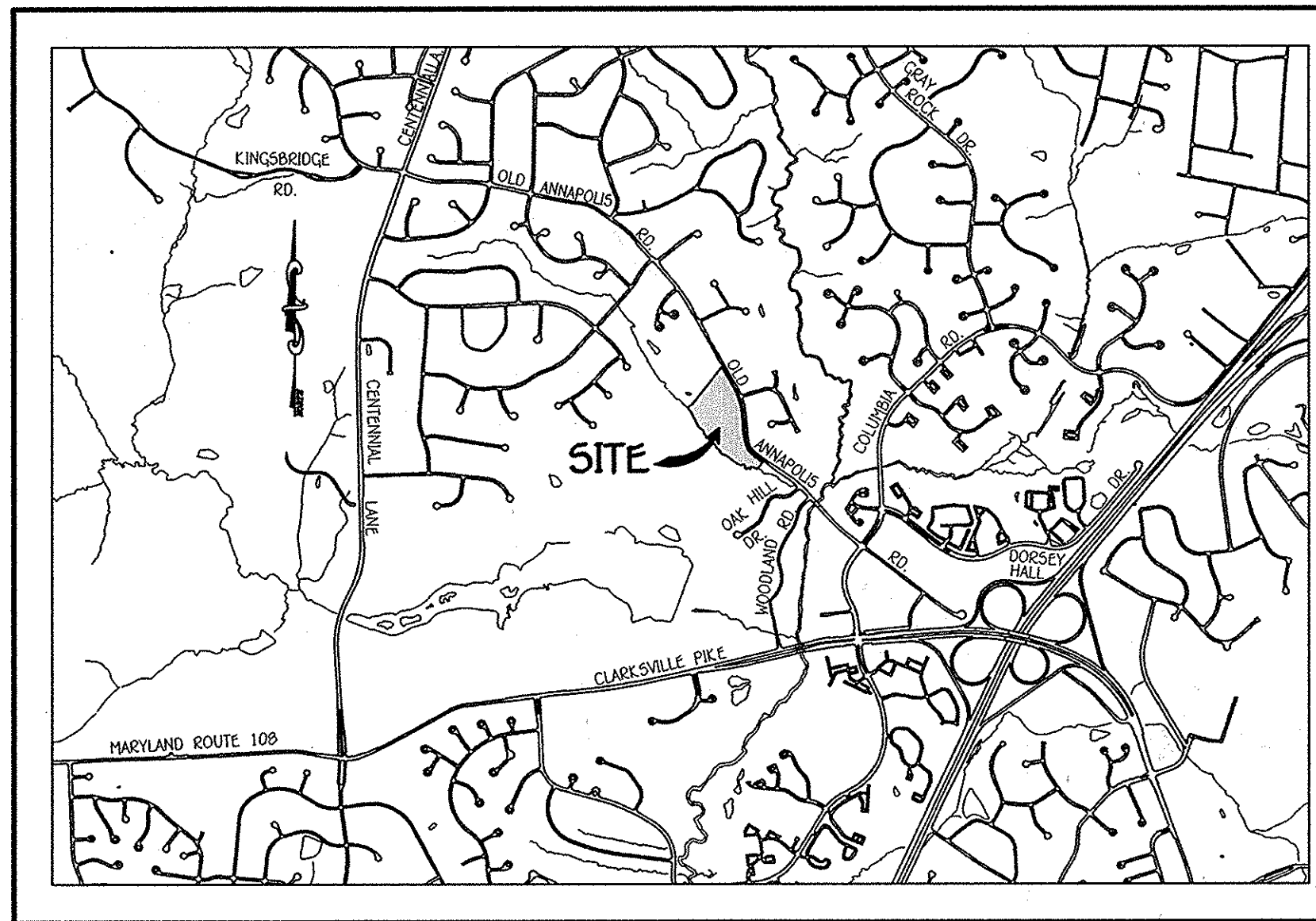
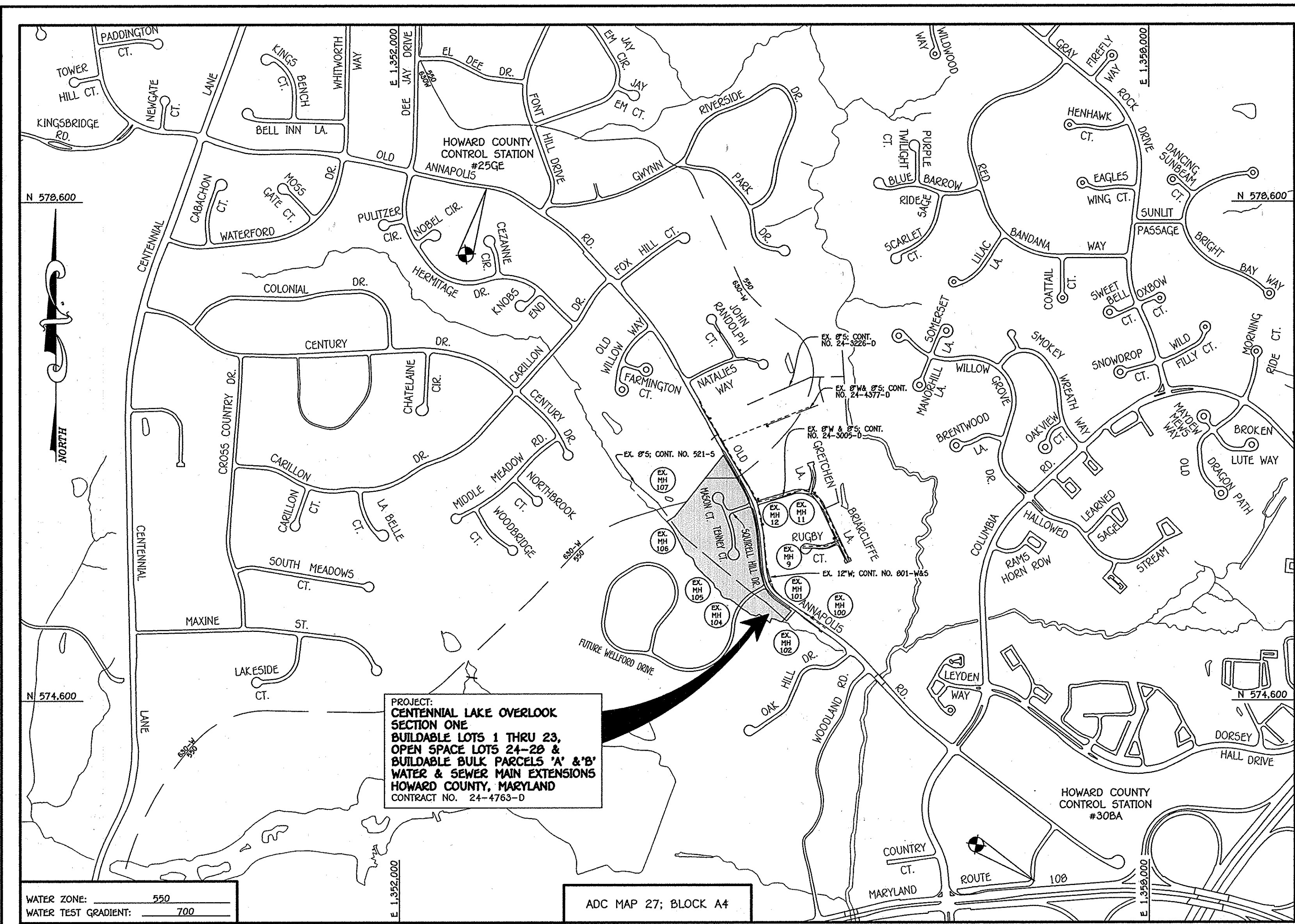


QUANTITIES				
ITEM	ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	SUPPLIER
8" S. PVC	943 LF.	941	PVC SDR 35	North American/Ferguson
4" S. PVC	718 LF.	719	PVC SDR 35	North American/Ferguson
MANHOLES	9 EACH	9	Concrete	Contractors/Peacock
12" W. C900 PVC DR-18	110 LF.	110	PVC C900	North American/Ferguson
6" W. C900 PVC DR-18	935 LF.	932	PVC	North American/Ferguson
6" W. C900 PVC DR-18	64 LF.	76	PVC	North American/Ferguson
1-1/2" W.H.C.	814 LF.	773	Copper	Mueller/Ferguson
3" DEFLECTION COUPLING	2 EACH			
1/16" H.B.	2 EACH	2	PVC	Herrington/Ferguson
1/32" H.B.	4 EACH	4	PVC	Herrington/Ferguson
12" X 12" TAPPING SLEEVE	1 EACH	1	DIP	Smith Blair/Ferguson
12" X 12" TAPPING SLEEVE	1 EACH	1	DIP	Smith Blair/Ferguson
12" TAPPING VALVE	1 EACH	1	DIP	Smith Blair/Ferguson
8" TAPPING VALVE	1 EACH	1	DIP	Mueller/Ferguson
8" X 8" TEE	1 EACH	1	DIP	Tyler/Union/Ferguson
8" X 6" TEE	2 EACH	2	DIP	Tyler/Union/Ferguson
8" VALVE	4 EACH	2	DIP	Mueller/Ferguson
6" VALVE	2 EACH	2	DIP	Mueller/Ferguson
FIRE HYDRANT	2 EACH	2	DIP	Mueller/Ferguson
8" PLUG & BUTTRESS	1 EACH	2	DIP	Tyler/Union/Ferguson
12" PLUG & BUTTRESS	1 EACH	1	DIP	Tyler/Union/Ferguson
CONTINUITY TEST STATION	2 EACH	2	Concrete	
1" SINGLE OUTSIDE METER SETTING	23 EACH	23		AB McDonald

BENCHMARK INFORMATION

B.M.#1 - HOWARD COUNTY CONTROL STATION #25GE - HORIZONTAL - NAD '83
(LOCATED ALONG OLD ANNAPOLIS ROAD, ON THE SOUTH SIDE, JUST ACROSS THE STREET FROM HOUSE #9978 DRIVEWAY, APPROX. 1.6' OFF EDGE OF ROAD, AND 31.9' WEST OF POWER POLE #363162)
N 576,706.5214
E 1,392,693.6588
ELEVATION = 445.695 - VERTICAL - (NAVD '88)

B.M.#2 - HOWARD COUNTY CONTROL STATION #30BA - HORIZONTAL - (NAD '83)
(LOCATED NEAR THE FARMERS & MERCHANTS NATIONAL BANK PARKING LOT, JUST OFF OF OLD ROUTE 100, SET BEHIND THE GUARD RAIL, APPROX. 37.1' SW OFF POWER POLE #268713)
N 575,149.0939
E 1,397,083.1735
ELEVATION = 397.140 - VERTICAL - (NAVD '88)



VICINITY MAP
SCALE: 1" = 2000'

GENERAL NOTES

- PART A**
- 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 MARCH, 2012 BY FISHER, COLLINS & CARTER, INC.
 - 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. 25GE & NO. 30BA.
ALL VERTICAL CONTROLS ARE BASED ON NAVD '88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS.
 - 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 TO 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
BGE (CONTRACTOR SERVICES)	410-637-8713
BGE (EMERGENCY)	410-685-0123
BUREAU OF UTILITIES	410-313-4900
COLONIAL PIPELINE CO.	410-795-1390
MISS UTILITY	1-800-257-7777
STATE HIGHWAY ADMINISTRATION	410-531-2533
VERIZON	1-800-745-0033 / 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 DPW REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.

TYPE OF BUILDING: RESIDENTIAL - SINGLE FAMILY DETACHED

NUMBER OF BUILDABLE LOTS: 23

NUMBER OF OPEN SPACE LOTS: 4

NO. OF WATER HOUSE CONNECTIONS: 23

NO. OF SEWER HOUSE CONNECTIONS: 23

SEWER SHED: LITTLE PATUXENT

TREATMENT PLANT: LITTLE PATUXENT WATER RECLAMATION PLANT

SAVAGE, MD

LOCATION MAP
SCALE: 1" = 600'

PLAN REFERENCE NUMBERS:
F-14-002
ECP-12-053

CONTRACT NO. 24-4763-D

CENTENNIAL LAKE OVERLOOK

SECTION ONE

BUILDABLE LOTS 1 THRU 23,

OPEN SPACE LOTS 24-28 &

BUILDABLE BULK PARCELS 'A' & 'B'

WATER & SEWER MAIN EXTENSIONS

HOWARD COUNTY, MARYLAND

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. Kriebel, FOR:
LAND DESIGN & DEVELOPMENT, INC. 09-26-13
SIGNATURE OF DEVELOPER DATE

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. Kriebel 09/27/13
SIGNATURE OF ENGINEER DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE HOWARD COUNTY DESIGN MANUAL - VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION AND AS SHOWN ON THE ROAD CONSTRUCTION PLANS, F-14-002.

Paul W. Kriebel, FOR:
LAND DESIGN & DEVELOPMENT, INC. 09-26-13
SIGNATURE OF DEVELOPER DATE

F-14-002

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

APPROVED:
John K. Robinson 10/24/13
HOWARD SOIL CONSERVATION DISTRICT DATE

LEGEND

SYMBOL	DESCRIPTION
---	EX. WATER MAIN
---	EX. SEWER MAIN
o	EX. SEWER MANHOLE
---	EX. WATER, SEWER & UTILITY EASEMENT
hatched	EX. FIRE HYDRANT
o	EX. VALVE
---	PROP. WATER MAIN
---	PROP. SEWER MAIN
o	PROP. SEWER MANHOLE
---	PROP. WATER, SEWER & UTILITY EASEMENT
---	PROP. W.H.C.
---	PROP. S.H.C.
o	PROP. FIRE HYDRANT
o	PROP. VALVE

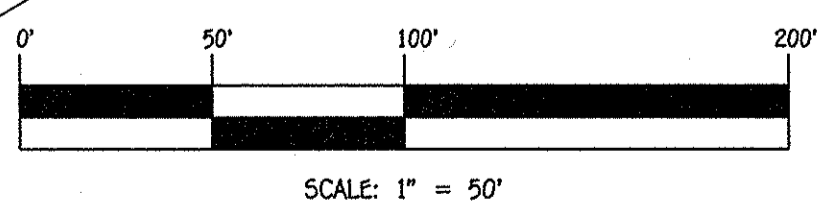
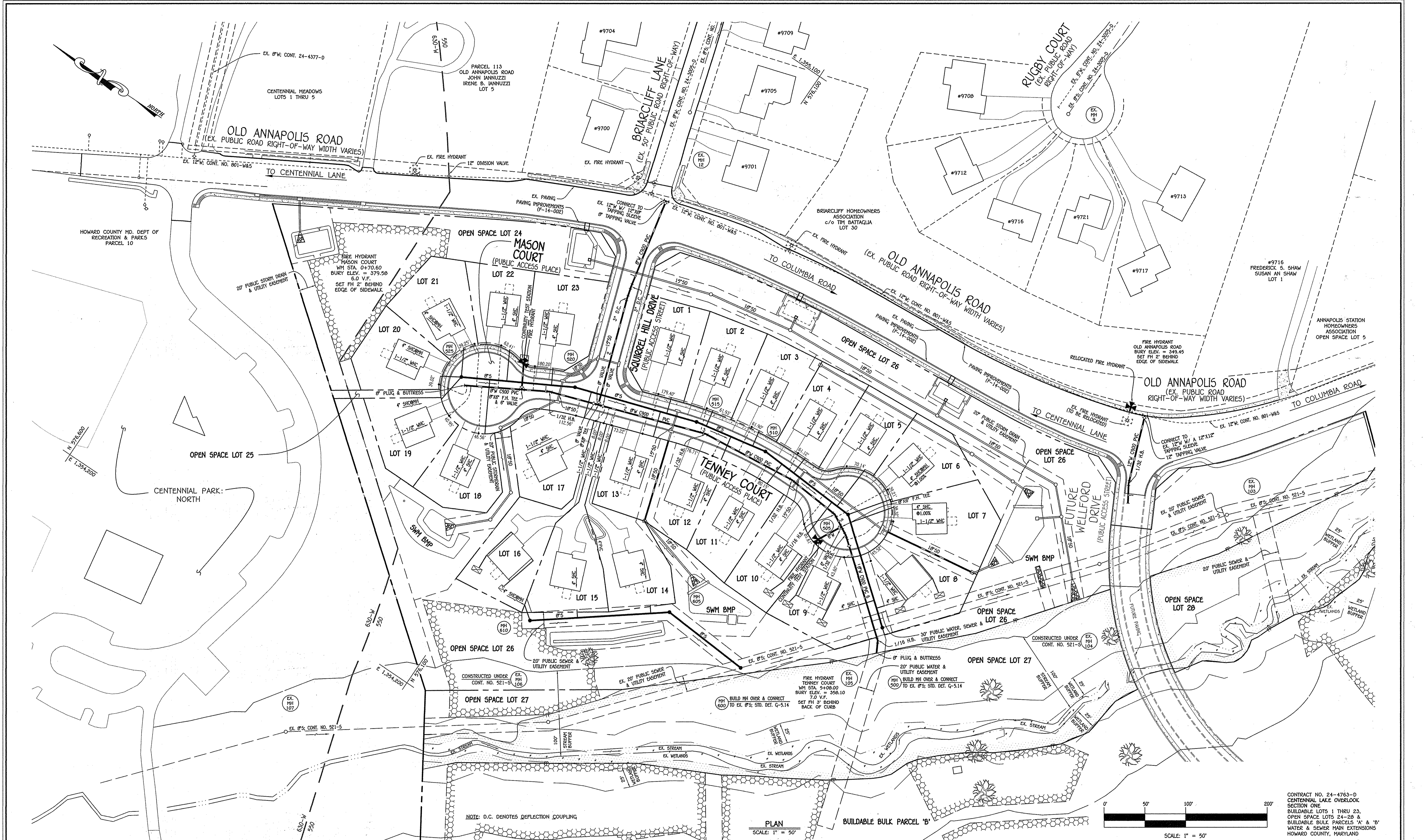
PART B: WATER MAIN GENERAL NOTES

- ALL WATER MAINS SHALL BE AWWA C900 PVC, DR-18.
- 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.
- TRACER WIRE AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL D.I.P. AND PVC WATER MAINS IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL.
- FOR PVC WATER MAINS, ALL RECORDS FOR THE QUALITY CONTROL AND QUALIFICATION TEST REQUIREMENTS NOTED IN SECTION 5.1 OF THE AWWA STANDARD C900 FOR PVC PRESSURE PIPE SHALL BE SUBMITTED WITH THE PIPE MATERIAL CERTIFICATIONS OR SHOP DRAWINGS PRIOR TO APPROVAL OF THE MATERIAL FOR USE. THE TEST RECORDS SHALL BE FOR THE PIPE TO BE INSTALLED UNDER THIS CONTRACT. ALL PVC PIPE SHALL CONTAIN MARKINGS TO ALLOW CROSS REFERENCING OF THE PIPE SUPPLIED TO THE TEST RECORDS RECEIVED.
- UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS, SEVENTEEN (17) POUND SACRIFICIAL ANODES SHALL BE INSTALLED ON ALL VALVES AND METALLIC FITTINGS USED WITH PVC WATER MAINS IN ACCORDANCE WITH VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION. MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSSES. ZINC ANODES SHALL BE INSTALLED ON ALL STAINLESS-STEEL FITTINGS AND SADDLES USED WITH PVC MAINS. ALL TEES USED WITH PVC MAINS SHALL BE DUCTILE IRON.
- TO ACCOMMODATE A SPRINKLER SYSTEM, ALL RESIDENTIAL DWELLING UNITS SHALL HAVE A 1-1/2" CONNECTION WITH 1" OUTSIDE METER SETTING, STD. DET. W-3.2a.

PART C: SEWER MAIN GENERAL NOTES

- 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.
- WHERE WATER TIGHT 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.

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>John C. Lee</i> 10/31/13 CHIEF, BUREAU OF UTILITIES DATE</p>	<p>DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND</p> <p><i>Paul W. Kriebel</i> 10-28-13 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE</p>	<p>I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 12043 EXPIRATION DATE 5/7/16/14.</p> <p>FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTENNIAL SQUARE OFFICE PARK - 10772 BALDORNE NATIONAL PkE ELICOTT CITY, MARYLAND 21042 (410) 461-2295</p>	<p>DESIGNED BY: B.C.R.</p> <p>DRAWN BY: B.C.R.</p> <p>CHECKED BY: P.M.K.</p> <p>DATE: SEPTEMBER, 2013</p>	<p>OWNER JOHN TENNEY MASON JR. FAMILY LLC 7636 GATHER ROAD SYKESVILLE, MARYLAND 21784</p> <p>DEVELOPER LAND DESIGN & DEVELOPMENT, INC. 5300 DORSEY HALL DRIVE, SUITE 102 ELICOTT CITY, MARYLAND 21042 (443-367-0422)</p>	<p>WATER & SEWER MAIN EXTENSIONS TITLE SHEET</p> <p>600' SCALE MAP NO. 30 BLOCK NO. 2</p> <p>F.C.C. WORK ORDER NO. 11042-3001</p> <p>FILE NAME: WATER & SEWER MAIN EXTENSION PLAN</p>	<p>CENTENNIAL LAKE OVERLOOK SECTION ONE</p> <p>BUILDABLE LOTS 1 THRU 23, OPEN SPACE LOTS 24-28 & BUILDABLE BULK PARCELS 'A' & 'B' WATER & SEWER MAIN EXTENSIONS CONTRACT NO. 24-4763-D SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND</p>	<p>SCALE AS SHOWN</p> <p>SHEET 1 OF 4</p>
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CONTRACT NO. 24-4763-D
CENTENNIAL LAKE OVERLOOK
SECTION ONE
BUILDABLE LOTS 1 THRU 23,
OPEN SPACE LOTS 24-28 &
BUILDABLE BULK PARCELS 'A' & 'B'
WATER & SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

John C. Carr
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

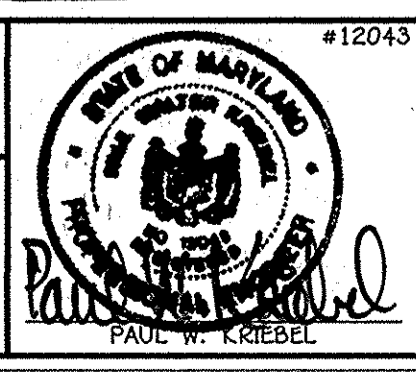
Chief Clerk
CHIEF, DEVELOPMENT ENGINEERING DIVISION

10.28.13
DATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 12043 EXPIRATION DATE IS 7/15/14.

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

CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL Pk. ELICOTT CITY, MARYLAND 21042 (410) 461-2995



DESIGNED BY :	B.C.R.
DRAWN BY :	B.C.R.
CHECKED BY :	P.W.K.
DATE :	SEPTEMBER, 2013
BY NO.	
REVISION	

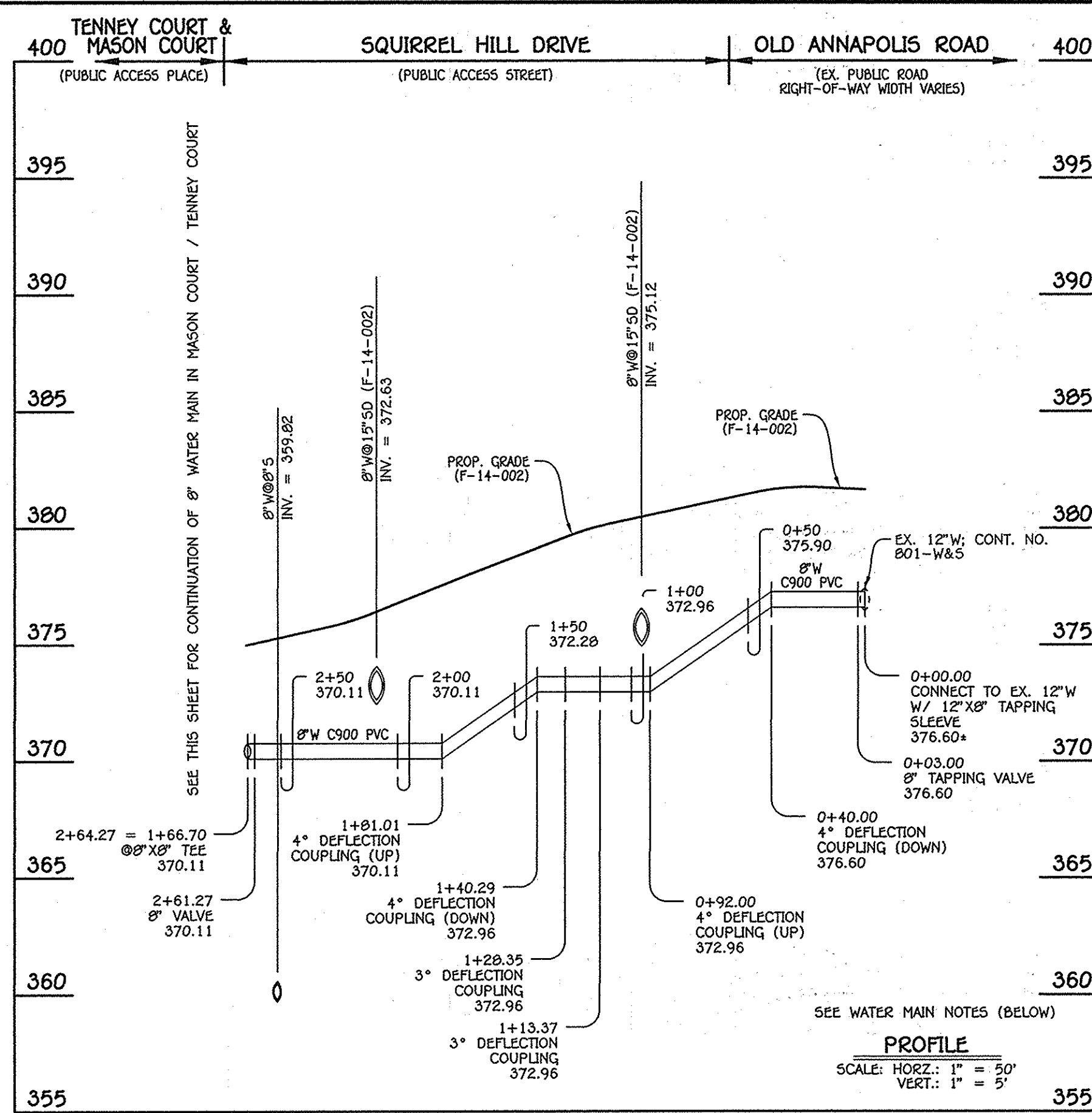
WATER & SEWER MAIN EXTENSIONS PLAN

600' SCALE MAP NO. 30 BLOCK NO. 2
F.C.C. WORK ORDER NO. 11042-3001
FILE NAME : WATER & SEWER MAIN EXTENSION PLAN

CENTENNIAL LAKE OVERLOOK SECTION ONE
BUILDABLE LOTS 1 THRU 23,
OPEN SPACE LOTS 24-28 &
BUILDABLE BULK PARCELS 'A' & 'B'
WATER & SEWER MAIN EXTENSIONS
CONTRACT NO. 24-4763-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

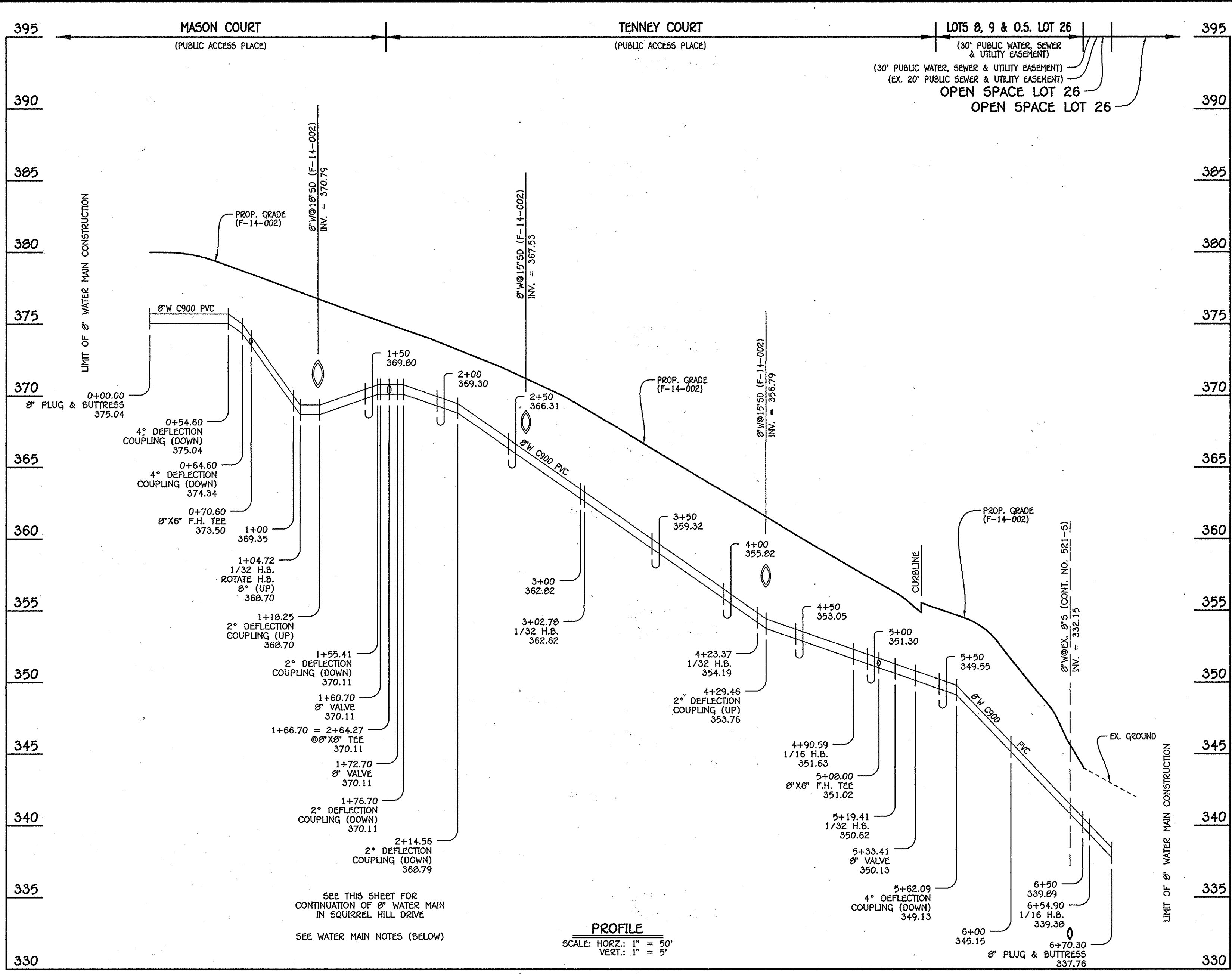
SCALE AS SHOWN
SHEET 2 OF 4

E:\2011\1042\1042.dwg, Water & Sewer, Contract\Plan (Phase 1)\dwp, Plan Sheet 2, 9/26/2013 4:41:12 PM



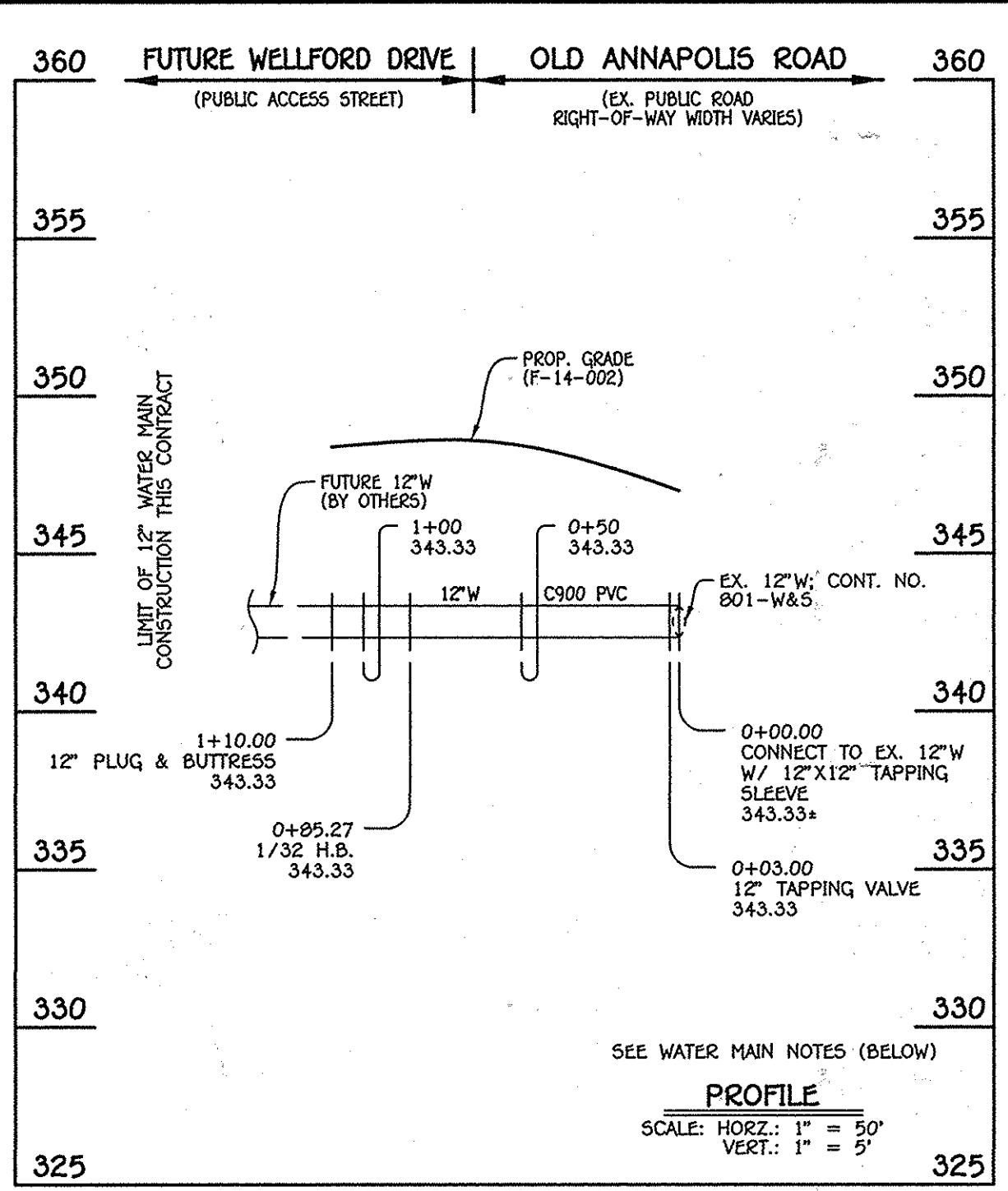
8" WATER MAIN: SQUIRREL HILL DRIVE

W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: SQUIRREL HILL DRIVE			
0+00.00	12" X 8" TAPPING SLEEVE	576169.93	1354868.00
0+03.00	8" TAPPING VALVE	576169.30	1354865.06
1+13.37	3" DEFLECTION COUPLING	576146.27	1354757.11
1+28.35	3" DEFLECTION COUPLING	576142.24	1354742.70
2+61.27	8" VALVE	576098.06	1354617.05
2+64.27	8" X 8" TEE	576097.00	1354614.21



8" WATER MAIN: MASON COURT / TENNEY COURT

W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: MASON COURT / TENNEY COURT			
0+00.00	8" PLUG & BUTTRESS	576247.14	1354541.50
0+70.60	8" X 6" F.H. TEE	576186.01	1354576.91
1+04.72	1/32 H.B.	576156.47	1354593.90
1+60.70	8" VALVE	576103.55	1354612.25
1+66.70	8" X 8" TEE	576097.80	1354614.21
1+72.70	8" VALVE	576092.21	1354616.17
3+02.78	1/32 H.B.	575969.25	1354650.82
4+23.37	1/32 H.B.	575849.33	1354671.30
4+90.59	1/16 H.B.	575782.34	1354665.91
5+08.00	8" X 6" F.H. TEE	575766.93	1354657.03
5+19.41	1/32 H.B.	575756.82	1354652.53
5+33.41	8" VALVE	575745.92	1354643.73
6+54.90	1/16 H.B.	575651.40	1354567.40
6+70.30	8" PLUG & BUTTRESS	575644.09	1354553.05



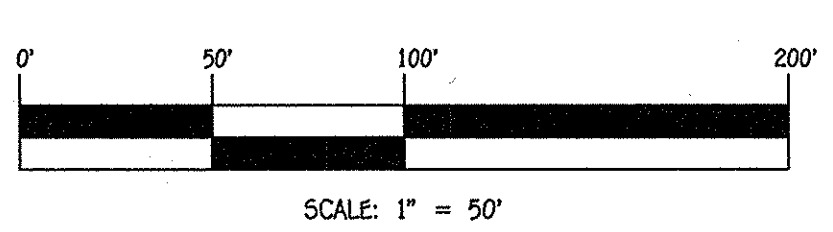
12" WATER MAIN: FUTURE WELLFORD DRIVE

W.M. STA.	APPURTENANCE	NORTHING	EASTING
12" WATER MAIN: FUTURE WELLFORD DRIVE			
0+00.00	12" X 12" TAPPING SLEEVE	575536.06	1354979.72
0+03.00	12" TAPPING VALVE	575535.00	1354976.92
0+05.27	1/32 H.B.	575505.77	1354900.02
1+10.00	12" PLUG & BUTTRESS	575492.67	1354879.04

LOT NUMBER	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
1		WHC-1 To I-15 = 31'	WHC-1 To SHC-1 = 17'
2		WHC-2 To SMH-515 = 20'	WHC-2 To SHC-2 = 7'
3		WHC-3 To SMH-510 = 34'	WHC-3 To SHC-3 = 11'
4		WHC-4 To I-18 = 24'	WHC-4 To SHC-4 = 12'
5		WHC-5 To I-18 = 52'	WHC-5 To SHC-5 = 25'
6		WHC-6 To SMH-505 = 59'	WHC-6 To SHC-6 = 13'
7		WHC-7 To SMH-505 = 58'	WHC-7 To SHC-7 = 19'
8		WHC-8 To SMH-505 = 65'	WHC-8 To FHT = 71'
9		WHC-9 To SMH-505 = 53'	WHC-9 To FHT = 39'
10		WHC-10 To FHT = 25'	WHC-10 To SHC-10 = 14'
11		WHC-11 To SMH-510 = 35'	WHC-11 To SHC-11 = 11'
12		WHC-12 To SMH-515 = 49'	WHC-12 To SHC-12 = 12'
13		WHC-13 To I-14 = 36'	WHC-13 To SHC-13 = 16'
14		WHC-14 To SMH-520 = 65'	WHC-14 To SHC-14 = 30'
15		WHC-15 To SMH-520 = 56'	WHC-15 To SHC-15 = 25'
16		WHC-16 To SMH-520 = 48'	WHC-16 To SHC-16 = 15'
17		WHC-17 To SMH-520 = 36'	WHC-17 To SHC-17 = 12'
18		WHC-18 To SMH-525 = 71'	WHC-18 To SHC-18 = 8'
19		WHC-19 To SMH-525 = 50'	WHC-19 To SHC-19 = 21'
20		WHC-20 To SMH-525 = 30'	WHC-20 To SHC-20 = 12'
21		WHC-21 To SMH-525 = 45'	WHC-21 To SHC-21 = 13'
22		WHC-22 To FHT = 35'	WHC-22 To SHC-22 = 11'
23		WHC-23 To FHT = 15'	WHC-23 To SHC-23 = 23'

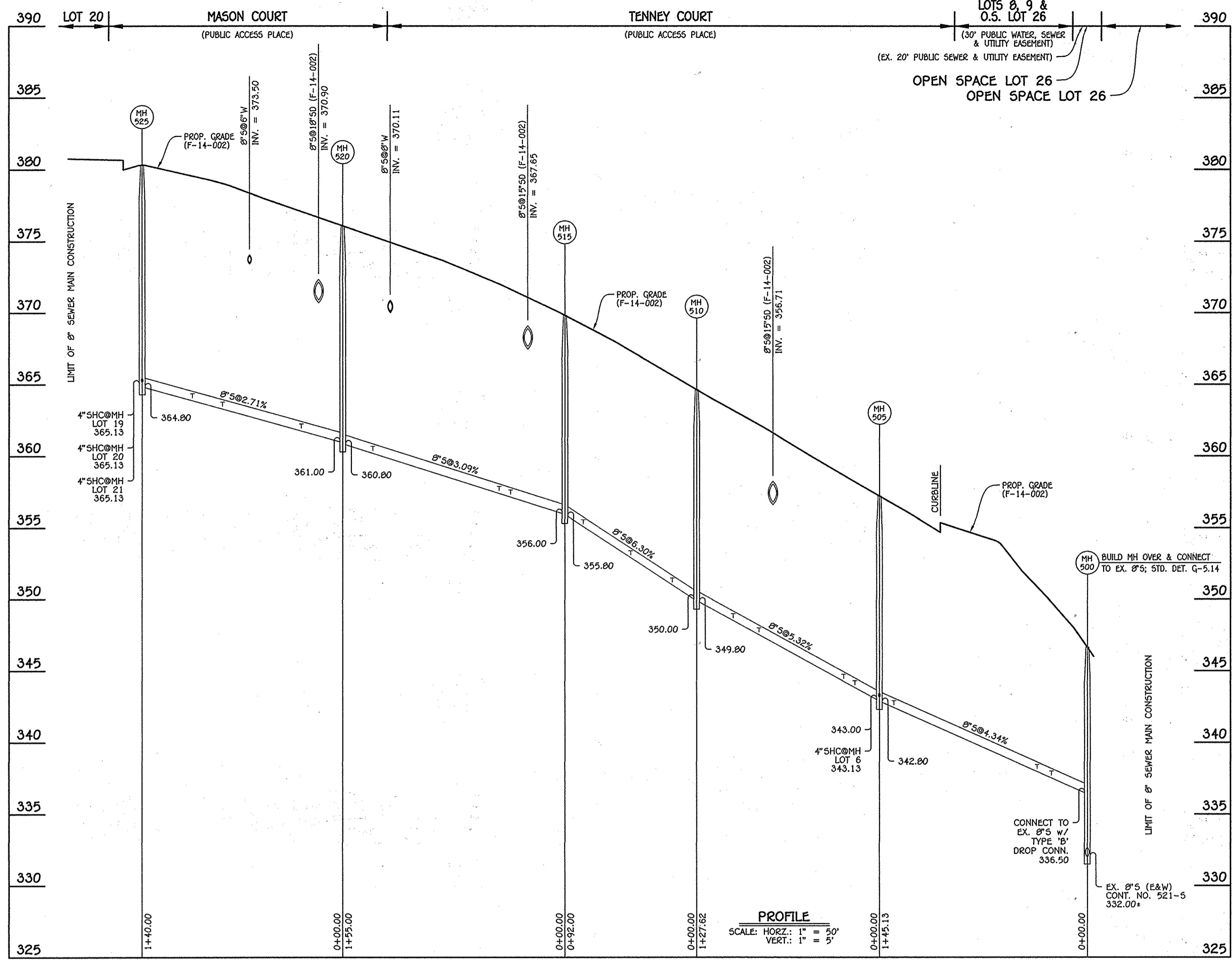
1 1/2" Copper WHC

- WATER MAIN NOTES:**
- ALL WATER MAINS SHALL BE AWWA C900 PVC PIPE, DR-18.
 - ALL PIPE BEDDING, TRACER WIRE, LOCATING TAPE AND OTHER APPURTENANCES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME II - WATER AND SEWER STANDARDS FOR AWWA C900 PVC WATER PIPE INSTALLATION.
 - DEFLECTION COUPLINGS SHALL BE CERTAIN-TEED PVC HIGH DEFLECTION COUPLINGS.
 - ALL WATER HOUSE CONNECTIONS AND TAPS SHALL BE PERFORMED USING A SADDLE.

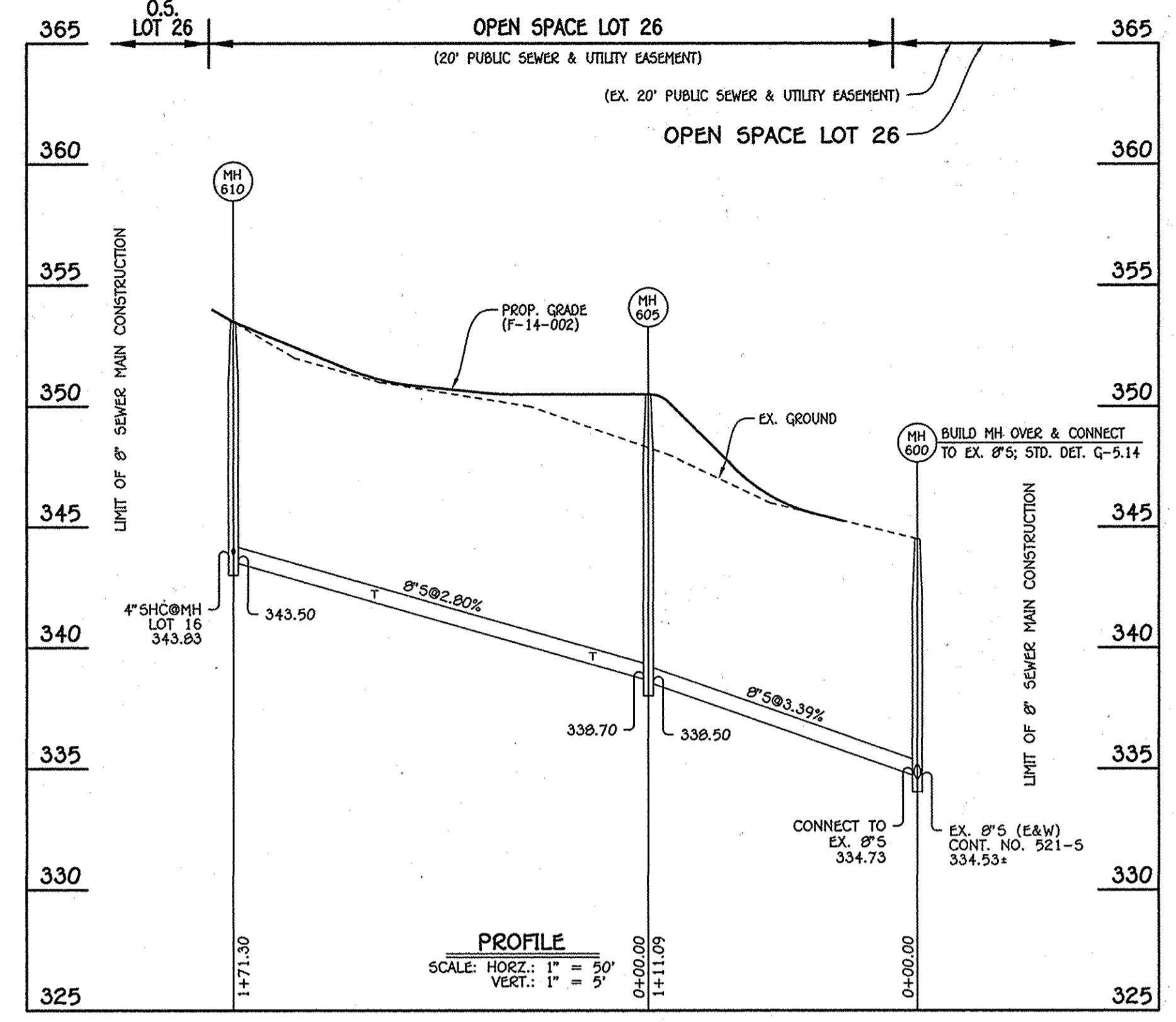


CONTRACT NO. 24-4763-D
CENTENNIAL LAKE OVERLOOK
SECTION ONE
BUILDABLE LOTS 1 THRU 23,
OPEN SPACE LOTS 24-28 &
BUILDABLE BULK PARCELS 'A' & 'B'
WATER & SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>John C. Green</i> CHIEF, BUREAU OF UTILITIES</p>	<p>DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND</p> <p><i>Paul E. Elmer</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION</p>	<p>I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 12043 EXPIRATION DATE 5/7/16/14.</p> <p>FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTENNIAL SQUARE OFFICE PARK - 10275 BALTIMORE NATIONAL Pk. ELLICOTT CITY, MARYLAND 21042 (410) 461-2095</p>	<p>DESIGNED BY: B.C.R.</p> <p>DRAWN BY: B.C.R.</p> <p>CHECKED BY: P.W.K.</p> <p>DATE: SEPTEMBER, 2013</p>	<p>WATER MAIN EXTENSIONS PROFILES, CHARTS & TABLE</p> <p>600' SCALE MAP NO. 30 BLOCK NO. 2 F.C.C. WORK ORDER NO. 11042-3001</p> <p>FILE NAME: WATER & SEWER MAIN EXTENSION PLAN</p>	<p>CENTENNIAL LAKE OVERLOOK SECTION ONE BUILDABLE LOTS 1 THRU 23, OPEN SPACE LOTS 24-28 & BUILDABLE BULK PARCELS 'A' & 'B' WATER & SEWER MAIN EXTENSIONS CONTRACT NO. 24-4763-D SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND</p>	<p>SCALE AS SHOWN</p> <p>SHEET 3 OF 4</p>
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8" SEWER MAIN: MASON COURT / TENNEY COURT



8" SEWER MAIN: LOTS 14 THRU 16

NO.	NORTHING	EASTING	RIM ELEVATION
600	575771.66	1354445.22	344.50
605	575882.50	1354452.68	350.50
610	576018.17	1354348.11	353.50

NOTE: SET MH RIMS FLUSH W/EXISTING GROUND.

STATION	LOT	ELEVATION AT MAIN	ELEVATION AT R/W	M.C.E.
MH 605 TO MH 610				
0+23 RT.	14	339.51	339.71	344.41
1+13 RT.	15	342.03	342.23	346.73
@MH 610 RT.	16	343.83	344.11	349.01

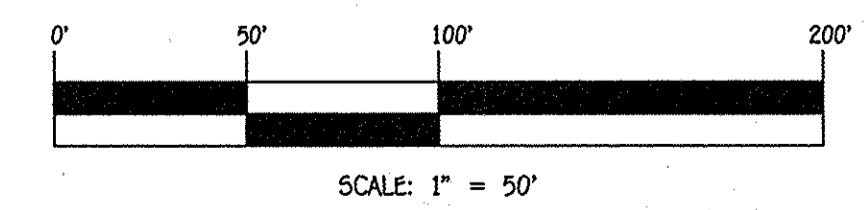
STATION	LOT	ELEVATION AT MAIN	ELEVATION AT R/W	M.C.E.
MH 500 TO MH 505				
0+25 RT.	8	337.76	337.96	342.46
0+35 LT.	9	338.19	338.59	343.29
1+35 RT.	7 (1.00%)	342.53	343.09	346.69
@MH 505 RT.	6 (1.00%)	343.14	343.71	347.31
MH 505 TO MH 510				
0+17 RT.	5	344.07	345.19	349.59
0+25 LT.	10	344.50	345.48	349.94
0+84 RT.	4	347.64	348.12	352.58
1+02 LT.	11	348.60	349.20	353.90
MH 510 TO MH 515				
0+17 RT.	3	351.24	351.66	356.16
0+46 LT.	12	353.07	353.69	358.39
0+79 RT.	2	355.15	355.57	360.17
MH 515 TO MH 520				
0+38 RT.	1	357.34	357.76	362.56
0+46 LT.	13	357.99	358.23	362.77
1+34 LT.	17	360.31	360.97	366.27
MH 520 TO MH 525				
0+29 RT.	23	361.96	362.40	366.70
0+84 RT.	22	363.45	364.23	368.73
1+05 LT.	18	364.02	365.36	369.90
@MH 525 RT.	21	365.13	365.85	370.11
@MH 525 CEN.	20	365.13	365.59	370.05
@MH 525 LT.	19	365.13	365.83	370.25

NO.	NORTHING	EASTING	RIM ELEVATION
500	575655.72	1354583.75	346.64
505	575768.64	1354674.93	357.19
510	575898.05	1354682.08	364.85
515	575986.37	1354664.56	369.85
520	576133.56	1354615.96	376.09
525	576255.97	1354548.03	380.36

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

LOT NUMBER	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
1		SHC-1 To I-15 = 18'	SHC-1 To WHC-1 = 17'
2		SHC-2 To I-15 = 43'	SHC-2 To WHC-2 = 7'
3		SHC-3 To SMH-510 = 79'	SHC-3 To WHC-3 = 11'
4		SHC-4 To SMH-510 = 52'	SHC-4 To I-18 = 18'
5		SHC-5 To SMH-505 = 23'	SHC-5 To I-18 = 77'
6		SHC-6 To I-17 = 39'	SHC-6 To WHC-6 = 13'
7		SHC-7 To I-17 = 31'	SHC-7 To WHC-7 = 19'
8		SHC-8 To SMH-500 = 30'	SHC-8 To SHC-9 = 34'
9		SHC-9 To SMH-500 = 44'	SHC-9 To SHC-8 = 34'
10		SHC-10 To SMH-505 = 55'	SHC-10 To FHT = 14'
11		SHC-11 To SMH-510 = 42'	SHC-11 To I-19 = 33'
12		SHC-12 To SMH-515 = 59'	SHC-12 To WHC-12 = 12'
13		SHC-13 To I-14 = 22'	SHC-13 To WHC-13 = 16'
14		SHC-14 To SMH-605 = 26'	SHC-14 To SHC-15 = 90'
15		SHC-15 To SHC-14 = 90'	SHC-15 To SHC-16 = 66'
16		SHC-16 To MH-6 = 110'	SHC-16 To SHC-15 = 66'
17		SHC-17 To SMH-520 = 42'	SHC-17 To WHC-17 = 12'
18		SHC-18 To SMH-525 = 76'	SHC-18 To WHC-18 = 8'
19		SHC-19 To SMH-520 = 39'	SHC-19 To WHC-19 = 21'
20		SHC-20 To WHC-19 = 51'	SHC-20 To WHC-20 = 12'
21		SHC-21 To WHC-20 = 57'	SHC-21 To WHC-21 = 13'
22		SHC-22 To SMH-525 = 69'	SHC-22 To FHT = 25'
23		SHC-23 To FHT = 37'	SHC-23 To SMH-520 = 39'

4" PVC SHC



CONTRACT NO. 24-4763-D
CENTENNIAL LAKE OVERLOOK
SECTION ONE
BUILDABLE LOTS 1 THRU 23,
OPEN SPACE LOTS 24-28 &
BUILDABLE BULK PARCELS 'A' & 'B'
WATER & SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND 	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND 	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 12043 EXPIRATION DATE 5/7/16/14. 	DESIGNED BY : B.C.R.	SEWER MAIN EXTENSIONS PROFILES, CHARTS & TABLE	CENTENNIAL LAKE OVERLOOK SECTION ONE BUILDABLE LOTS 1 THRU 23, OPEN SPACE LOTS 24-28 & BUILDABLE BULK PARCELS 'A' & 'B' WATER & SEWER MAIN EXTENSIONS CONTRACT NO. 24-4763-D SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 4 OF 4
			DRAWN BY : B.C.R.			
CHIEF, BUREAU OF UTILITIES		CHIEF, DEVELOPMENT ENGINEERING DIVISION		DATE: SEPTEMBER, 2013		REVISION