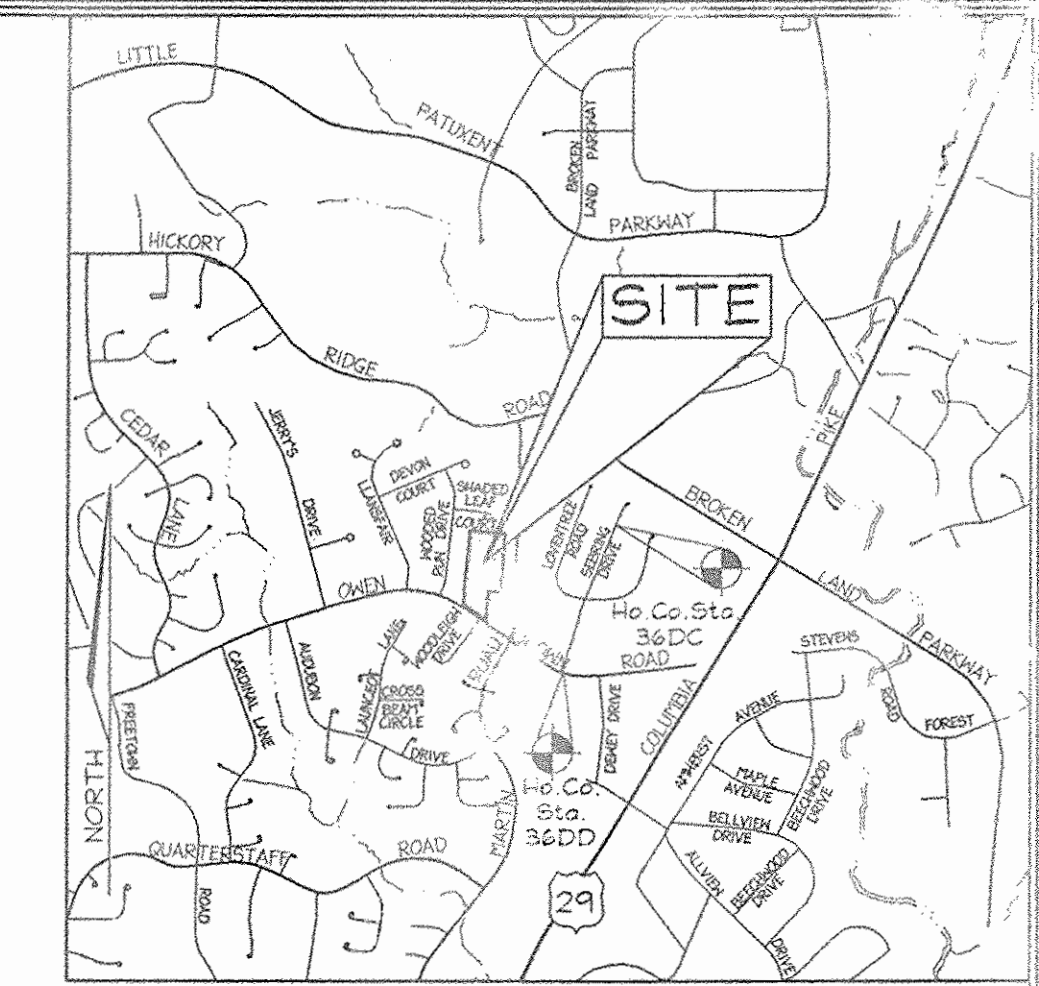


PUBLIC WATER AND SEWER PLANS

METZLERS GARDEN

HOWARD COUNTY, MARYLAND

CONTRACT NO. 24-4251-D



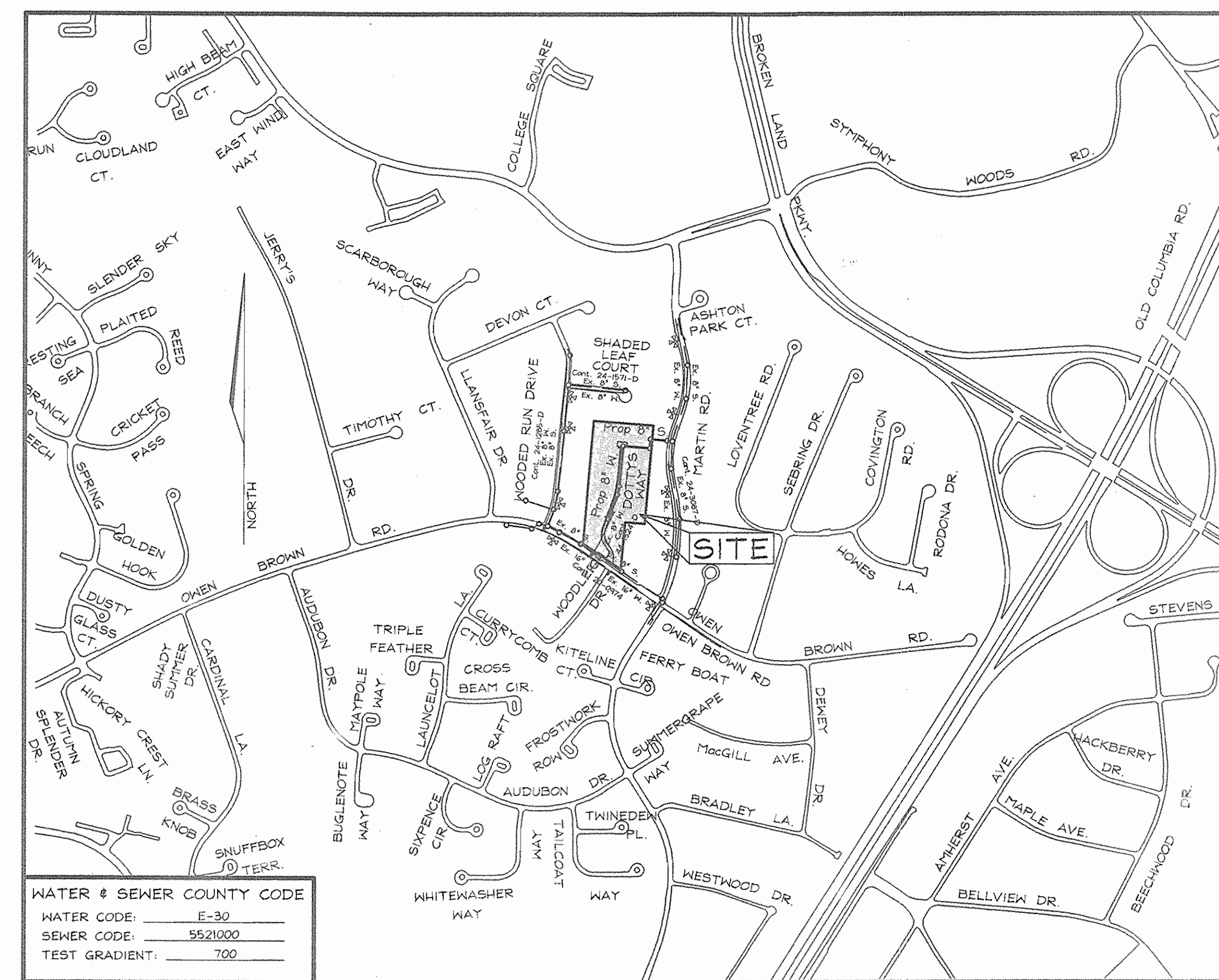
BENCHMARKS
SCALE: 1"=2000'

Sta. 36DC	N 170,563.5470	E 411,615.1201	El.: 116.1313 (meters)
	N 559,590.570	E 1,350,440.606	El.: 381.007 (feet)
Sta. 36DD	N 170,095.9837	E 411,448.0004	El.: 119.8332 (meters)
	N 558,056.573	E 1,349,892.314	El.: 393.153 (feet)

QUANTITIES

NAME OF UTILITY CONTRACTOR :
SURVEY AND DRAFTING DIVISION AS-BUILT DATE : **SEPTEMBER 2005**

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
MANHOLE	7	7 EACH	PRECAST CONCRETE	ATLANTIC CONCRETE PRODUCTS
8" SEWER	805 LF	803 L.F.	PVC	JM MFG./BELAIR RD. SUPPLY
FIRE HYDRANT	1	1 EACH	—	MUELLER CO./BELAIR RD. SUPPLY
8" CAP & BUTTRESSES	1	1 EACH	D.I.P.	U.S. PIPE/BELAIR RD. SUPPLY
8" WATER	604 LF	604 L.F.	D.I.P.	GRIFFIN PIPE PRODUCTS CO.
4" SHC	237 LF	224 L.F.	PVC	JM MFG./BELAIR RD. SUPPLY
1" WHC	275 LF	279 L.F.	COPPER	READING/BELAIR RD. SUPPLY
6" WATER	—	6 L.F.	D.I.P.	GRIFFIN PIPE PRODUCTS CO.
6" VALVE	—	1 EACH	—	MUELLER CO./BELAIR RD. SUPPLY



WATER & SEWER COUNTY CODE

WATER CODE:	E-30
SEWER CODE:	5521000
TEST GRADIENT:	700

TYPE OF BUILDING: SINGLE FAMILY UNIT

NO. OF LOTS/PARCELS:	12
NO. OF WATER HOUSE CONNECTIONS:	12
NO. OF SEWER HOUSE CONNECTIONS:	12
DRAINAGE AREA:	LITTLE PATUXENT
TREATMENT PLANT:	SAVAGE

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.
 - Topographic field surveys were performed on March 2004 by FSH Associates, Inc.
 - Horizontal and Vertical Survey Controls:
The coordinates shown on the drawings are based on Maryland State Reference System (MSRS) '83/91 as projected by Howard County Geodetic Control Stations No. 36DC (Concrete Monument on the west side of Sebring Drive, 10' south of existing driveway, 42' from a fire hydrant on the east side of Sebring Drive) and 36DD (Concrete Monument 2' from edge of eastbound lane of Owen Brown Road, 47'5" from a fire hydrant, 53' from BGE pole #243772). All vertical controls are based on NAVD '88.
 - All pipe elevations shown are invert elevations unless otherwise noted on the 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 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 moneys owed the contractor. The contractor shall coordinate with the utility companies to schedule the bracing of the poles.
 - For details not shown on the drawing, 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 (P) 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 (Construction Services)	410.850.4620
BGE (Emergency)	410.858.1400
Bureau of Utilities	410.313.4500
Colonial Pipeline Company	410.795.1500
Miss Utility	1.800.257.7777
State Highway Administration	410.531.5533
Verizon	1.800.743.0033/ 410.224.0210
 - 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.
 - The contractor shall remove trees, stumps and roots along line of excavation. Payment for such removal shall be included in the unit price bid for the 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 DPN 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" of 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 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 locate 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 G5.52. 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 cellar cannot be served.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS AND WITH ROAD CONSTRUCTION PLANS F-05-90

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

John C. Robertson 3/29/05 DATE
Jim Maguire 3/29/05 DATE
 SOIL CONSERVATION DISTRICT

AS-BUILT
DATE: SEPT. 2005

CONTRACT PURCHASER
WILLIAMSBURG GROUP LLC
5495 HARPERS FARM RD #200
COLUMBIA, MARYLAND 21044-3834
Telephone: (410) 997-3800
Fax: (410) 997-4358

OWNER
METZLER JOHN W
METZLER DOROTHY W F T/C
10358 OWEN BROWN ROAD
COLUMBIA, MARYLAND 21044-3834

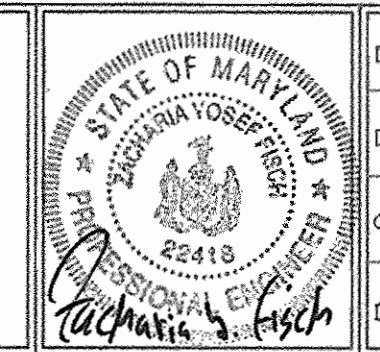
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert B. Berman 3-31-05 DATE
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

William D. Dammann 4/6/05 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION

FSH Associates
Engineers Planners Surveyors
8318 Forrest Street, Elkton City, MD 21043
Tel: 410-750-2251 Fax: 410-750-7380
E-mail: info@fsh.biz



DESIGN BY: PS	
DRAWN BY: Slim	
CHECKED BY: ZYF	
DATE: March 22, 2005	
BY NO.	REVISION
	DATE

COVER SHEET

600' SCALE MAP NO.: 38 BLOCK NO.: 0410

METZLERS GARDEN

LOTS 1-6, 8-10, 12-14, OPEN SPACE LOTS 7, 11, 15, 16 AND BULK PARCEL 'A'

CONTRACT NO. 24-4251-D

TAX MAP 36 GRID 7
5TH ELECTION DISTRICT

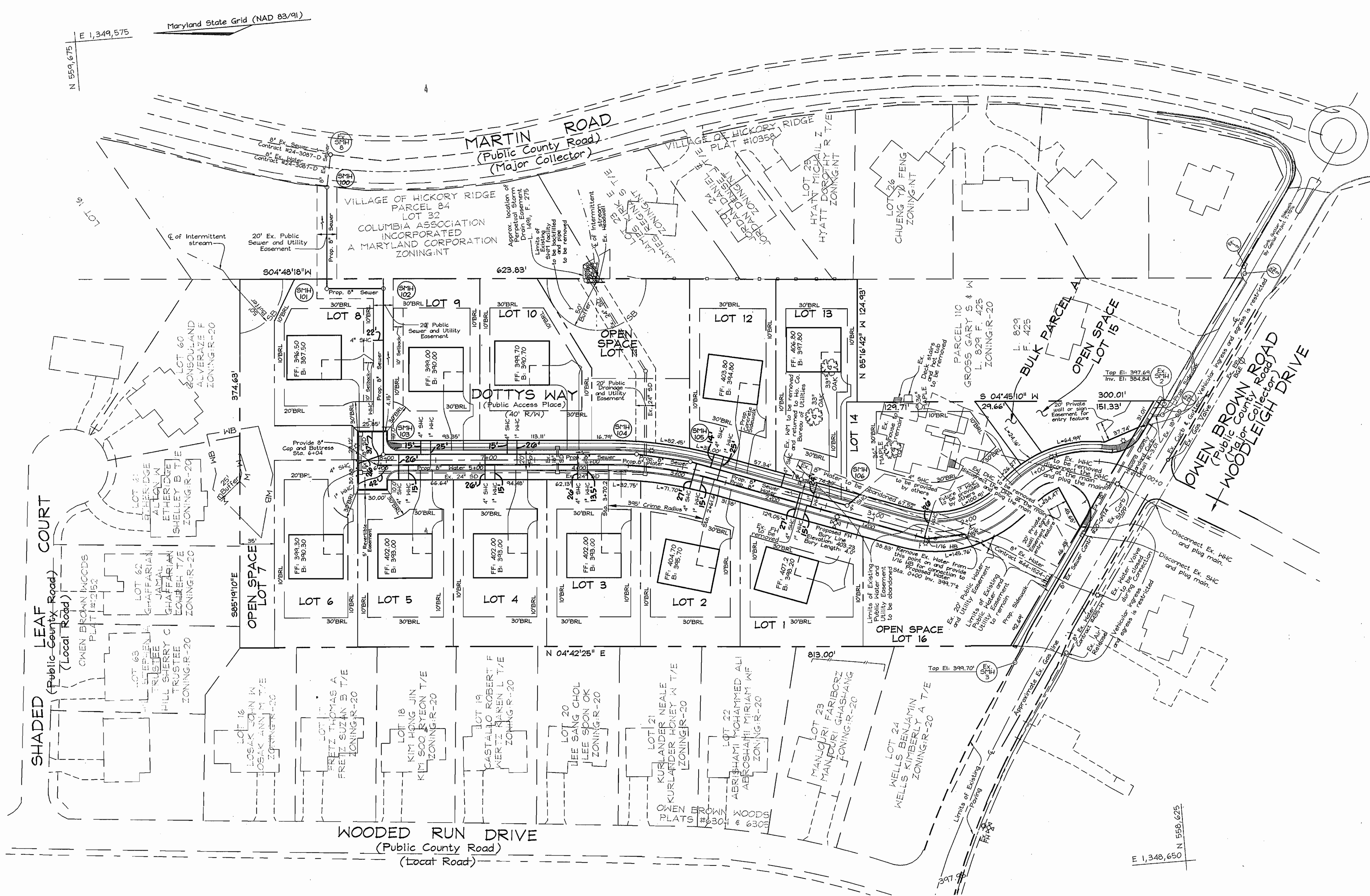
PARCEL 152
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET NO. 1 OF 3

AS-BUILTS (WATER & SEWER)

FROM	TO	DISTANCE
SMH-100	SMH-101	100'
SMH-101	SMH-102	70'
SMH-102	SMH-103	53'
SMH-103	SMH-104	53'
SMH-104	SMH-105	53'
SMH-105	SMH-106	53'
SMH-106	SMH-107	53'
SMH-107	SMH-108	53'
SMH-108	SMH-109	53'
SMH-109	SMH-110	53'
SMH-110	SMH-111	53'
SMH-111	SMH-112	53'
SMH-112	SMH-113	53'
SMH-113	SMH-114	53'
SMH-114	SMH-115	53'
SMH-115	SMH-116	53'
SMH-116	SMH-117	53'
SMH-117	SMH-118	53'
SMH-118	SMH-119	53'
SMH-119	SMH-120	53'
SMH-120	SMH-121	53'
SMH-121	SMH-122	53'
SMH-122	SMH-123	53'
SMH-123	SMH-124	53'
SMH-124	SMH-125	53'
SMH-125	SMH-126	53'
SMH-126	SMH-127	53'
SMH-127	SMH-128	53'
SMH-128	SMH-129	53'
SMH-129	SMH-130	53'
SMH-130	SMH-131	53'
SMH-131	SMH-132	53'
SMH-132	SMH-133	53'
SMH-133	SMH-134	53'
SMH-134	SMH-135	53'
SMH-135	SMH-136	53'
SMH-136	SMH-137	53'
SMH-137	SMH-138	53'
SMH-138	SMH-139	53'
SMH-139	SMH-140	53'
SMH-140	SMH-141	53'
SMH-141	SMH-142	53'
SMH-142	SMH-143	53'
SMH-143	SMH-144	53'
SMH-144	SMH-145	53'
SMH-145	SMH-146	53'
SMH-146	SMH-147	53'
SMH-147	SMH-148	53'
SMH-148	SMH-149	53'
SMH-149	SMH-150	53'
SMH-150	SMH-151	53'
SMH-151	SMH-152	53'
SMH-152	SMH-153	53'
SMH-153	SMH-154	53'
SMH-154	SMH-155	53'
SMH-155	SMH-156	53'
SMH-156	SMH-157	53'
SMH-157	SMH-158	53'
SMH-158	SMH-159	53'
SMH-159	SMH-160	53'
SMH-160	SMH-161	53'
SMH-161	SMH-162	53'
SMH-162	SMH-163	53'
SMH-163	SMH-164	53'
SMH-164	SMH-165	53'
SMH-165	SMH-166	53'
SMH-166	SMH-167	53'
SMH-167	SMH-168	53'
SMH-168	SMH-169	53'
SMH-169	SMH-170	53'
SMH-170	SMH-171	53'
SMH-171	SMH-172	53'
SMH-172	SMH-173	53'
SMH-173	SMH-174	53'
SMH-174	SMH-175	53'
SMH-175	SMH-176	53'
SMH-176	SMH-177	53'
SMH-177	SMH-178	53'
SMH-178	SMH-179	53'
SMH-179	SMH-180	53'
SMH-180	SMH-181	53'
SMH-181	SMH-182	53'
SMH-182	SMH-183	53'
SMH-183	SMH-184	53'
SMH-184	SMH-185	53'
SMH-185	SMH-186	53'
SMH-186	SMH-187	53'
SMH-187	SMH-188	53'
SMH-188	SMH-189	53'
SMH-189	SMH-190	53'
SMH-190	SMH-191	53'
SMH-191	SMH-192	53'
SMH-192	SMH-193	53'
SMH-193	SMH-194	53'
SMH-194	SMH-195	53'
SMH-195	SMH-196	53'
SMH-196	SMH-197	53'
SMH-197	SMH-198	53'
SMH-198	SMH-199	53'
SMH-199	SMH-200	53'



AS BUILT
DATE: SEPT. 2005

CONTRACT PURCHASER
WILLIAMSBURG GROUP LLC
5405 HARPERS FARM RD #200
COLUMBIA, MARYLAND 21044-3834
Telephone: (410) 997-8800
Fax: (410) 997-4358

OWNER
METZLER JOHN W
METZLER DOROTHY W F T/C
10358 OWEN BROWN ROAD
COLUMBIA, MARYLAND 21044-3834

PLAN VIEW
Scale: 1"=50'

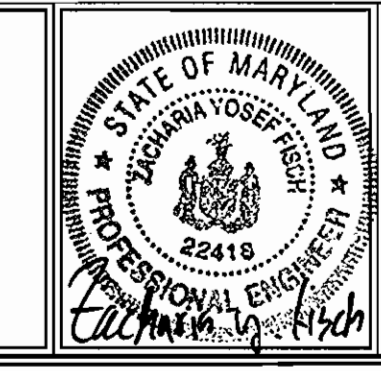
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

R. J. ...
3-31-05
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

...
4/6/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION

FSH Associates
Engineers Planners Surveyors
6313 Forest Street, Ellicott City, MD 21043
Tel: 410-750-2251 Fax: 410-750-7350
E-mail: info@fsha.biz



DESIGN BY: PS	BY NO.	REVISION	DATE
DRAWN BY: Slim			
CHECKED BY: ZIF			
DATE: March 22, 2005			

FINAL WATER AND SEWER PLAN

600' SCALE MAP NO.: 38 BLOCK NO.: 04#10

METZLERS GARDEN
LOTS 1-6, 8-10, 12-14, OPEN SPACE LOTS 7, 11, 15, 16 AND BULK PARCEL 'A'

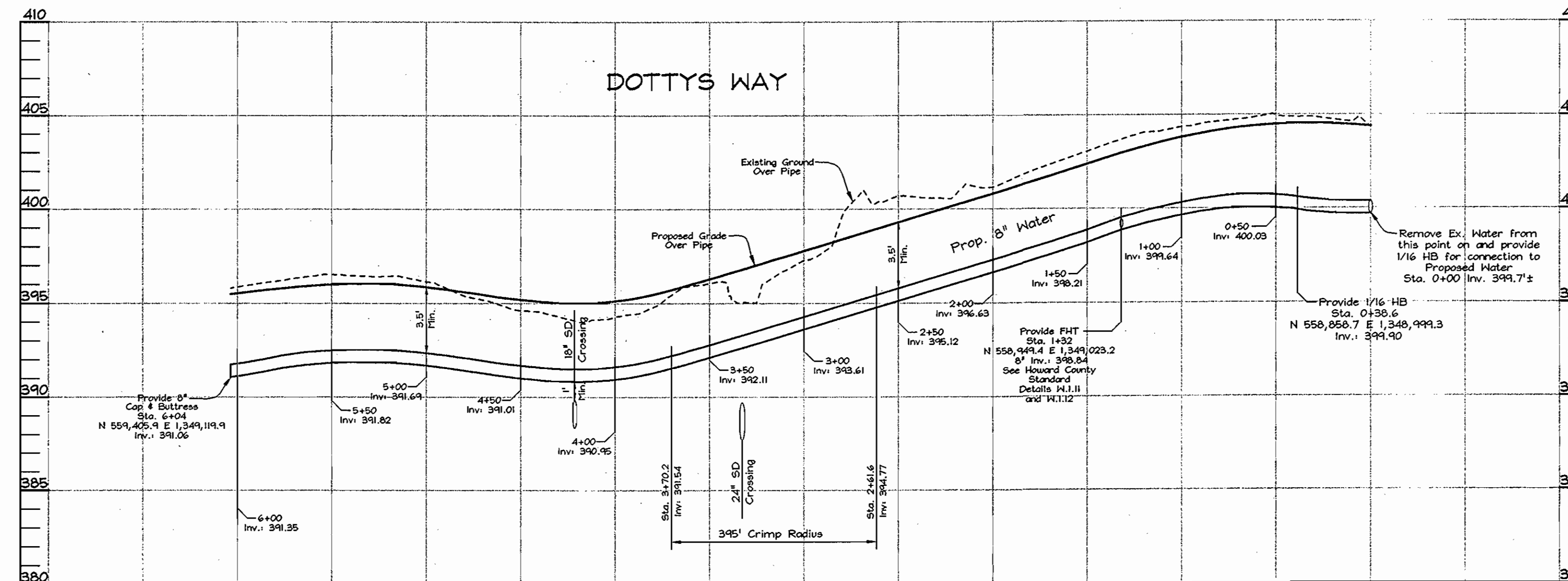
CONTRACT NO. 24-4251-D

TAX MAP 36 GRID 7
5TH ELECTION DISTRICT

PARCEL 152
HOWARD COUNTY, MARYLAND

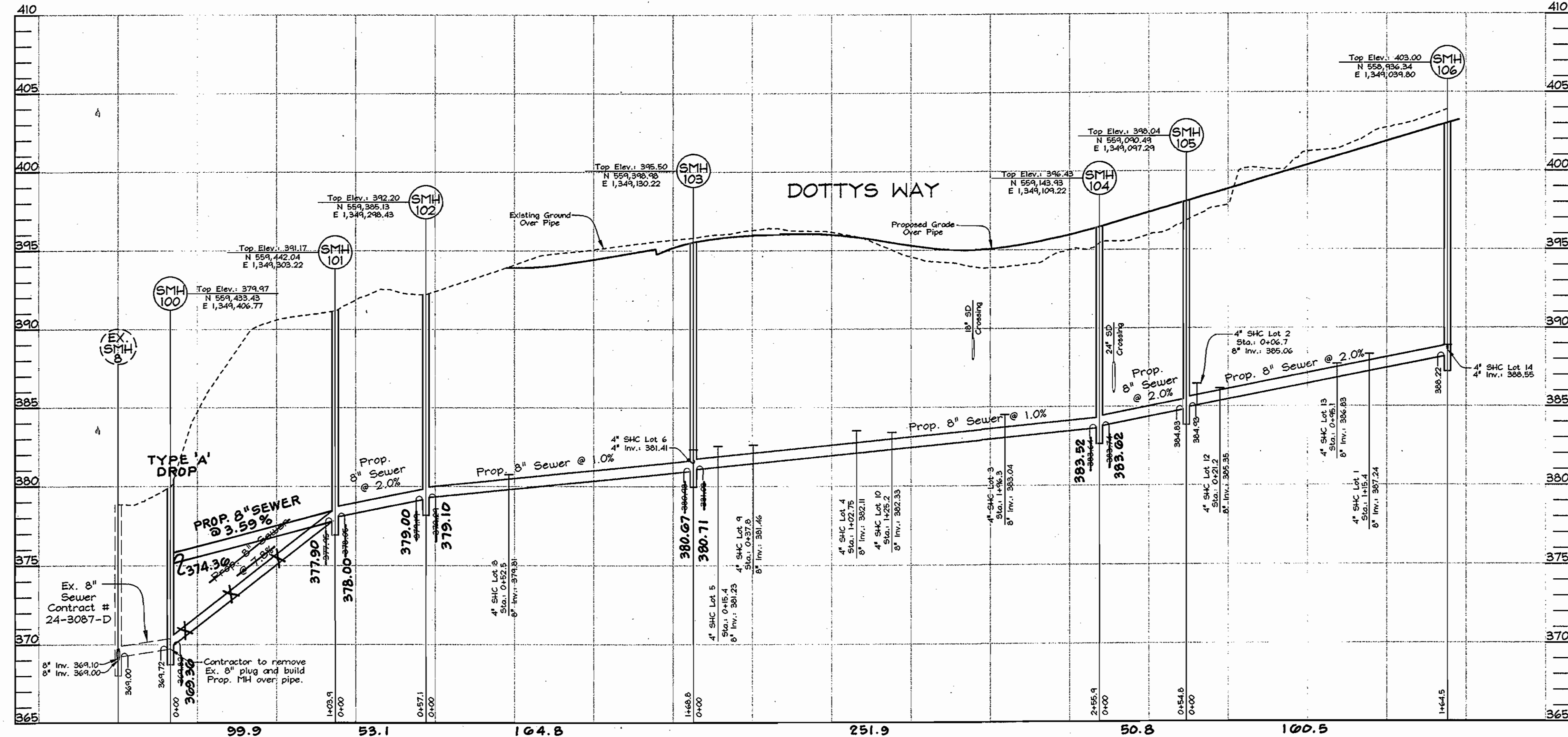
SCALE AS SHOWN

SHEET NO. 2 OF 3



WATER PROFILE
Scale: Horizontal-1"=50'
Vertical-1"=5'

SEWER HOUSE CONNECTION CHART				
Lot #	Inv. of Main	Inv. @ R/W	MCE	Bsmt. El.
1	387.24	388.33	392.74	398.20
2	385.06	386.46	391.20	395.70
3	383.04	384.51	389.22	393.00
4	382.11	383.52	388.28	393.00
5	381.23	382.56	387.16	393.00
6	381.08	382.34	387.92	390.30
8	379.81	380.76	384.92	387.50
9	381.46	382.63	387.28	390.00
10	382.33	383.41	388.07	390.70
12	385.35	386.16	391.44	394.80
13	386.83	387.71	393.37	397.80
14	388.22	388.89	394.49	401.68



SEWER PROFILE
Scale: Horizontal-1"=50'
Vertical-1"=5'

AS BUILT
DATE: SEPT. 2005

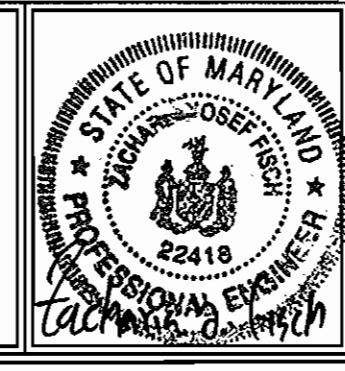
CONTRACT PURCHASER
WILLIAMSBURG GROUP LLC
5495 HARPERS FARM RD #200
COLUMBIA, MARYLAND 21044-3834
Telephone: (410) 997-8800
Fax: (410) 997-4358

OWNER
METZLER JOHN W
METZLER DOROTHY WF T/C
10358 OWEN BROWN ROAD
COLUMBIA, MARYLAND 21044 3834

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
3-31-05
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
4/6/05
CHIEF, DEVELOPER ENGINEERING DIVISION

FSH Associates
Engineers Planners & Surveyors
8318 Forrest Street, Ellicott City, MD 21043
Tel: 410-750-2251 Fax: 750-7350
E-mail: info@fsha.biz



DESIGN BY: PS	BY NO.	REVISION	DATE
DRAWN BY: Stlm			
CHECKED BY: ZYF			
DATE: March 22, 2005			

FINAL WATER AND SEWER PROFILES
600' SCALE MAP NO.: 38 BLOCK NO.: 04#10

METZLERS GARDEN
LOTS 1-6, 8-10, 12-14, OPEN SPACE LOTS 7, 11, 15, 16 AND BULK PARCEL 'A'
CONTRACT NO. 24-4 51-D
TAX MAP 36 GRID 7 5TH ELECTION DISTRICT
PARCEL 152 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET NO. 3 OF 3