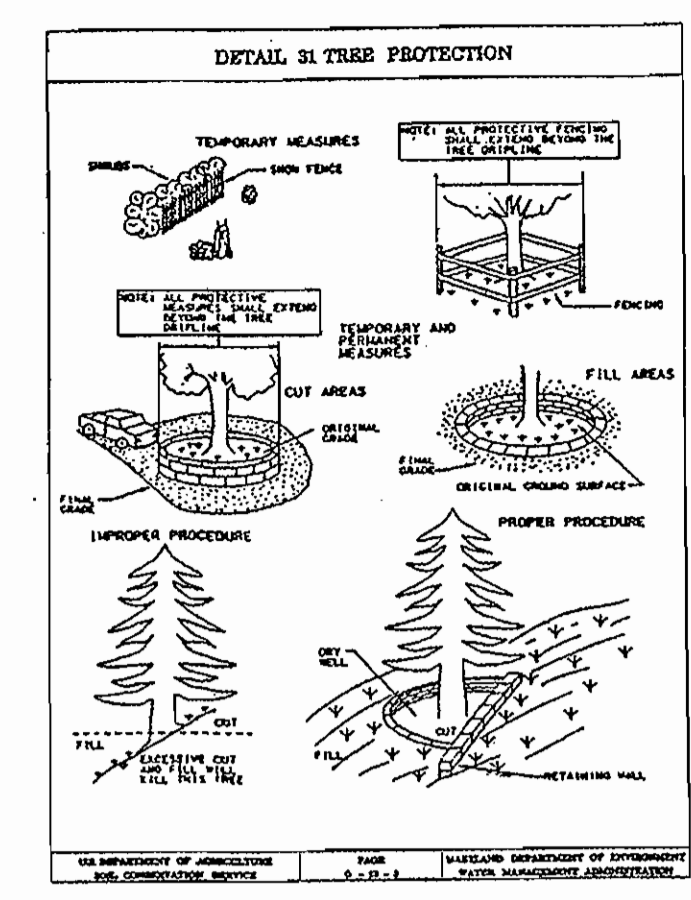
Topsoil Salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.

Topsoil Specifications - Soil to be used as topsoil must meet the following:
I. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or 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 25% by volume of clinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
II. Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutgrass, poison ivy, thistle, or others as specified.
III. 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 design area and worked into the soil in conjunction with tillage operations as described in the following procedures.
IV. For sites having disturbed areas over 5 acres:
1. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

- When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Sill Fence and Sediment Trap and Basins.
- Grades on the areas to be topsoiled, which have been previously established, shall be maintained, about 4" - 8" higher in elevation.
- Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
- Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:
I. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
II. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb./1,000 square feet, and 1/3 the normal lime application rate.

References: Guidelines Specifications, Soil Preparation and Sodding, MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institute, Revised 1973.



SEQUENCE OF CONSTRUCTION
(FOR SEWER CONSTRUCTION ON OPEN SPACE LOT #238)

No.	REVISION	DATE	BY
1.	Obtain grading permit.	1 Day	
2.	Notify the Howard County Department of Public Works Construction Inspection Division at 410-313-1855 at least 48 hours prior to beginning construction.	1 Day	
3.	Install tree protection fence, silt fence and super silt fence on downstream side of proposed sewer alignment on open space lot #238.	2 Days	
4.	Install all sediment controls are installed and obtain permission from the Sediment Control Inspector prior to trenching for proposed sewer.	1 Day	
5.	Trench for sewer and install sewer. Ensure that the disturbed area is stabilized in accordance with the temporary seeding notes at the end of each work day.	5 Days	
6.	Once sewer is complete, stabilize all remaining disturbed areas in accordance with the permanent seeding notes.	1 Day	
7.	Obtain permission from the Sediment Control Inspector and remove the silt fence and super silt fence.	1 Day	

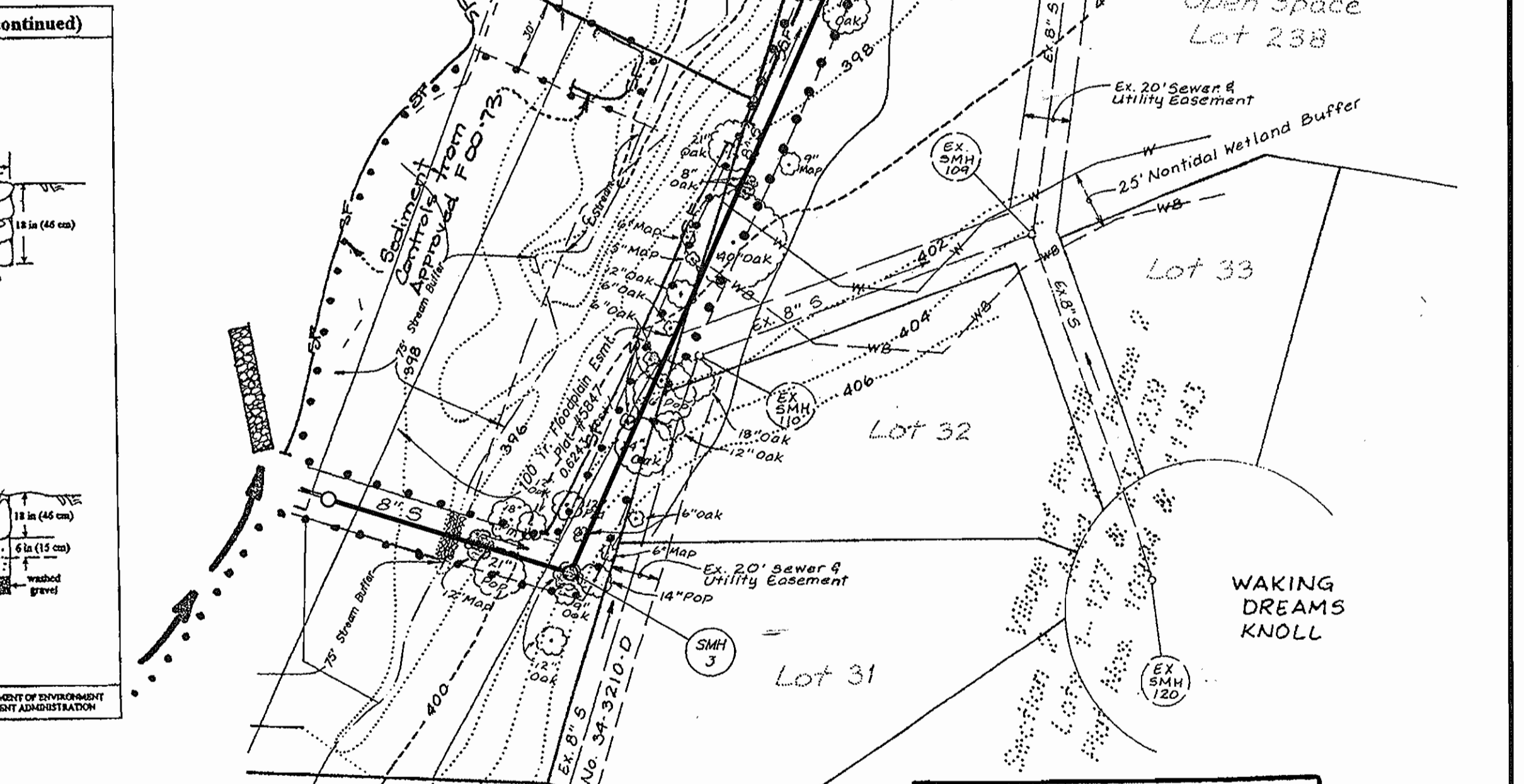
W.P.S.2: UTILITY CROSSING

The work shall consist of installing erosion control devices in and adjacent to the construction of utility crossing.

Materials for seeding and stone stream diversions shall meet the following requirements:

- Grass: Ryegrass shall be washed and have a minimum diameter of 4 inches (15 centimeters).
- Seedings: Seedings shall consist of materials which are resistant to ultraviolet radiation, washing, and puncture and shall be woven tightly enough to prevent leakage of the seed material (i.e., sack, bag, gravel, etc.).

All erosion and sediment control devices, including diversion basins, shall be implemented as the first order of business according to a plan approved by the Water Management Administration (WMA). (See Maryland Standards and Specifications for Sediment Control). The proposed construction sequence is as follows (refer to the attached figures):



AS BUILT
DATE: AUGUST 17, 2005

SEDIMENT CONTROL LEGEND

- LIMIT OF DISTURBANCE
- SILT FENCE
- EXISTING/PROP. CONTOUR
- EX. TREE TO REMAIN
- EX. TREE TO BE REMOVED

OFFSITE SEDIMENT CONTROL PLAN
1" = 50'

NOTE: THIS PLAN FOR SEDIMENT CONTROL IS FOR THE OFFSITE PORTION OF THE PROPOSED SEWER ONLY. ONSITE SEDIMENT CONTROL MEASURES ARE SHOWN ON F-00-73.

Note: On April 3, 2000 the MD Dept. of the Environment issued a letter of Authorization # 99-NIT-0424/199906191 and related Water Quality Certification for the construction of the 8" Public Sewer through Non-Tidal Wetlands & Buffers.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

R. L. Berman 11-9-04
CHIEF - BUREAU OF UTILITIES - DATE

[Signature] 11/2/04
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

No.	REVISION	DATE	BY

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER
11-2-04

ENGINEERS • PLANNERS • SCIENTISTS • SURVEYORS
GREENHORNE & O'MARA, INC.
200 HARRY S TRUMAN PKWY. SUITE-200 ANNAPOLIS, MARYLAND 21401
(410) 266-0066

Greenbelt, MD - Annapolis, MD - Atlanta, GA - Fairfax, VA - Fredericksburg, VA - Mechanicsburg, PA
Raleigh, NC - Rockville, MD - Tampa, FL - West Palm Beach, FL

FINAL WATER AND SEWER CONSTRUCTION PLANS
SCOTT FARM
LOTS 27-44
WALTER SCOTT WAY AT GUILFORD ROAD
TAX MAP NO. 35 P/D PARCEL 354

CONTRACTOR: SCARLET HUNTER AND SON, INC.
6799 GUILFORD ROAD
QUANTICO, MARYLAND 21130
CONTRACT NO. 34-7393-D

CVF DESIGN	SCALE	AS SHOWN
LMM DRAWN	6 OF 6	
GRK CHECKED	SHEET	
NOV, 2004 DATE	PROJ No.	FILE No.