

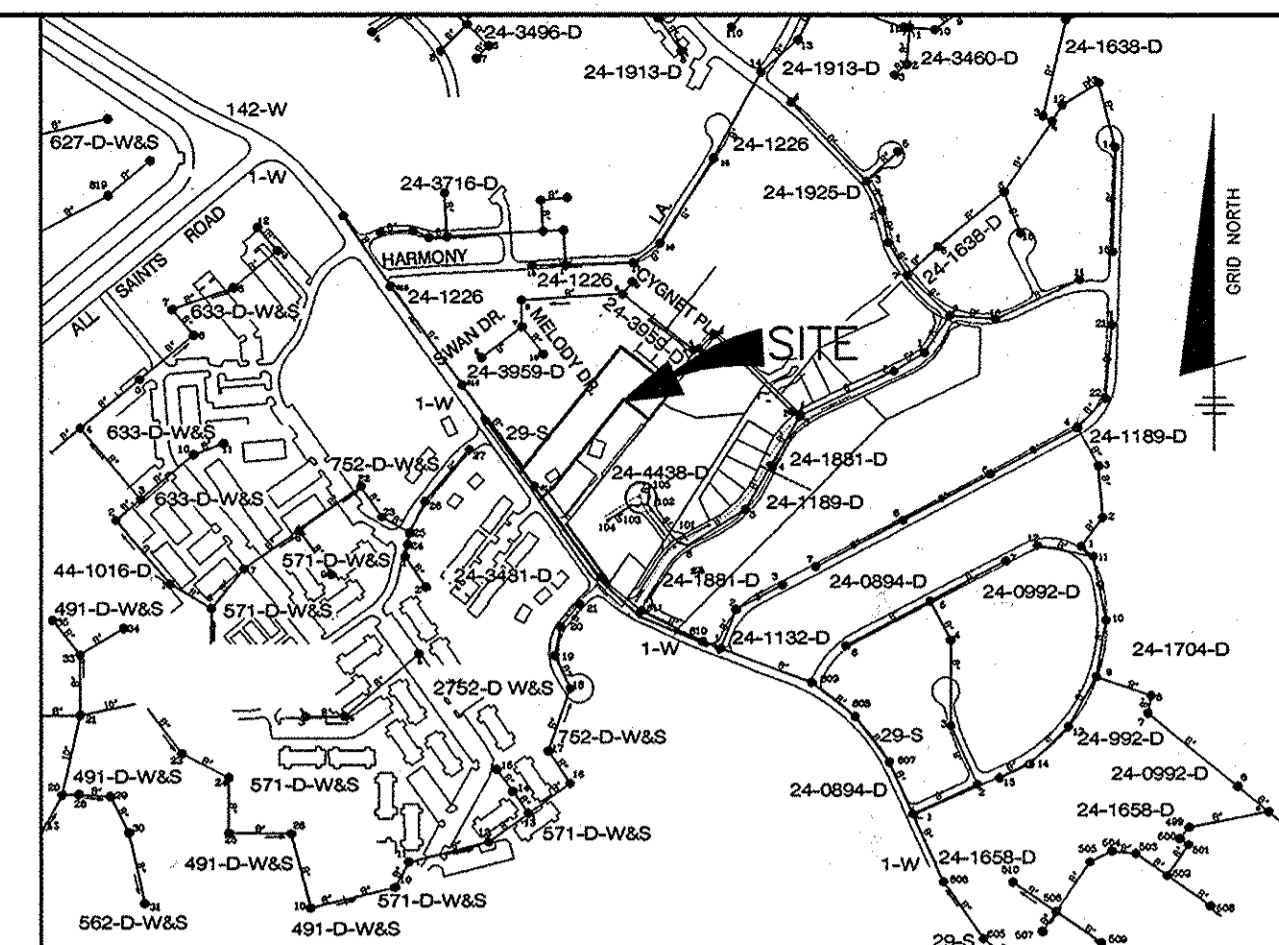
QUANTITIES

ITEMS	QUANTITIES ESTIMATED	AS-BUILT QUANTITIES	TYPE	MANUF./SUPPLIER
1 1/2" WHC	61 L.F.	61 L.F.	COPPER	HOWELL METAL
8"x6" REDUCER	1 EACH	1 EACH	M3/DIP	SIGMA
6" D.I.P.	225 L.F.	225 L.F.	DIP	GRIFFIN PIPE
6" CAP	1 EACH	1 EACH	M3/DIP	SIGMA
4" SHC	96 L.F.	96 L.F.	SDR 35	NORTH AMERICAN
8" SEWER	383 L.F.	383 L.F.	SDR 35	NORTH AMERICAN
MANHOLES	2 EACH	2 EACH	-	EJ

BENCH MARKS—(NAD'83)

HO. CO. #508A EL. N/A
STANDARD DISC ON CONC. MONUMENT
N 527561.6702 E 1359772.5936

HO. CO. #5085 EL. 178.242
STANDARD DISC ON CONC. MONUMENT
N 524999.3640 E 1357925.6751



SHC TABLE

LOT NO.	INVERT AT MAIN OR MH	INVERT AT ESMT.	MCE	INVERT AT HOUSE	REMARKS
1	277.58	277.7	C.N.S.	278.6	
2	277.13	277.6	C.N.S.	277.8	
3	276.73	277.2	C.N.S.	277.4	
4	276.28	276.7	C.N.S.	277.0	
5	276.18	276.7	C.N.S.	277.0	

WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE

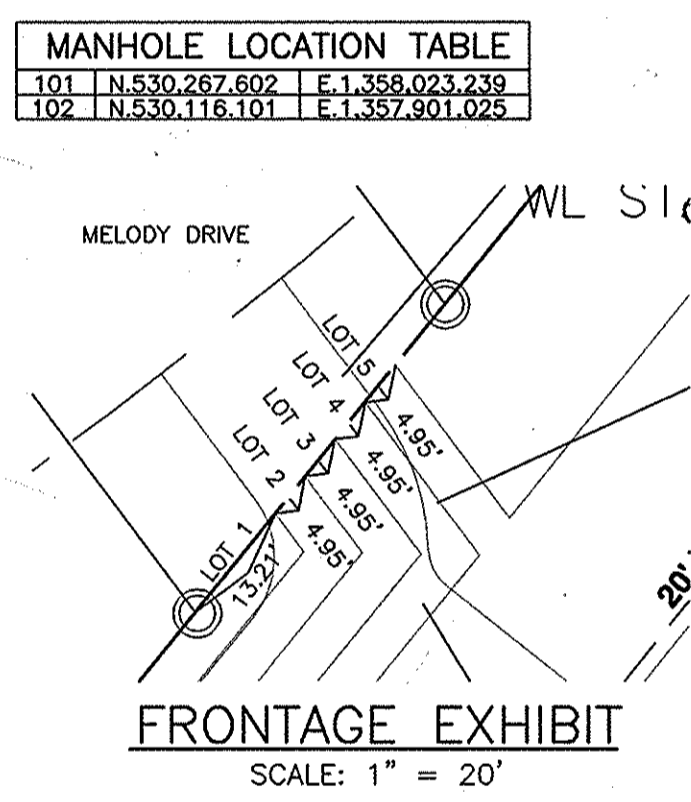
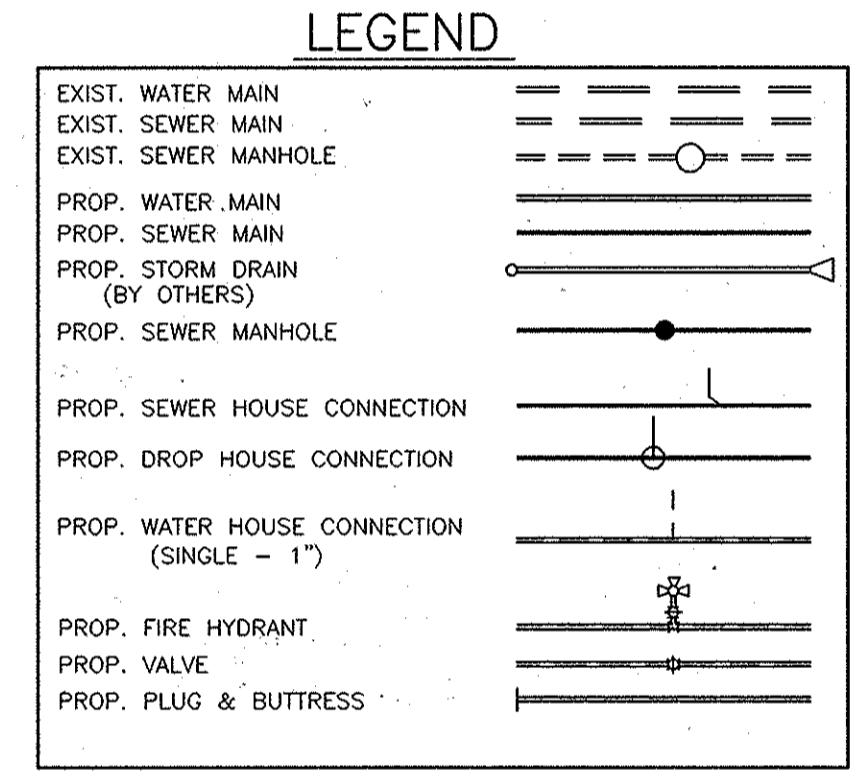
LOT NO.	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
LOT 1	MELODY DRIVE	MH 102 TO WHC 8.3	SHC #1 TO WHC #1 12.6
LOT 2	MELODY DRIVE	MH 102 TO WHC 27.4	SHC #2 TO WHC #2 10.0
LOT 3	MELODY DRIVE	MH 102 TO WHC 88.0	SHC #3 TO WHC #3 10.0
LOT 4	MELODY DRIVE	MH 101 TO WHC 54.6	SHC #4 TO WHC #4 10.0
LOT 5	MELODY DRIVE	MH 101 TO WHC 27.2	SHC #5 TO WHC #5 22.0

SEWER HOUSE CONNECTION AS-BUILT LOCATION TABLE

LOT NO.	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
LOT 1	MELODY DRIVE	MH 102 TO SHC 24.3	WHC #1 TO SHC #1 12.6
LOT 2	MELODY DRIVE	MH 102 TO SHC 46.2	WHC #2 TO SHC #2 10.0
LOT 3	MELODY DRIVE	MH 102 TO SHC 93.0	WHC #3 TO SHC #3 10.0
LOT 4	MELODY DRIVE	MH 101 TO SHC 40.4	WHC #4 TO SHC #4 10.0
LOT 5	MELODY DRIVE	MH 101 TO SHC 20.2	WHC #5 TO SHC #5 22.0

SANITARY SEWER MANHOLE DATA

NO.	TYPE	LOCATION	SHC INV. IN	INV. IN	INV. OUT	RIM ELEV.	REMARKS
EX. MH10	4" CONC. MANHOLE	MELODY DRIVE @ STA. 12+25.0 7.0' LEFT	-	274.79	EX. 274.69	EXISTING GROUND 283.45E	EXISTING MANHOLE BUILT UNDER CONTRACT 24-3959-D
101	STD. 4.0" PRECAST	N 530,267.60 E 1,358,023.24	276.18	275.84	275.74	279.68E	HO. CO. STD. G-5.11
102	STD. 4.0" PRECAST	N 530,116.10 E 1,357,901.03	277.58	-	277.24	283.98E	HO. CO. STD. G-5.11



ADC MAP 5169 GRID F1 VICINITY MAP
SCALE: 1" = 600'

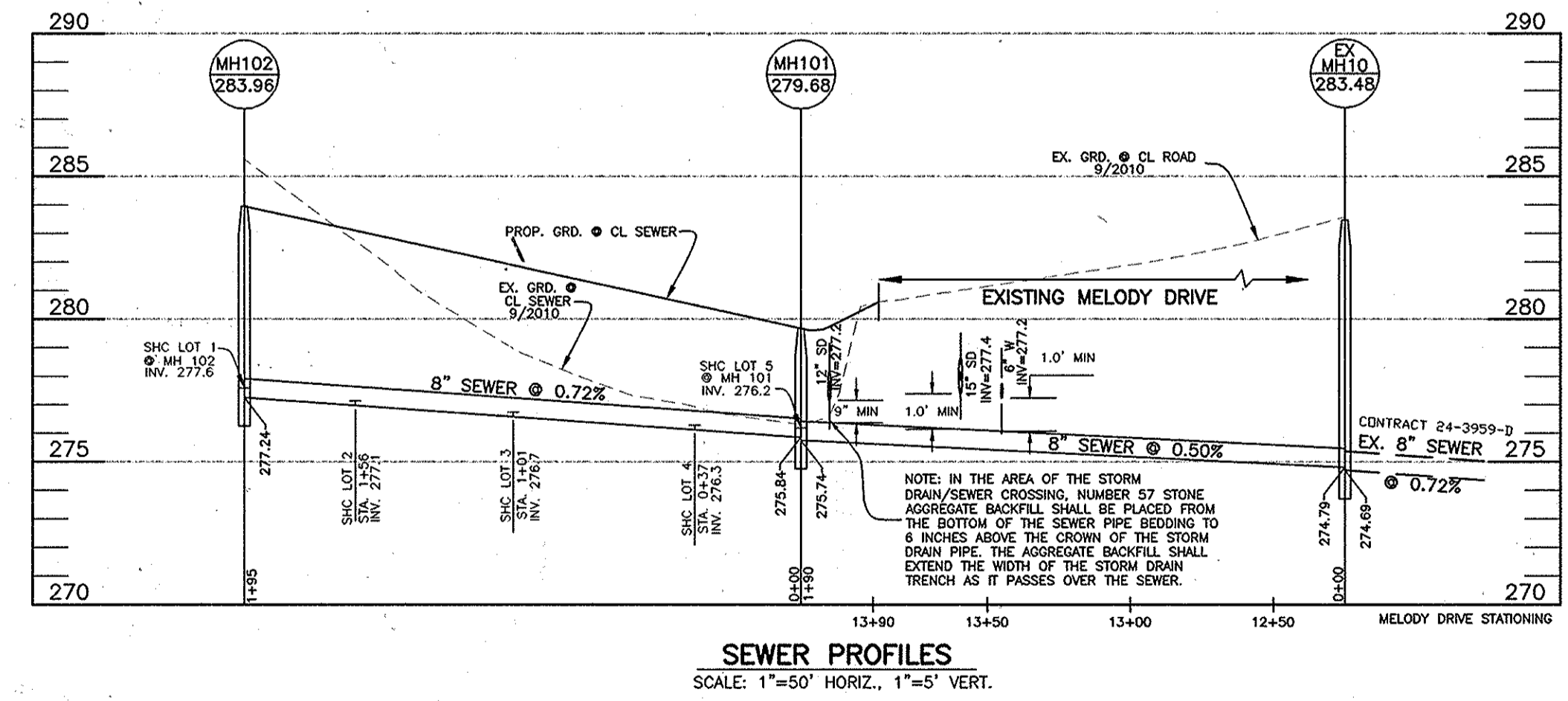
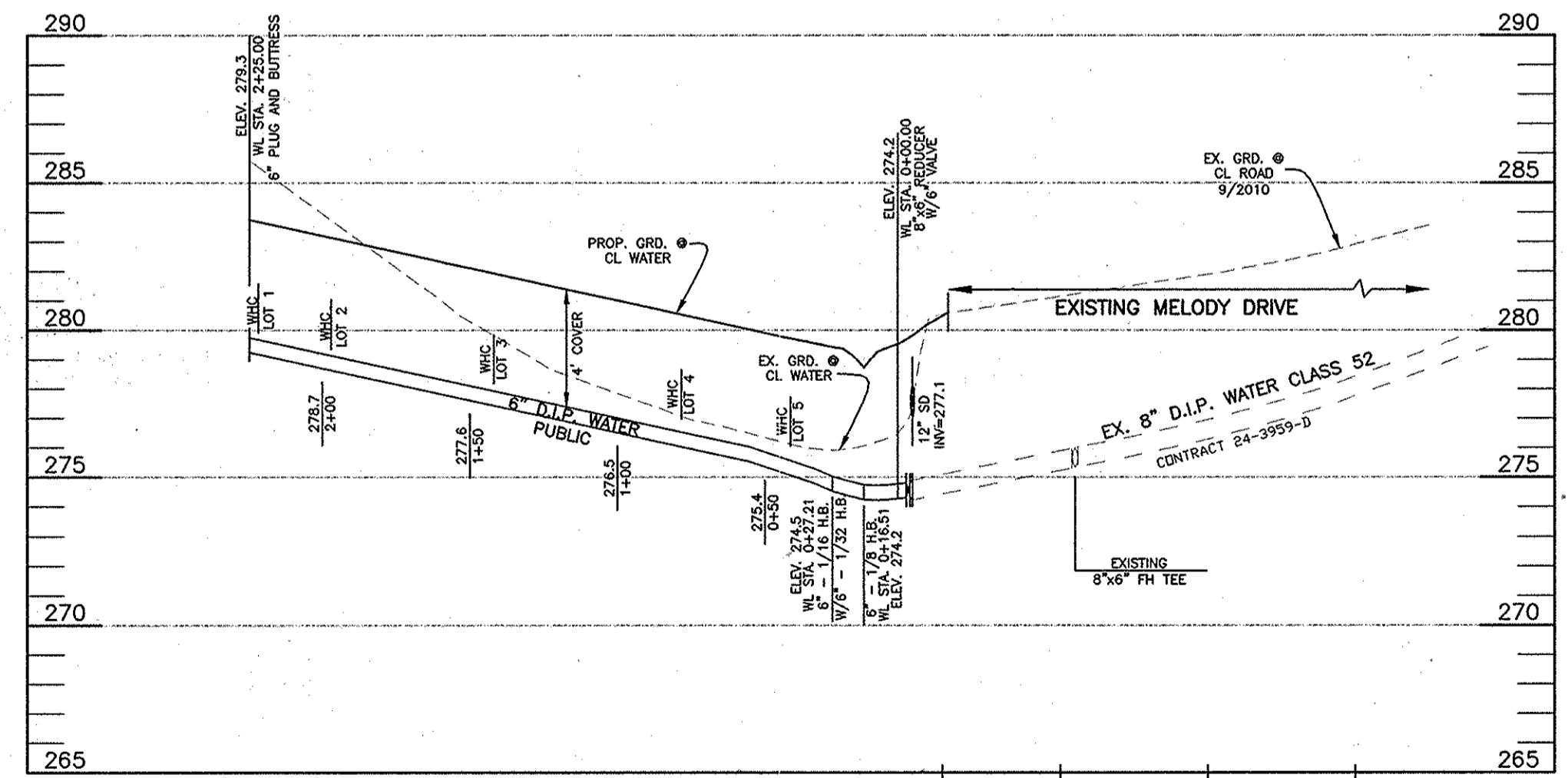
TYPE OF BUILDING: SINGLE FAMILY DETACHED
NUMBER OF LOTS: 5 BUILDABLE
NUMBER OF SHCS: 5
NUMBER OF WHCS: 5
DRAINAGE AREA: PATUXENT
TREATMENT PLANT: LITTLE PATUXENT

- GENERAL NOTES**
- PART 1 - GENERAL**
- 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.
 - TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED IN SEPTEMBER, 2010 BY BENCHMARK ENGINEERING INC.
 - THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD83/91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 508A AND NO.5085.
 - ALL VERTICAL CONTROLS ARE BASED ON NAVD'83. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE PROJECTED FROM HOWARD COUNTY MONUMENT 5085.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON PLAN.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 12". 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 BRACING OF 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 DETAIL 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 MADE SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
 - CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 AT&T.....1-800-252-1133
 BOE CONSTRUCTION SERVICES.....410-637-8713
 BOE (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
 - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO 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 LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
 - CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-7450 AT LEAST FIVE (5) WORKING DAYS BEFORE 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.

PLAN VIEW
SCALE: 1" = 50'

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
PLAT NO. F-12-019
John R. Robertson 9/27/12
HOWARD SOIL CONSERVATION DISTRICT

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS, F-12-19



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Shawn C. Carr 9/10/12
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
William J. Carr 10/4/12
CHIEF, DEVELOPMENT ENGINEERING DIVISION

BENCHMARK ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE SUITE 418 A ELICOTT CITY, MARYLAND 21043
(P) 410-465-8100 (F) 410-465-6644
60 THOMAS JOHNSON DRIVE A FREDERICK, MARYLAND 21702
(P) 301-371-3950 (F) 301-371-3058
WWW.BE-CVLENGINEERING.COM

Professional Certification. 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. 28376, Expiration Date: 11/20/13.

DESIGN: AAM
DRAFT: AAM
CHK: CAM
DATE: AUG 2012
BY NO. KCI 1 AS BUILT

DEVELOPER/OWNER:
SECURITY DEVELOPMENT, LLC
P.O. BOX 417
ELICOTT CITY, MARYLAND 21041
410-465-4244

NOTE: CONTRACTORS TO EXERCISE EXTREME CAUTION WHEN WORKING IN AREA OF EXISTING OVERHEAD LINES.

NOTE: ALL JOINTS AND CONNECTIONS LOCATED WITHIN STRUCTURAL FILL AREAS SHALL BE MECHANICALLY RESTRAINED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION)

FINAL PUBLIC WATER AND SEWER

KINGS ARMS SECTION 5
LOTS 1-5 AND OPEN SPACE LOT 6
TAX MAP 47 - GRID 22
PARCEL 816 - ZONE: R-SC
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN
SHEET NO. 1 OF 1
CONTRACT NO. 14-4723-D