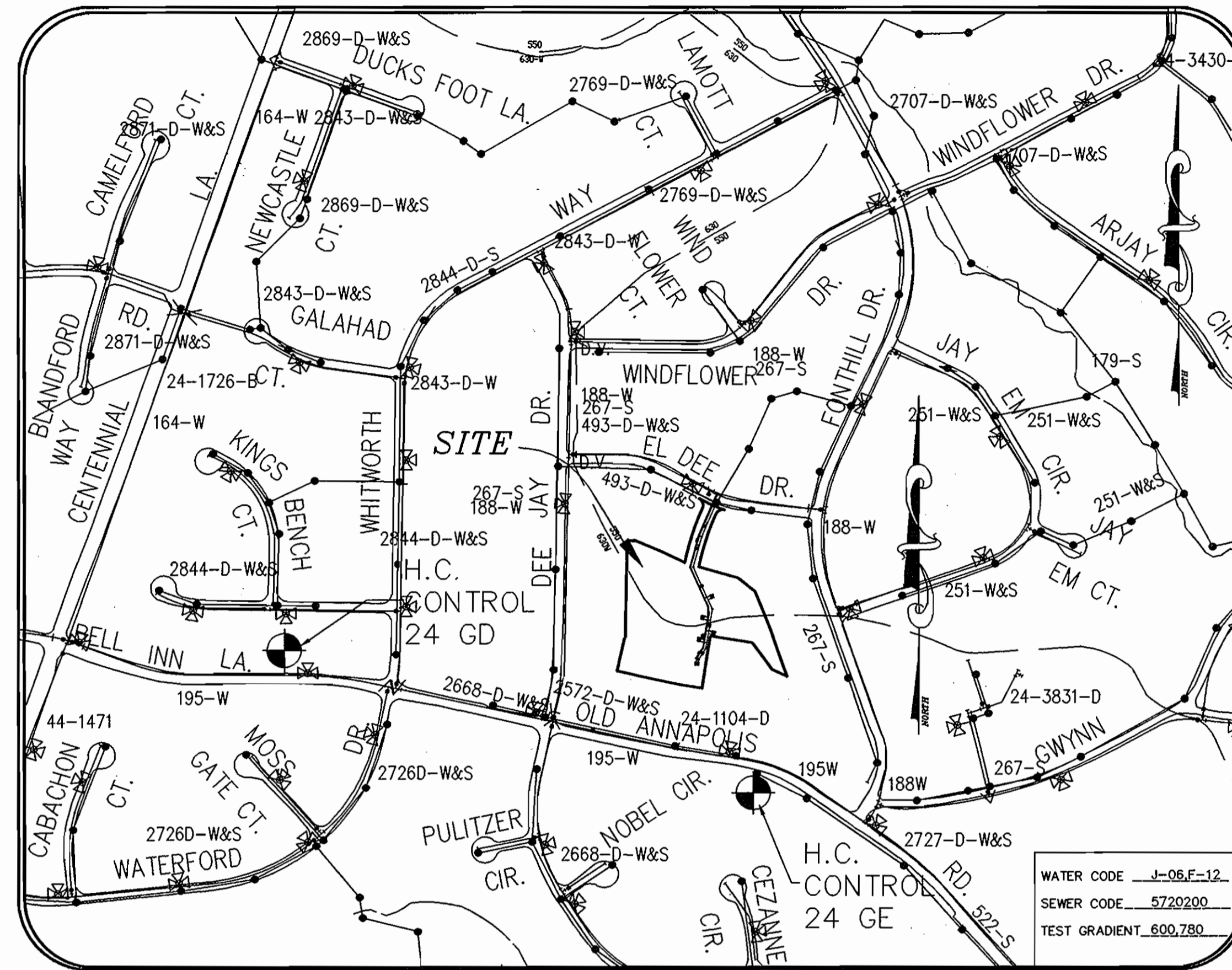


QUANTITY TABLE

ITEMS	QUANTITIES ESTIMATED	QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
STANDARD MH (HO. CO. STD.G-5.01)	5	5	W/B	NEENAH FOUNDRY
8" SEWER MAIN	572 L.F.	572 L.F.	SDR-35	JM MKG.
4" SEWER HOUSE CONNECTION	70 L.F.	40 L.F.	"	"
# SEWER HOUSE CONNECTIONS	5 EACH	3EA	3034	CPK
8" WATER MAIN	405 L.F.	405 L.F.	CL52	U.S. PIPE
6" X 8" INCREASER	1 EACH	1EA	MS	"
1" WATER HOUSE CONNECTION	82 L.F.	50 L.F.	100K	CAMBRIDGE LEE
# 1" WHC	5 EACH	3EA	H-15000	MUELLER CO.
1/32 H.B. (8")	1 EACH	1EA	MS	US PIPE
1/16 H.B. (8")	1 EACH	1EA	"	"
8"x6" F.H.T. & V.	1 EACH	1EA	"	MUELLER CO.
F.H.	1 EACH	1EA	"	"
4" CAP & BUTTRESS	1 EACH	1EA	"	US PIPE
1/16 H.B. (4")	1 EACH	1EA	"	"
8" X 4" REDUCER	1 EACH	1EA	"	"
4" WATER MAIN	181 L.F.	180 L.F.	CL52/MS	"
1/32 H.B. (4")	2 EACH	2EA	MS	"
NAME OF UTILITY CONTRACTOR: W.F. WILSON				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE				

PLAN REFERENCE NUMBERS:
F-04-120
F-05-006

EROSION AND SEDIMENT CONTROL FOR THIS CONTRACT IS PROVIDED UNDER GP-05-11



VICINITY MAP
SCALE 1"=600'

TYPE OF BUILDING	SFD
NO. OF UNITS	5
NO. OF WATER HOUSE CONNECTION	5
NO. OF SEWER HOUSE CONNECTIONS	3
DRAINAGE AREA	PATAPSCO
TREATMENT PLANT	PATAPSCO WWTP

GENERAL NOTES

- 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.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES NAD83/91 AS PROJECTED BY HOWARD COUNTY HORIZONTAL AND VERTICAL GEODETIC CONTROL NOS. 24G & 38G. THESE WATER AND SEWER DRAWINGS ARE BASED ON A FIELD RUN TOPOGRAPHIC STUDY PERFORMED BY MILDENBERG, BOENDER AND ASSOCIATES, INC. ON OR ABOUT FEBRUARY 2002.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. 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 MONEY 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 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 DUG 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 WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
STATE HIGHWAY ADMINISTRATION (410) 531-5533
BG & E CO. CONTRACTOR SERVICES (410) 850-4620
BG & E CO. UNDERGROUND DAMAGE CONTROL (410) 787-9068
MISS UTILITY (1-800-257-7777)
COLONIAL PIPELINE CO. (410) 795-1390
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS (410) 313-4900
BUREAU OF UTILITIES (800) 356-2355
VERIZON
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED OUTSIDE 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.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)313-2450 AT LEAST FIVE (5) WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(c) OF HOWARD COUNTY CODE.
- ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2" 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 THE 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 STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 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 PLANS OR IN SPECIFICATIONS.
- ALL SEWER MAINS SHALL BE P.V.C. OR D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- STATIONING SHOWN IS WATER MAIN AND CENTER LINE STATIONING.
- SEDIMENT CONTROL TO BE PROVIDED BY GP-05-11.
- ALL SEWER HOUSE CONNECTIONS TO BE 4" IN SIZE.
- ALL WATER HOUSE CONNECTIONS TO BE 1" IN SIZE UNLESS OTHERWISE NOTED.
- ALL HOUSES WILL HAVE SERVICE TO LOWEST FLOOR UNLESS OTHERWISE NOTED.
- COMPACTION IN FILL AREAS TO BE 95% AS DETERMINED PER AASHTO T-180.

**CONTRACT NO.: 24-4063-D
HEATHER GLEN, LOTS 1, 2, 5, 6 & 7
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS**

INDEX OF DRAWINGS

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

DEVELOPER

HEATHER GLEN, LLC
5570 STERRET PLACE
COLUMBIA, MD 21044
(410) 997-3815

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.

Bob Corbett 11-2-04
DEVELOPER'S SIGNATURE DATE
BOB CORBETT, WILLIAMSBURG GROUP LLC
DEVELOPER'S NAME

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.

John B. Miltenberg 11/1/04
ENGINEER'S SIGNATURE DATE
JOHN B. MILTENBERG
ENGINEER'S NAME

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

Jim Meyer 11/16/04
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John R. Robertson 11/16/04
HOWARD SCD DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Ruth B... 11-18-04
CHIEF, BUREAU OF UTILITIES DATE DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

William D... 11/20/04
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Ball. (301) 621-5521 Wash. (410) 997-0298 Fax.



engineering HSP					
illustration HSP					
approval JBM	MB	3	REVISED QUANTITY TABLE + TITLE	7/18/04	
project 03-052	KCI	2	AS-BUILT DATA ADDED	10/1/04	
date OCT 2004	KCI	1	AS-BUILT DATA ADDED	5/10/05	
	BY	NO.	REVISION	DATE	

TITLE SHEET

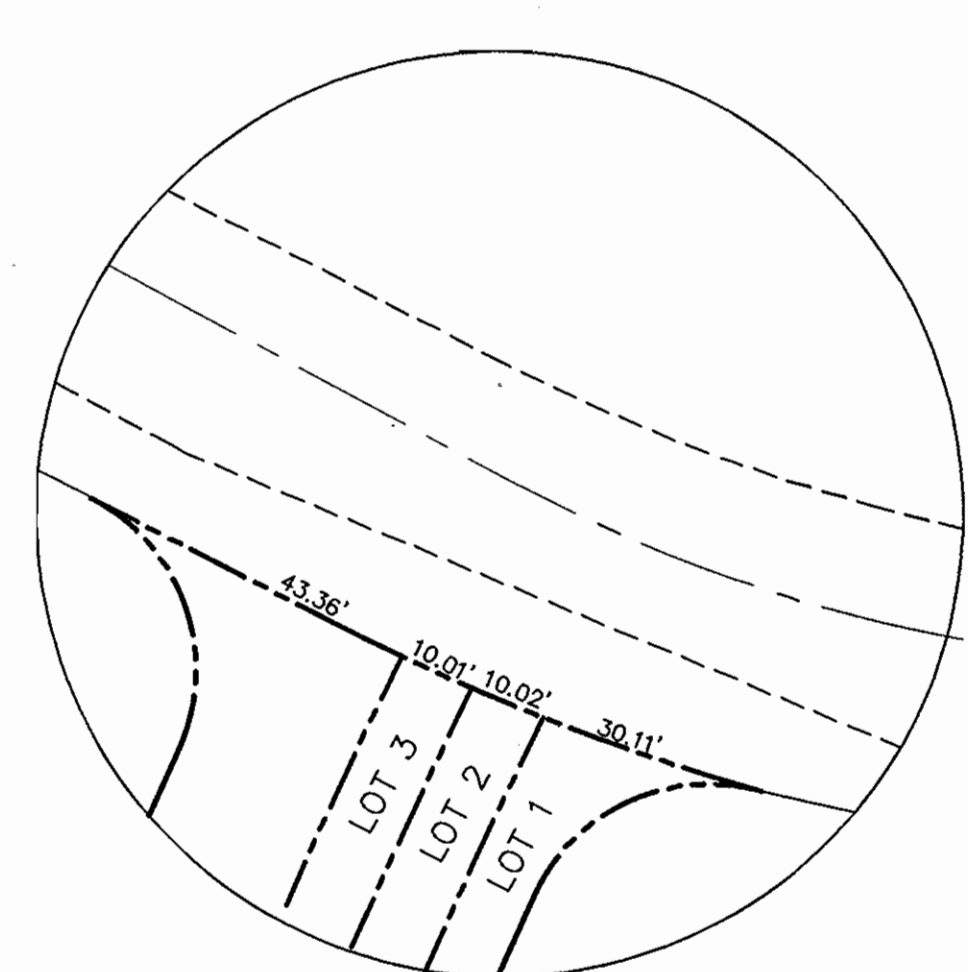
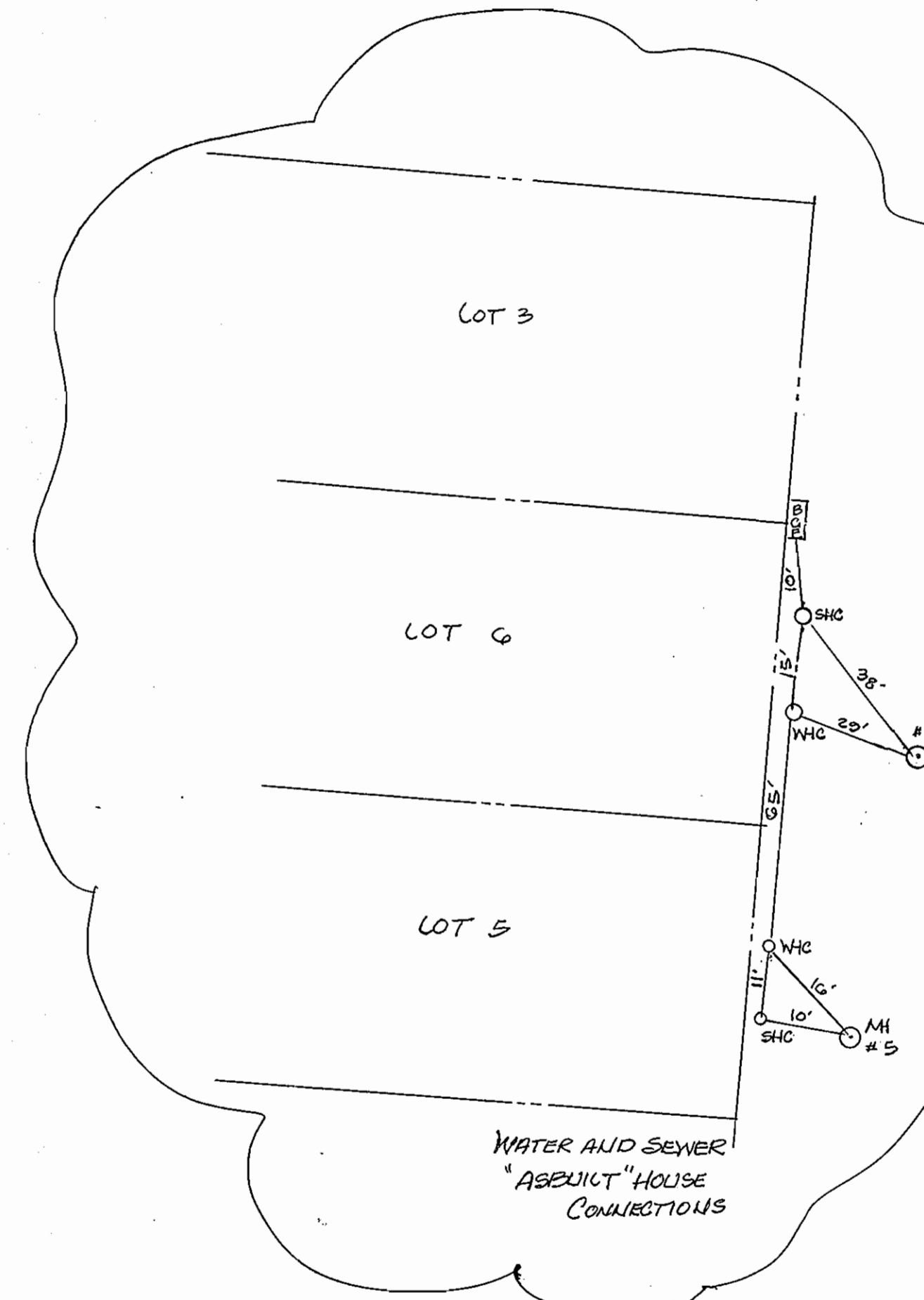
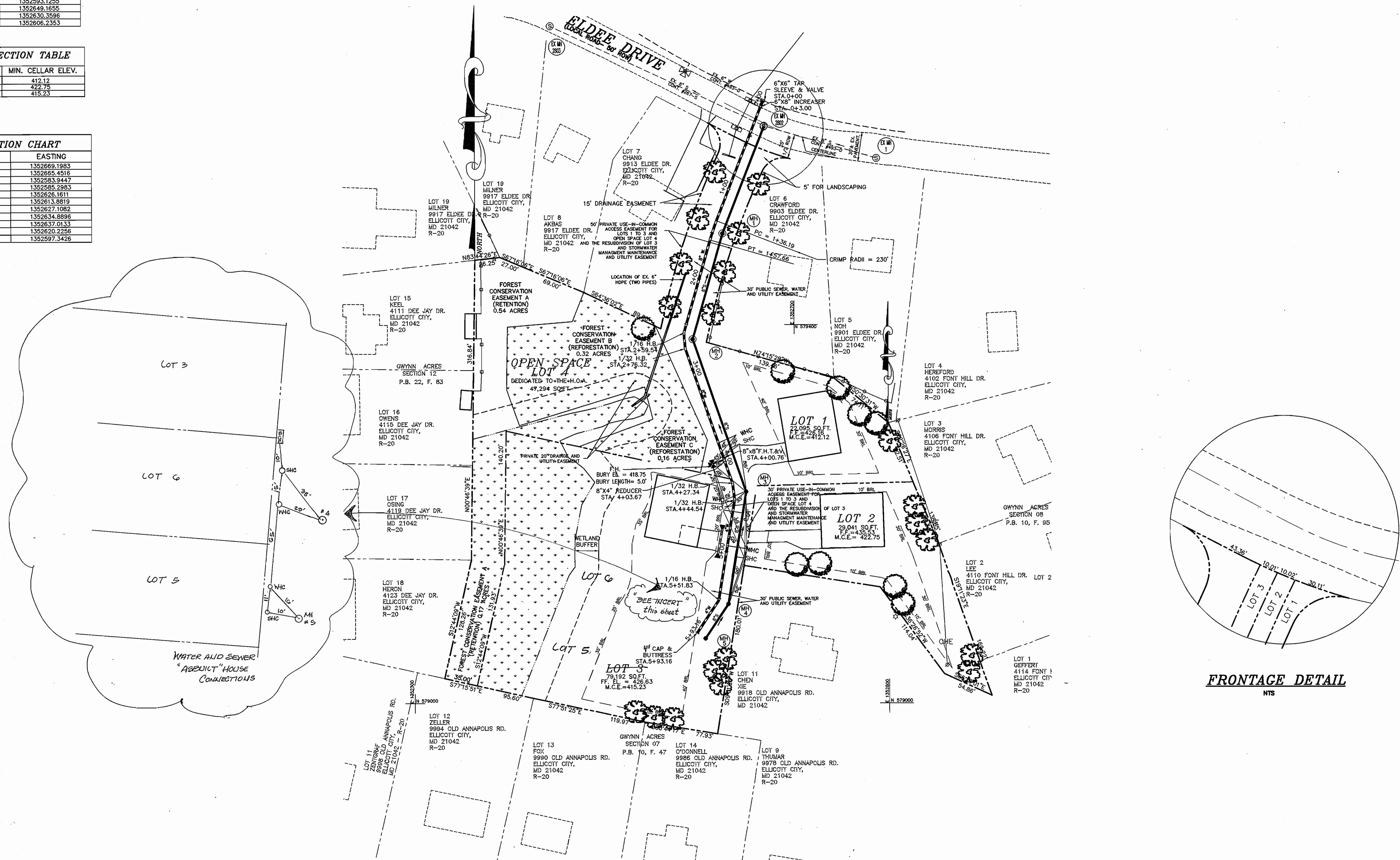
600' SCALE MAP NO. 24 BLOCK NO. 20

HEATHER GLEN
LOTS 1, 2, 5, 6 & 7
CONTRACT NO.: 24-4063-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SEWER MANHOLE LOCATION CHART		
MANHOLE NO.	NORTHING	EASTING
MH 01	579496.2152	1352624.7686
MH 02	579384.4989	1352593.1255
MH 03	579223.2955	1352649.1655
MH 04	579104.8767	1352630.3596
MH 05	579068.4947	1352608.2353

SEWER HOUSE CONNECTION TABLE			
UNIT #	% SLOPE	INV. @ EASE.	MIN. CELLAR ELEV.
1	2	407.39	412.12
2	5	412.23	422.75
3	2	410.97	415.23

WATER MAIN TABULATION CHART		
APPURTENANCE	NORTHING	EASTING
6" X6" TS&V	579635.9288	1352669.1983
6" X8" INCREASER	579630.5262	1352655.4516
1/16 H.B.	579391.2384	1352583.9447
1/32 H.B.	579374.5197	1352585.2983
F.H.T.&V.	579256.9748	1352626.1611
FH	579252.7061	1352613.9819
8" X4" REDUCER	579253.9983	1352627.1082
1/32 H.B.	579231.8665	1352634.8896
1/32 H.B.	579214.8038	1352637.0133
1/16 H.B.	579109.0933	1352620.2256
8" CAP & BUTTRESS	579074.3913	1352597.3426



[Handwritten Signature]
11/10/04

FRONTAGE DETAIL
NTS

DEVELOPER
HEATHER GLEN, LLC.
5570 STERRET PLACE
COLUMBIA, MD 21044
(410) 997-3815

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND 11-18-04 CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND 11/22/04 CHIEF, DEVELOPMENT ENGINEERING DIVISION	MILDENBERG, BOENDER & ASSOC., INC. Engineers Planners Surveyors 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042 (410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0280 Pa.	engineering HSP illustration HSP approval JBM project 03-052 date OCT 2004	2 1 NO.	AS-BUILT DATA ADDED AS-BUILT DATA ADDED REVISION	10/1/04 5/10/04 DATE	WATER & SEWER PLAN 600' SCALE MAP NO. 24 BLOCK NO. 20	HEATHER GLEN LOTS 1, 2, & 3 CONTRACT NO.: 24-4063-D SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND	scale AS SHOWN 2 OF 3
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