

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.
- THE TOPOGRAPHY SHOWN HEREON IS BASED ON A TOPOGRAPHIC SURVEY PREPARED BY POTOMAC AERIAL SURVEYS, DATED FEBRUARY 26, 2014. OFFSITE TOPOGRAPHY FROM HOWARD COUNTY GIS.
- THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED APRIL 30, 2014.
- HORIZONTAL AND VERTICAL SURVEY CONTROLS:
THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM NAD '83/'91 AS PROJECTED BY HOWARD COUNTY. HOWARD COUNTY MONUMENT NOS. 41GE AND 46AA WERE USED FOR THIS PROJECT.
ALL VERTICAL CONTROLS ARE BASED ON (NAD'83)
VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE:
HOWARD COUNTY BENCHMARK 41GE,
N 541,559.78 E 1,333,698.38 ELEV.: 465.05 FT.
3/4" REBAR - RT. 216 NEAR FULTON ELEMENTARY
HOWARD COUNTY BENCHMARK 46AA,
N 540,396.42 E 1,335,505.31 ELEV.: 447.01 FT.
CONCRETE MONUMENT - RT. 216 BETWEEN FULTON AND SCAGSVILLE
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 THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF 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 DRAWING 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.
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:
ATA&T 1-800-252-1133
BGE (CONSTRUCTION SERVICES) 410-637-8713
BGE (EMERGENCY) 410-685-0123
BUREAU OF UTILITIES 410-313-4900
COLONIAL PIPELINE COMPANY 410-795-1390
MISS UTILITY 1-800-257-7777
STATE HIGHWAY ADMINISTRATION 410-531-5533
VERIZON 1-800-743-0033
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.
THE 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 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(g) OF THE HOWARD COUNTY CODE.

PART II - WATER

- ALL WATER MAINS SHALL BE D.I.P. CLASS 54 UNLESS OTHERWISE NOTED.
- 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 DIP AND PVC WATER MAINS IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL.
- SPRINKLER SYSTEM FOR SINGLE RESIDENTIAL DWELLING UNITS SHALL HAVE WATER HOUSE CONNECTIONS AND WATER METERS THAT ARE SIZED IN ACCORDANCE WITH THE DESIGN OF THE SPRINKLER SYSTEMS. SPRINKLER SYSTEMS FOR SINGLE RESIDENTIAL DWELLINGS SHALL HAVE A MINIMUM OF 1.5" SERVICE CONNECTION WITH A 1" OUTSIDE METER SETTING.

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 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER, STANDARD DETAIL C5.52. WHERE WATERTIGHT 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 THE CELLAR CANNOT BE SERVED.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND WITH SITE DEVELOPMENT PLAN F-16-021

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

John R. Roberts #6/11/17
SOIL CONSERVATION DISTRICT DATE

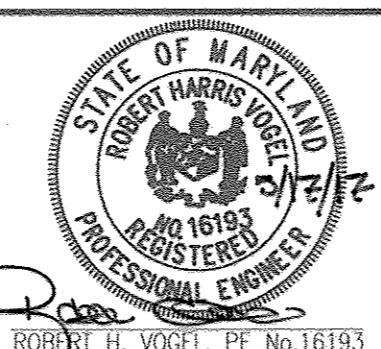
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Steve Chen 5/20/17
CHIEF, BUREAU OF UTILITIES DATE

Chad Chubb 6-8-17
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410.461.7666
ELLICOTT CITY, MD 21143 FAX: 410.461.8961



PROFESSIONAL CERTIFICATE
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. 16193, EXPIRATION DATE: 09-27-2018

DRN: KG DES: GAH
CHK: RHV
DATE: MAY 2017

AS BUILT
DATE: 12/18/17

**FINAL WATER & SEWER PLAN
CONT. 24-5006-D
COVER SHEET**

OWNER
MAPLE LAWN FARMS, INC.
11788 SCAGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
2661 RVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

**MAPLE LAWN SOUTH
PHASE 1 - SECTION 3**
LOTS 6-28 AND LOTS 33-54

SCALE AS SHOWN

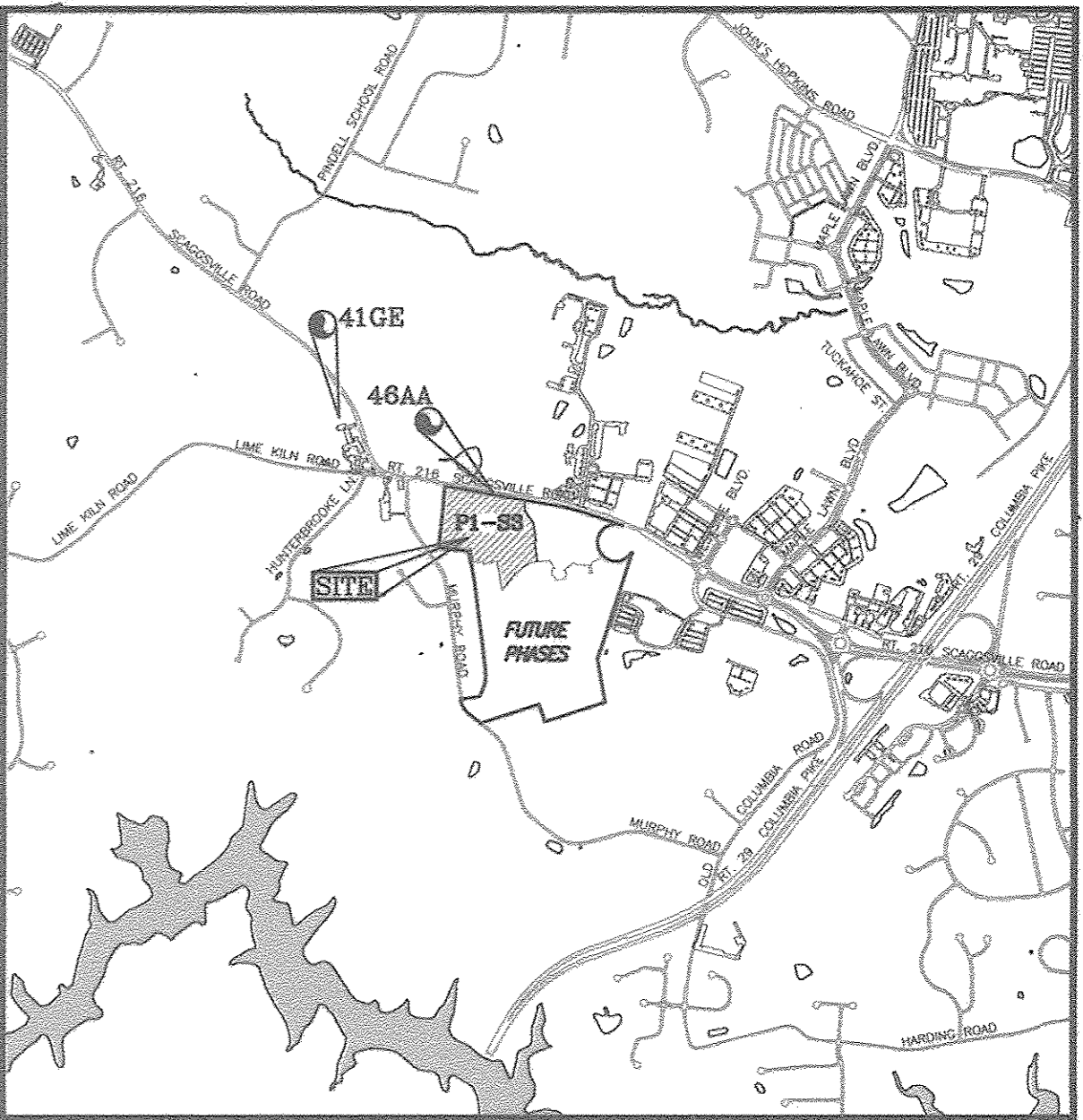
SHEET 1 OF 5

FINAL WATER AND SEWER PLAN MAPLE LAWN SOUTH PHASE 1 - SECTION 3 (SFD RESIDENTIAL) LOTS 6-28 AND LOTS 33-54 HOWARD COUNTY, MARYLAND CONTRACT 24-5006-D

BENCHMARKS

HOWARD COUNTY BENCHMARK 46AA
N 540,396.42 E 1,335,505.31 ELEV.: 447.01 FT.
RT. 216, 33.2' WEST OF BG & E POLE#315163

HOWARD COUNTY BENCHMARK 41GE
N 541,559.78 E 1,333,698.38 ELEV.: 465.05 FT.
RT. 216, 82.4' WEST OF BG & E#557787



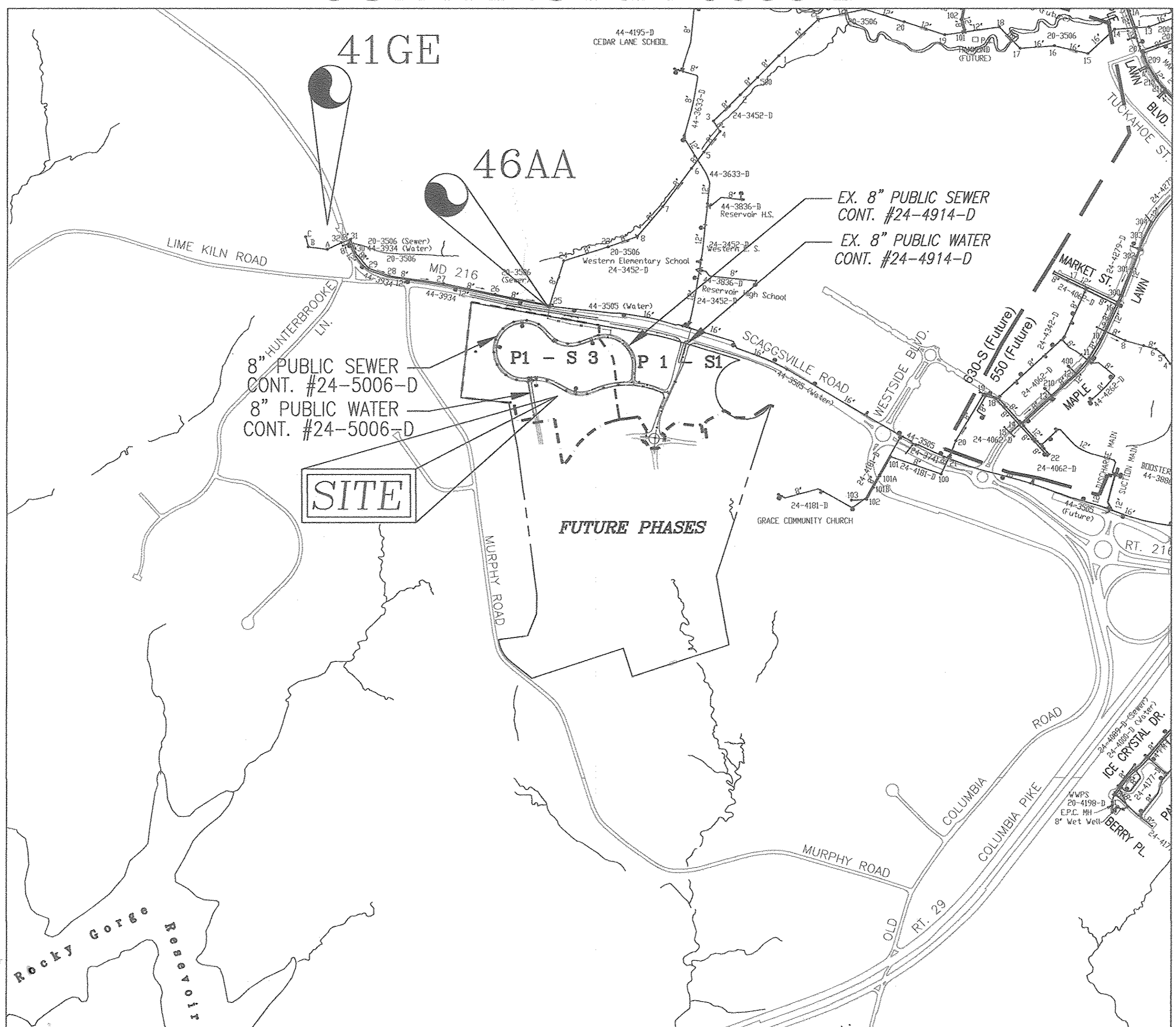
VICINITY MAP

SCALE: 1"=2000'
ADC MAP COORDINATES: 18 H 5, 6 J 5, 6

LEGEND:

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MANHOLE
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED WATER MAIN
- FIRE HYDRANT
- PROPOSED VALVE
- PROPOSED TEE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER MAIN
- PROPOSED REDUCER
- CONTINUITY TEST STATION

| SHEET INDEX | |
|------------------------------|-----------|
| DESCRIPTION | SHEET NO. |
| COVER SHEET AND LOCATION MAP | 1 OF 5 |
| LAYOUT PLAN | 2 OF 5 |
| WATER PROFILES | 3 OF 5 |
| WATER AND SEWER PROFILES | 4 OF 5 |
| SEWER PROFILES | 5 OF 5 |



LOCATION MAP
SCALE: 1"=600'

WATER ZONE: 630S
TEST GRADIENT: 780

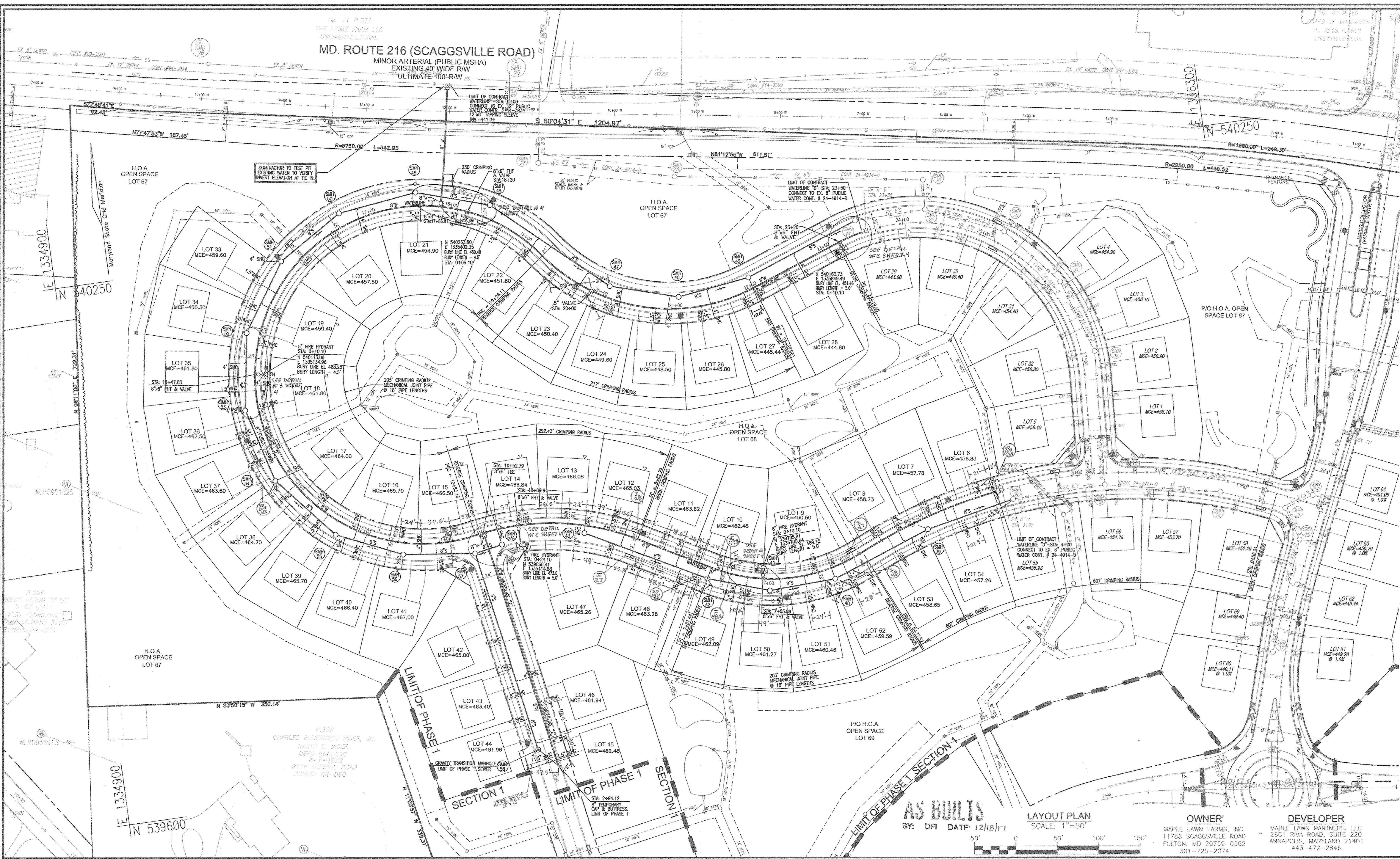
| | |
|--|------------------------|
| TYPE OF BUILDING: | SINGLE FAMILY DETACHED |
| NO. OF LOTS/PARCELS: | 45 |
| NO. OF SINGLE WATER HOUSE CONNECTIONS: | 45 |
| NO. OF TWIN WATER HOUSE CONNECTIONS: | - |
| NO. OF SEWER HOUSE CONNECTIONS: | 45 |
| NO. OF TWIN SEWER HOUSE CONNECTIONS: | - |
| DRAINAGE AREA: | HAMMOND BRANCH |
| TREATMENT PLANT: | LITTLE PATUXENT WWTP |

| QUANTITIES | | | | |
|--|----------------------|------------|------------------|--|
| NAME OF UTILITY CONTRACTOR: | | | | |
| SURVEY AND DRAFTING DIVISION AS-BUILT DATE: 12-18-17 | | | | |
| ITEMS | QUANTITIES ESTIMATED | AS-BUILT | | |
| | | QUANTITIES | TYPE | MANUFACTURER/SUPPLIER |
| WATER | | | | |
| 8" WATER (DIP CLASS 54) | 2,391 LF | 2,391 LF | DIP CL 54 | US PIPE TYTON JOINT PIPE / H.D. SUPPLY |
| 6" WATER (DIP CLASS 54) | 63 LF | 63 LF | DIP CL 54 | US PIPE TYTON JOINT PIPE / H.D. SUPPLY |
| 12"x8" TAPPING SLEEVE | 1 EA | 1 EA | STANLEY | FORB. METAL WORK / H.D. SUPPLY |
| 8" VALVE | 4 EA | 4 EA | M. JOINT | KENNEDY VALVE / H.D. SUPPLY |
| 6" VALVE | 5 EA | 5 EA | DIP C.153 | SIGMA PIPE MJ / H.D. SUPPLY |
| 8"x8" TEE | 2 EA | 2 EA | DIP C.153 | SIGMA PIPE MJ / H.D. SUPPLY |
| 8"x6" TEE | 5 EA | 5 EA | DIP C.153 | SIGMA PIPE MJ / H.D. SUPPLY |
| FIRE HYDRANT | 5 EA | 5 EA | KENNEDY GUARDIAN | KENNEDY VALVE / H.D. SUPPLY |
| 1 1/2" WHC | 1,020 LF | 1,020 LF | TYPE K COPPER | CAMBRIDGE LEE / H.D. SUPPLY |
| 8"-CAP AND BUTTRESS | 1 EA | 1 EA | DIP C.153 | SIGMA PIPE / H.D. SUPPLY |
| 1" METER | 45 EA | 45 EA | A.V. MASONRY | / H.D. SUPPLY |
| 1/8 VERTICAL BEND | 1 EA | 1 EA | DIP | SIGMA PIPE / H.D. SUPPLY |
| 1/32 VERTICAL BEND | 4 EA | 4 EA | DIP | SIGMA PIPE / H.D. SUPPLY |
| SEWER | | | | |
| 8" SEWER (PVC) | 2,147 LF | 2,147 LF | SDR-35 PVC | NORTH AMERICAN PIPE / H.D. SUPPLY |
| STANDARD MANHOLES | 16 EA | 16 EA | CONCRETE | CONTRACTORS PRECAST / C.P.A. |
| TYPE "B" DROP MANHOLE | 1 EA | 1 EA | CONCRETE | CONTRACTORS PRECAST / C.P.A. |
| TERMINAL MANHOLE | 2 EA | 2 EA | CONCRETE | CONTRACTORS PRECAST / C.P.A. |
| 4" SHC | 1,152 LF | 1,152 LF | SDR-35 PVC | NORTH AMERICAN PRECAST / H.D. SUPPLY |
| GRAVITY TRANSITION MANHOLE | 1 EA | 1 EA | CONCRETE | CONTRACTORS PRECAST |
| 4" CLEANOUT | 45 EA | 45 EA | PVC IN CONCRETE | HORNE CONST. LLC |

TAX MAP 46, GRID 2, PARCEL 113
5TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND
ZONED: R-ED-MXD-3

MD. ROUTE 216 (SCAGGSVILLE ROAD)
 MINOR ARTERIAL (PUBLIC MSHA)
 EXISTING 40' WIDE RW
 ULTIMATE 100' RW



AS BUILTS
 BY: DFI DATE: 12/18/17

LAYOUT PLAN
 SCALE: 1"=50'

OWNER
 MAPLE LAWN FARMS, INC.
 11788 SCAGGSVILLE ROAD
 FULTON, MD 20759-0562
 301-725-2074

DEVELOPER
 MAPLE LAWN PARTNERS, LLC
 2651 RIVA ROAD, SUITE 220
 ANNAPOLIS, MARYLAND 21401
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DEPARTMENT OF PUBLIC WORKS
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CHIEF, BUREAU OF UTILITIES

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 EXPIRATION DATE: 09-21-2018

DRN: KG DES: CAH
 CHK: RRV
 DATE: MAY 2017

| BY | NO. | REVISION | DATE |
|----|-----|----------|------|
| | | | |
| | | | |

FINAL WATER & SEWER PLAN
 CONT. 24-5006-D
 LAYOUT PLAN

600' SCALE MAP NO. 46
 BLOCK NO. 02

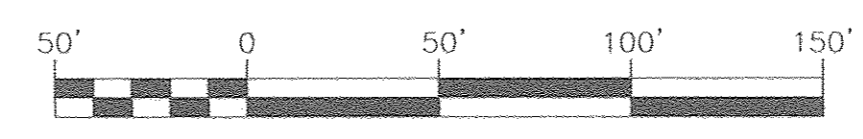
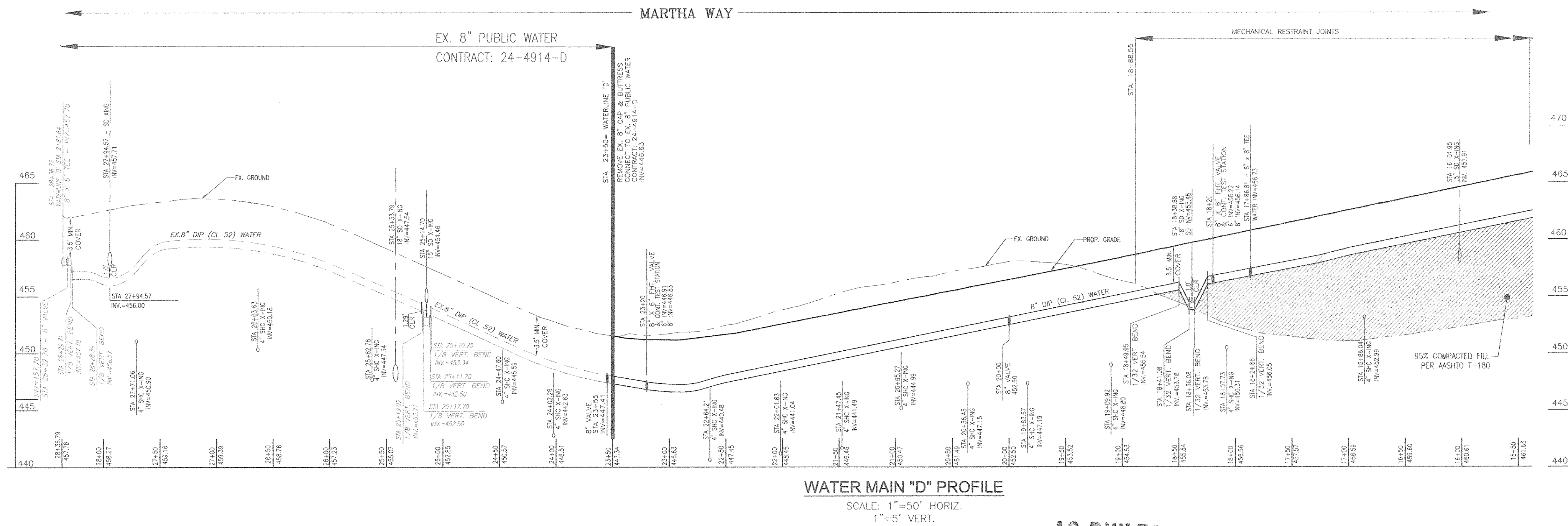
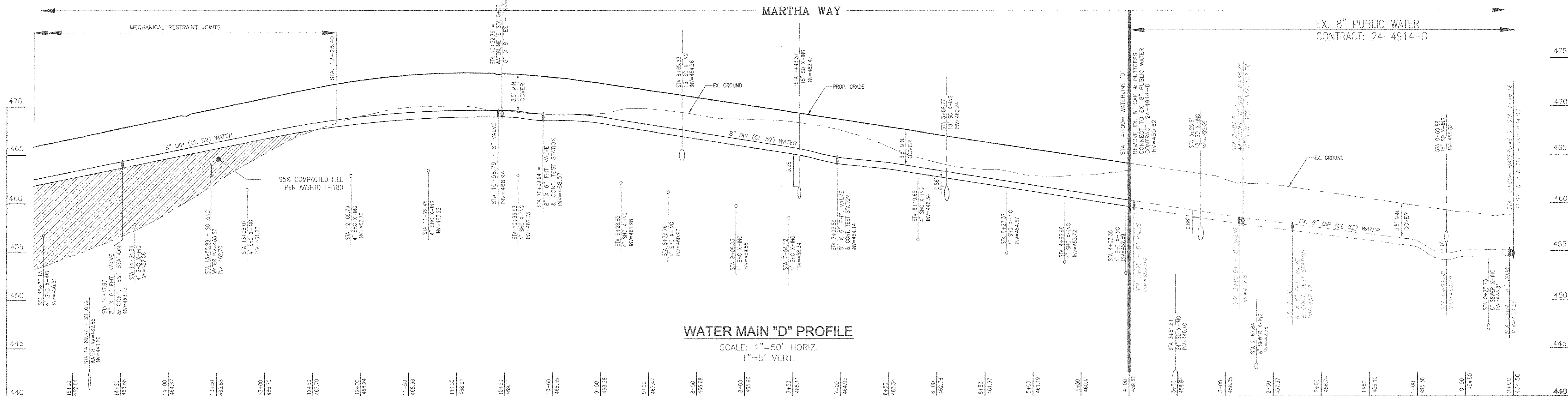
MAPLE LAWN SOUTH
 PHASE 1 - SECTION 3
 LOTS 6-28 AND LOTS 33-54

TAX MAP 46, GRID 2, PARCEL 113
 5TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND
 ZONED: R-ED-MXD-3

SCALE
 AS SHOWN

SHEET
 2 OF 5



AS BUILTS
 30. DFI DATE: 12/18/17

OWNER
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DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Steve Green
 CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND

Chad Chubb
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

6.8.17
 DATE

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| BY | NO. | REVISION | DATE |
|----|-----|----------|------|
| | | | |
| | | | |

FINAL WATER & SEWER PLAN
CONT. 24-5006-D
WATER PROFILES

MAPLE LAWN SOUTH PHASE 1 - SECTION 3
 LOTS 6-28 AND LOTS 33-54

SCALE AS SHOWN
 SHEET 3 OF 5

TAX MAP 46, GRID 2, PARCEL 113
 5TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND
 ZONED: R-ED-MXD-3

