

QUANTITY TABLE

ITEMS	QUANTITIES		TYPE	MANUFACTURER/SUPPLIER
	ESTIMATED	QUANTITIES		
STANDARD MH (HO. CO. STD.G-5-12)	8	8	PRECAST	ALUMIC CONCRETE PRODUCTS INC.
8" SEWER MAIN	1,200 L.F.	1,219 L.F.	50R35 PVC	MARY AMERICAN PIPE / FERGUSON
4" SEWER HOUSE CONNECTION	165 L.F.	173 L.F.	50R35 PVC	MARY AMERICAN PIPE / FERGUSON
# SEWER HOUSE CONNECTIONS	7 EACH	10	3/4" PRECAST	MULTI FITTINGS / FERGUSON
8" WATER MAIN	763 L.F.	755 L.F.	CL SHEEP	GRAFFIN PIPE PRODUCTS CO. INC.
1.5" WATER HOUSE CONNECTION	190 L.F.	173 L.F.	CL SHEEP	MUELLER CO. INDUSTRIES / FERGUSON
# 1.5" WHC	7 EACH	9	1 1/2" WHT	TYLER UNION FOUNDRY / FERGUSON
8" CAP & BUTTRESS	2 EACH	2	HT 110	TYLER UNION FOUNDRY / FERGUSON
1/8 H.B.	4 EACH	2	MJ C153	TYLER UNION FOUNDRY / FERGUSON
1/32 H.B.	1 EACH	1	MJ C153	TYLER UNION FOUNDRY / FERGUSON
8"x8" T.	1 EACH	1	MJ C153	TYLER UNION FOUNDRY / FERGUSON
8"x6" T. & V.	1 EACH	1	HT 110	MUELLER CO.
F.H.	1 EACH	1	5/4" WHT	MUELLER CO. / FERGUSON
6"x8" R.	1 EACH	1	MJ C153	TYLER UNION FOUNDRY / FERGUSON
6" WATER MAIN		14 L.F.	CL SHEEP	GRAFFIN PIPE PRODUCTS CO. INC.
8" VALVE	1 EACH	1	HT 110	MUELLER CO.

NAME OF UTILITY CONTRACTOR: CONSOLIDATED CONSTRUCTION SERVICES, INC.
 SURVEY AND DRAFTING DIVISION AS-BUILT DATE 9-19-11

SHC MAZIE'S PLACE / 24-4302-D

LOT NUMBER	MEASUREMENT 1	MEASUREMENT 2	MEASUREMENT 3
1	19.5' to SMH-1	72.5' to LOT 2 SHC	
2	91.5' to SMH-3	72.5' to LOT 1 SHC	88' to SMH-2
3	50.5' to SMH-3	123' to LOT 2 SHC	72.5' to SMH-4

WHC MAZIE'S PLACE / 24-4302-D

LOT NUMBER	MEASUREMENT 1	MEASUREMENT 2	MEASUREMENT 3
2	102' to LOT 3 WHC (MAZIE'S)	63.6' to 6" VALVE	35' to ex. SMH (T110S)
3	32' to 9" VALVE	55' to 6" VALVE	102' to LOT 2 WHC (MAZIE'S)

EROSION AND SEDIMENT CONTROL FOR THIS CONTRACT IS PROVIDED UNDER GP-06-08

SHC HICKORY PARK / 24-4302-D

LOT NUMBER	MEASUREMENT 1	MEASUREMENT 2	MEASUREMENT 3
3	65' to LOT 4 SHC	535' to LOT 7 WHC	11.5' to LOT 3 WHC
4	31' to LOT 4 WHC	47.5' to LOT 7 SHC	65' to LOT 3 SHC
5	10' to SMH-B	61' to LOT 4 WHC	38.5' to LOT 5 WHC
6	59.5' to LOT 4 WHC	4.5' to LOT 6 WHC	25' to SMH-B
7	47.5' to LOT 4 SHC	13' to LOT 7 WHC	65' to LOT 4 WHC
8	10.5' to LOT 8 WHC	39' to SMH-7	74' to LOT 3 WHC
9	46' to LOT 9 WHC	29.5' to SMH-5	73.5' to LOT 3 WHC (MAZIE'S)

WHC HICKORY PARK / 24-4302-D

LOT NUMBER	MEASUREMENT 1	MEASUREMENT 2	MEASUREMENT 3
3	11.5' to LOT 3 SHC	60' to LOT 7 WHC	84.5' to SMH-7
4	62' to SMH-B	62' to LOT 6 WHC	31' to LOT 4 SHC
5	38.5' to LOT 5 SHC	39.5' to SMH-B	23' to BLOW-OFF
6	62' to LOT 4 WHC	23' to SMH-B	48.5' to BLOW-OFF
7	53.5' to LOT 3 SHC	13' to LOT 7 SHC	52' to LOT 4 SHC
8	10.5' to LOT 8 SHC	33' to SMH-7	149' to SMH-6
9	112' to SMH-6	46' to LOT 9 SHC	69.5' to SMH-5

PLAN REFERENCE NUMBERS:
 F-05-109
 GP-06-08

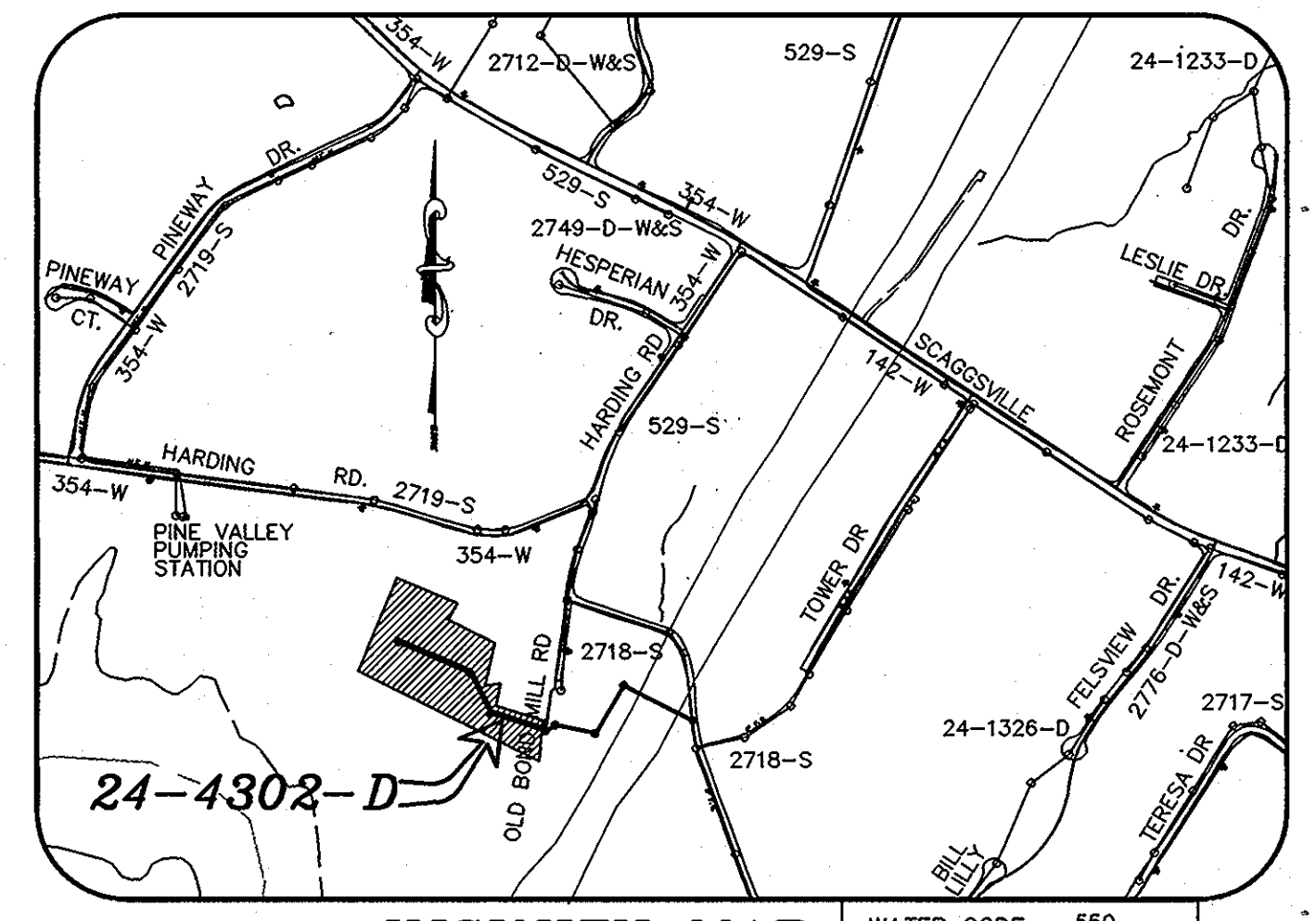
HICKORY PARK - 2

WATER AND SEWER MAIN EXTENSIONS

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

24-4302-D



VICINITY MAP
 SCALE 1"=600'

TYPE OF BUILDING	SEF
No. OF UNITS	7
No. OF WATER HOUSE CONNECTION	7
No. OF SEWER HOUSE CONNECTIONS	7
DRAINAGE AREA	PATUXENT

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER'S SIGNATURE: *R. JAGO HIKORY* DATE: 3/29/06
 DEVELOPER'S NAME: R. JAGO HIKORY

ENGINEER'S SIGNATURE: *John M. Boender* DATE: 3/29/06
 ENGINEER'S NAME: John M. Boender

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.
 DATE: 4/27/06

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE SOIL CONSERVATION DISTRICT.
 DATE: 4/27/06

GENERAL NOTES

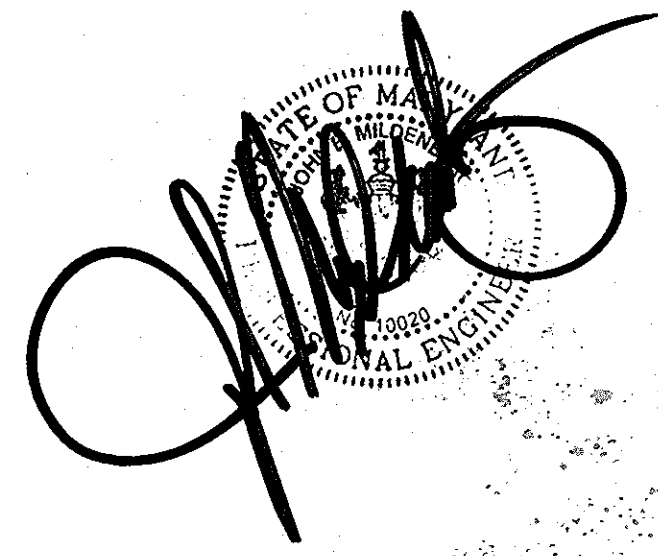
- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON FEBRUARY 2003 BY WINGS AERIAL MAPPING SUPPLEMENTED BY TOPOGRAPHIC SURVEY PERFORMED BY MILDENBERG BOENDER & ASSOCIATES IN MARCH, 2003.
- HORIZONTAL AND VERTICAL SURVEY CONTROLS: 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. 36EA AND NO. 36EB. ALL VERTICAL CONTROLS ARE BASED ON NAVD '29. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE HO.CO. GEODETIC CONTROL STA. 46EA & 46EB.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. 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 THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWNED 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. 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)..... 410-685-1400
 - BUREAU OF UTILITIES..... 410-313-4900
 - COLONIAL PIPELINE CO..... 410-795-1390
 - 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.
- THE CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATED. 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(g) OF THE HOWARD COUNTY CODE.
- PLEASE USE CAUTION WHEN EXCAVATING IN THE VICINITY OF OVERHEAD ELECTRIC LINES.
- 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 OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.

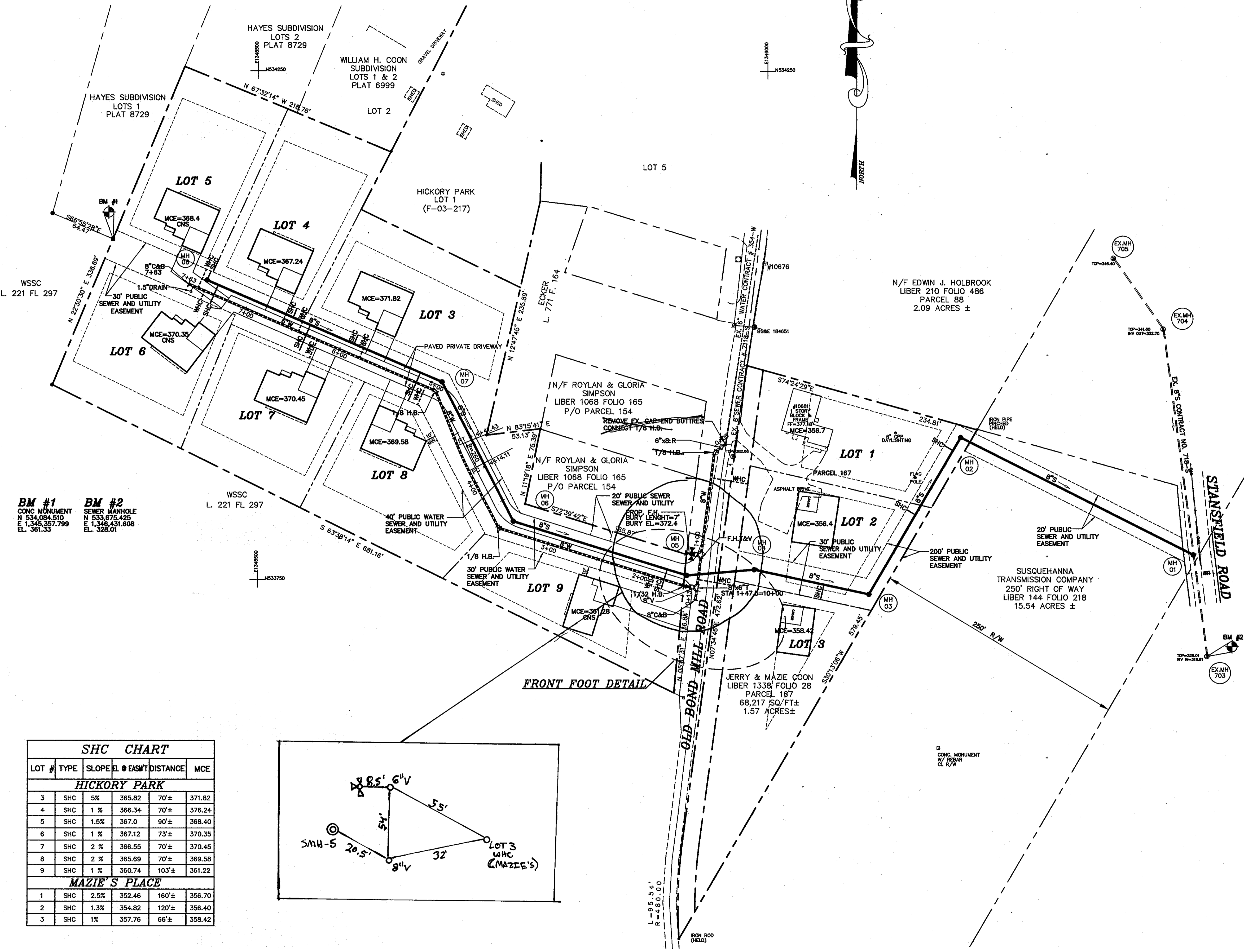
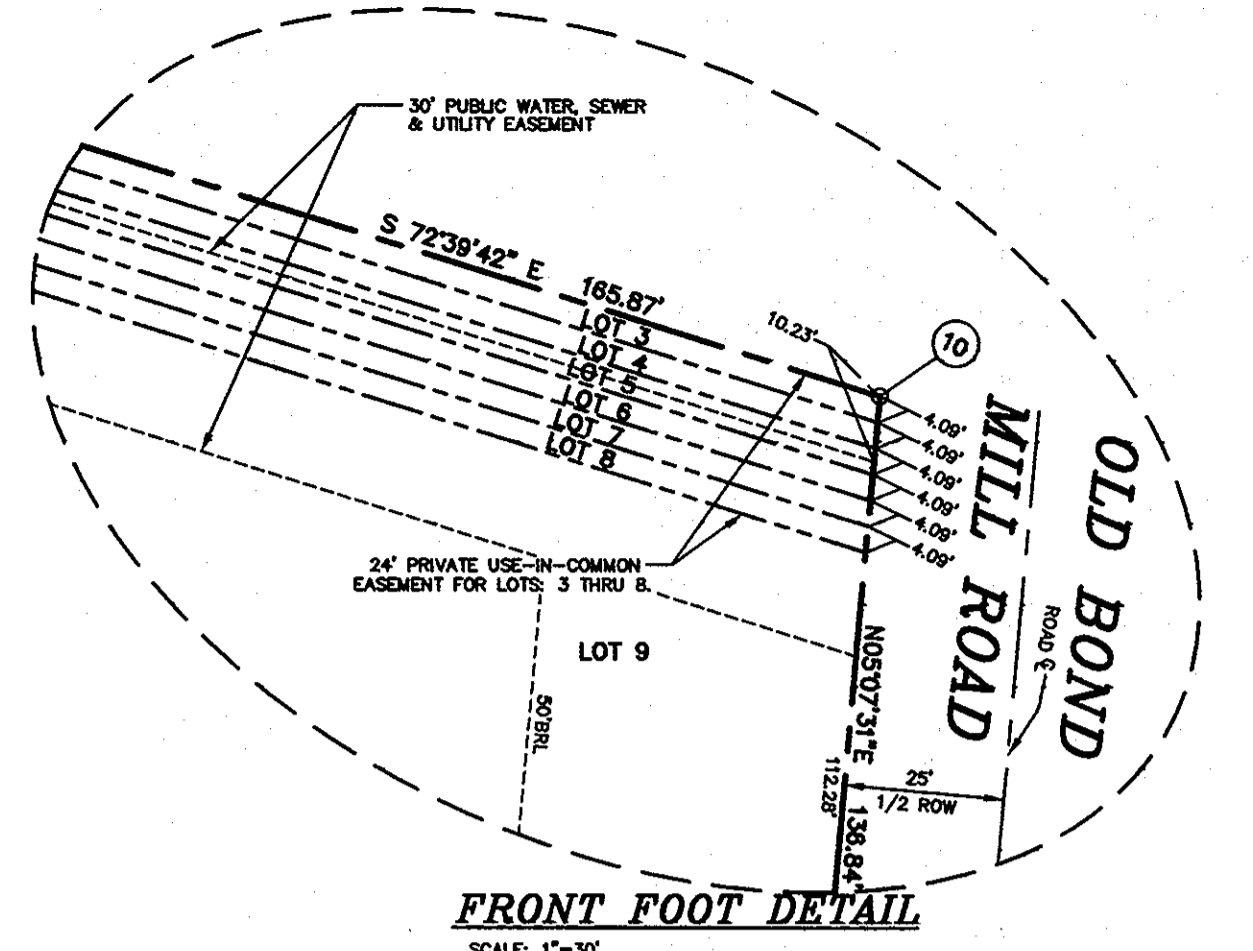
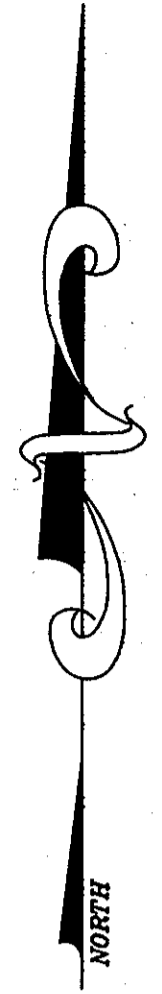
- SEWER
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
 - ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
 - FORCE MAINS SHALL BE D.I.P. ONLY.
 - MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
 - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE 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." INDICATED THAT THE CELLAR CANNOT BE SERVED.
- ADDITIONAL WATER NOTES:
- WATER METERS WILL NOT BE RELEASED BY HOWARD COUNTY TO ANY NEW BUILDING UNTIL THE EXISTING WELLS AND SEPTIC SYSTEMS HAVE BEEN ABANDONED IN ACCORDANCE WITH HOWARD COUNTY HEALTH DEPARTMENT REGULATIONS AND THE EXISTING BUILDINGS ARE CONNECTED TO THE PUBLIC WATER AND SEWER MAINS.

INDEX OF DRAWINGS

NO.	DESCRIPTION
1	TITLE SHEET
2	WATER AND SEWER PLAN
3	WATER AND SEWER PROFILES

OWNER:
 WILLIAM H. COON
 C/O MILDENBERG, BOENDER & ASSOC., INC.
 5072 DORSEY HALL DRIVE, SUITE 202
 ELLICOTT CITY, MD 21042





BM #1
CONC MONUMENT
N 534,084.510
E 1,345,357.799
EL. 361.33

BM #2
SEWER MANHOLE
N 533,675.425
E 1,346,431.608
EL. 326.01

MANHOLE LOCATION CHART

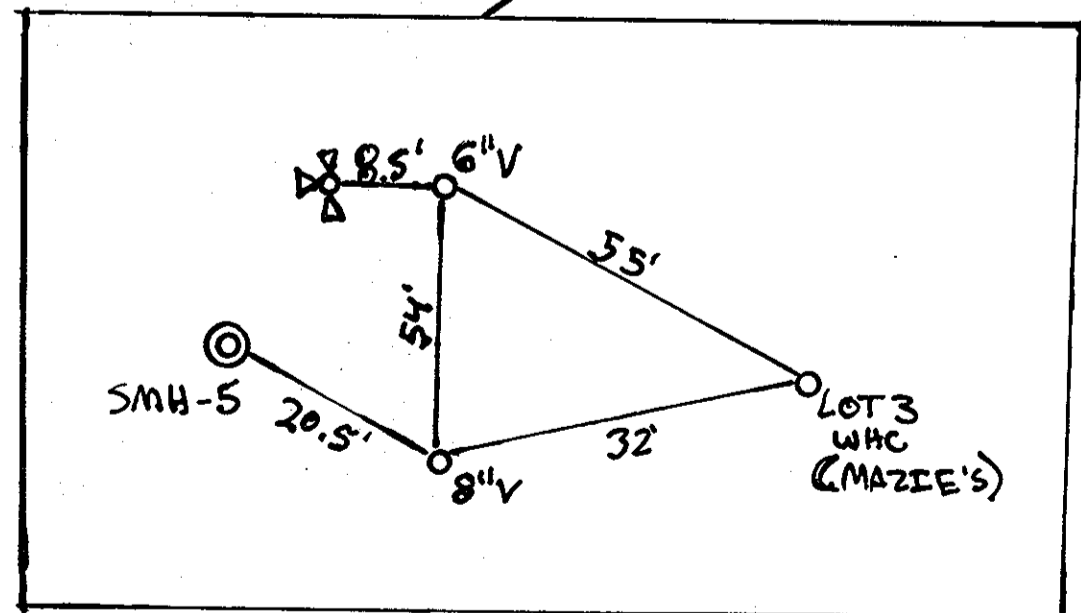
MH #	ROAD NAME OR NORTHING & EASTING
01	N 533,775.4 E 1,346,418.1
02	N 533,890.3 E 1,346,189.8
03	N 533,736.0 E 1,346,099.8
04	N 533,760.3 E 1,345,987.5
05	N 533,754.5 E 1,345,921.2
06	N 533,807.7 E 1,345,751.1
07	N 533,944.6 E 1,345,680.8
08	N 534,044.2 E 1,345,450.2

8" WATER MAIN TABULATION CHART

NORTHING & EASTING		APPURTENANCE
N 533,881.5	E 1,345,956.4	6"x8"R
N 533,883.5	E 1,345,958.9	1/8 H.B.
N 533,875.6	E 1,345,948.3	1/8 H.B.
N 533,769.6	E 1,345,935.1	8"x6" F.H.T.&V.
N 533,771.0	E 1,345,925.5	F.H.
N 533,742.5	E 1,345,931.3	8"x8" T.
N 533,743.1	E 1,345,926.4	8"V
N 533,743.9	E 1,345,919.3	1/32 H.B.
N 533,801.6	E 1,345,736.6	1/8 H.B.
N 533,935.6	E 1,345,674.5	1/8 H.B.
N 534,032.9	E 1,345,434.4	1.5" DRAIN
N 534,040.4	E 1,345,432.2	8" CAP & BUTTRESS
N 533,730.1	E 1,345,929.7	8" CAP & BUTTRESS

SHC CHART

LOT #	TYPE	SLOPE	EL @ EASMT	DISTANCE	MCE
HICKORY PARK					
3	SHC	5%	365.82	70'	371.82
4	SHC	1%	366.34	70'	376.24
5	SHC	1.5%	367.0	90'	368.40
6	SHC	1%	367.12	73'	370.35
7	SHC	2%	366.55	70'	370.45
8	SHC	2%	365.69	70'	369.58
9	SHC	1%	360.74	103'	361.22
MAZIE'S PLACE					
1	SHC	2.5%	352.46	160'	356.70
2	SHC	1.3%	354.82	120'	356.40
3	SHC	1%	357.76	66'	358.42



03-032(DWG)FINAL W&S

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland - 21042
(410) 897-0256 Ext. (301) 621-5521 Wash. (410) 897-0288 Fax

Steve Chen
CHIEF, BUREAU OF UTILITIES

W. Boender
CHIEF, DEVELOPMENT ENGINEERING DIVISION

engineering	MMM						
illustration	MMM						
approval							
project	03-032	TDB	2	AS-BUILT		11-7-0	
date	MARCH 2006	MBA	1	REVISED LENGTH WATER AND SEWER, CHANGE MCE ELEVATION		FEB 2011	
revision							

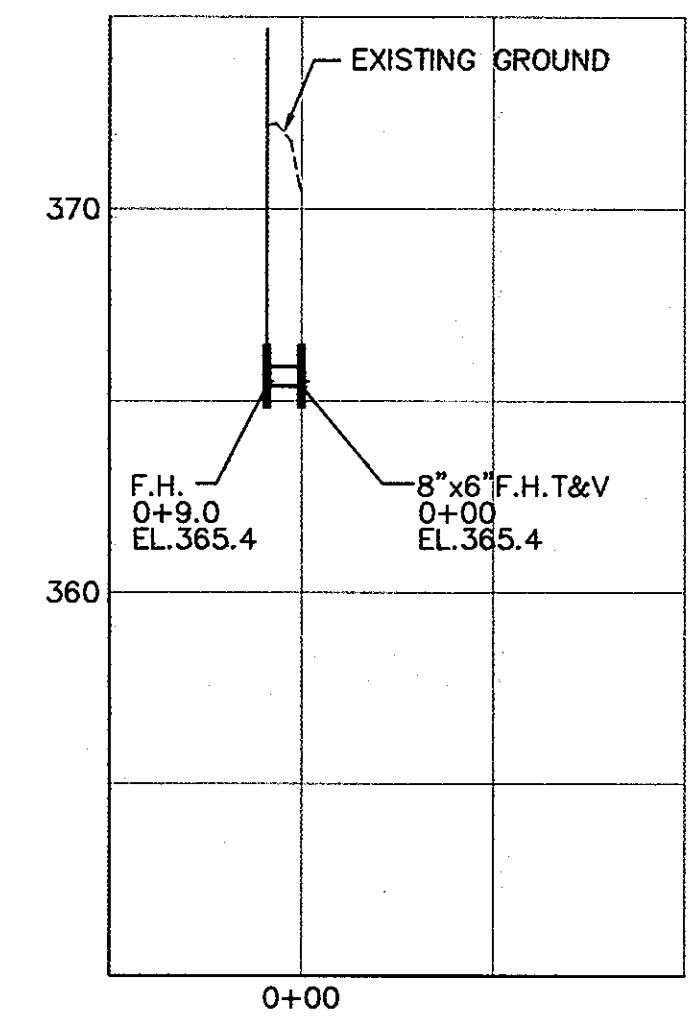
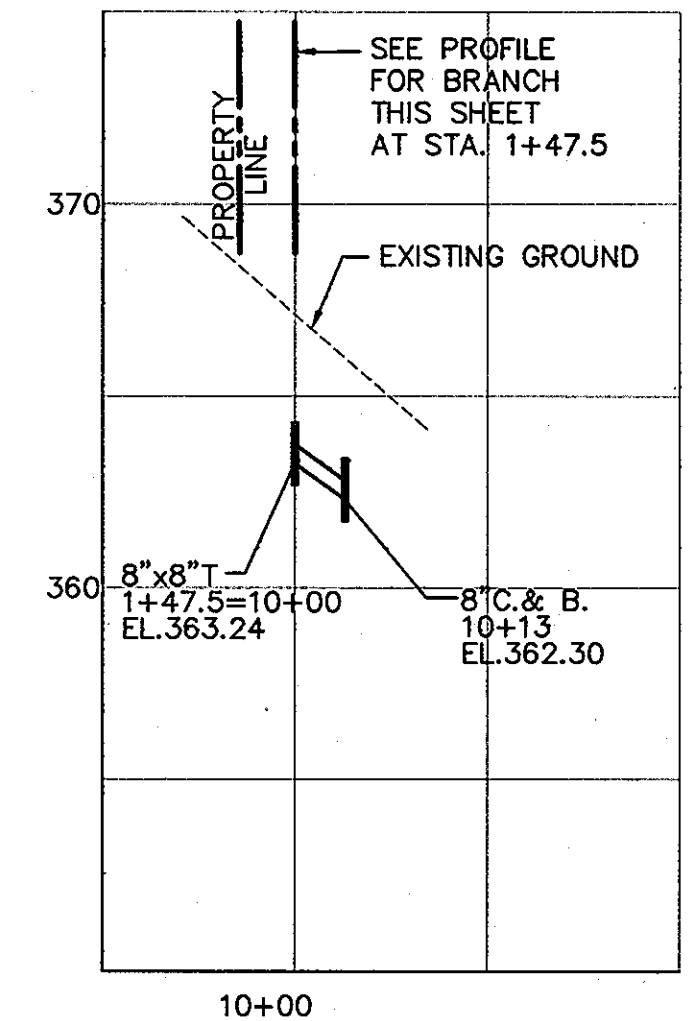
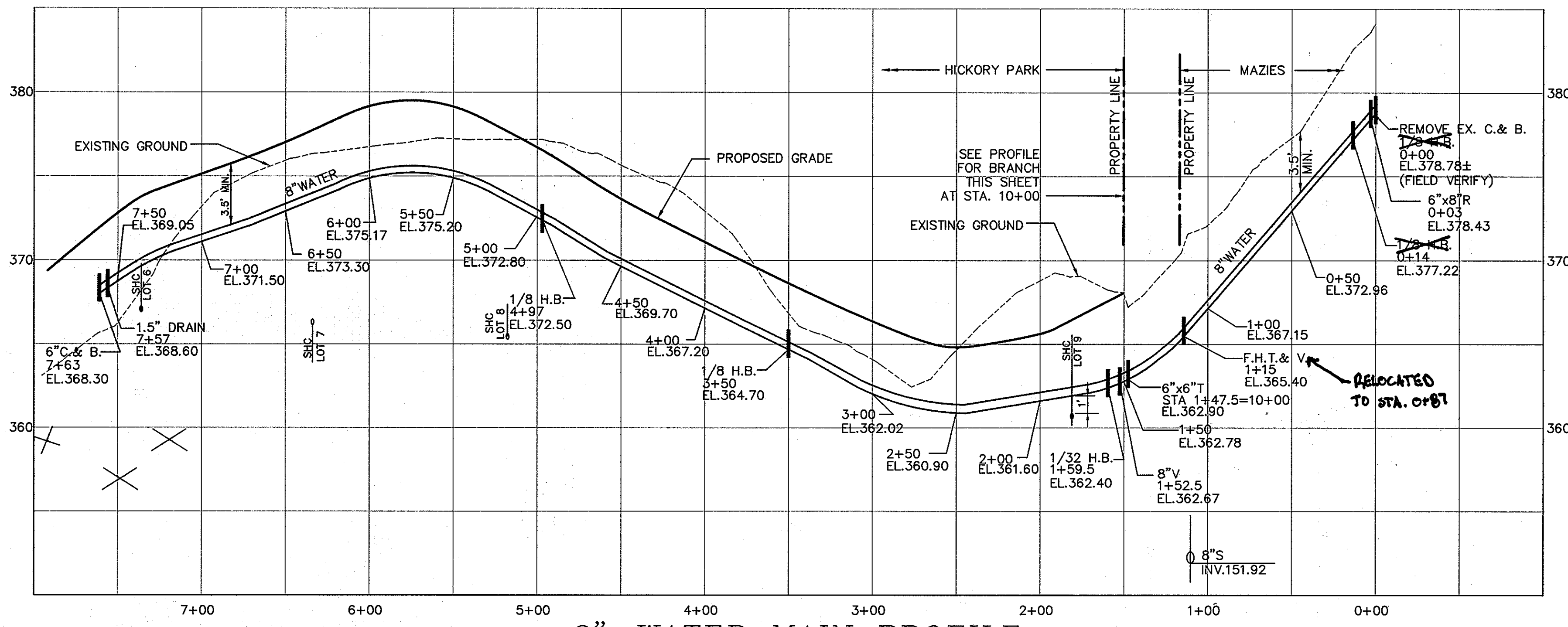
WATER AND SEWER PLAN

600' SCALE MAP NO. 46 BLOCK NO. 17,18

HICKORY PARK -2
LOTS: 3 THRU 9 (PARCEL 153)
24-4302-D
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

scale
1"=50'
2 OF 3

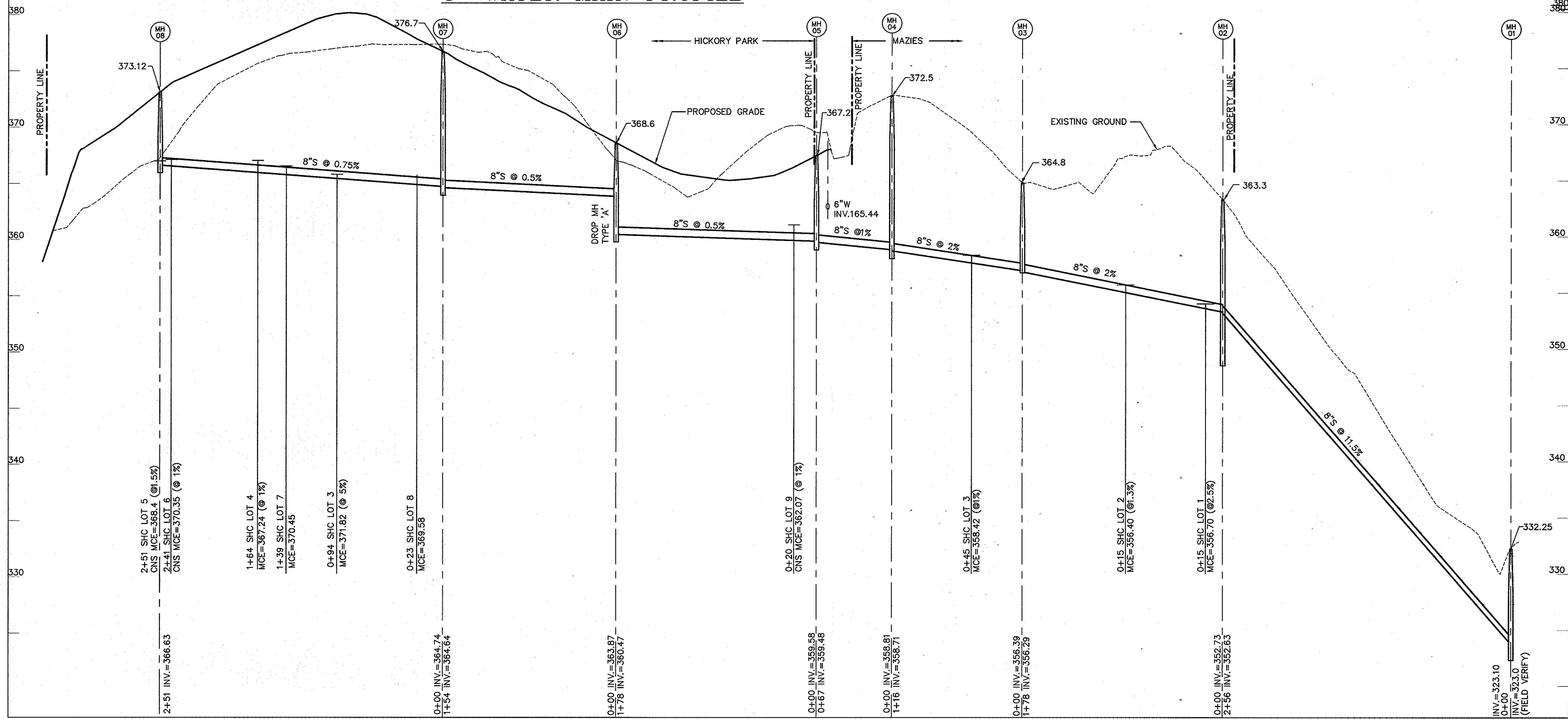
REPLACEMENT SHEET



8" WATER MAIN PROFILE

8" WATER MAIN PROFILE

6" FIRE HYDRANT PROFILE



8" SEWER PROFILE

REPLACEMENT SHEET

03-032.DWG/FINAL W-5

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Steve C. Conner
CHIEF, BUREAU OF UTILITIES
DATE 3/1/11

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
John P. ...
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE 3/2/11

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 597-0238 Fax. (301) 621-5521 Wash. (410) 997-0238 Fax



engineering	MMM		
illustration	MMM		
approval			
project	03-032	105	2
date	MARCH 2006	BY	NO.
		REVISION	DATE

WATER AND SEWER PROFILES
600' SCALE MAP NO. 46 BLOCK NO. 17,18

HICKORY PARK 2
LOTS 2 THRU 9 (PARCEL: 153)
24-4302-D
SIXTH ELECTION DISTRICT
HOWARD COUNTY MARYLAND

scale
HOR: 1"=50'
VER: 1"=5'
3 OF 3