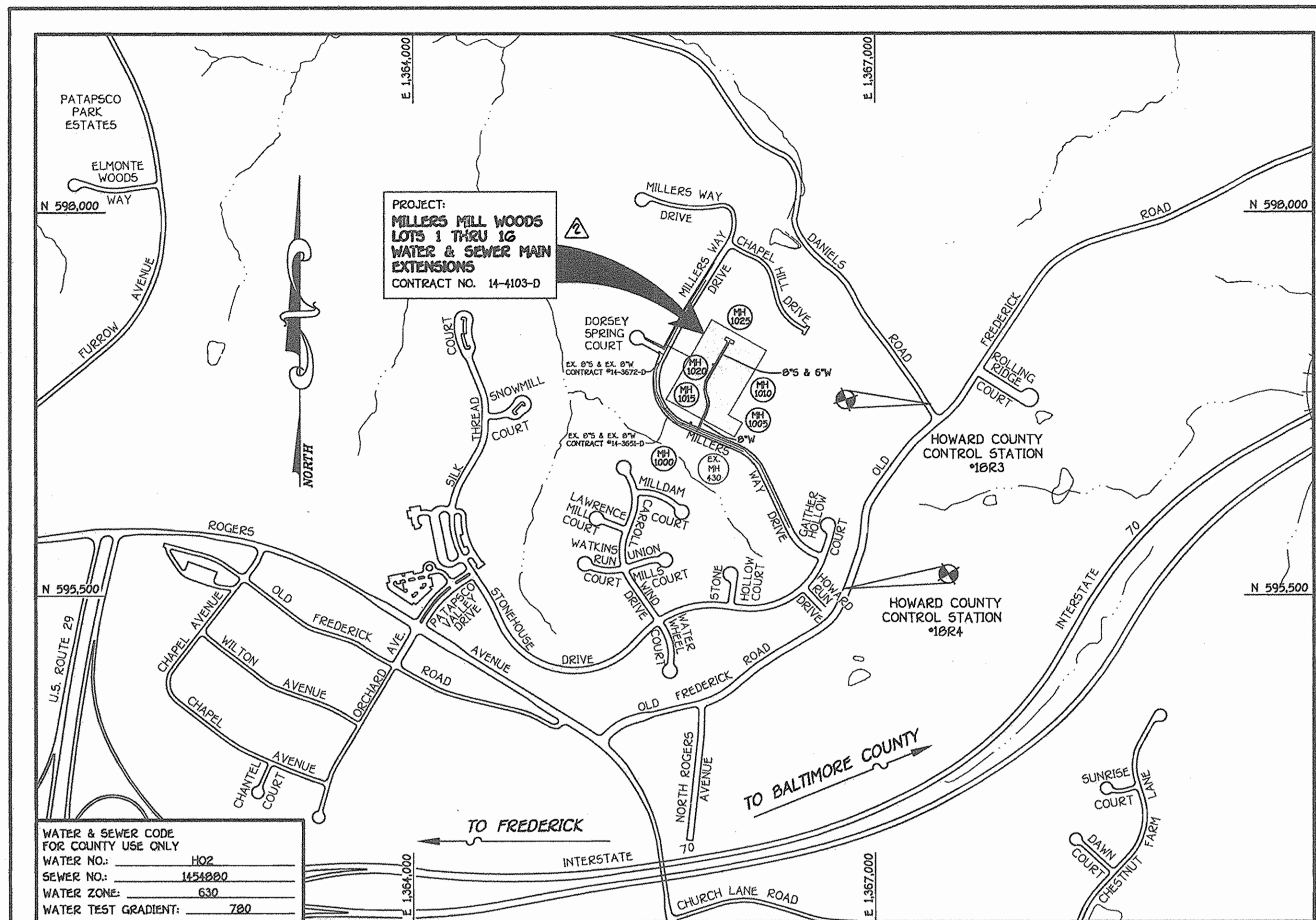


QUANTITIES				
ITEM	ESTIMATED	AS-BUILT		SUPPLIER
		QUANTITIES	TYPE	
8" SEWER	183 L.F.	183		
8" SEWER (D.I.P.)	455 L.F.			GRIFFIN
4" SEWER	226 L.F.			
MANHOLES	6 EACH	1+1+1+1+1 (6)		
8" X 4" SADDLE	1 EACH			
8" WATER	462 L.F.	462		
6" WATER	195 L.F.	185		
1" WVC	292 L.F.			
8" X 6" TAPPING SLEEVE & VALVE	1 EACH	1		
8" X 6" TEE	1 EACH	1		
8" VALVE	1 EACH	1		MOELLER
6" VALVE	1 EACH	1		
8" X 6" REDUCER	1 EACH	1		
1/16 H.B.	4 EACH	2		
FIRE HYDRANT	1 EACH	1		MOELLER
6" PLUG & BUTTRESS	1 EACH	1		

NAME OF UTILITY CONTRACTOR:
SURVEY & DRAFTING DIVISION AS-BUILT DATE:



WATER & SEWER CODE FOR COUNTY USE ONLY
 WATER NO.: 102
 SEWER NO.: 1454880
 WATER ZONE: 630
 WATER TEST GRADIENT: 780

TYPE OF BUILDING: RESIDENTIAL - SINGLE FAMILY DETACHED
 NUMBER OF LOTS: 16 (16 BUILDABLE)
 NO. OF WATER HOUSE CONNECTIONS: 12
 NO. OF SEWER HOUSE CONNECTIONS: 12
 DRAINAGE AREA: PATAPSCO
 TREATMENT PLANT: PATAPSCO WASTEWATER TREATMENT PLANT
 CITY OF BALTIMORE, VIA THE OLD FREDERICK ROAD WWPS

PLAN REFERENCE NUMBERS:
SP-03-04; F-07-73

VICINITY MAP

SCALE: 1"=600'

GENERAL NOTES

PART I

- 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 OR ABOUT JANUARY, 2005 BY FISHER, COLLINS & CARTER, INC.
- HORIZONTAL AND VERTICAL 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. 1863 & NO. 1864. SEE THIS SHEET FOR BENCHMARK INFORMATION. ALL VERTICAL CONTROLS ARE BASED ON NAVD '86. VERTICAL CONTROLS ARE BASED ON TRAVERSE POINT NO. 7002. AN IRON PIPE SET ON THE NORTH SIDE OF MILLERS WAY DRIVE. ELEV. 424.82.
- 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 BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF THE 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 DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL (C) 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
 - BCE (CONSTRUCTION SERVICES) 410-850-4620
 - BCE (EMERGENCY) 410-695-1400
 - BUREAU OF UTILITIES 410-315-4900
 - COLONIAL PIPELINE CO 410-795-1390
 - MISS UTILITY 1-800-257-7777
 - STATE HIGHWAY ADMINISTRATION 410-531-5533
 - VERIZON 1-800-743-0033/410-224-3210
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STOP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE 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)-383-7450 AT LEAST FIVE WORKING DAYS BEFORE OPEN COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 10.11(K) OF THE HOWARD COUNTY CODE.

PART II: WATER

- ALL WATER MAINS SHALL BE D.I.P. CLASS 32 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS SHALL 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 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.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.

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 18" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVER, STANDARD DETAIL G5.52. WHERE WATER-TIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSES WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.

BENCHMARK INFORMATION

BM-1 - HOWARD COUNTY CONTROL STATION #1863 (NAD '83)
 (APPROX. 100 FT. NORTHWEST FROM THE INTERSECTION OF OLD FREDERICK ROAD AND DANIELS ROAD)
 N 598,747.870
 E 1,357,360.959
 ELEVATION = 459.68
 BM-2 - HOWARD COUNTY CONTROL STATION #1864 (NAD '83)
 (LOCATED ALONG OLD FREDERICK ROAD APPROX. 1,200 FT. EAST OF NORTH ROGERS AVENUE)
 N 595,543.232
 E 1,355,800.879
 ELEVATION = 475.95

CONTRACT NO. 14-4103-D
MILLERS MILL WOODS
 LOTS 1 THRU 16
 WATER AND SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

DEVELOPER'S CERTIFICATION
 I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE 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 OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
 Paul W. Koebel FOR: 04/18/07
 100% LAND, INC. DATE
 SIGNATURE OF DEVELOPER

ENGINEER'S CERTIFICATION
 I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 Paul W. Koebel 04-18-07
 SIGNATURE OF ENGINEER DATE

GP-07-31
 REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Jim Meyer 5/15/07
 U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: 5/15/07
 HOWARD SOIL CONSERVATION DISTRICT DATE

SEDDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND AS SHOWN ON F-07-73.

Paul W. Koebel FOR: 04/18/07
 100% LAND, INC. DATE
 SIGNATURE OF DEVELOPER

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 3272 BALTIMORE NATIONAL PIKE
 ELLETTTS CITY, MARYLAND 21042
 MDR 42 - 2055



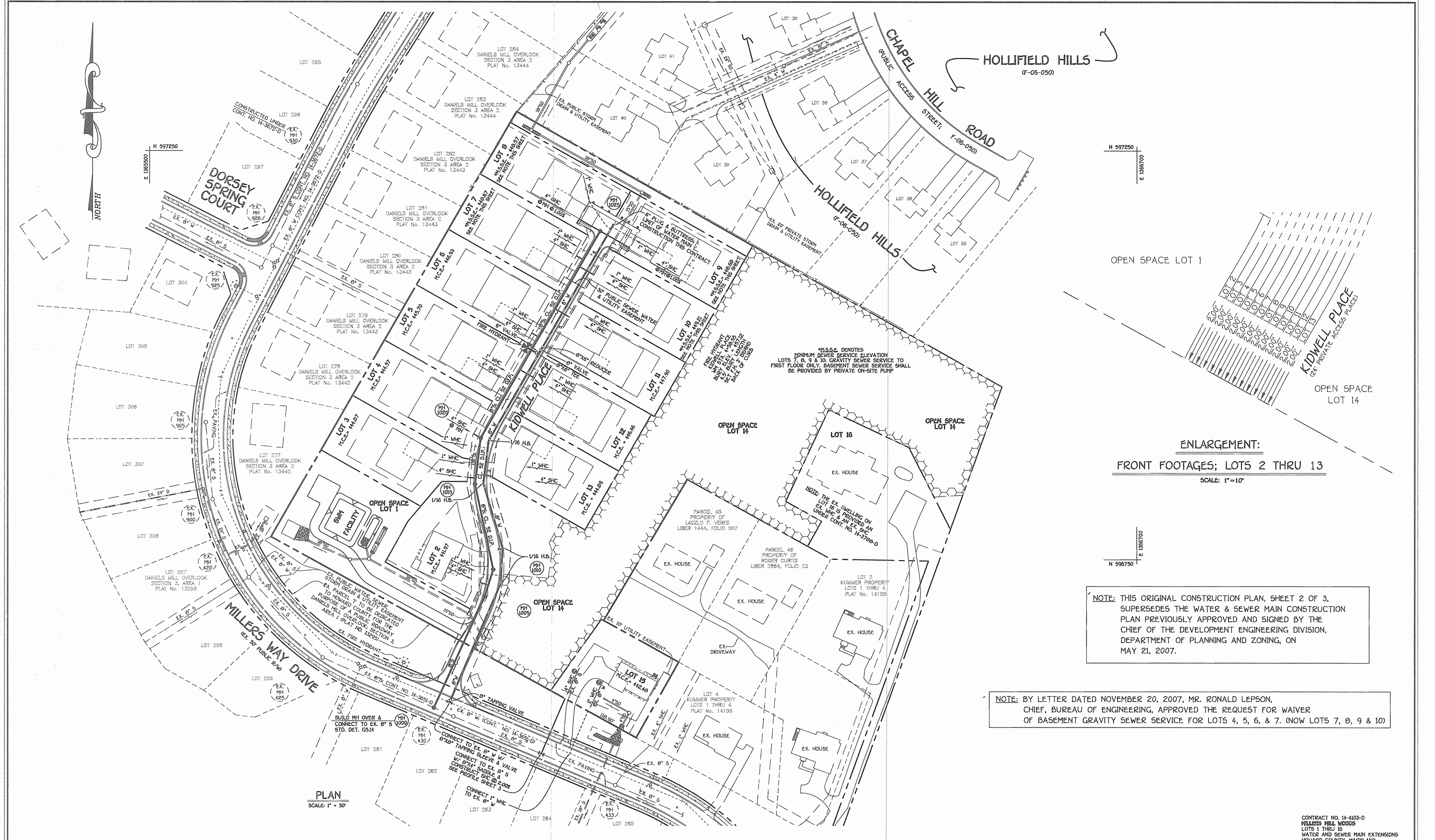
DESIGNED BY:	B.C.R.		
DRAWN BY:	B.C.R.	REVISE TOTAL NUMBER OF WATER & SEWER HSE. CONNECTIONS	2/5/08
CHECKED BY:	P.W.K.	REVISE TOTAL NUMBER OF LOTS TO '16'	2/5/08
DATE:	APRIL, 2007	'AS-BUILT' DATA SHOWN	2/10/08
BY:	KCI		

WATER AND SEWER MAINS
 TITLE SHEET

600' SCALE MAP NO. 17 BLOCK NO. 12
 F.C.C. WORK ORDER NO. 30737
 FILE NAME: FINAL WATER AND SEWER TITLE SH

MILLERS MILL WOODS
 LOTS 1 THRU 16
 CONTRACT NO. 14-4103-D
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 1 of 3



OPEN SPACE LOT 1



OPEN SPACE LOT 14

ENLARGEMENT:
FRONT FOOTAGES; LOTS 2 THRU 13
SCALE: 1"=10'

NOTE: THIS ORIGINAL CONSTRUCTION PLAN, SHEET 2 OF 3, SUPERSEDES THE WATER & SEWER MAIN CONSTRUCTION PLAN PREVIOUSLY APPROVED AND SIGNED BY THE CHIEF OF THE DEVELOPMENT ENGINEERING DIVISION, DEPARTMENT OF PLANNING AND ZONING, ON MAY 21, 2007.

NOTE: BY LETTER DATED NOVEMBER 20, 2007, MR. RONALD LEPSON, CHIEF, BUREAU OF ENGINEERING, APPROVED THE REQUEST FOR WAIVER OF BASEMENT GRAVITY SEWER SERVICE FOR LOTS 4, 5, 6, & 7. (NOW LOTS 7, 8, 9 & 10)

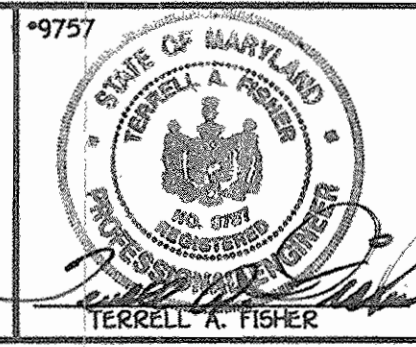
PLAN
SCALE: 1" = 50'

CONTRACT NO. 14-4103-D
MILLERS MILL WOODS
LOTS 1 THRU 16
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Steve C. Coen
CHIEF, BUREAU OF UTILITIES
DATE: 2/12/08

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
Terrell A. Fisher
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 2/11/08

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 18272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2995

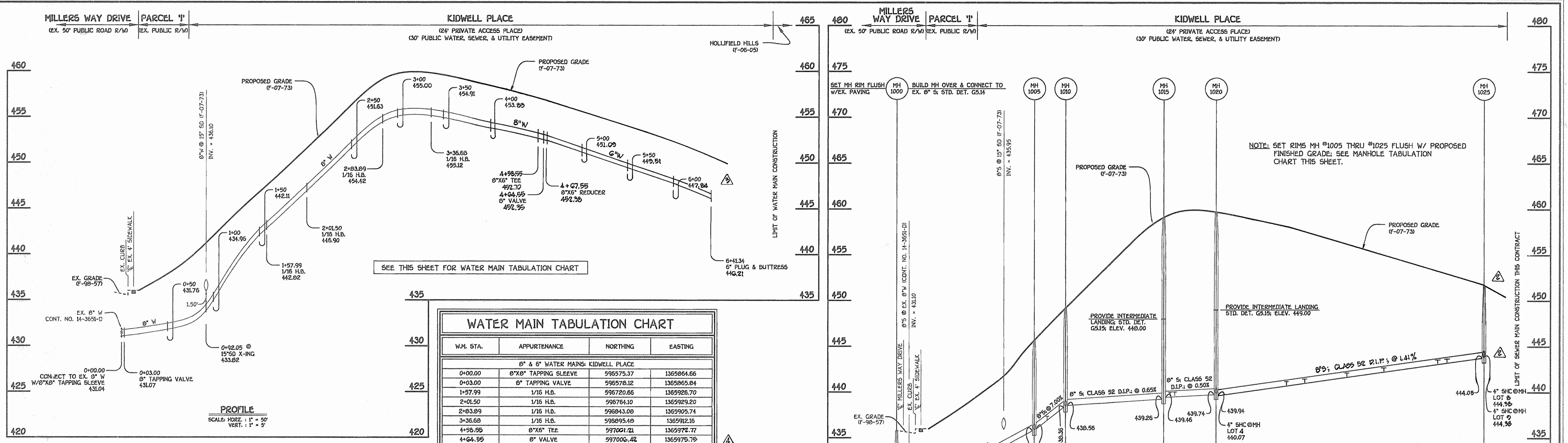


DESIGNED BY: B.C.R.
DRAWN BY: B.C.R.
CHECKED BY: P.W.K.
DATE: JANUARY, 2008 BY NO. REVISION

WATER AND SEWER MAINS PLAN
600' SCALE MAP NO. 17 BLOCK NO. 12
F.C.C. WORK ORDER NO. 30737
FILE NAME: FINAL WATER AND SEWER PLAN SH

MILLERS MILL WOODS
LOTS 1 THRU 16
CONTRACT NO. 14-4103-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE AS SHOWN
SHEET 2 OF 3

K:\Drawings\310237\Kidwell\Property\Water and Sewer\PLAN\CONTRACT NO. 14-4103-D.dwg, 1/23/2008, 1:25:37 PM

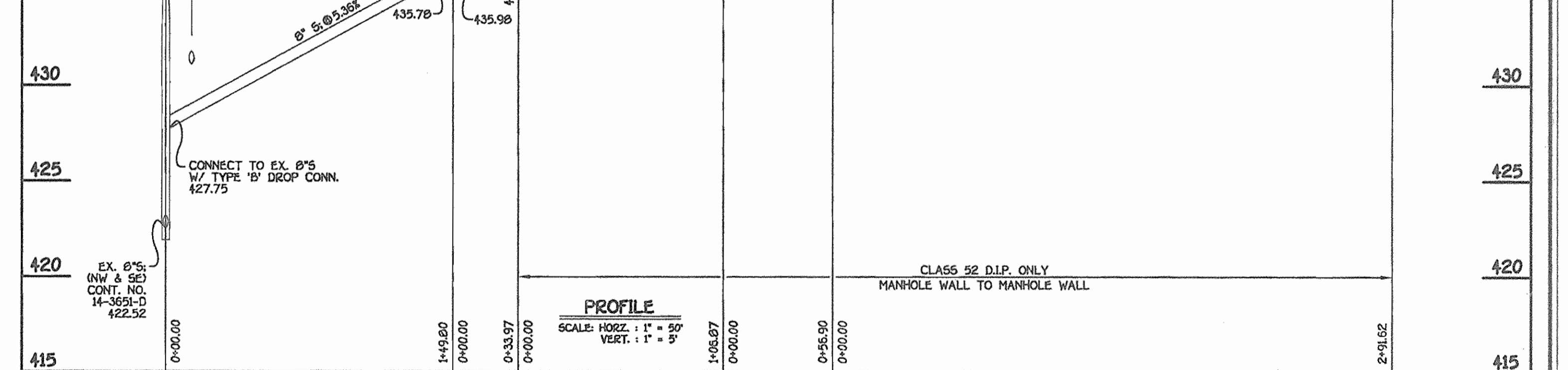
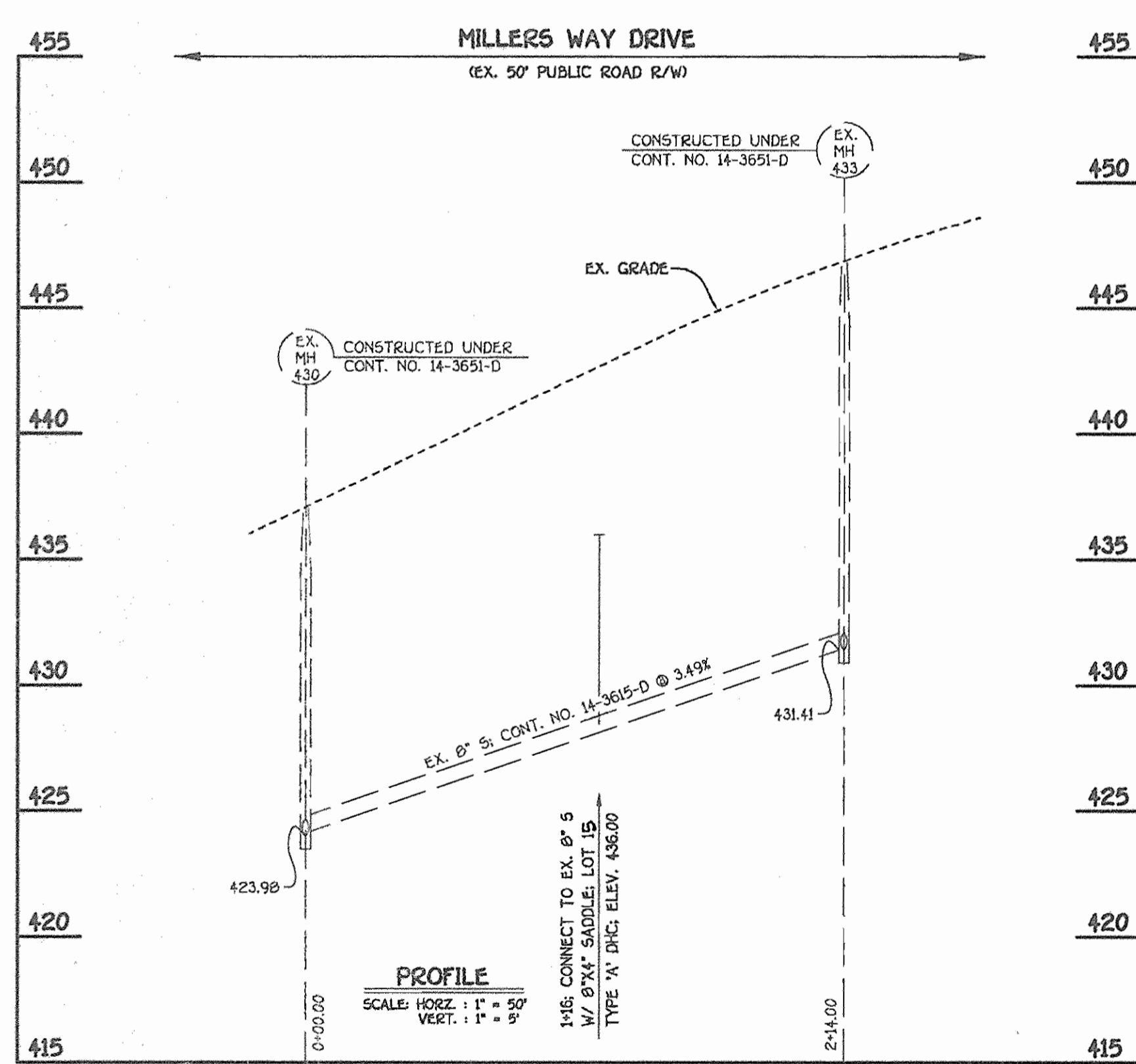


WATER MAIN TABULATION CHART

W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" & 6" WATER MAINS: KIDWELL PLACE			
0+00.00	8"X8" TAPPING SLEEVE	596575.37	1365864.66
0+03.00	8" TAPPING VALVE	596578.12	1365865.84
1+57.99	1/16 H.B.	596720.66	1365926.70
2+01.50	1/16 H.B.	596764.10	1365929.20
2+03.09	1/16 H.B.	596843.08	1365926.74
3+36.68	1/16 H.B.	596895.48	1365912.16
4+56.55	8"X6" TEE	597001.21	1365972.77
4+64.55	8" VALVE	597006.42	1365975.75
4+67.55	8"X6" REDUCER	597009.09	1365977.25
6+41.34	6" PLUG & BUTTRESS	597159.80	1366063.68

SHC INVERT @ PROPERTY LINE CHART

STATION	LOT	ELEVATION
EX. MH 430 TO EX. MH 433		
1+16 LT.	15	437.48
MH 1005 TO MH 1010		
0+14 LT.	2	437.33
MH 1015 TO MH 1020		
0+07 LT.	3	439.87
0+12 RT.	13	440.09
⊙ MH 1020 LT.	4	440.27
MH 1020 TO MH 1025		
0+76 LT.	5	441.38
0+95 RT.	12	441.86
1+42 LT.	6	442.91
2+51 LT.	7	443.85
⊙ MH 1025 LT.	8	444.67
⊙ MH 1025 RT.	9	444.80
MH 1020 TO MH 1025		
1+82 RT.	11	443.06
2+41 RT.	10	443.91

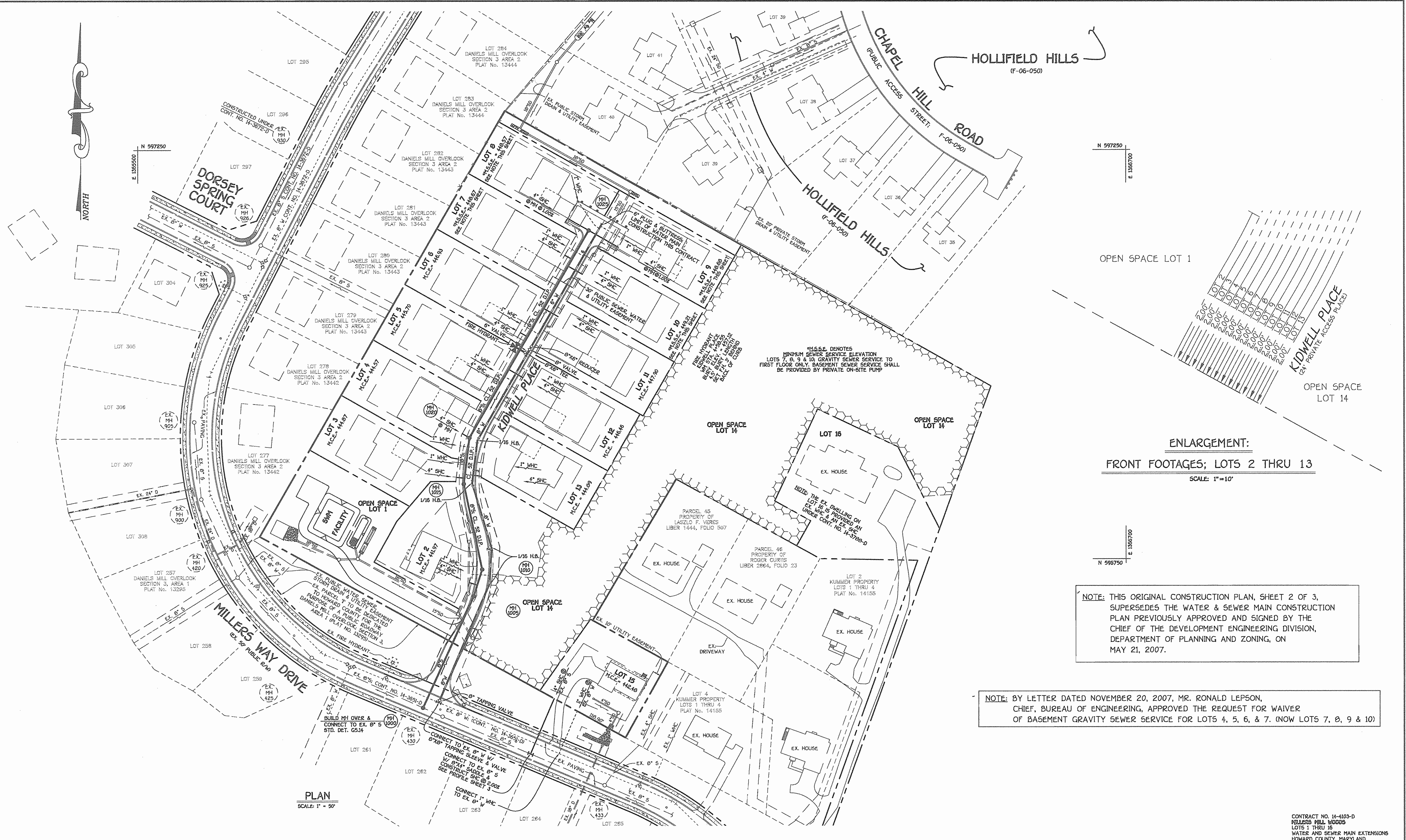


MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
1000	596558.87	1365845.68	435.33*
1005	596705.30	1365907.54	443.76**
1010	596737.69	1365917.76	449.15**
1015	596842.23	1365895.55	459.19**
1020	596898.70	1365902.48	459.82**
1025	597151.71	1366047.51	461.75**

NOTES: 1. *SET MH RIM FLUSH W/EXISTING PAVING.
2. **SET MH RIMS FLUSH W/PROPOSED FINISHED GRADE.

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 5-3-07 CHEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND DATE: 5/2/07 CHEF, DEVELOPMENT ENGINEERING DIVISION	 FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTENNIAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE ELICOTT CITY, MARYLAND 21042 (410) 461-2055	DESIGNED BY: B.C.R. DRAWN BY: B.C.R. CHECKED BY: P.W.K. DATE: APRIL 2007 BY: NO.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>REVISE SHC INV. & MH TABULATION CHARTS</td> <td>2/5/08</td> </tr> <tr> <td>REVISE FH INFORMATION BASED ON REVISED LOCATION</td> <td>2/5/08</td> </tr> <tr> <td>REVISE WATER MAIN PROFILE BASED ON REVISED LOCATION</td> <td>2/5/08</td> </tr> <tr> <td>REVISE SEWER MAIN PROFILE BASED ON REVISED GRADE</td> <td>2/5/08</td> </tr> <tr> <td>REVISE TOTAL NUMBER OF LOTS TO "16"</td> <td>2/5/08</td> </tr> </table>	REVISE SHC INV. & MH TABULATION CHARTS	2/5/08	REVISE FH INFORMATION BASED ON REVISED LOCATION	2/5/08	REVISE WATER MAIN PROFILE BASED ON REVISED LOCATION	2/5/08	REVISE SEWER MAIN PROFILE BASED ON REVISED GRADE	2/5/08	REVISE TOTAL NUMBER OF LOTS TO "16"	2/5/08	WATER AND SEWER MAINS PROFILES 600' SCALE MAP NO. 17 BLOCK NO. 12 F.C.C. WORK ORDER NO. 30737 FILE NAME: FINAL WATER AND SEWER PROFILE SH1	MILLERS MILL WOODS LOTS 1 THRU 16 CONTRACT NO. 14-4103-D SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN SHEET 3 OF 3
REVISE SHC INV. & MH TABULATION CHARTS	2/5/08															
REVISE FH INFORMATION BASED ON REVISED LOCATION	2/5/08															
REVISE WATER MAIN PROFILE BASED ON REVISED LOCATION	2/5/08															
REVISE SEWER MAIN PROFILE BASED ON REVISED GRADE	2/5/08															
REVISE TOTAL NUMBER OF LOTS TO "16"	2/5/08															



ENLARGEMENT:
 FRONT FOOTAGES; LOTS 2 THRU 13
 SCALE: 1"=10'

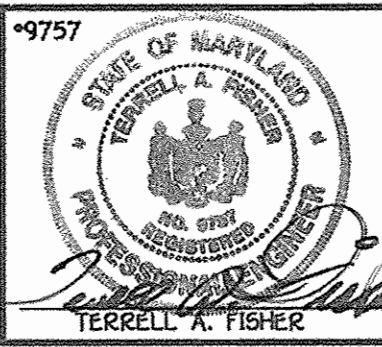
NOTE: THIS ORIGINAL CONSTRUCTION PLAN, SHEET 2 OF 3, SUPERSEDES THE WATER & SEWER MAIN CONSTRUCTION PLAN PREVIOUSLY APPROVED AND SIGNED BY THE CHIEF OF THE DEVELOPMENT ENGINEERING DIVISION, DEPARTMENT OF PLANNING AND ZONING, ON MAY 21, 2007.

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DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Chief, Bureau of Utilities

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
 Chief, Development Engineering Division

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 410.461.2200



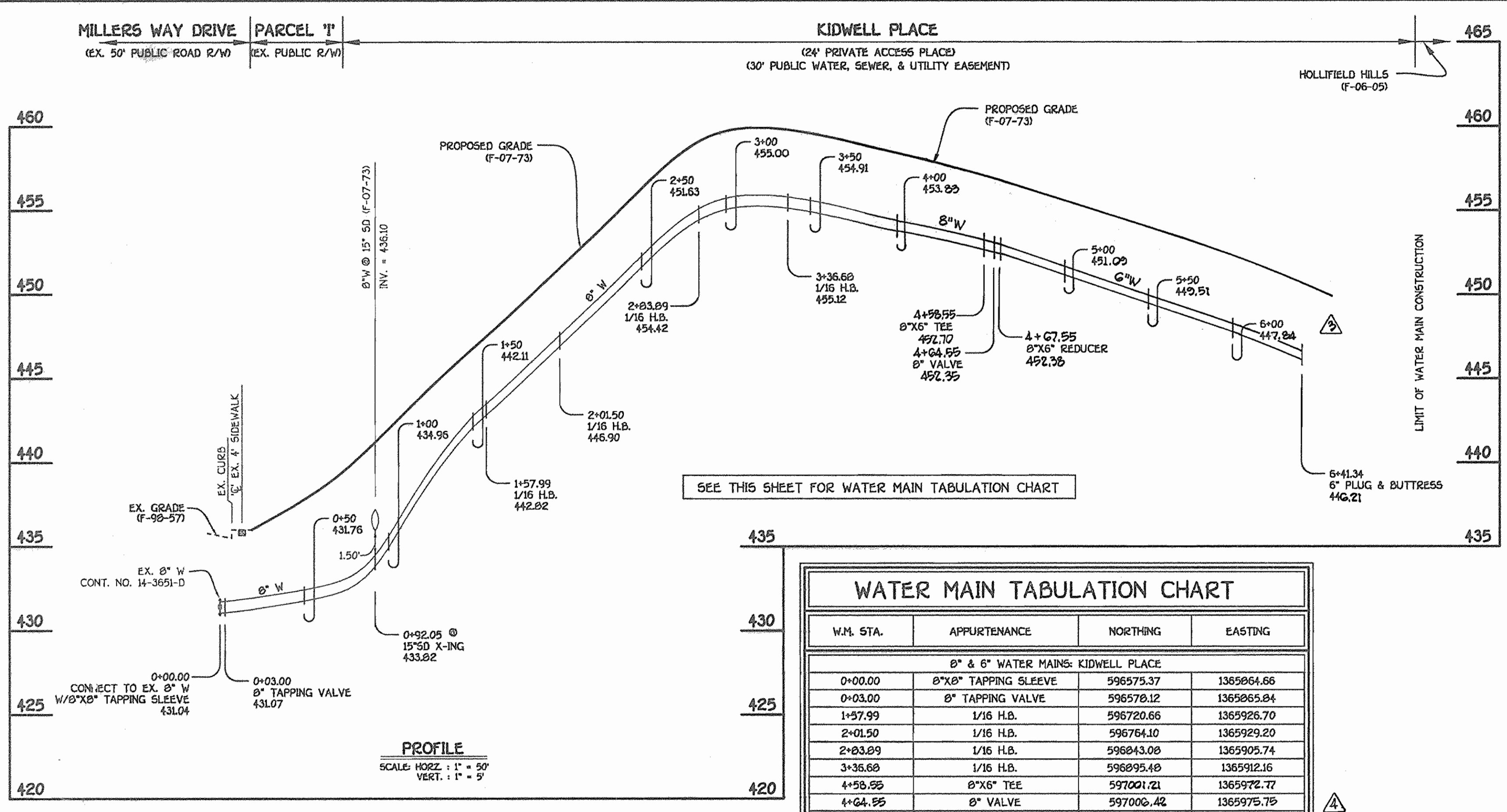
DESIGNED BY: B.C.R.
 DRAWN BY: B.C.R.
 CHECKED BY: P.W.K.
 DATE: JANUARY, 2008

WATER AND SEWER MAINS PLAN
 600' SCALE MAP NO. 17 BLOCK NO. 12
 F.C.C. WORK ORDER NO. 30737
 FILE NAME: FINAL WATER AND SEWER PLAN SH1

MILLERS MILL WOODS
 LOTS 1 THRU 16
 CONTRACT NO. 14-4103-D
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

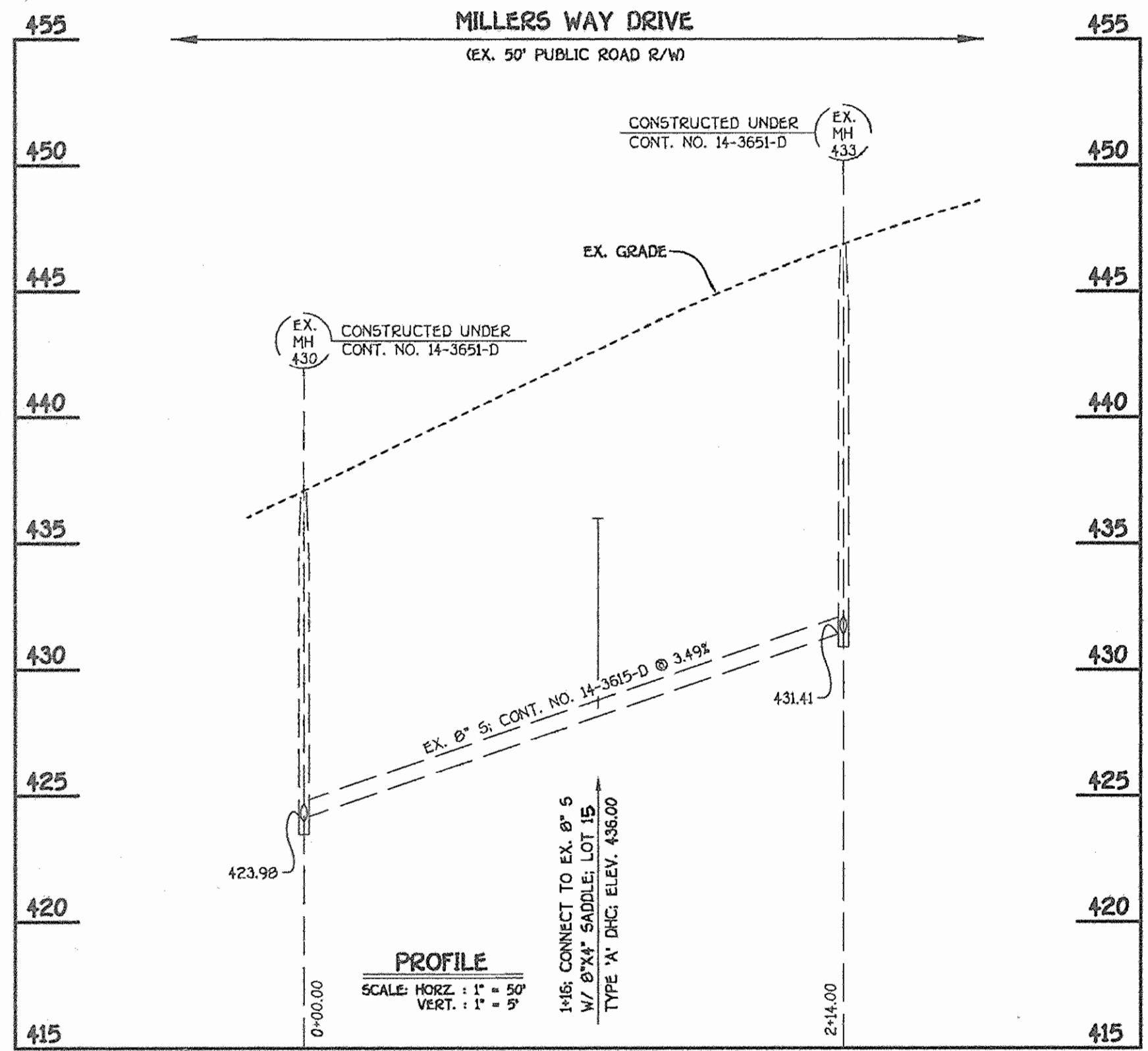
SCALE AS SHOWN
 SHEET 2 OF 3

K:\Drawings\310737\Kidwell Property\Water and Sewer\FINAL\310737 WAS BASE PLAN-REDLINE (REV.2007) DWG. 1/23/2008 11:55:37 PM



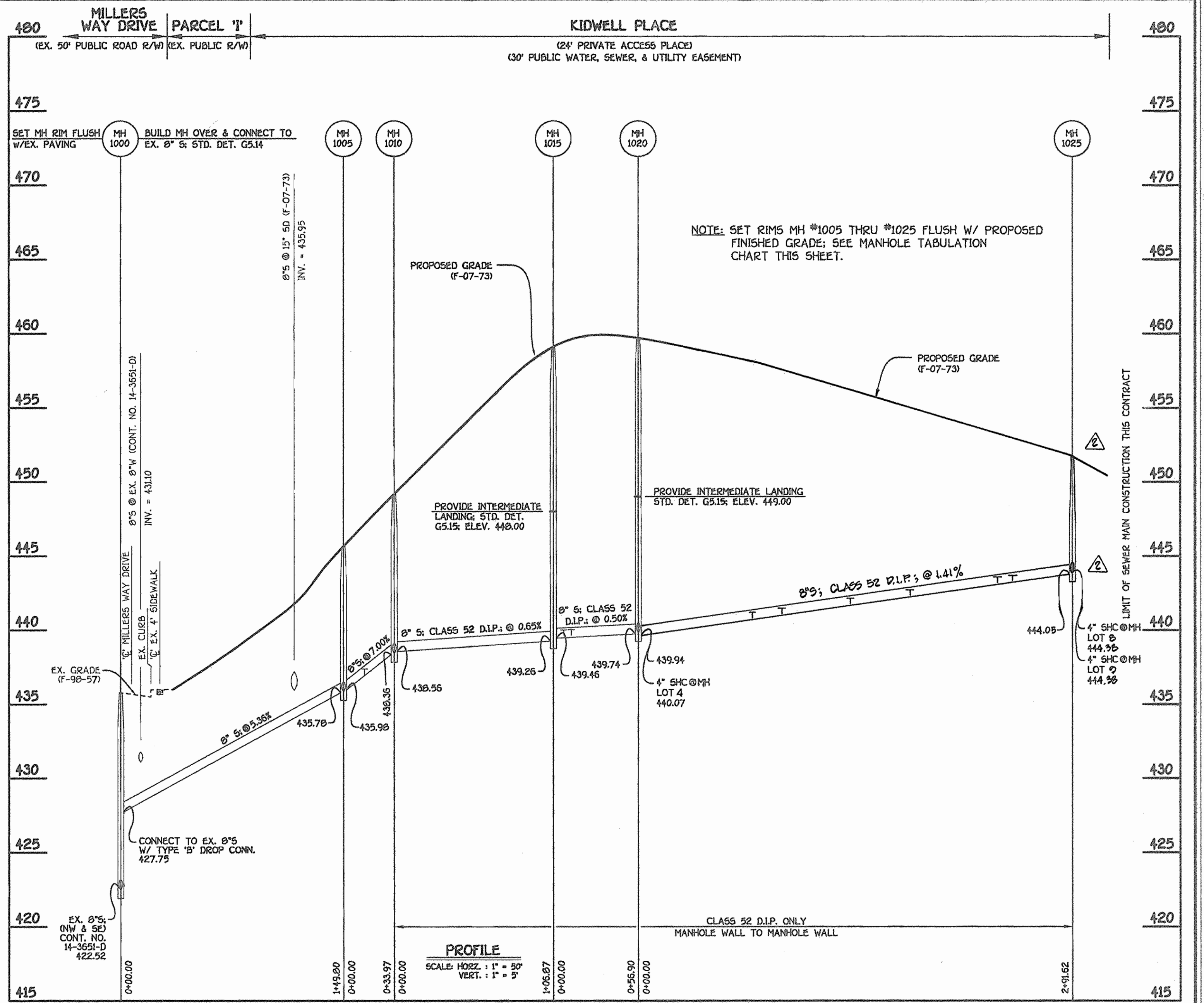
W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" & 6" WATER MAINS: KIDWELL PLACE			
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8" & 6" WATER MAINS: KIDWELL PLACE



STATION	LOT	ELEVATION
SHC INVERT @ PROPERTY LINE CHART		
EX. MH 430 TO EX. MH 433		
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MH 1005 TO MH 1010		
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1+42 LT.	6	442.31
2+51 LT.	7	443.85
0 MH 1025 LT.	8	444.67
0 MH 1025 RT.	9	444.80
MH 1020 TO MH 1025		
1+82 RT.	11	443.08
2+41 RT.	10	443.91

4" SHC FOR LOT 1 @ EX. 8" 5



NO.	NORTHING	EASTING	RIM ELEVATION
1000	596568.87	1365845.68	435.33**
1005	596705.30	1365907.54	445.76**
1010	596737.69	1365917.76	449.15**
1015	596842.23	1365895.55	459.19**
1020	596898.70	1365902.48	459.82**
1025	597151.71	1366047.51	461.75**

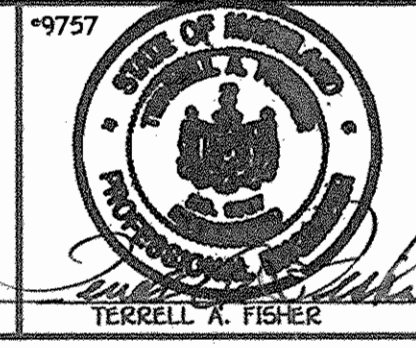
NOTES: 1. *SET MH RIM FLUSH W/EXISTING PAVING.
2. **SET MH RIMS FLUSH W/PROPOSED FINISHED GRADE.

8" SEWER MAIN: KIDWELL PLACE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS



DESIGNED BY: B.C.R.
DRAWN BY: B.C.R.
CHECKED BY: P.W.K.
DATE: APRIL, 2007

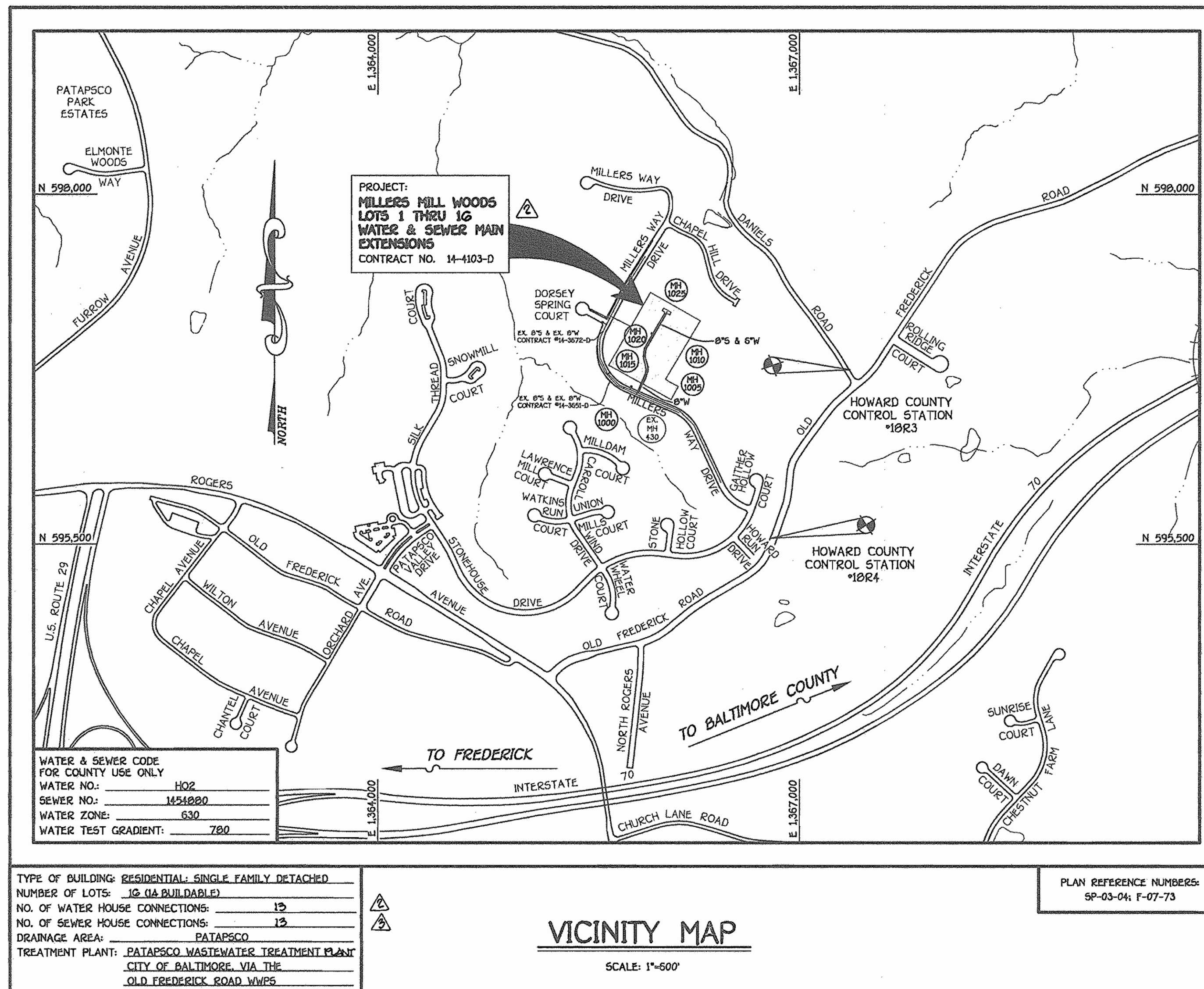
WATER AND SEWER MAINS PROFILES

MILLERS MILL WOODS
LOTS 1 THRU 16
CONTRACT NO. 14-4103-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 3 OF 3

QUANTITIES				
ITEM	ESTIMATED	AS-BUILT		SUPPLIER
		QUANTITIES	TYPE	
8" SEWER	183 L.F.	183		
8" SEWER (D.I.P.)	455 L.F.			GRIFFIN
4" SEWER	226 L.F.			
MANHOLES	6 EACH	1+1+1+1+1+1 (6)		
8" X 4" SADDLE	1 EACH			
8" WATER	462 L.F.	462		
6" WATER	195 L.F.	185		
1" WVC	292 L.F.			
8" X 8" TAPPING SLEEVE & VALVE	1 EACH	1		
8" X 6" TEE	1 EACH	1		
8" VALVE	1 EACH	1		MUELLER
6" VALVE	1 EACH	1		
8" X 6" REDUCER	1 EACH	1		
1/16 H.B.	4 EACH	2		
FIRE HYDRANT	1 EACH	1		MUELLER
6" PLUG & BUTTRESS	1 EACH	1		

NAME OF UTILITY CONTRACTOR:
SURVEY & DRAFTING DIVISION AS-BUILT DATE:



GENERAL NOTES

- PART I
- 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 OR ABOUT JANUARY, 2005 BY FISHER, COLLINS & CARTER, INC.
 - HORIZONTAL AND VERTICAL 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. 1823 & NO. 1824; SEE THIS SHEET FOR BENCHMARK INFORMATION. ALL VERTICAL CONTROLS ARE BASED ON NAVD 1983. VERTICAL CONTROLS ARE BASED ON TRAVERSE POINT NO. 7002; AN IRON PIPE SET ON THE NORTH SIDE OF MILLERS WAY DRIVE, ELEV. 424.82.
 - 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 BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF THE 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 DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
 - 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
 - BCE (CONSTRUCTION SERVICES) 410-250-4620
 - DCE (EMERGENCY) 410-685-1400
 - BUREAU OF UTILITIES 410-313-6900
 - COLONIAL PIPELINE CO 410-705-1390
 - MISS UTILITY 1-800-257-7777
 - STATE HIGHWAY ADMINISTRATION 410-531-9533
 - 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.
 - CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE 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 DFW REQUIREMENTS PER SECTION 18.114(d) 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 TREES SHALL BE STRAPPED TO TREES.
 - 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.
 - ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- 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 18" WALLS ARE FOR BRICK MANHOLES ONLY.
 - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVER, STANDARD DETAIL G5.52. WHERE WATER-TIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - HOUSES WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.

DEVELOPER'S CERTIFICATION

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE 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 OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

Paul W. Koebel FOR: 04/18/07
100% LAND, INC. DATE
SIGNATURE OF DEVELOPER

ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Paul W. Koebel 04-18-07
SIGNATURE OF ENGINEER DATE

GP-07-31

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

Jim M... 5/13/07
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

APPROVED: 5/13/07
HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND AS SHOWN ON F-07-73.

Paul W. Koebel FOR: 04/18/07
100% LAND, INC. DATE
SIGNATURE OF DEVELOPER

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 1072 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21042
410-461-2099



DESIGNED BY:	B.C.R.		
DRAWN BY:	B.C.R.		
CHECKED BY:	P.W.K.		
DATE:	07/01/08		
BY NO.		REVISION	DATE
	1	REVISE QUANTITIES OF 4" SEWER & 1" WVC	2/3/08
	2	REVISE TOTAL NUMBER OF WATER & SEWER HSE. CONNECTIONS	2/3/08
	3	REVISE TOTAL NUMBER OF LOTS TO 16	2/3/08
	4	AS-BUILT DATA SHOWN	07/01/08

WATER AND SEWER MAINS TITLE SHEET	
600' SCALE MAP NO. 17	BLOCK NO. 12
F.C.C. WORK ORDER NO. 30737	
FILE NAME: FINAL WATER AND SEWER TITLE SH	

MILLERS MILL WOODS
LOTS 1 THRU 16
CONTRACT NO. 14-4103-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 1 OF 3

BENCHMARK INFORMATION

B.M.#1 - HOWARD COUNTY CONTROL STATION #1823 (NAD '83)
(APPROX. 100 FT. NORTHWEST FROM THE INTERSECTION OF OLD FREDERICK ROAD AND DANIELS ROAD)
N 595,747.870
E 1,367,360.555
ELEVATION = 499.68

B.M.#2 - HOWARD COUNTY CONTROL STATION #1824 (NAD '83)
(LOCATED ALONG OLD FREDERICK ROAD APPROX. 1,200 FT. EAST OF NORTH ROGERS AVENUE)
N 595,943.252
E 1,365,000.879
ELEVATION = 475.95

DEVELOPER

100% LAND, INC.
5300 DORSEY HALL DRIVE
SUITE 102
ELLCOTT CITY, MARYLAND 21042

CONTRACT NO. 14-4103-D
MILLERS MILL WOODS
LOTS 1 THRU 16
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND