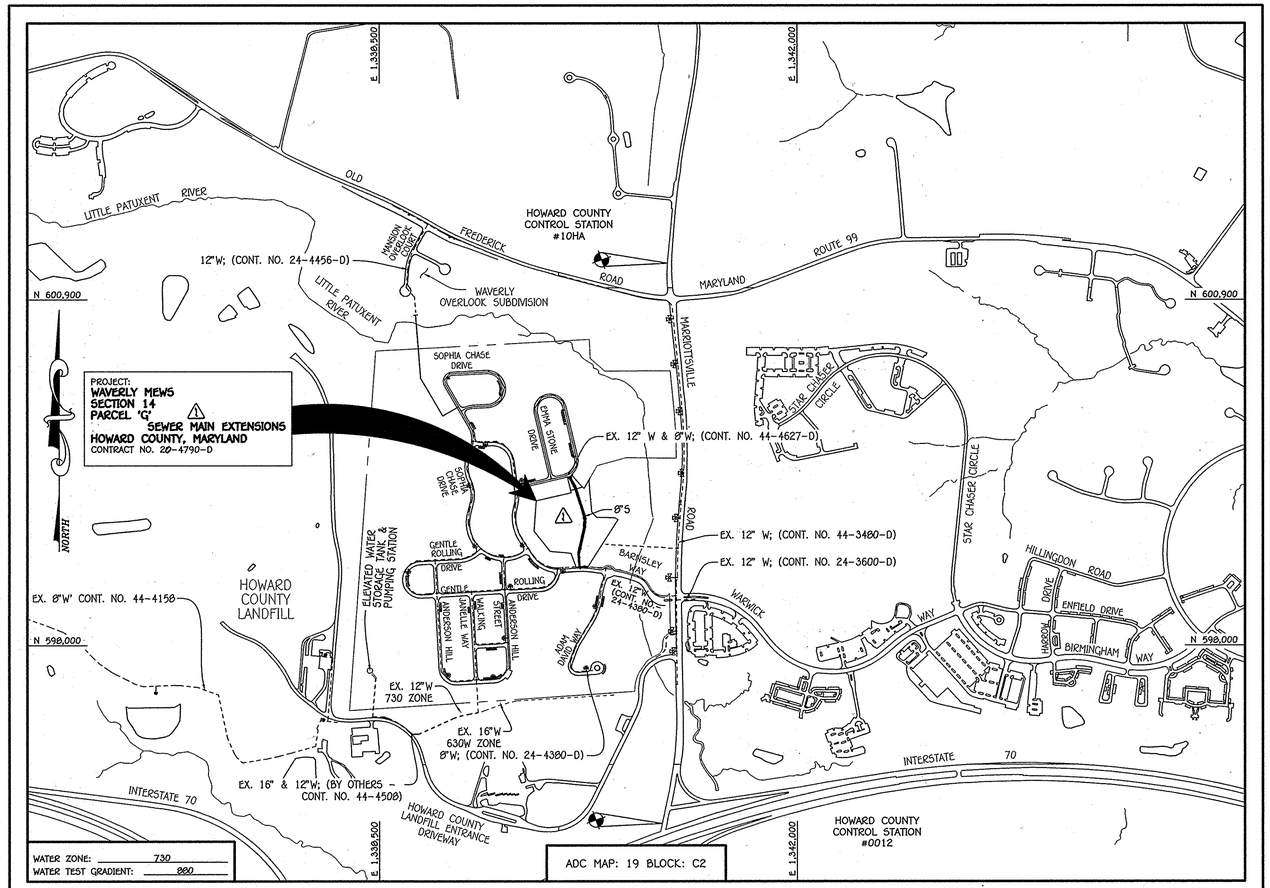
QUANTITIES

ITEM	ESTIMATED	AS-BUILT QUANTITIES	AS-BUILT TYPE	AS-BUILT SUPPLIER
8"S; PVC	710 L.F.			
MANHOLES	2 EACH			
~~TYPE 'D' DROP MANHOLE~~	~~4 EACH~~			
NAME OF UTILITY CONTRACTOR:				
SURVEY & DRAFTING DIVISION AS-BUILT DATE:				

BENCHMARK INFORMATION

B.M.#1 – HOWARD COUNTY CONTROL STATION #0012
(LOCATED ALONG THE WEST SIDE OF MARRIOTTSVILLE ROAD; JUST NORTH OF INTERSTATE 70)
N 596,502.7604 (HORIZONTAL = NAD '83)
E 1,340,864.3654 (HORIZONTAL = NAD '83)
ELEVATION = 486.905 (VERTICAL = NGVD '29)

B.M.#2 – HOWARD COUNTY CONTROL STATION #10HA
(LOCATED ALONG THE WEST SIDE OF MARRIOTTSVILLE ROAD, JUST NORTH OF OLD FREDERICK ROAD, APPROX. 21 WEST OF THE CENTERLINE OF ROAD)
N 601,206.59 (HORIZONTAL = NAD '83)
E 1,340,9 A 329 (HORIZONTAL = NAD '83)
ELEVATION = 483.880 (VERTICAL = NGVD '29)

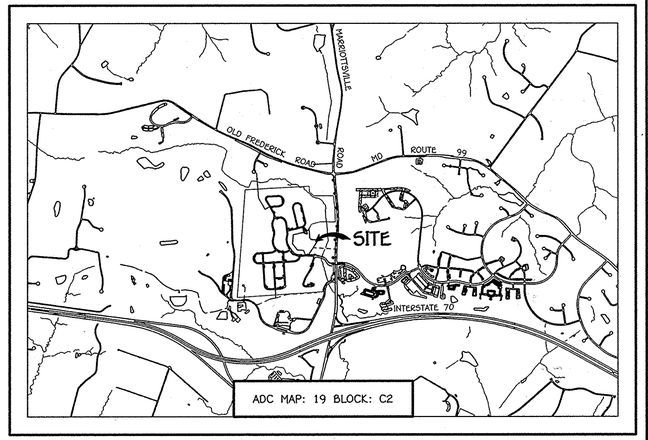


WATER ZONE: 730
WATER TEST GRADIENT: 880

TYPE OF BUILDING: CONDOMINIUM APARTMENTS
NUMBER OF BUILDINGS: 8
NUMBER OF PARCELS: 1
NO. OF WATER HOUSE CONNECTIONS: 8
NO. OF SEWER HOUSE CONNECTIONS: N/A
SEWER SHED: LITTLE PATUXENT
TREATMENT PLANT: LITTLE PATUXENT WATER RECLAMATION PLANT; SAVAGE MARYLAND

PLAN REFERENCE NUMBERS:
F-13-067 (RECORD PLAT)
SDP-13-031

LOCATION MAP
SCALE: 1"= 600'



VICINITY MAP
SCALE: 1"= 2000'

GENERAL NOTES

PART A
1. 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.
2. TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON OR ABOUT JULY, 2005 BY FISHER, COLLINS & CARTER, INC.
3. 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. 10HA & NO. 0012.
ALL VERTICAL CONTROLS ARE BASED ON NAVD '88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS.
4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
5. 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.
6. 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.
7. 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.
8. 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	410-531-5533
VERIZON	1-800-743-0033 / 410-224-9210

9 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.
10. 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.
11. 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.

PART B: WATER MAIN GENERAL NOTES
1. ALL WATER MAINS SHALL BE AWWA C900 PVC; DR-18.
2. TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
3. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
4. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
5. 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.
6. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
7. 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.
8. 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.
9. 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 HARNESSES. 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.
10. PROPER ASSEMBLY OF GASKETED PVC PIPE JOINTS: THE MANUFACTURER'S INSERTION LINE OF GASKETED PVC PIPE JOINTS INDICATES THE MAXIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. AFTER ASSEMBLY OF THE JOINT, THE INSERTION LINE SHALL REMAIN VISIBLE. DUAL INSERTION LINES ON GASKETED PVC PIPE INDICATE THE MAXIMUM AND MINIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. THE CONTRACTOR SHALL NOT OVER INSERT OR OVER HOME THE SPIGOT INTO THE BELL OF PVC PIPE.
11. ALL CHANGES IN HORIZONTAL OR VERTICAL DIRECTION OF PVC WATER PIPE SHALL BE MADE WITH STANDARD BENDS, 5-DEGREE SWEEPS OR HIGH DEFLECTION(HD) COUPLINGS. NO BENDING OF THE PIPE OR DEFLECTING OF PVC PIPE JOINTS IS PERMITTED. WHERE HIGH DEFLECTION COUPLINGS OR 5-DEGREE SWEEPS ARE PERMITTED, THE CONTRACTOR SHALL PROVIDE ONE FULL PIPE LENGTH (20 FOOT LONG) ON EITHER SIDE OF THE HIGH DEFLECTION COUPLING OR 5-DEGREE SWEEP, TAKING CARE NOT TO USE COMPACTION EQUIPMENT DIRECTLY OVER THE FITTING.

PVC HIGH DEFLECTION COUPLINGS SHALL BE LIMITED TO A TOTAL OF 3-DEGREES (1 1/2-DEGREE ON EITHER END OF THE COUPLING). SHALL BE RATED FOR A MINIMUM 200 PSI MEETING THE REQUIREMENTS OF AWWA C900, SHALL HAVE A MINIMUM LAY LENGTH OF 9-INCHES AND SHALL HAVE CENTER STOPS. PVC HIGH DEFLECTION COUPLINGS SHALL BE CERTANTEED PVC HIGH DEFLECTION (HD) STOP COUPLINGS OR EQUAL.

FIVE DEGREE SWEEPS SHALL BE BELL BY SPIGOT, RATED FOR A MINIMUM 225 PSI, DR-18 MEETING THE REQUIREMENTS OF AWWA C900 AND SHALL BE MULTI FITTINGS (IPEX) BLUE BOOTE DR-18 OR EQUAL.

12. WHEN PVC HIGH DEFLECTION COUPLINGS OR PVC 5-DEGREE SWEEPS ARE USED TO FACILITATE CHANGES IN HORIZONTAL OR VERTICAL ALIGNMENTS OF AWWA C900 PVC PIPELINES, THE CONTRACTOR SHALL INSERT DEVICES FOR THE PREVENTION OF OVER-INSERTION OF THE PVC PIPE SPIGOTS OR PLAIN ENDS INTO THE PUSH ON BELL JOINT ON BOTH SIDES OF THE HIGH DEFLECTION COUPLINGS AND 5-DEGREE SWEEPS. BELL STOPS SHALL BE PLACED AT THE PROPER INSERTION LINE FOR THE FITTING. THE BELL STOP SHALL BE MANUFACTURED OF DUCTILE IRON AND INCORPORATE AN EXPANSION RETENTION SPRING TO ALLOW FOR PIPE EXPANSION AND CONTRACTION. THE BELL STOPS SHALL BE SERIES 5000 MEGA-STOP, AS MANUFACTURED BY EBAA IRON, INC. OR APPROVAD EQUAL.
13. TO ACCOMMODATE A SPRINKLER SYSTEM, ALL RESIDENTIAL DWELLING UNITS SHALL HAVE A 1-1/2" WATER HOUSE CONNECTION WITH A 1" OUTSIDE METER SETTING. STD. DET. W-3.28.

PART C: SEWER MAIN GENERAL NOTES
1. ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
2. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
3. FORCE MAINS SHALL BE D.I.P. ONLY.
4. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
5. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER, STANDARD DETAIL Q5.52. WHERE WATERTIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
6. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

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. Kriebel; FOR:
WAVERLY WOODS DEVELOPMENT CORPORATION 03/05/14
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 03-05-14
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 SITE DEVELOPMENT PLAN, SDP-13-031.

Paul W. Kriebel; FOR:
WAVERLY WOODS DEVELOPMENT CORPORATION 03-05-14
SIGNATURE OF DEVELOPER DATE

SDP-13-031

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

APPROVED:
John R. Robertson 3/19/14
HOWARD SOIL CONSERVATION DISTRICT DATE

△
CONTRACT NO. 20-4790-D

WAVERLY MEWS
SECTION 14
PARCEL 'G'

△ SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

DEVELOPER
WAVERLY WOODS DEVELOPMENT CORPORATION,
HOLE IN THE DOUGHNUT, LLC &
GTW JOINT VENTURE
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
(443-367-0422)

△
CONTRACT NO. 20-4790-D
WAVERLY MEWS
SECTION 14
PARCEL 'G'
△
SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF, BUREAU OF UTILITIES DATE 3/11/14

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
CHIEF, DEVELOPMENT ENGINEERING DIVISION M.G. DATE 3-25-14

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 7/16/14.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK – 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 – 2855

#12043 STATE OF MARYLAND PROFESSIONAL ENGINEER PAUL W. KRIEBEL
PAUL W. KRIEBEL

DESIGNED BY :	B.C.R.
DRAWN BY :	B.C.R.
CHECKED BY :	P.W.K.
DATE :	MARCH, 2014

BY	NO.	REVISION	DATE
FCC	△	REVISE CONTRACT TO "SEWER MAIN ONLY" INSTALLATION	11/7/14

△ SEWER MAIN EXTENSIONS
TITLE SHEET

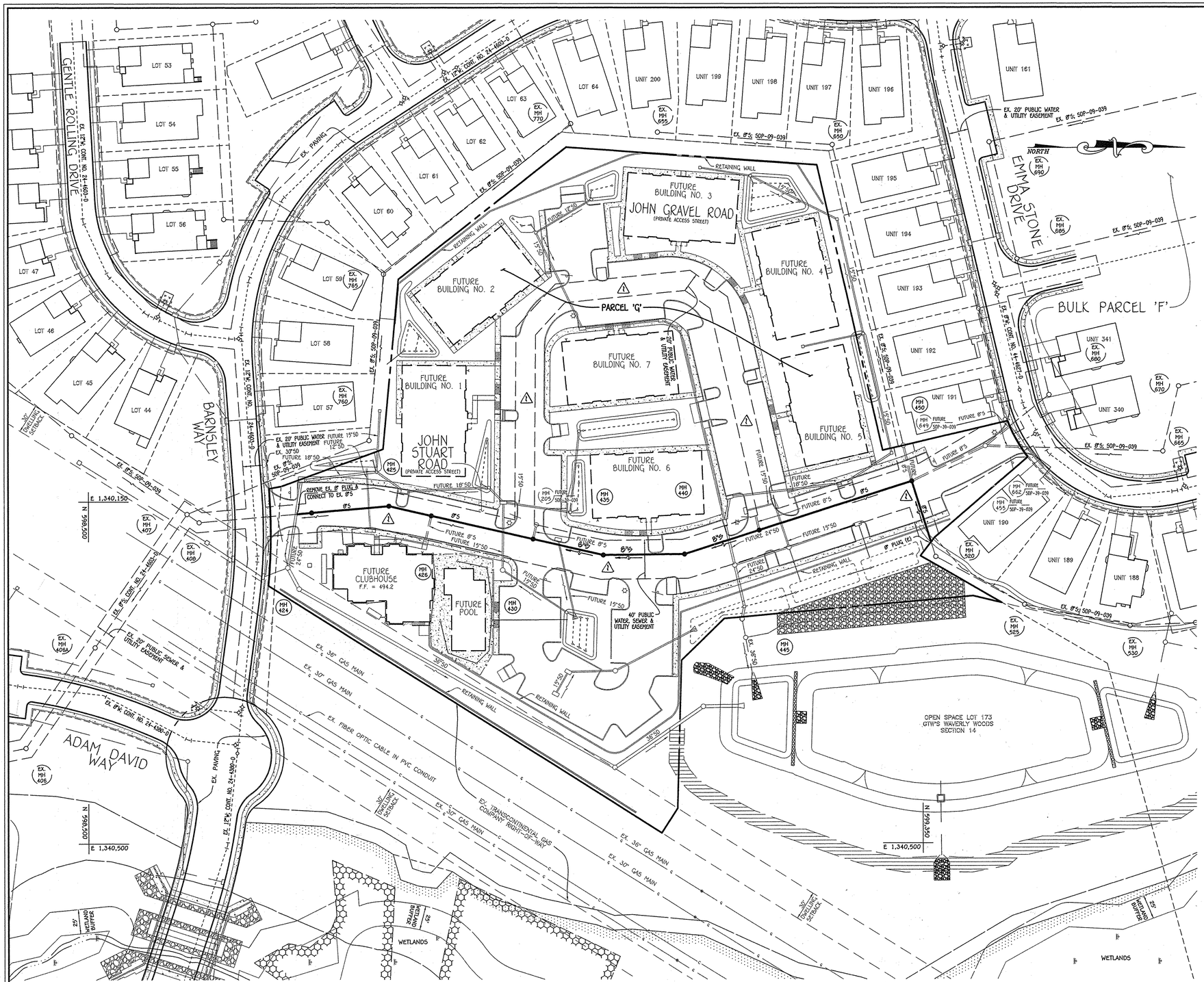
600' SCALE MAP NO. 16 BLOCK NO. 3 & 4
F.C.C. WORK ORDER NO. 30770-6004
FILE NAME : △ SEWER MAIN EXTENSION

WAVERLY MEWS
SECTION 14
PARCEL 'G'
△ SEWER MAIN EXTENSIONS
CONTRACT NO. 20-4790-D △
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 1 OF 4 △

E:\30000\30770\dwg\Water & Sewer Contract\Final Plan\30770-3004 Water and Sewer Contract Plan.dwg, Title Sheet 1, 3/7/2014 10:52:00 AM



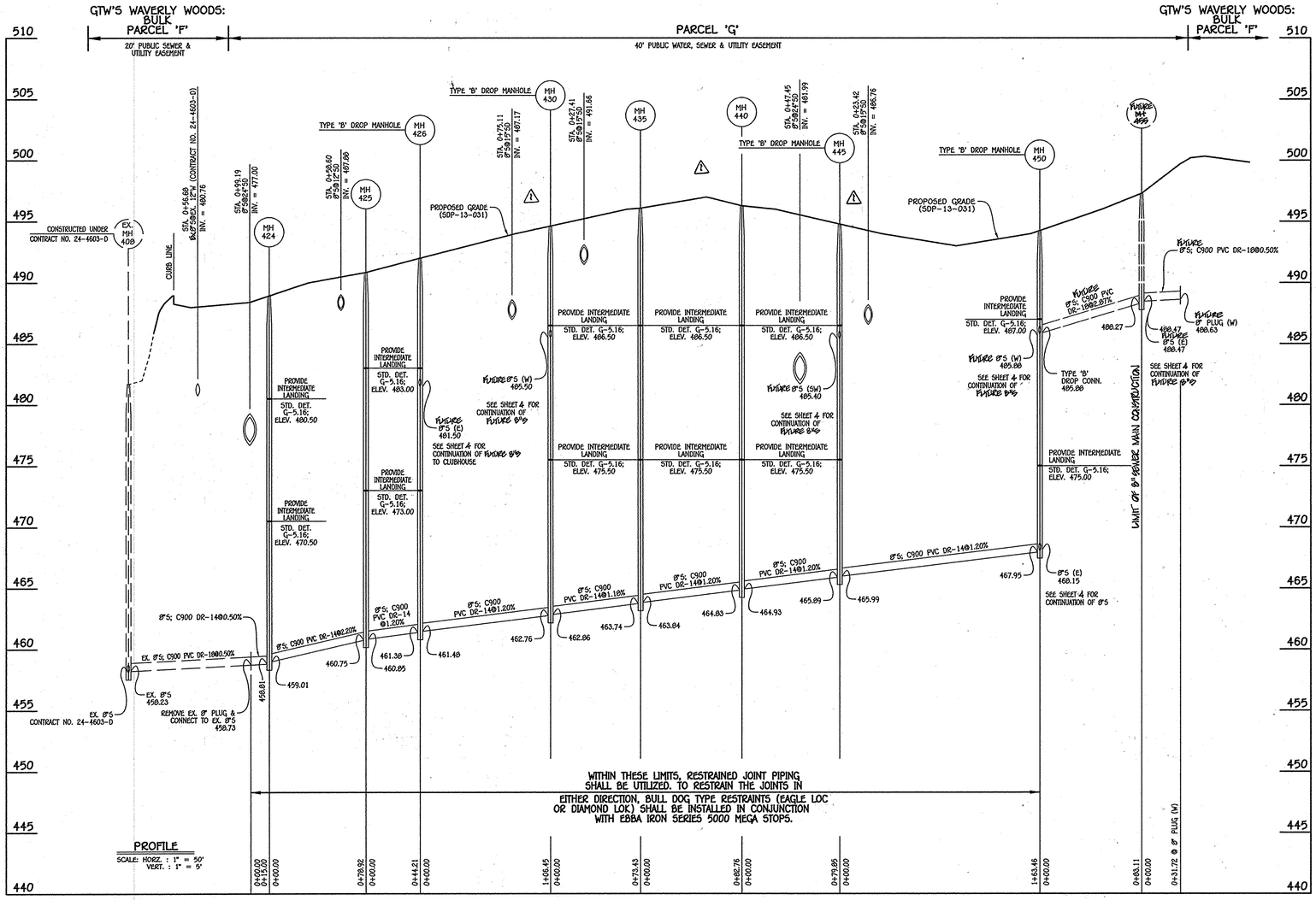
NOTE: THIS ORIGINAL CONSTRUCTION PLAN, SHEET 2 OF 4 SUPERSEDES THE WATER & SEWER MAIN CONSTRUCTION PLAN PREVIOUSLY APPROVED AND SIGNED BY THE DEPARTMENT OF PLANNING AND ZONING ON MARCH 25, 2014.

PLAN
SCALE: 1" = 50'

CONTRACT NO. 20-4790-D
WAVERLY MEWS
SECTION 14
PARCEL 'G'
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 5/16/16.	#12043 STATE OF MARYLAND	DESIGNED BY : B.C.R. DRAWN BY : B.C.R. CHECKED BY : P.W.K. DATE : NOVEMBER, 2014	BCR / 1 / REVISE CONTRACT TO "SEWER MAIN ONLY" INSTALLATION / 11/2014 BY / NO. / REVISION / DATE	SEWER MAIN EXTENSIONS PLAN	WAVERLY MEWS SECTION 14 PARCEL 'G' SEWER MAIN EXTENSIONS CONTRACT NO. 20-4790-D THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN
CHIEF, BUREAU OF UTILITIES — DATE 11/19/14	CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 11/17/14	FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21042 (410) 461 - 2855	PAUL W. KRIEBEL			600' SCALE MAP NO. 16 BLOCK NO. 3 & 4 F.C.C. WORK ORDER NO. 30770-6004 FILE NAME : SEWER MAIN EXTENSION		SHEET 2 OF 4

I:\30000\30770\dwg\Water & Sewer Contract\Water & Sewer Contract No. 24-4790-D\Final Plan\Redline 1 Sept. 2014\30770-3004 Water and Sewer Contract Plan Redline 1 Sept. 2014.dwg, 11/12/2014 11:24:05 AM



8" SEWER MAIN: JOHN STUART ROAD

MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
EX. 8" PLUG	598712.44	1340162.65	----
424	598727.39	1340161.37	488.93
425	598806.02	1340154.63	490.84
426	598849.10	1340164.54	492.00
430	598952.84	1340180.41	494.63
435	599024.41	1340204.80	496.08
440	599107.17	1340203.91	496.28
445	599183.19	1340179.48	494.79
450	599330.82	1340129.48	494.24

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

SEWER MAIN NOTES:

1. ALL DROP CONNECTIONS SHALL BE OUTSIDE DROP CONNECTIONS IN ACCORDANCE W/ STD. DET. S-1.32. INSIDE DROP CONNECTIONS SHALL NOT BE ALLOWED.
2. ALL PIPE BEDDING SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME II – WATER AND SEWER STANDARDS FOR AWWA C900 PVC SEWER PIPE INSTALLATION.

CONTRACT NO. 20-4790-D
WAVERLY MEWS
SECTION 14
PARCEL 'G'
SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF, BUREAU OF UTILITIES — DATE 3/11/14

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3-25-14

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 7/16/14.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK – 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 – 2855

#12043
STATE OF MARYLAND — PAUL WALTER KRIEBEL — REGISTERED PROFESSIONAL ENGINEER
PAUL W. KRIEBEL

DESIGNED BY : B.C.R.
DRAWN BY : B.C.R.
CHECKED BY : P.W.K.
DATE : MARCH, 2014

BY	NO.	REVISION	DATE
PCC	1	REVISE CONTRACT TO "SEWER MAIN ONLY" INSTALLATION	11/17/14

SEWER MAIN EXTENSIONS
PROFILE & CHART

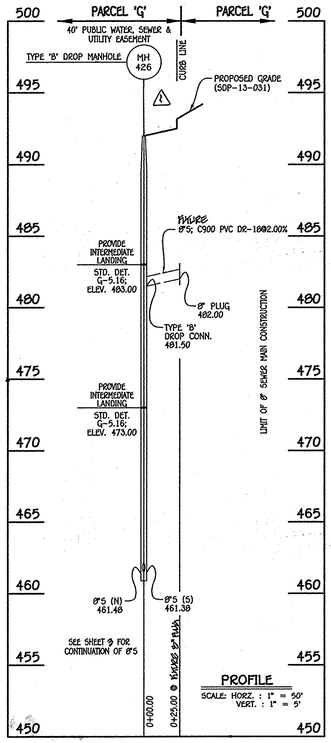
600' SCALE MAP NO. 16 BLOCK NO. 3 & 4
F.C.C. WORK ORDER NO. 30770-6004
FILE NAME : 1 SEWER MAIN EXTENSION

WAVERLY MEWS
SECTION 14
PARCEL 'G'
1 SEWER MAIN EXTENSIONS
CONTRACT NO. 20-4790-D 1
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 3 OF 4 1

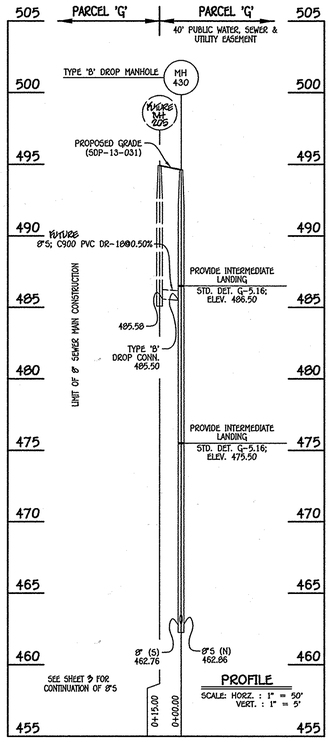
I:\30000\30770\dwg\Water & Sewer Contract\Final Plan\30770-3004 Water and Sewer Contract Plan.dwg, Profile Sheet 5, 3/5/2014 11:01:49 AM



FUTURE 8" SEWER MAIN: TO CLUBHOUSE

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
426	598849.10	1340164.54	492.00
FUTURE 8" PLUG	598843.50	1340180.90	---

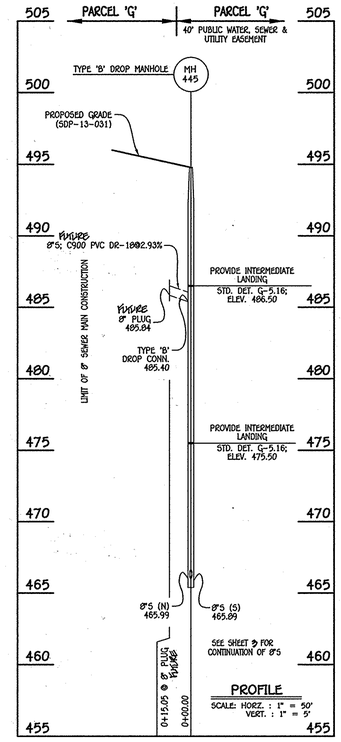
NOTE: SET MH RIM FLUSH W/PROPOSED GRADE.



FUTURE 8" SEWER MAIN: TO JOHN GRAVEL ROAD

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
430	599952.84	1340180.41	494.63

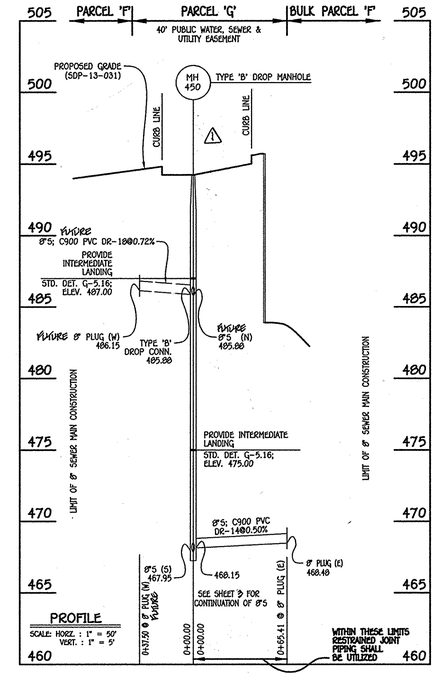
NOTE: SET MH RIM FLUSH W/PROPOSED GRADE.



FUTURE 8" SEWER MAIN: TO JOHN GRAVEL ROAD

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
445	599183.19	1340179.48	494.79
FUTURE 8" PLUG	599179.84	1340164.80	---

NOTE: SET MH RIM FLUSH W/PROPOSED GRADE.

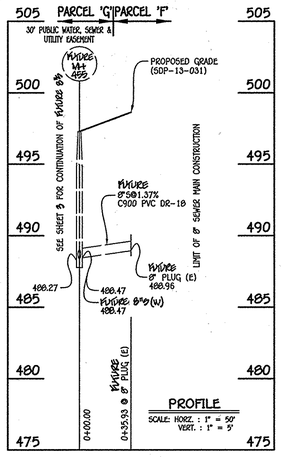


FUTURE 8" SEWER MAIN: TO BULK PARCEL 'F'

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
450	599330.82	1340129.48	494.24
FUTURE 8" PLUG (W)	599330.27	1340092.97	---
8" PLUG (E)	599358.52	1340191.86	---

NOTE: SET MH RIM FLUSH W/PROPOSED GRADE.

SEWER MAIN NOTES: 1. ALL DROP CONNECTIONS SHALL BE OUTSIDE DROP CONNECTIONS IN ACCORDANCE W/ STD. DET. S-1.32. INSIDE DROP CONNECTIONS SHALL NOT BE ALLOWED.



FUTURE 8" SEWER MAIN: TO BULK PARCEL 'F'

1 CONTRACT NO. 20-4790-D
WAVERLY MEWS
SECTION 14
PARCEL 'G'
1 SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF, BUREAU OF UTILITIES — DATE 3/4/14

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
CHIEF, DEVELOPMENT ENGINEERING DIVISION M.G. — DATE 3.25.14

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 7/16/14.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

#12043 STATE OF MARYLAND PAUL WALTER KRIEBEL PROFESSIONAL ENGINEER
PAUL W. KRIEBEL

DESIGNED BY : B.C.R.
DRAWN BY : B.C.R.
CHECKED BY : P.W.K.
DATE : MARCH, 2014

BY	NO.	REVISION	DATE
PGG	1	REVISE CONTRACT TO "SEWER MAIN ONLY" INSTALLATION	11/17/14

SEWER MAIN EXTENSIONS
PROFILES & CHARTS

600' SCALE MAP NO. 16 BLOCK NO. 3 & 4
F.C.C. WORK ORDER NO. 30770-6004
FILE NAME : 1 SEWER MAIN EXTENSION

WAVERLY MEWS
SECTION 14
PARCEL 'G'
1 SEWER MAIN EXTENSIONS
CONTRACT NO. 20-4790-D 1
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 4 OF 4 1

I:\30000\30770\dwg\Water & Sewer Contract\Final Plan\30770-3004 Water and Sewer Contract Plan.dwg, Profile Sheet 6, 3/5/2014 11:02:52 AM