

GENERAL NOTES

PART I

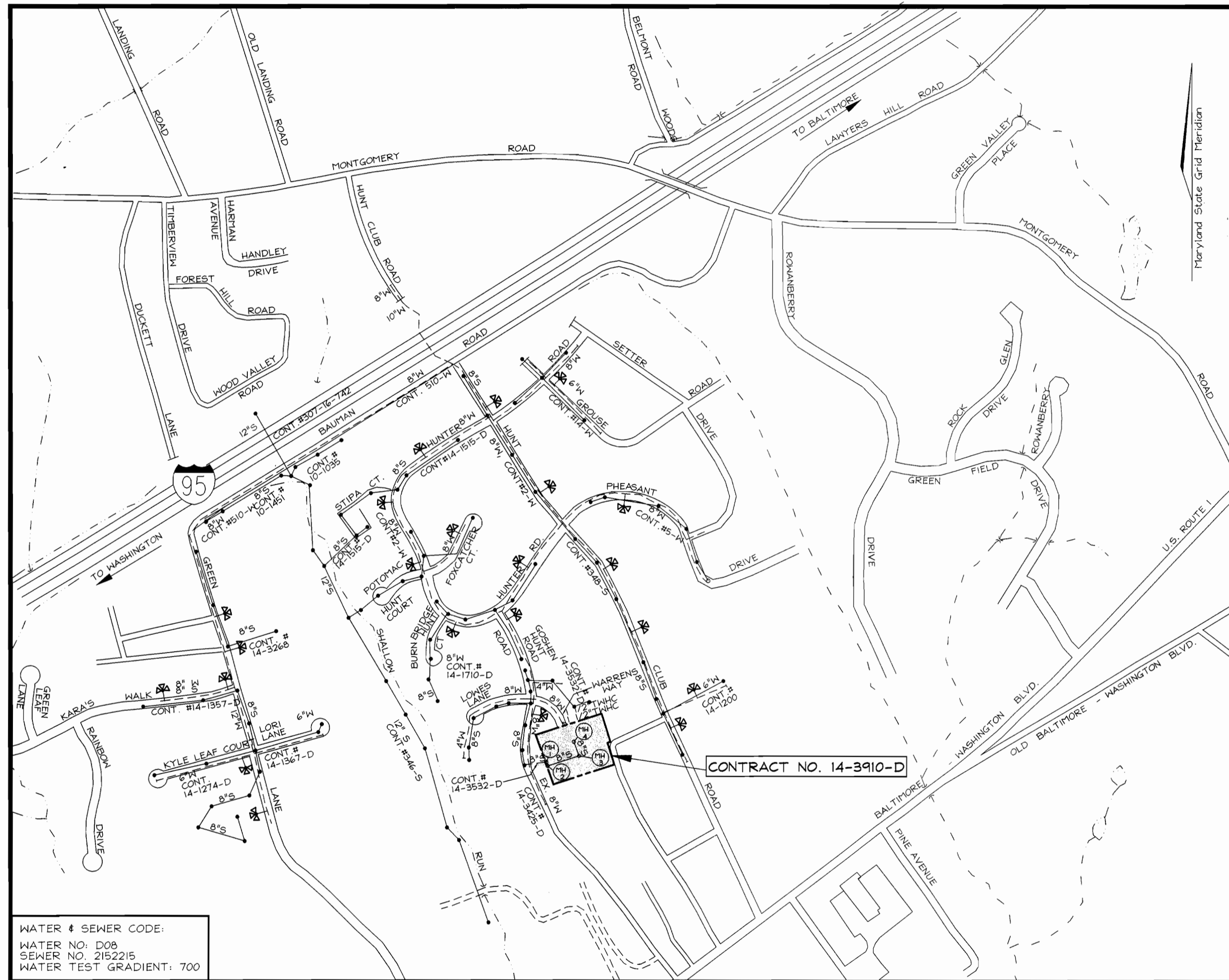
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL 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 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 FOR WHICH TEST PITS HAVE NOT BEEN DONE SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN THESE PLANS:

VERIZON	1-800-446-5266
STATE HIGHWAY ADMINISTRATION	531-5533
B.G.E. CO. CONTRACTOR SERVICES	850-4620
B.G.E. CO. UNDERGROUND DAMAGE CONTROL	291-4607
MISS. UTILITY	1-800-257-7777
COLONIAL PIPELINE CO.	549-4120
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF UTILITIES	313-4900
- 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) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAIN OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPH REQUIREMENTS PER SECTION 18.114(g) OF THE HOWARD COUNTY CODE.

PART II - SEWER

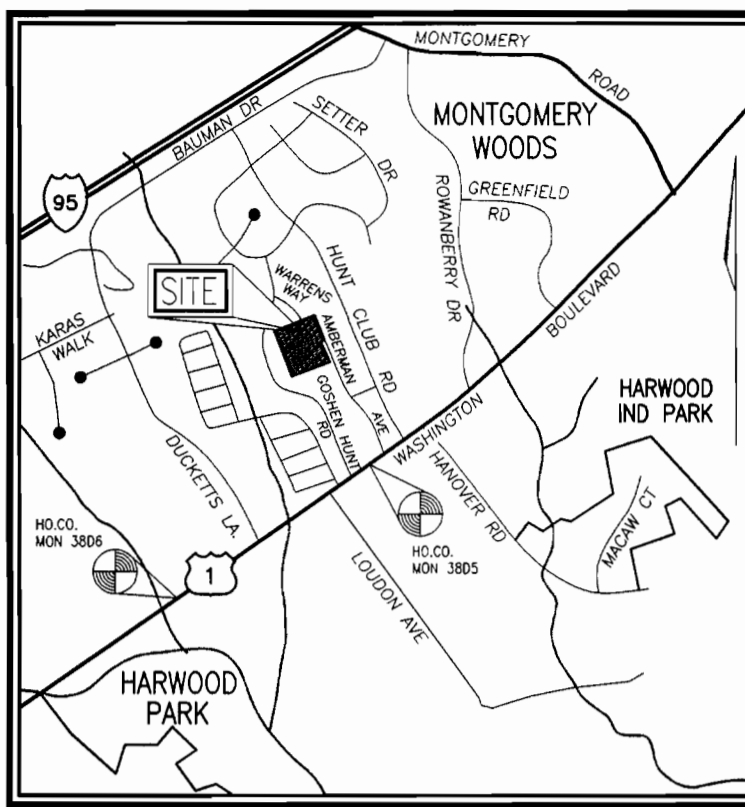
- ALL SEWER MAINS SHALL BE DIP CLASS 52 OR P.V.C. UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVERS, STANDARD DETAIL 65.52 WHERE WATER-TIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 18" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

TYPE OF BUILDING:	COMMERCIAL
NO. OF LOTS/PARCELS:	4
NO. OF WATER HOUSE CONNECTIONS:	4
NO. OF SEWER HOUSE CONNECTIONS:	4
DRAINAGE AREA:	PATAPSCO
TREATMENT PLANT:	PATAPSCO WASTEWATER
TREATMENT PLANT:	CITY OF BALTIMORE



LOCATION PLAN
SCALE: 1"=600'

MILES PROPERTY PUBLIC WATER AND SEWER PLANS HOWARD COUNTY, MARYLAND CONTRACT NO. 14-3910-D



VICINITY MAP
SCALE: 1"=2000'

HOWARD COUNTY GEODETIC CONTROL
STATION NO. 38D5

N 558,378.575 E 1,386,524.157
ELEVATION: 193.718

STATION NO. 38D6

N 557155.459 E 1,384,992.261
ELEVATION: 175.222

QUANTITIES

NAME OF UTILITY CONTRACTOR :				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE :				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
1 1/2" WHC	62 LF			
4" SHC	45 LF			
MANHOLE	4 EACH			
8" SEWER	263 LF			
1" WATER	20 LF			
METER BOX	4 EACH			

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH F-00-187

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

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

[Signature]
SOIL CONSERVATION DISTRICT

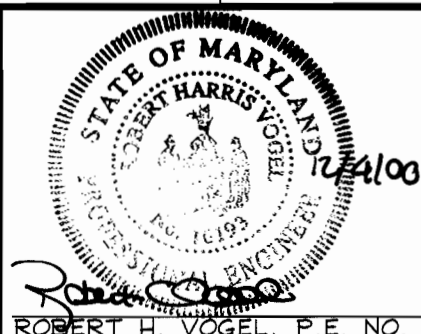
12/2/00
DATE

[Signature]
U.S. SOIL CONSERVATION DISTRICT

12/2/00
DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND



DES: RJ
DRN: RJ
CHK: RHV
DATE: OCT. 2000

TITLE SHEET

MILES PROPERTY
LOTS 1 THRU 4 AND
OPEN SPACE LOT 5
CONTRACT NO. 14-3910-D

SCALE AS SHOWN
SHEET 1 OF 2

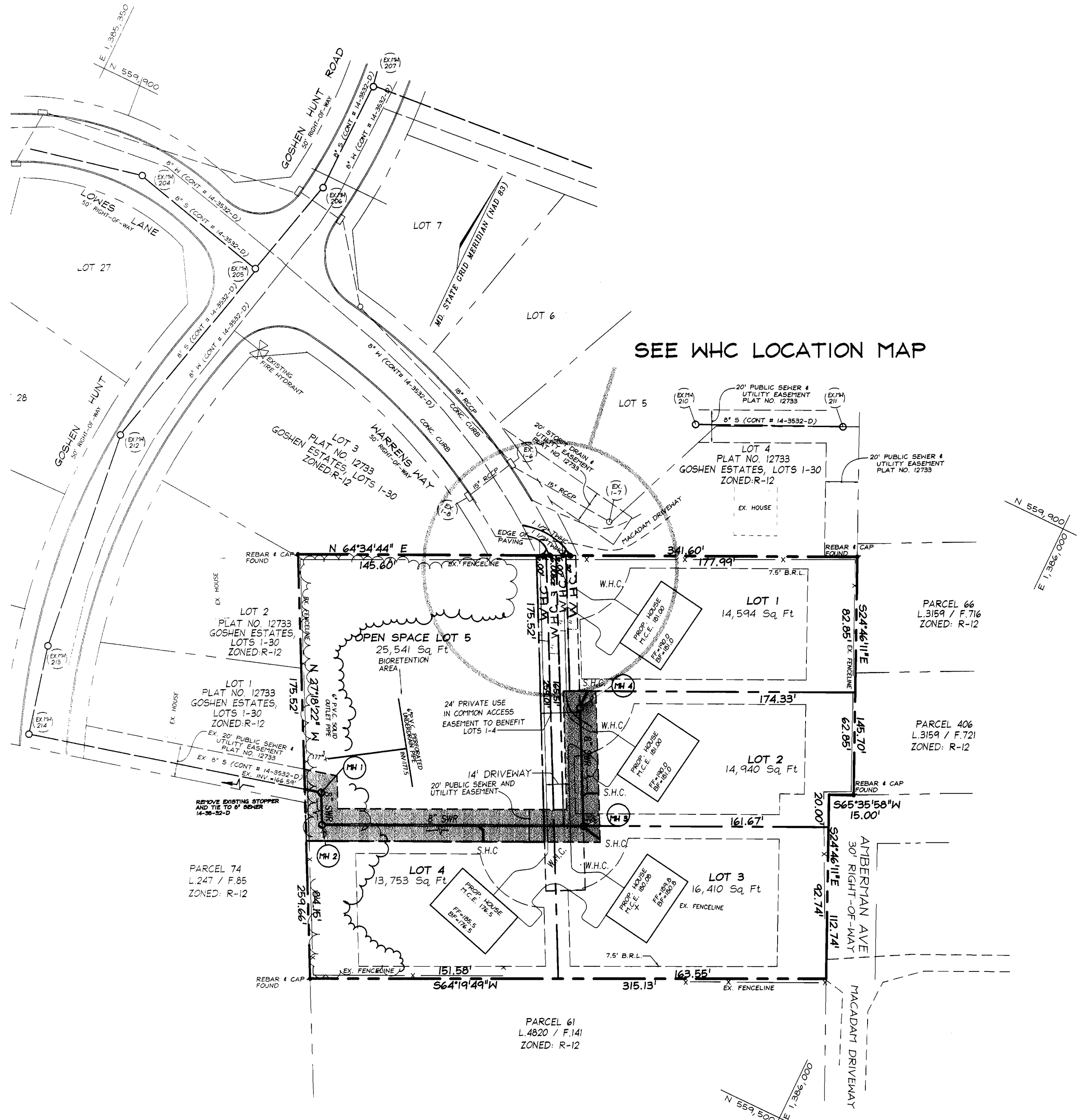
[Signature] 12-7-00
CHIEF, BUREAU OF UTILITIES DATE

[Signature] 12/14/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

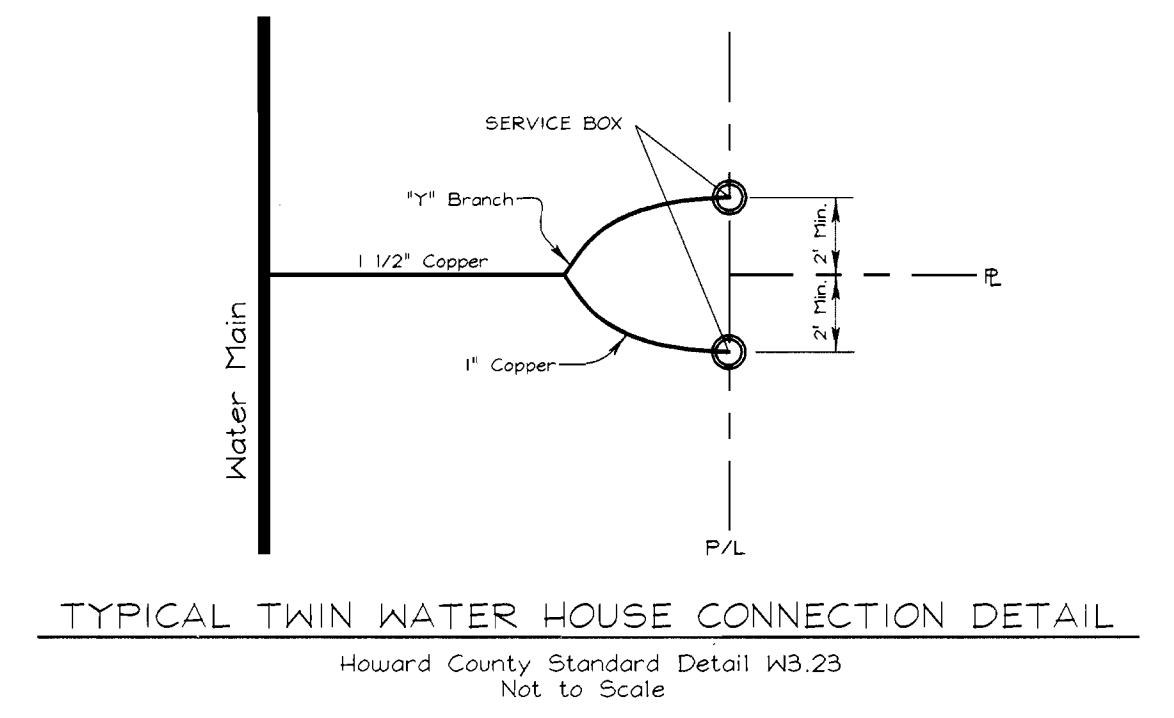
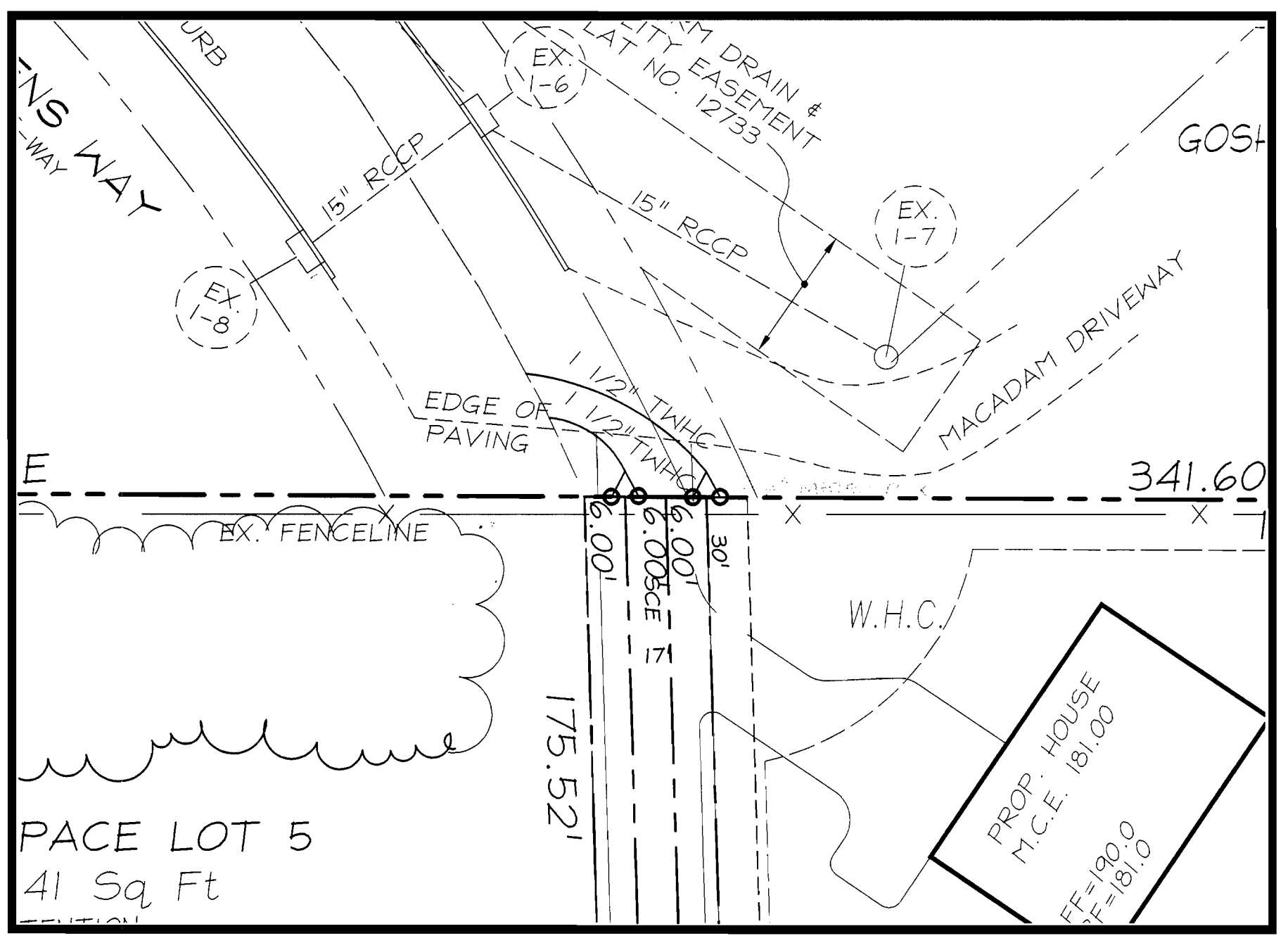
600' SCALE MAP NO. 38 BLOCK NO. 7

TAX MAP #38
1ST ELECTION DISTRICT

PARCEL 61
HOWARD COUNTY, MARYLAND



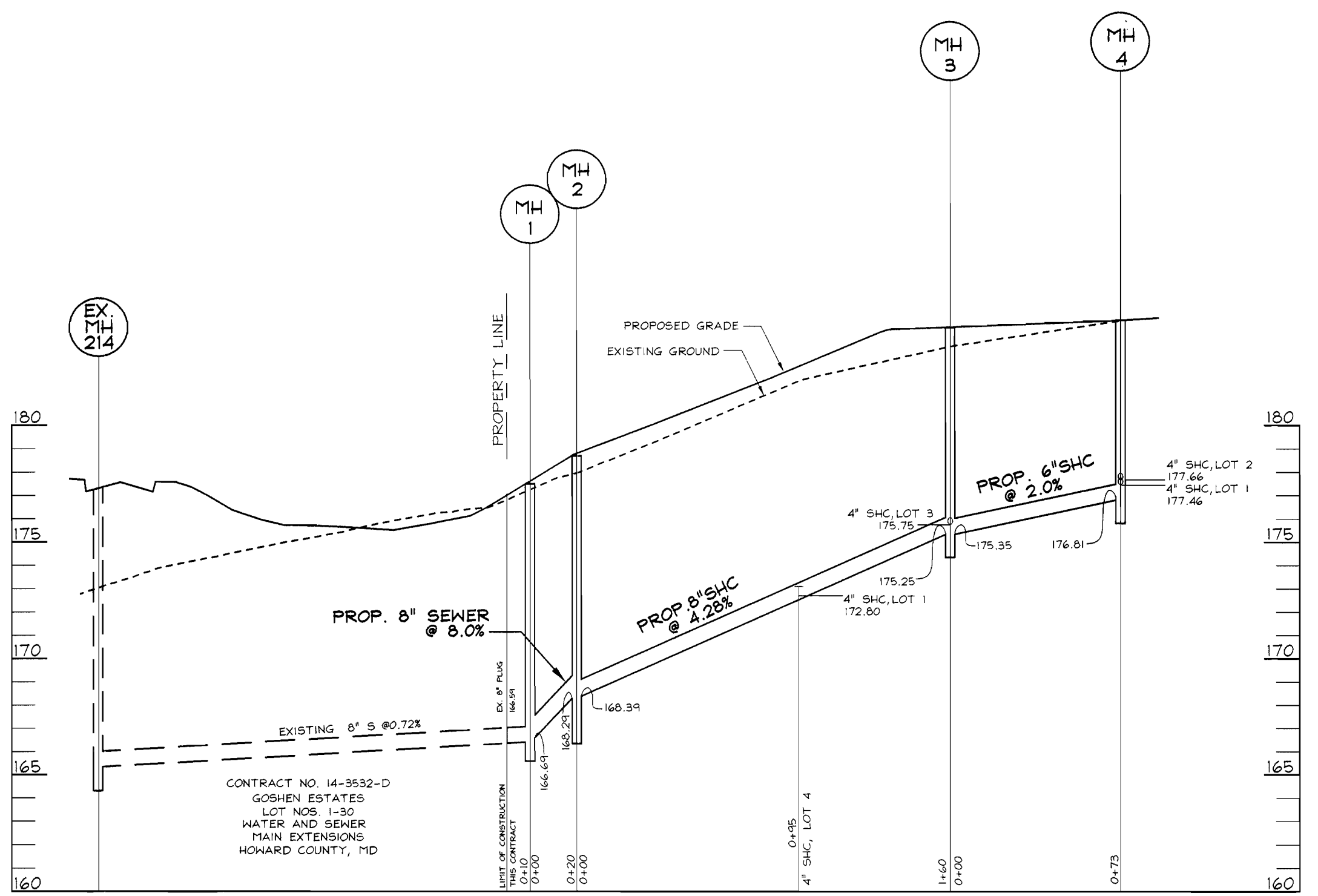
SEE WHC LOCATION MAP



PLAN SCALE: 1"=50'

MANHOLE NO.	LOCATION	TOP ELEV.
MH-1	N 55°55'58.3" E 1385661.5	177.50
MH-2	N 55°55'40.7" E 1385670.5	178.70
MH-3	N 55°56'09.2" E 1385814.7	184.20
MH-4	N 55°56'73.7" E 1385781.4	184.60

LOT NO.	ELEV. @ MAIN	ELEV. @ LOT/R.O.W.	M.C.E.
LOT-1	177.46	177.66	181.00
LOT-2	177.66	177.86	181.00
LOT-3	175.75	175.95	180.08
LOT-4	172.80	173.00	176.50

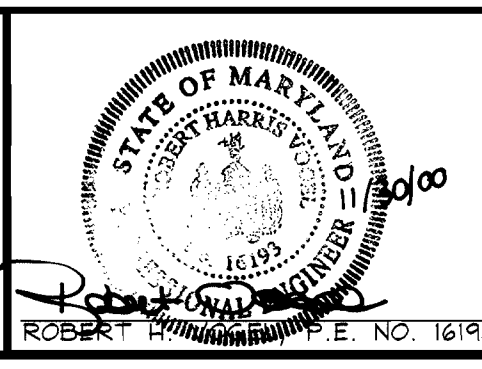


SEWER PROFILE SCALE: HORIZONTAL = 1"=50' VERTICAL = 1"=5'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

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



DES: RJ			
DRN: RJ			
CHK: RHV			
DATE: Oct 2000			
BY NO.		REVISION	

SEWER PLAN

TAX MAP #38
1ST ELECTION DISTRICT

MILES PROPERTY
LOTS 1 THRU 4 AND
OPEN SPACE LOT 5
CONTRACT NO. 14-3910-D
PARCEL 61
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 2

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 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 FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN THESE PLANS:

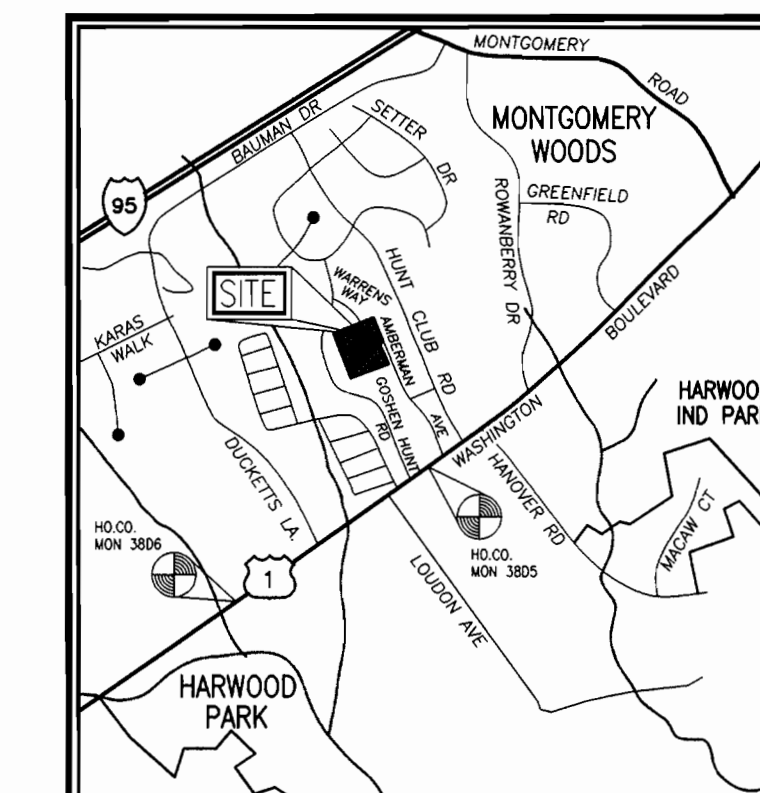
VERIZON	1-800-446-5266
STATE HIGHWAY ADMINISTRATION	531-5533
B.G.E. CO. CONTRACTOR SERVICES	850-4620
B.G.E. CO. UNDER GROUND DAMAGE CONTROL	291-4607
MISS UTILITY	1-800-257-7777
COLONIAL PIPELINE CO.	549-4120
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF UTILITIES	313-4900
- TREES AND SHRUBS ARE 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) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAIN 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 - SEWER

- ALL SEWER MAINS SHALL BE DIP CLASS 52 OR P.V.C. UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- 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 55 52 WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 18" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

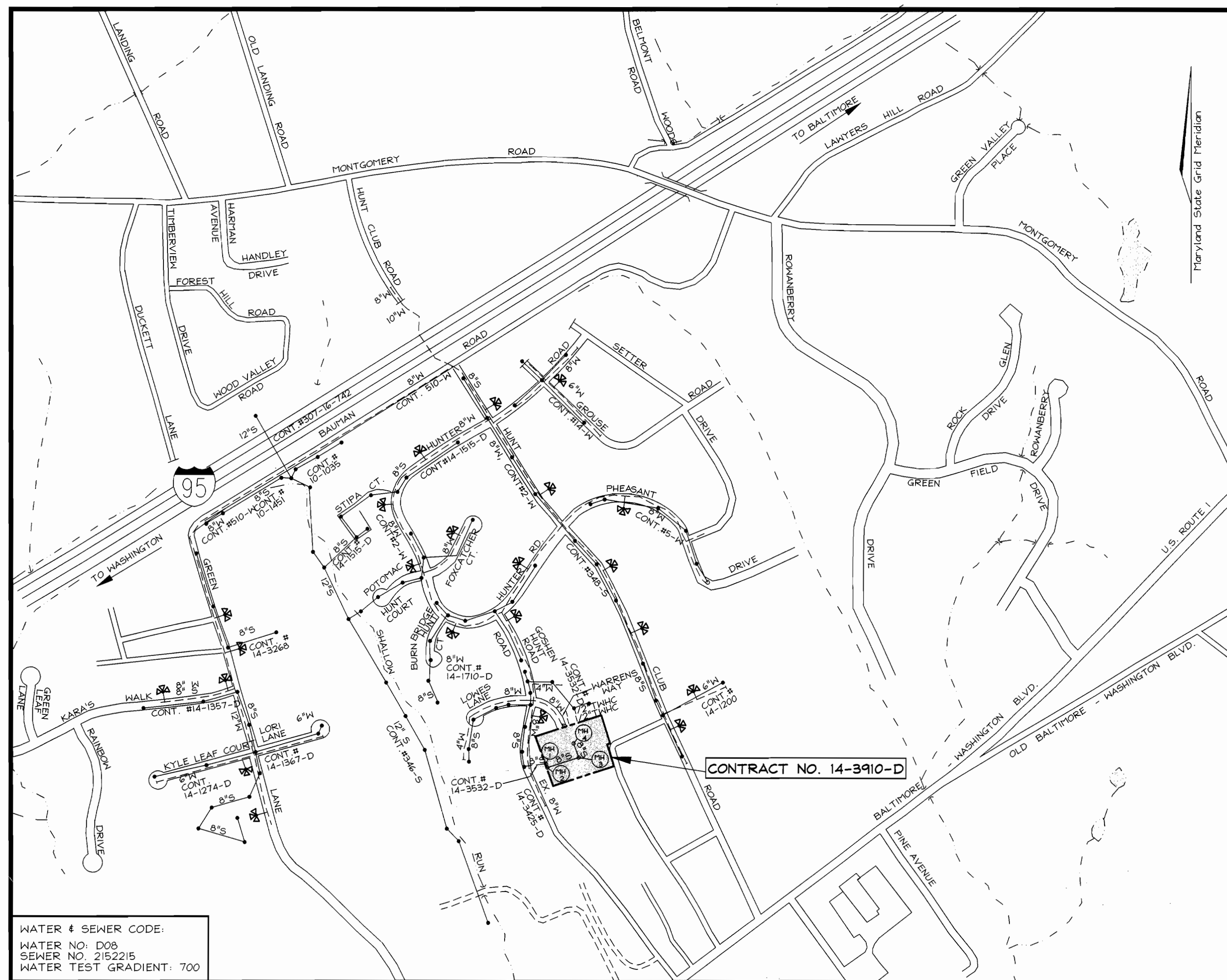
TYPE OF BUILDING:	COMMERCIAL
NO. OF LOTS/PARCELS:	4
NO. OF WATER HOUSE CONNECTIONS:	4
NO. OF SEWER HOUSE CONNECTIONS:	4
DRAINAGE AREA:	PATAPSCO
TREATMENT PLANT:	PATAPSCO WASTEWATER
TREATMENT PLANT, CITY OF BALTIMORE	

MILES PROPERTY PUBLIC WATER AND SEWER PLANS HOWARD COUNTY, MARYLAND CONTRACT NO. 14-3910-D



VICINITY MAP
SCALE: 1"=2000'

HOWARD COUNTY GEODETIC CONTROL
STATION NO. 38DS
N 558,378.575 E 1,386,524.157
ELEVATION: 193.718
STATION NO. 38DE
N 557155.459 E 1,384,992.261
ELEVATION: 175.222



LOCATION PLAN
SCALE: 1"=600'

QUANTITIES				
NAME OF UTILITY CONTRACTOR :				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE :				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
1 1/2" WHC	62 LF	36.3 L.F.	TYPE K	CERRA COPPER PRODUCTS NORTH EASTERN SUPPLY
4" SHC	45 LF	74 L.F.	SDR 35	NATIONAL PIPE AND PLASTICS INC. HARRY EKLOF & ASSOC.
MANHOLE	4 EACH	4 EA	PRECAST	ATLANTIC CONCRETE PRODUCTS
8" SEWER	263 LF	216 L.F.	SDR 35	NATIONAL PIPE & PLASTICS INC. HARRY EKLOF & ASSOC.
1" WATER	20 LF	126.4 L.F.	TYPE K	READING TUBE NORTH EASTERN SUPPLY
METER BOX	4 EACH	4 EA.	PRECAST 24" DIA.	MAYER BROS. INC.
6" SEWER	73 L.F.	73 L.F.	SDR-35	NATIONAL PIPE & PLASTICS INC. HARRY EKLOF & ASSOC.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH F-00-157

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT. SOIL CONSERVATION DISTRICT	REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS. 12/12/00 U.S. SOIL CONSERVATION DISTRICT
---	--

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND CHIEF, DEVELOPMENT ENGINEERING DIVISION
---	---

VOGEL & ASSOCIATES
ENGINEERS-SURVEYORS-PLANNERS
3891 Park Avenue, Suite 101 • Ellicott City, Maryland 21043
Tel 410 461.5828 Fax 410.465.3966

STATE OF MARYLAND
ROBERT H. VOGEL, P.E. NO. 16193

DES: RJ			
DRN: RJ			
CHK: RHV			
DATE: OCT. 2000			
BY: NO. 1	REVISION	DATE	
	A5 BENT CONDITIONS ADDED TO PLAN	6/7/01	

TITLE SHEET

600' SCALE MAP NO. 38 BLOCK NO. 7

MILES PROPERTY
LOTS 1 THRU 4 AND
OPEN SPACE LOT 5
CONTRACT NO. 14-3910-D

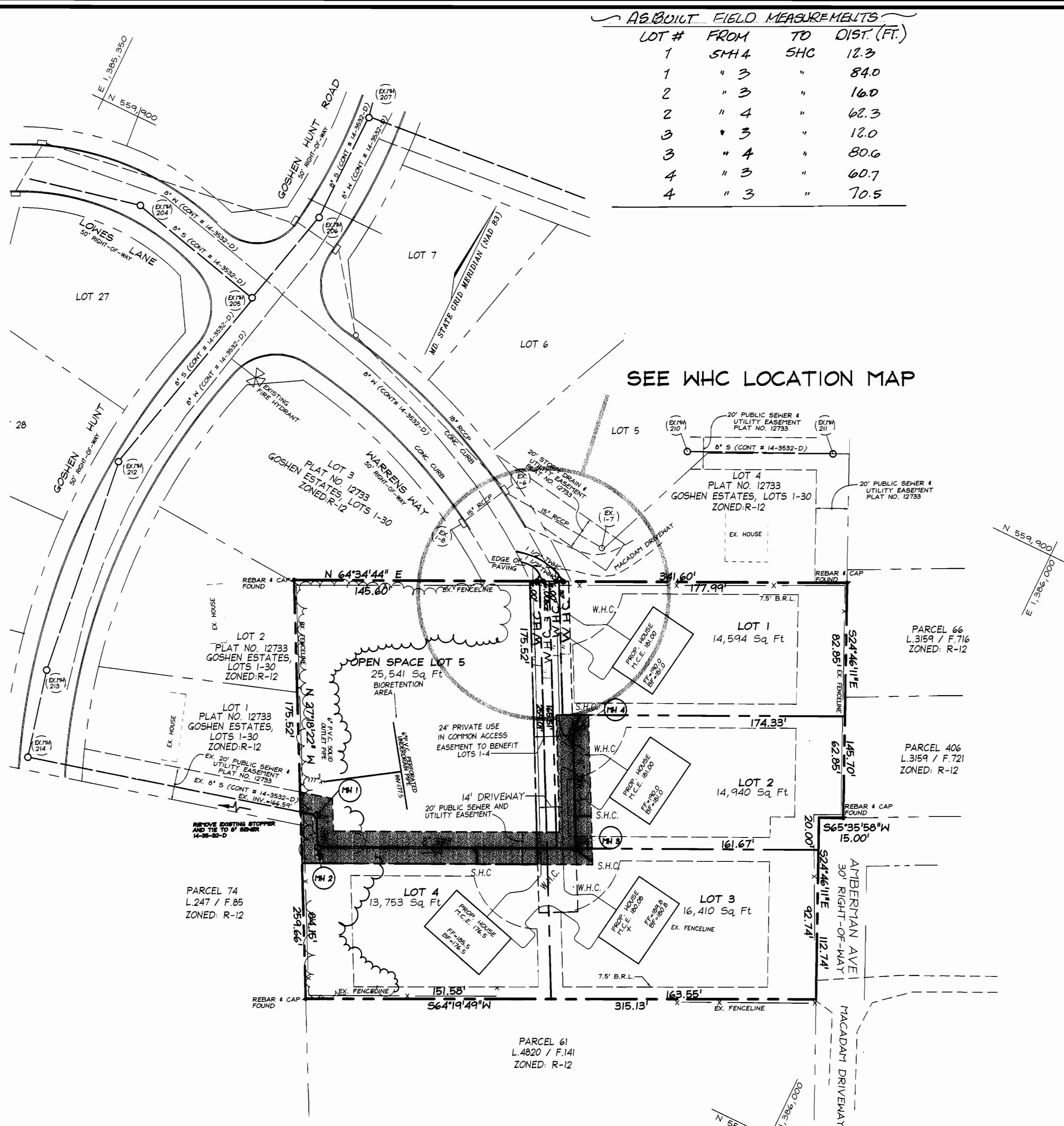
TAX MAP #38
1ST ELECTION DISTRICT

PARCEL 61
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 1 OF 2

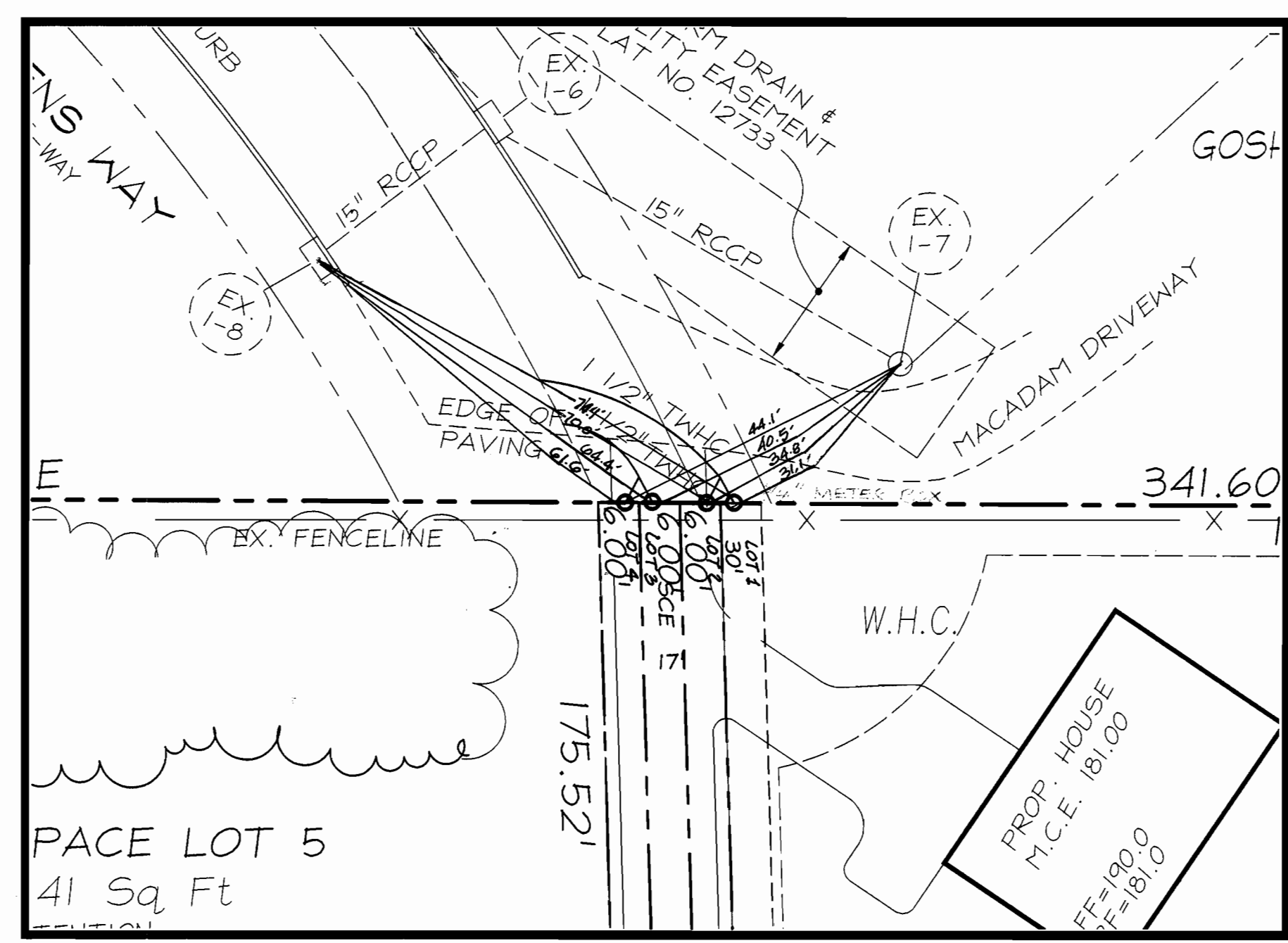
AS-BUILT FIELD MEASURE HEIGHTS

LOT #	FROM	TO	DIST. (FT.)
1	SMH 4	SHC	12.3
1	"	"	84.0
2	"	"	16.0
2	"	"	62.3
3	"	"	12.0
3	"	"	80.6
4	"	"	60.7
4	"	"	70.5

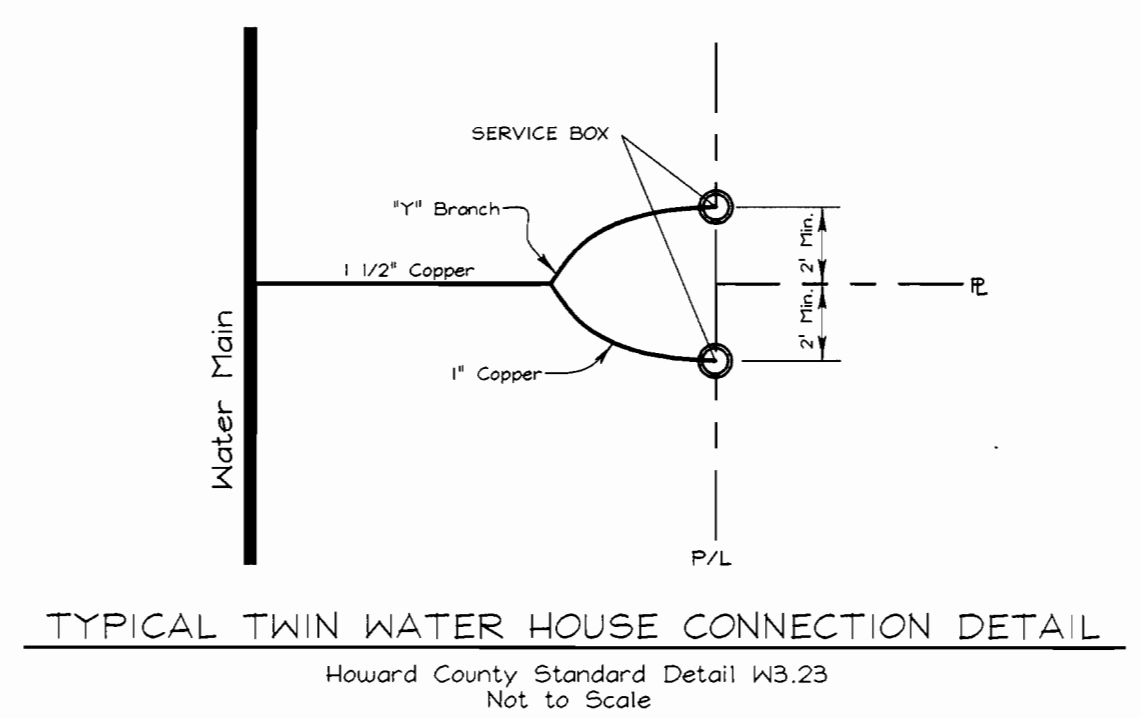


MANHOLE NO.	LOCATION	TOP ELEV.
MH-1	N 559558.3 E 1385661.5	177.50
MH-2	N 559540.7 E 1385670.5	178.70
MH-3	N 559609.2 E 1385814.7	184.20
MH-4	N 559673.7 E 1385781.4	184.60

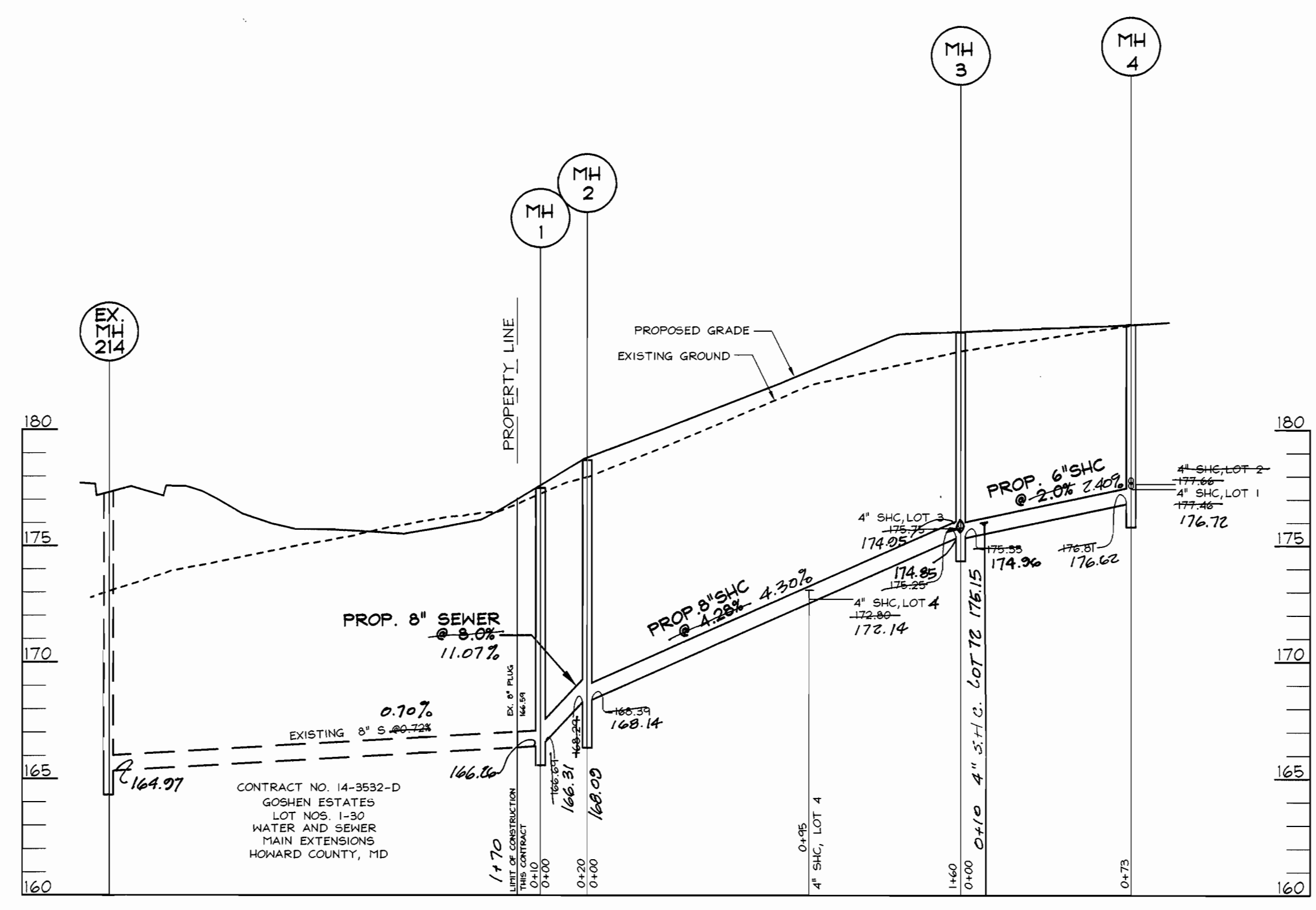
LOT NO.	ELEV. @ MAIN	ELEV. @ LOT/R.O.W.	M.C.E.
LOT-1	177.46	176.72	181.00
LOT-2	177.66	175.15	177.86
LOT-3	175.75	174.95	180.08
LOT-4	172.80	172.14	176.50



W.H.C. LOCATION MAP
SCALE: 1"=20'



TYPICAL TWIN WATER HOUSE CONNECTION DETAIL
Howard County Standard Detail W3.23
Not to Scale



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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

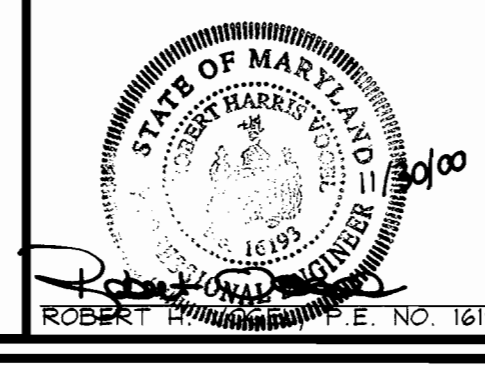
Robert W. Bainger 12-2-00
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Michael J. ... 12/14/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION

VOGEL & ASSOCIATES
ENGINEERS-SURVEYORS-PLANNERS

3691 Park Avenue, Suite 101 • Ellicott City, Maryland 21043
Tel 410.461.5828 Fax 410.465.3966



DES: RJ			
DRN: RJ			
CHK: RHV			
DATE: Oct 2000	BY: KRI	NO. 1	REVISION: AS-BUILT CONDITIONS ADDED TO PLAN
			DATE: 6/1/01

SEWER PLAN

600' SCALE MAP NO. 38 BLOCK NO. 7

MILES PROPERTY
LOTS 1 THRU 4 AND
OPEN SPACE LOT 5
CONTRACT NO. 14-3910-D

TAX MAP #38 PARCEL 61
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 2 OF 2