

GENERAL NOTES

A. STANDARD GENERAL NOTES

- Approximate location 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 September 2002 by DMW. The existing topography is taken from low level flight and aerial survey with 2' contour intervals prepared by SDI dated April 8, 2002.
- The coordinates shown on the drawings are based on Maryland State Reference System NAD'83/91 as projected by Howard County Geodetic Control Stations No.#31ea and No.#37CA.
- All vertical controls are based on NAVD '88. Vertical controls provided on the drawings are BM1, #31EA-Disc set in concrete, N569641.123, E1374815.935, Elev.468.90, 2' south of sidewalk on Ilchester Road ± 47.1' from gate in fence on the transmission line R.O.W. BM2-#37CA-Disc set in concrete, N569641.123, E1382742.880, Elev. =256.965, 20.6' south of centerline of Landing Road, 0.25 miles northwest on Landing Road from intersection of Landing Road and Montgomery Road.
- All pipe elevations shown are invert elevations unless otherwise noted.
- Clear all utilities by a minimum of 12". Clear all poles by 5' - 0" minimum or tunnels 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 Detail 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 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
EG&E (Construction Services)	410-850-4620
EG&E (Emergency)	410-605-1400
Bureau of Utilities	410-313-4900
Colonial Pipeline CO.	410-795-1390
Miss Utility	1-800-257-7777
State Highway Administration	410-531-5633
Verizon	1-800-742-0033/410-224-9210
- 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.
- 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 construction of the main.
- The contractor shall notify the Bureau of Highways, Howard County, at (410) 313-7450 at least five working days before any open cut of any county road or boring/jacking of any County roads 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.

B. STANDARD WATER MAIN GENERAL NOTES

- All water mains to be D.I.P. Class 54 unless otherwise noted.
- Tops of all water mains to have a minimum of 3'-6" of cover unless otherwise noted.
- Valves adjacent to trees shall be strapped to trees.
- 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 and buttressed with concrete in accordance with Standard Details. The 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 settings unless otherwise noted on plans or in specifications.
- For sprinkler systems for all town homes or multi-family dwellings units should have a minimum of 1" connection with a 3/4" meter.

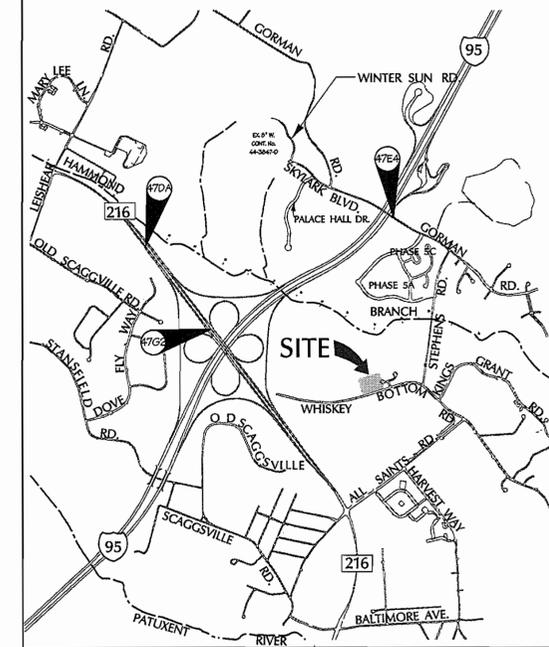
C. STANDARD SEWER MAIN GENERAL NOTES

- All sewer mains shall be DIP 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.I. in plan profile shall have watertight frame and covers, Standard Detail 603. Where watertight frame and cover are used set top of frame 1'-0" above finished grade unless otherwise noted on the drawings.

8" Sewer Main Extension Blough Property

Howard County, Maryland Department of Public Works

Contract No. 24-4527-D



Vicinity Map
SCALE: 1"=2000'

BENCHMARK	ADC COORDINATES
DESCRIPTION	Map 19, J-9

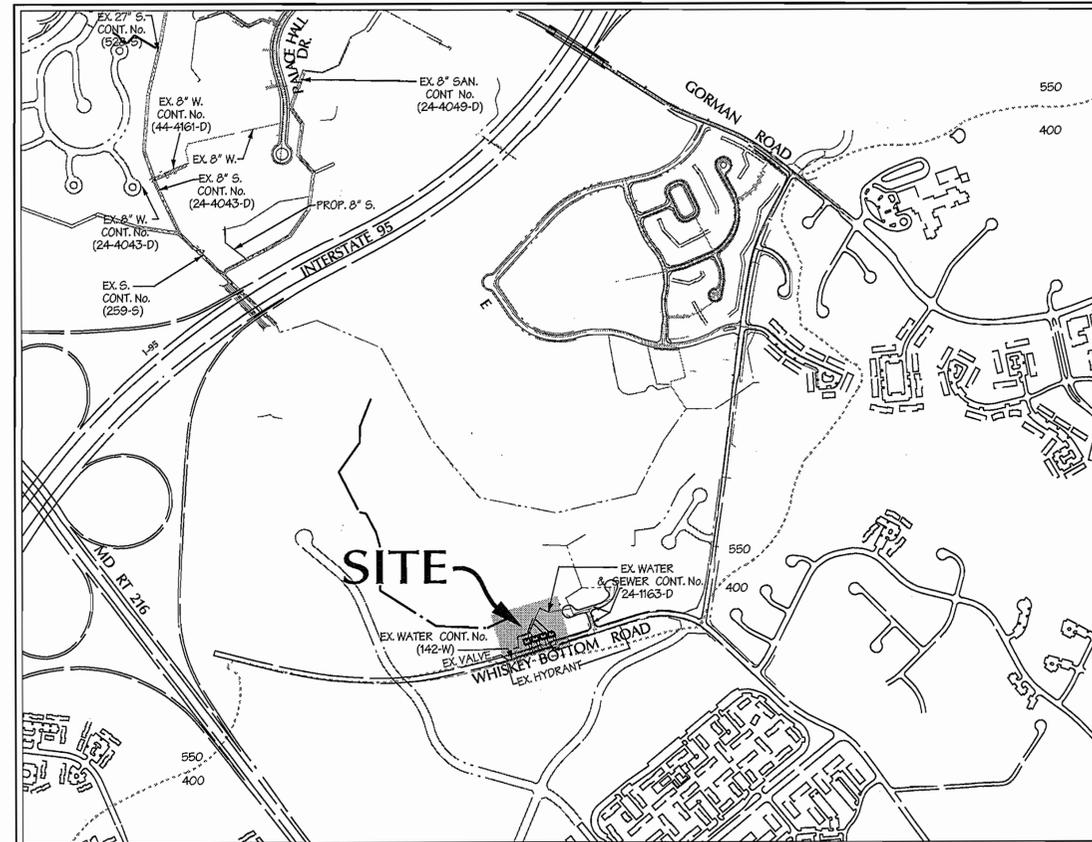
COORDINATES IN MARYLAND NAD83(91) (HORIZONTAL) AND NAVD83 (VERTICAL) DATUMS.

470A NORTHING: 16391.9104
EASTING: 412266579
ELEVATION: 319.05 ft.

47E4 NORTHING: 163326.2295
EASTING: 413136.2550
ELEVATION: 338.909ft.

47G2 NORTHING: 162440.1212
EASTING: 418539279
ELEVATION: 364.210ft.

DEVELOPER: THE HOWARD RESEARCH & DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044
410-922-6149



LOCATION MAP
SCALE: 1"=600'

TYPE OF BUILDING:	RESIDENTIAL
NO. OF LOTS/ PARCELS:	4 LOTS
NO. OF WATER CONNECTIONS:	4
NO. OF SEWER CONNECTIONS:	4
AREA OF COMMERCIAL LOT/PARCEL:	
SEWER SHED:	LITTLE PATUXENT WRP
PUMPING STATION:	

SEWER CODE 7390000
WATER CODE C02
TEST GRADIENT 250

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
8" PVC SEWER	249 LF	249 L.F.	PVC SDR-35	JMMFG./BELAIR ROAD SUPPLY
STD. MANHOLES	3 EA	3 EA.	PRECAST	ATLANTIC CONC. PRODUCTS/BELAIR RD SUPPLY
WHC-112"	4 EA	4 EA.	BALL CURB	MUELLER CO./BELAIR ROAD SUPPLY
FIRE HYDRANT	1 EA	1 EA.	5'-0" MUELLER	MUELLER CO./BELAIR ROAD SUPPLY
6" WATER	36 LF	48 L.F.	DIP, CL. 54	GRIFFIN PIPE/BELAIR ROAD SUPPLY

NAME OF UTILITY CONTRACTOR: CONSOLIDATED CONSTRUCTION SERVICES
SURVEY AND DRAFTING DIVISION AS-BUILT DATE: NOVEMBER 14, 2008

SHEET	DESCRIPTION
1	COVER SHEET
2	PRELIMINARY WHC & 8" SANITARY SEWER PLAN

Legend

- EX. CURB & GUTTER
- EX. MAJOR CONTOURS
- EX. MINOR CONTOURS
- EX. STORM DRAIN
- EX. SEWER
- EX. WATER
- EXISTING TREE LINE
- EXISTING WETLAND LIMIT
- PROP. STORM DRAIN
- PROP. SEWER
- PROPERTY LINE
- ROADWAY RIGHT-OF-WAY
- PROPOSED LOT LINE
- PROPOSED EASEMENT
- PROPOSED CURB & GUTTER
- PROPOSED SIDEWALK
- PROPOSED GUARD RAIL
- PROPOSED RIP-RAP
- WHC W/ BALL VALVE AND SERVICE BOX
- PROPOSED HYDRANT

REVIEWED FOR NATURAL RESOURCES CONSERVATION SERVICE AND MEETS TECHNICAL REQUIREMENT

SIGNATURE: [Signature] DATE: [Date]

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

APPROVED: [Signature] DATE: 4/14/08

HOWARD S.C.D.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

DMW
Daft-McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4705

DESIGN BY: KAD
DRAWN BY: KAW
CHECKED BY: [Signature]
DATE: 3/14/08

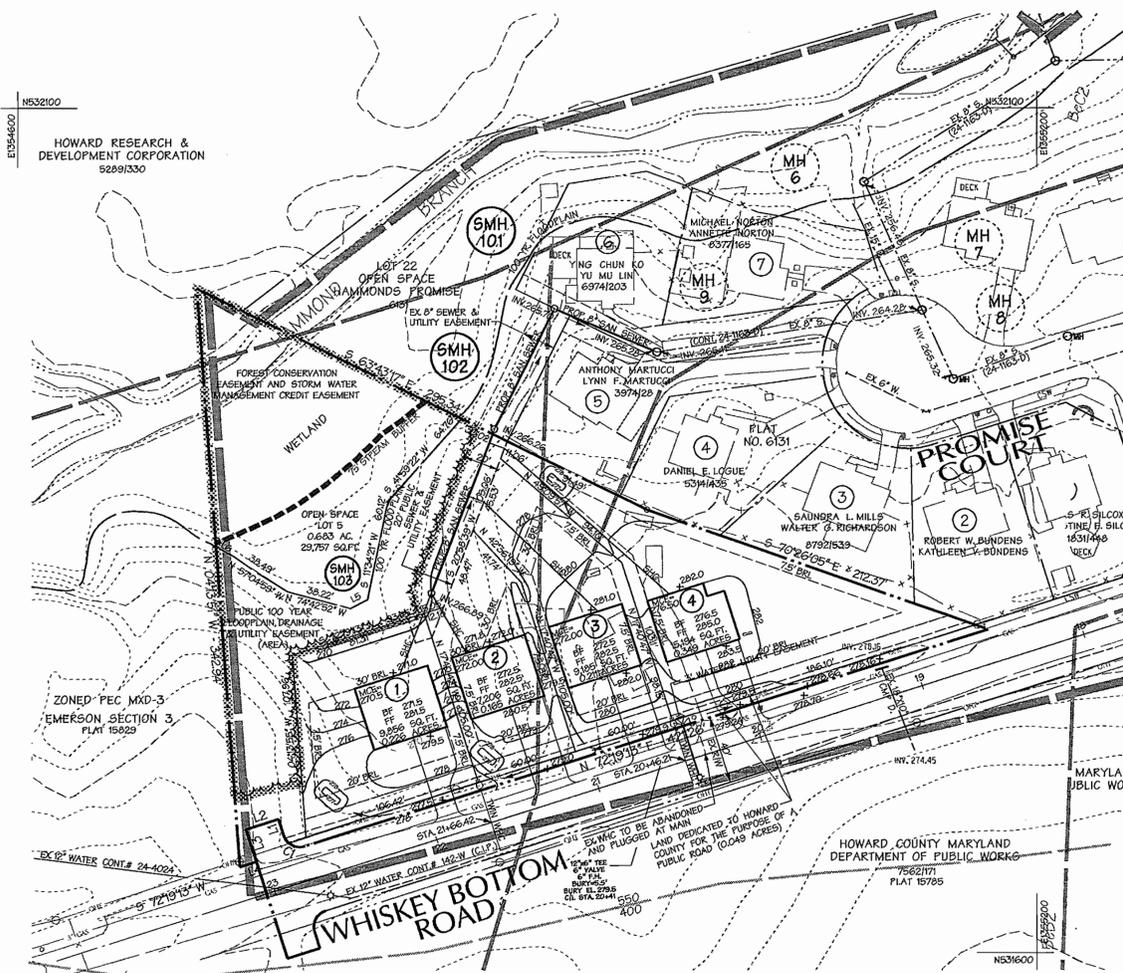
TITLE SHEET
8" SEWER
6th ELECTION DISTRICT

SCALE: 1"=600'
SHEET 1 of 2

CONTRACT NO. 24-4527-D

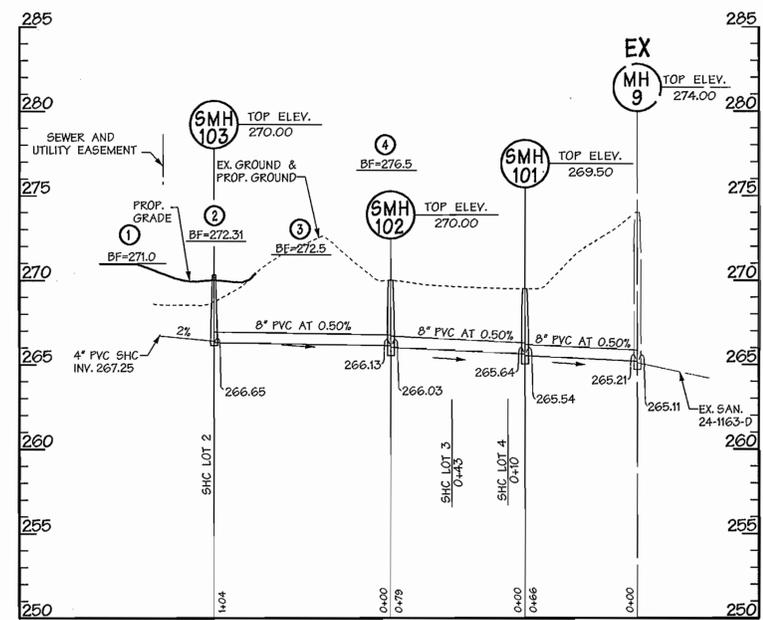
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7th Mar 13 13:27:00 2013 0505406/BL0UGH/9505406/01



PLAN
SCALE: 1" = 50'

- NOTES:
- EXISTING MANHOLE INVERTS TAKEN FROM WATER & SEWER EXTENSION CONTRACT NO. 24-1163-D DATED APRIL 29, 1985.
 - CENTERLINE ROAD STATIONING TAKEN FROM WATER CONTRACT NO. 24-4024-D APPROVED BY HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING DECEMBER 13, 2002.



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

WHC AS BUILT

LOT 1	LOT 2	LOT 3	LOT 4
TO LOT 2 WHC - 4'	TO LOT 1 WHC - 4'	TO FIRE HYDRANT - 9.5'	TO FIRE HYDRANT - 6'
TO MH 3 - 110.4'	TO MH 3 - 110'	TO LOT 4 WHC - 4.3'	TO LOT 3 WHC - 4.3'
		TO FIRE HYDRANT V - 41.4'	TO FIRE HYDRANT V - 40.5'

FIRE HYDRANT TO VALVE - 30.3'

SHC AS BUILT

LOT 1	LOT 2	LOT 3	LOT 4
TO MH 3 - 31'	TO MH 3 - 13.1'	TO LOT 2 SHC - 68'	TO MH 3 - 94.8'
TO LOT 2 SHC - 24.2'	TO LOT 1 SHC - 24.2'	TO MH 3 - 60'	TO MH 2 - 14.5'
	TO LOT 3 SHC - 68'	TO MH 2 - 44.7'	TO LOT 3 SHC - 35.4'
		TO LOT 4 SHC - 35.4'	

REVIEWED FOR NATURAL RESOURCES CONSERVATION SERVICE AND MEETS TECHNICAL REQUIREMENT

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

HOWARD S.C.D. _____ DATE _____

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

3/27/08
CHIEF - BUREAU OF UTILITIES - DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

4/14/08
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

DMW
Darr-McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4705

A Team of Land Planners,
Landscape Architects,
Golf Course Architects,
Engineers, Surveyors &
Environmental Professionals



DESIGN BY:	KAD		
DRAWN BY:	KAW		
CHECKED BY:			
DATE:	3/14/08		
BY	NO.	REVISION	DATE

FINAL WATER & SEWER PLAN
8" SEWER
6th ELECTION DISTRICT
600 SCALE MAP NO. 47 BLOCK NO. 7, 8, 9, 13

AS BUILT
DATE: NOVEMBER 14, 2008

BLOUGH PROPERTY
CONTRACT NO. 24-4527-D

SCALE: 1"=50'
SHEET 2 of 2

Thu Mar 13 12:02:55 2008

Thu Mar 13 12:02:55 2008