

QUANTITY TABLE

Table with 4 columns: ITEMS, QUANTITIES ESTIMATED, QUANTITIES, TYPE, MANUFACTURER/SUPPLIER. Includes items like 8" WATER MAIN, FIRE HYDRANT, and 8" CAP & BUTTRESS.

NAME OF UTILITY CONTRACTOR: Utilities Unlimited
SURVEY AND DRAFTING DIVISION AS-BUILT DATE

EROSION AND SEDIMENT CONTROL SHALL BE PROVIDED UNDER F-13-074.

WELL AND SEPTIC ABANDONMENT TABLE

Table with 5 columns: ADDRESS, EXISTING WELL YES / NO, ABANDONED / REMOVED, EXISTING SEPTIC YES / NO, ABANDONED / REMOVED.

LEGEND

- EXISTING SEWER MAIN AND MANHOLE
EXISTING WATER MAIN AND VALVE
EXISTING FIRE HYDRANT
PROPOSED WATER MAIN
PROPOSED WATER HOUSE CONNECTION
PROPOSED FIRE HYDRANT
PROPOSED TEE
PROPOSED BEND
PROPOSED VALVE

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

Approved: [Signature] 9/16/13
Date: [Blank]
Howard S.C.D.

PLAN REFERENCE NUMBERS:
WP-06-132 WP-13-049
WP-08-039 WP-13-049
WP-13-050 F-07-214
F-07-215 EOP-13-037
F-13-074 F-13-075

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.: 40091, EXPIRATION DATE: 2/13/15

OWNER/DEVELOPER
DORSEY FAMILY HOMES, INC.
10717-B BIRMINGHAM WAY
WOODSTOCK, MARYLAND 21163
(410)465-7200

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

MILDBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors

6800 Deerpath Road, Suite 150, Ellicott City, Maryland 21075
(410) 997-0296 Cell (410) 997-0298 Fax

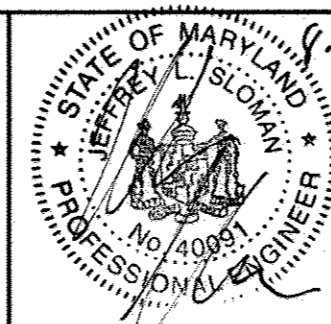


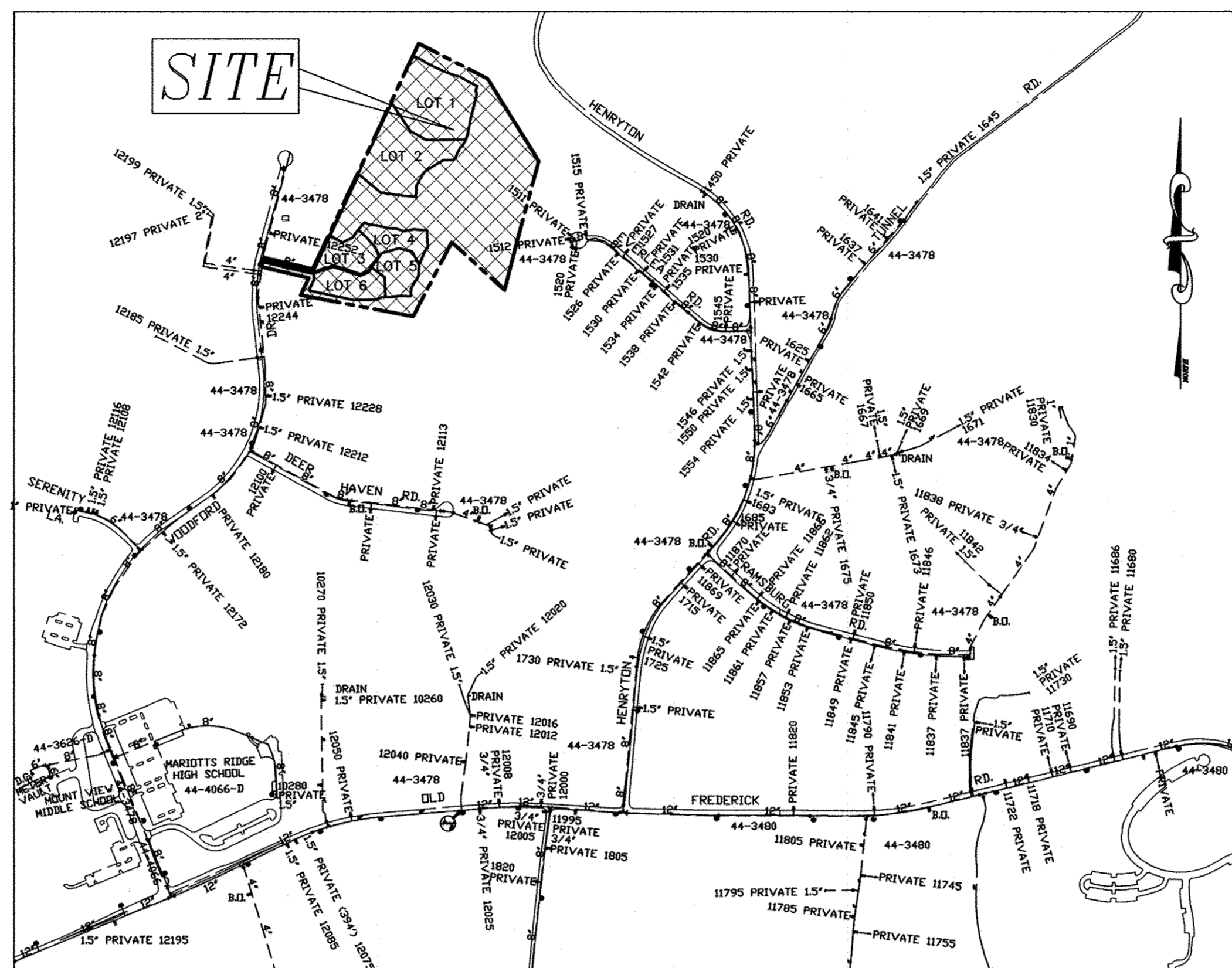
Table with columns: engineering, illustration, approval, project, date. Includes project name 'REMOVE FIRE HYDRANT #2' and date 'AUG 2013'.

COVER SHEET

600' SCALE MAP NO. 10 BLOCK NO. 13

MELCHIOR PROPERTY
LOTS 1 THRU 6, NON-BUILDABLE PRESERVATION PARCEL A
CONTRACT NO. 44-4791-D
THIRD ELECTION DISTRICT
HOWARD COUNTY

scale AS SHOWN
1 of 3



LOCATION MAP

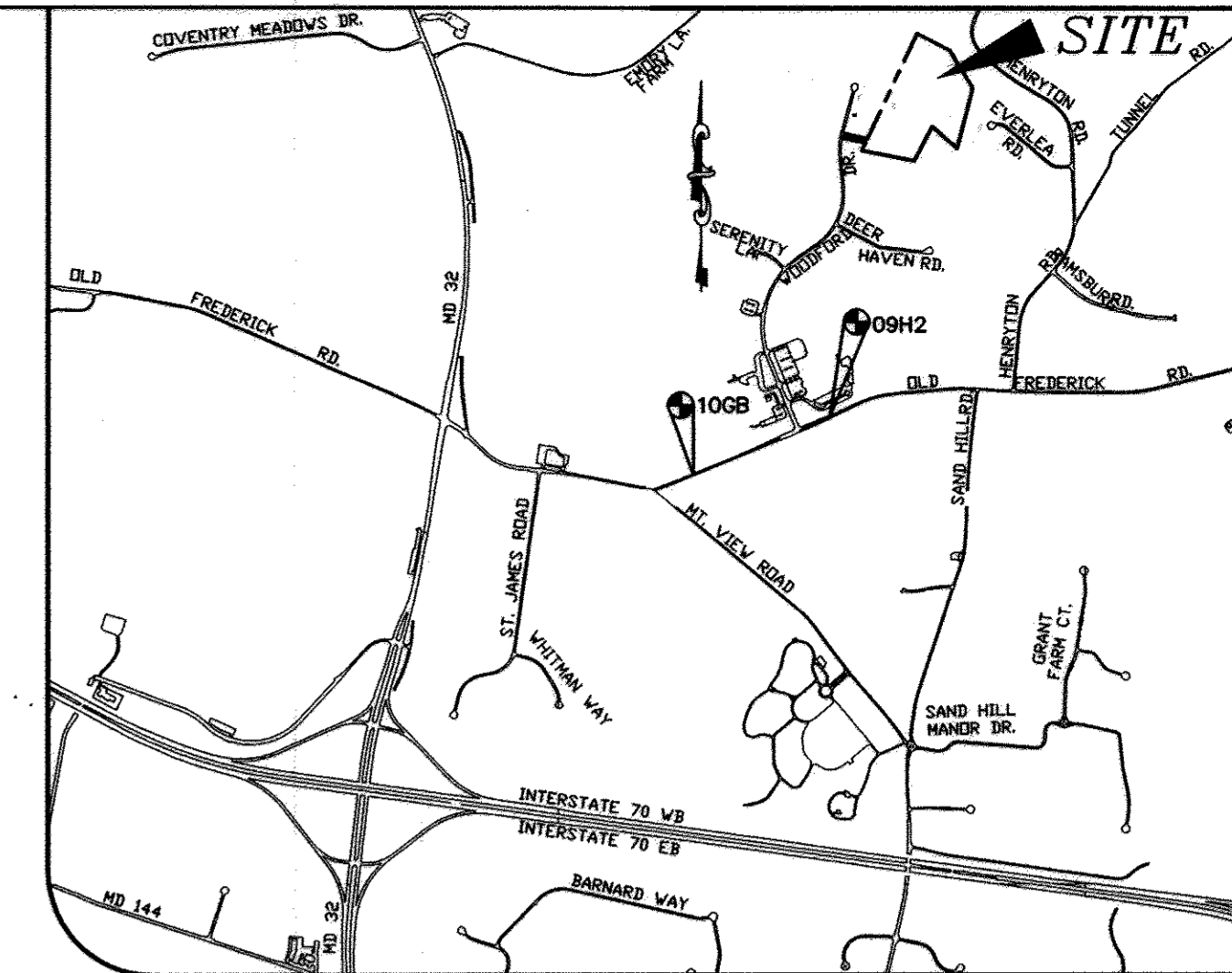
SCALE: 1" = 600'

WATER ZONE: 730
TEST GRADIENT: 880

TYPE OF BUILDING: RESIDENTIAL
No. OF UNITS: 6
No. OF WATER HOUSE CONNECTION: 3
No. OF SEWER HOUSE CONNECTIONS: 0
DRAINAGE AREA: PATAPSCO
TREATMENT PLANT: PATAPSCO

INDEX OF DRAWINGS

Table with 2 columns: NO., DESCRIPTION. Lists drawing sheets 1, 2, 3.



VICINITY MAP

1" = 2000'
ADC MAP 11 GRID E7, F7

GENERAL NOTES

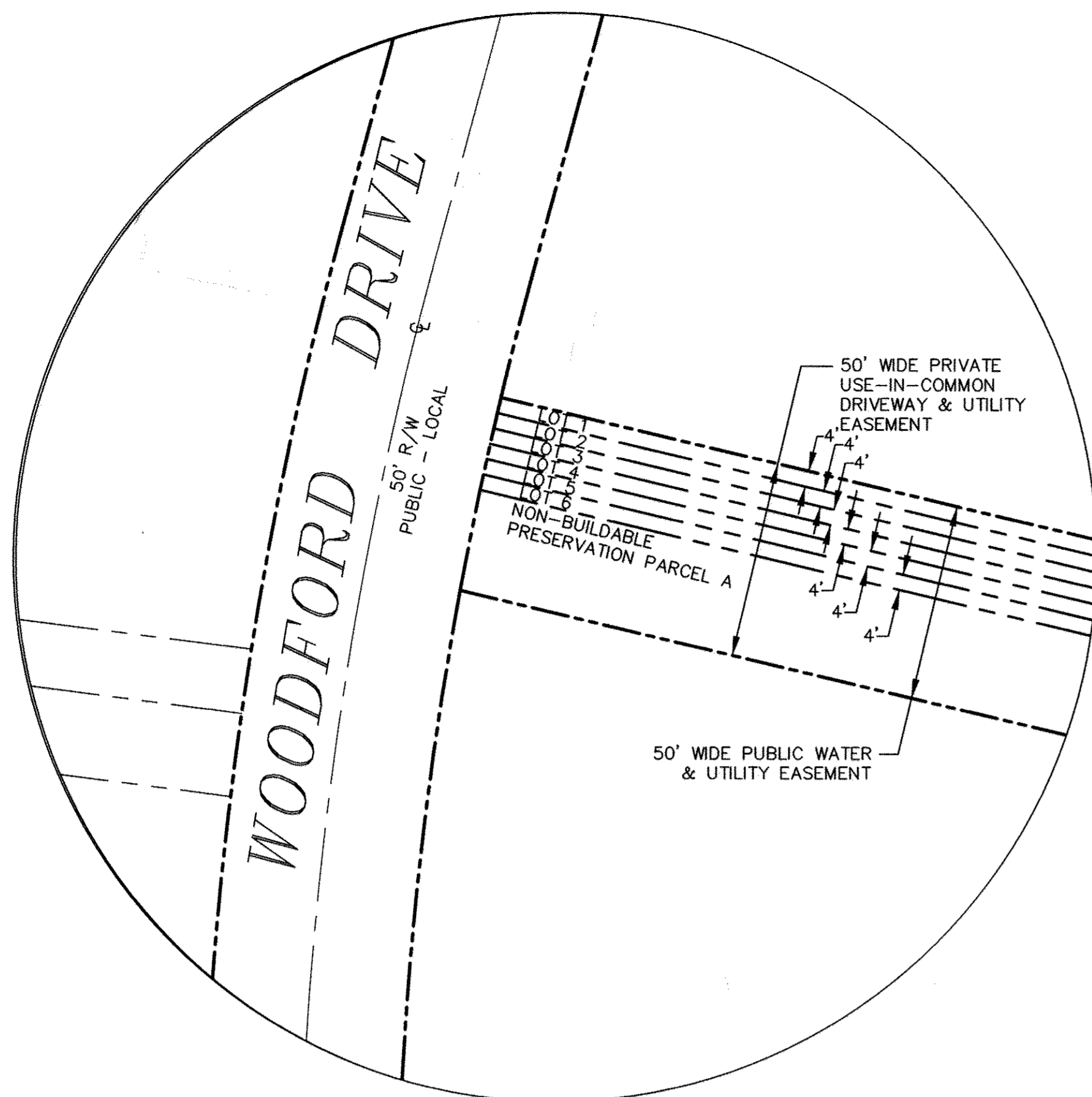
- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD RUN SURVEY PERFORMED ON OR ABOUT OCTOBER, 2004 BY CHRISTOPHER CONSULTANTS, INC.
HORIZONTAL AND VERTICAL SURVEY CONTROLS: THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM HAD '83/91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 10GB AND NO. 09H2. ALL VERTICAL CONTROLS ARE BASED ON NAVD '88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE HO.CO. GEODETIC CONTROL STA. 10GB AND 09H2.
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 B 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:

GENERAL NOTES

- ALL WATER MAINS SHALL BE D.I.P. CLASS 54 OR 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 WIRES AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL DIP AND PVC WATER MAINS IN ACCORDANCE WITH THE 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 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. SEVENTEEN (17) POUND MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND METALLIC IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSSES. TWELVE (12) POUND 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.

CONTRACT NO.: 44-4791-D
MELCHIOR PROPERTY
LOTS 1 THRU 6, AND NON-BUILDABLE PRESERVATION PARCEL A
WATER MAIN EXTENSION
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

MATCHLINE SHEET 3



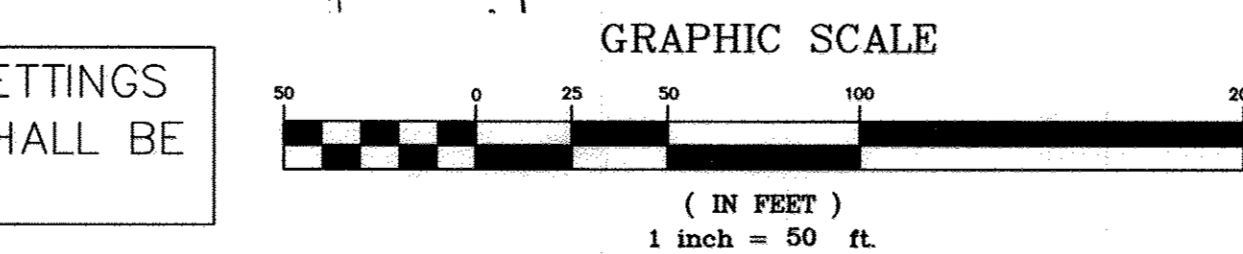
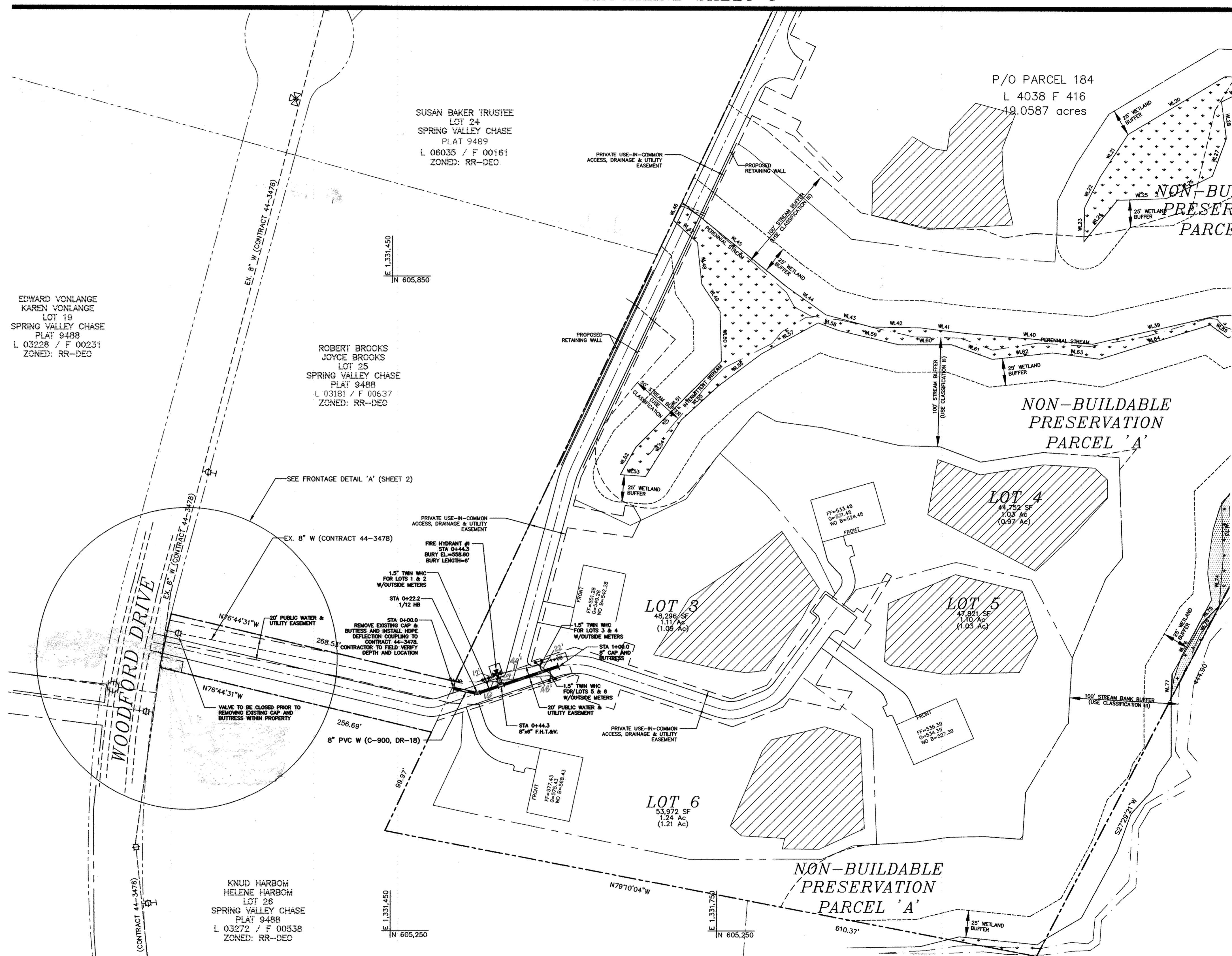
FRONTAGE DETAIL 'A'  
SCALE: 1"=30'

WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE

LOT	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
1	WOODFORD DRIVE	FH Sta. 0+44.3 12'	F.H. Valve Sta. 0+44.3 16'
2	WOODFORD DRIVE	FH Sta. 0+44.3 12'	F.H. Valve Sta. 0+44.3 16'
3	WOODFORD DRIVE	FH Sta. 0+44.3 40'	WHC Lot 5 @ 6 22'
4	WOODFORD DRIVE	FH Sta. 0+44.3 40'	WHC Lot 5 @ 6 22'
5	WOODFORD DRIVE	F.H. Valve Sta. 0+44.3 40'	WHC Lot 3 @ 4 22'
6	WOODFORD DRIVE	F.H. Valve Sta. 0+44.3 40'	WHC Lot 3 @ 4 22'

WATER / SEWER MAIN TABULATION CHART

APPURTENANCE	NORTHING	EASTING
DEFLECTION COUPLING TO CONTRACT 44-3478	605,472.2704	1,331,507.8031
1 1/2" HB	605,467.6856	1,331,529.5179
8"x6" F.H.T.&V.	605,476.3070	1,331,550.9719
FIRE HYDRANT #1	605,486.0437	1,331,548.0954
8" CAP AND BUTTRESS	605,492.5132	1,331,603.9491



OUTSIDE METER SETTINGS FOR 1" METERS SHALL BE USED.

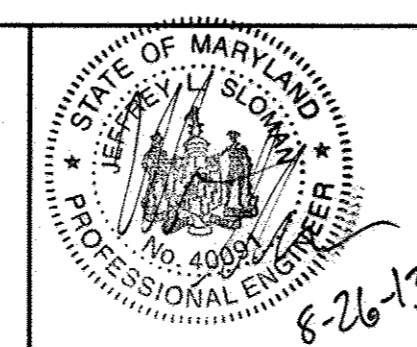
OWNER/DEVELOPER  
DORSEY FAMILY HOMES, INC.  
10717-B BIRMINGHAM WAY  
WOODSTOCK, MARYLAND 21163  
(410)465-7200

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DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*Steve C...*  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
*Phil...*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
6800 Deepwater Road, Suite 150, Ellicott City, Maryland 21075  
(410) 997-0296 Baltimore (410) 997-0298 Fax



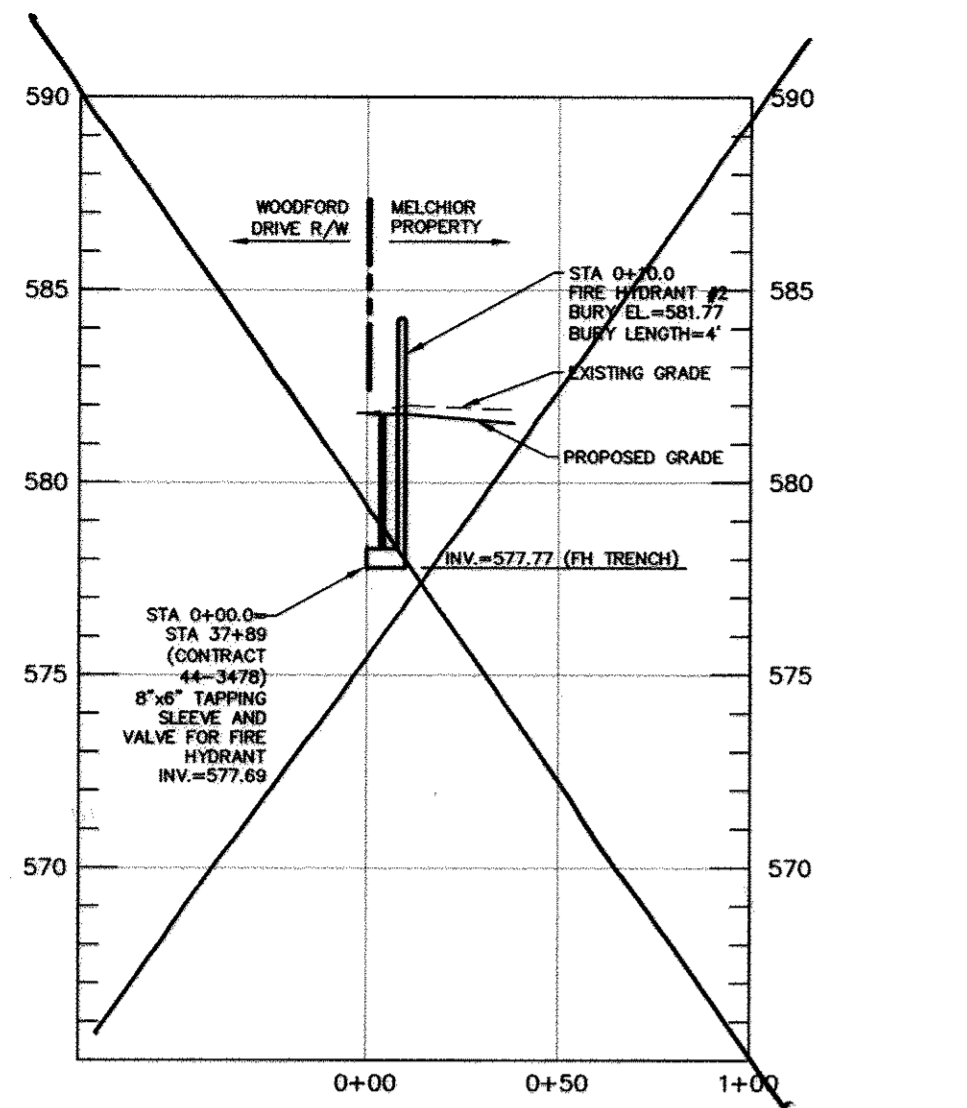
engineering	JLS			
illustration	JLS			
approval	RJH			
project	12-028	MBA	1	REMOVE FIRE HYDRANT #2
date	AUG 2013	BY	NO.	REVISION

**WATER PLAN**  
600' SCALE MAP NO. 10 BLOCK NO. 13

**MELCHIOR PROPERTY**  
LOTS 1 THRU 6, NON-BUILDABLE PRESERVATION PARCEL A  
CONTRACT NO. 44-4791-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY

scale AS SHOWN  
2 OF 3

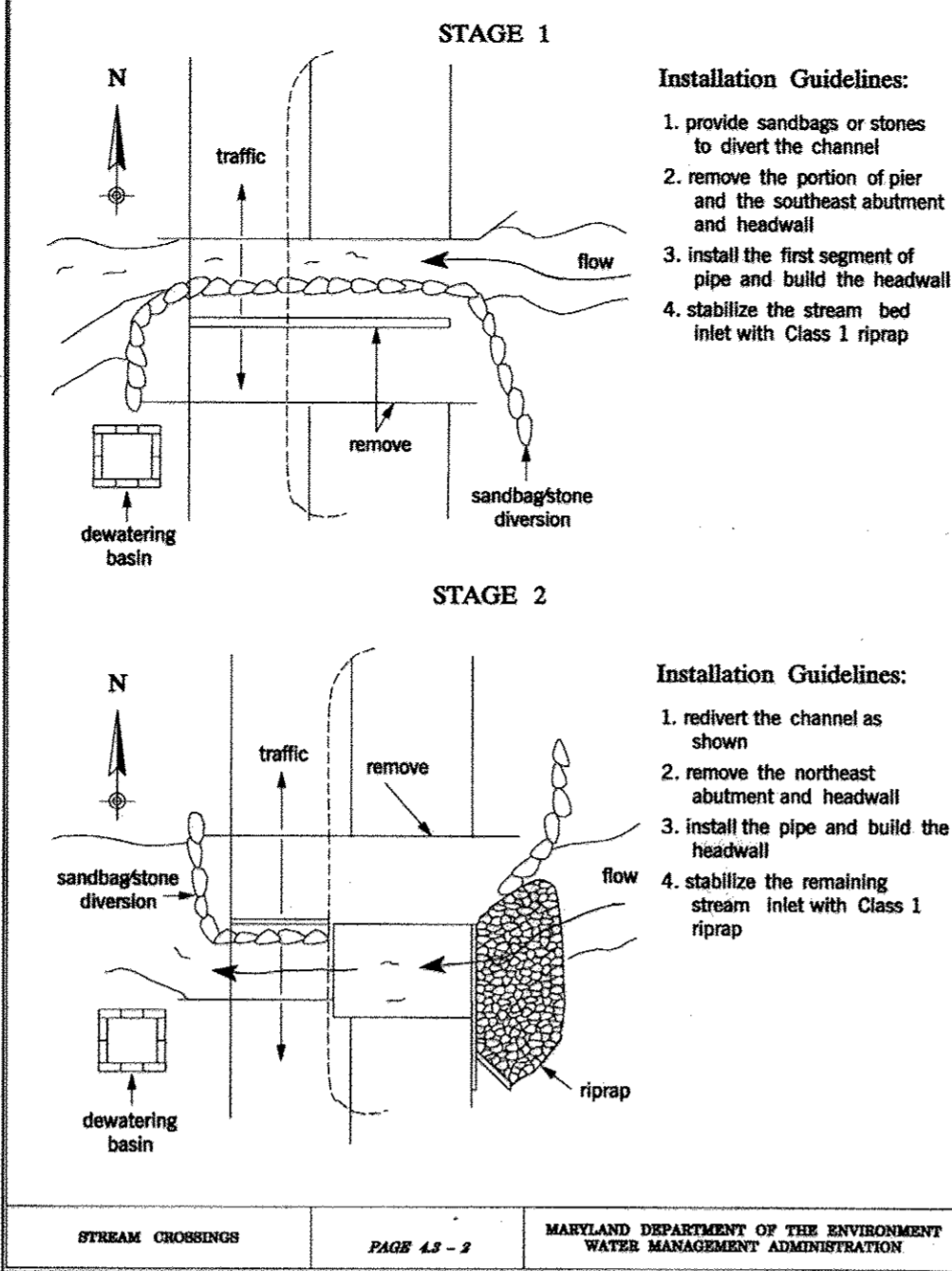
P: 12004.12-028 MARRIOTT'S PRESERVE (MELCHIOR) DWG 12-028 W&S - MAY 2013



PROFILE - FIRE HYDRANT #2

SCALE: 1"=50' HOR  
1"=5' VER

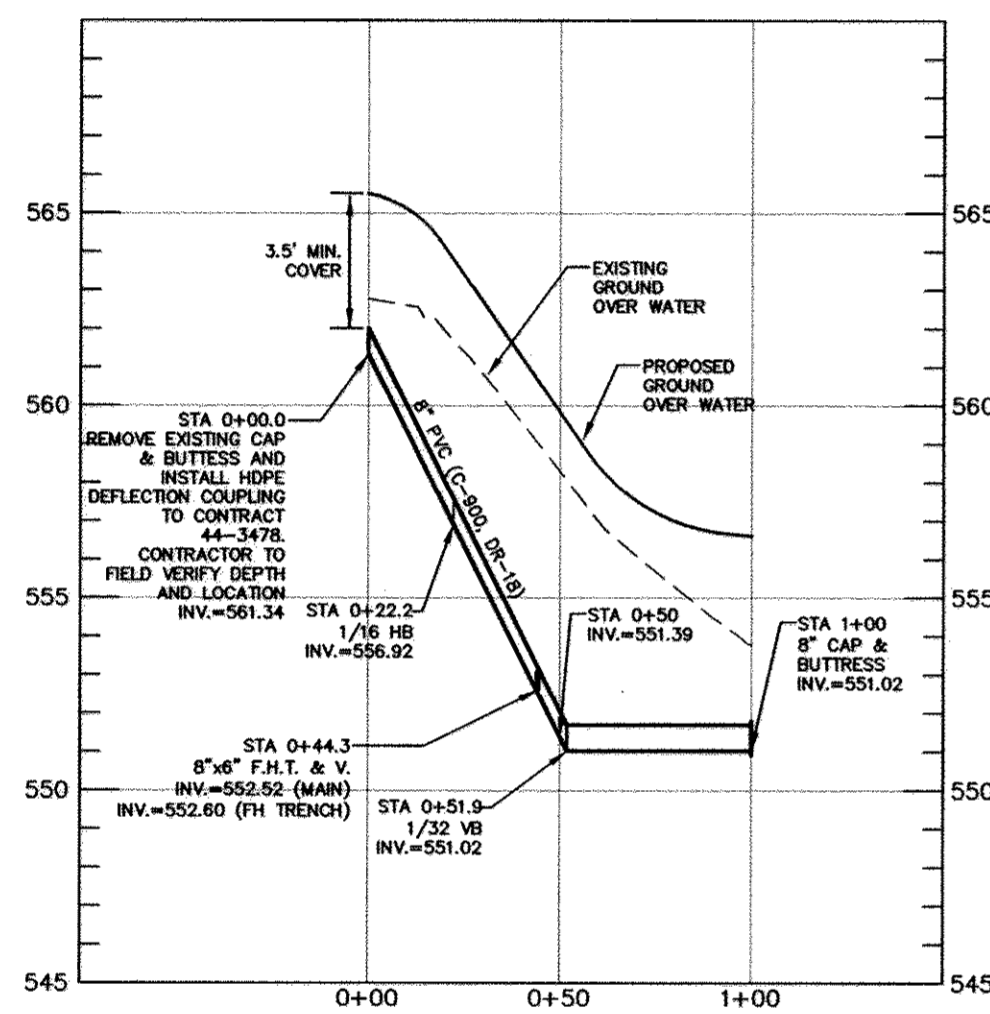
Maryland's Guidelines To Waterway Construction  
DETAIL 4.3: CULVERT INSTALLATION-STAGES 1&2



STREAM CROSSING PAGE 4.3 - 2 MARYLAND DEPARTMENT OF THE ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SUSAN BAKER TRUSTEE  
LOT 22  
SPRING VALLEY CHASE  
L 06035 / F 00161  
PLAT 9489  
ZONED: RR-DEC

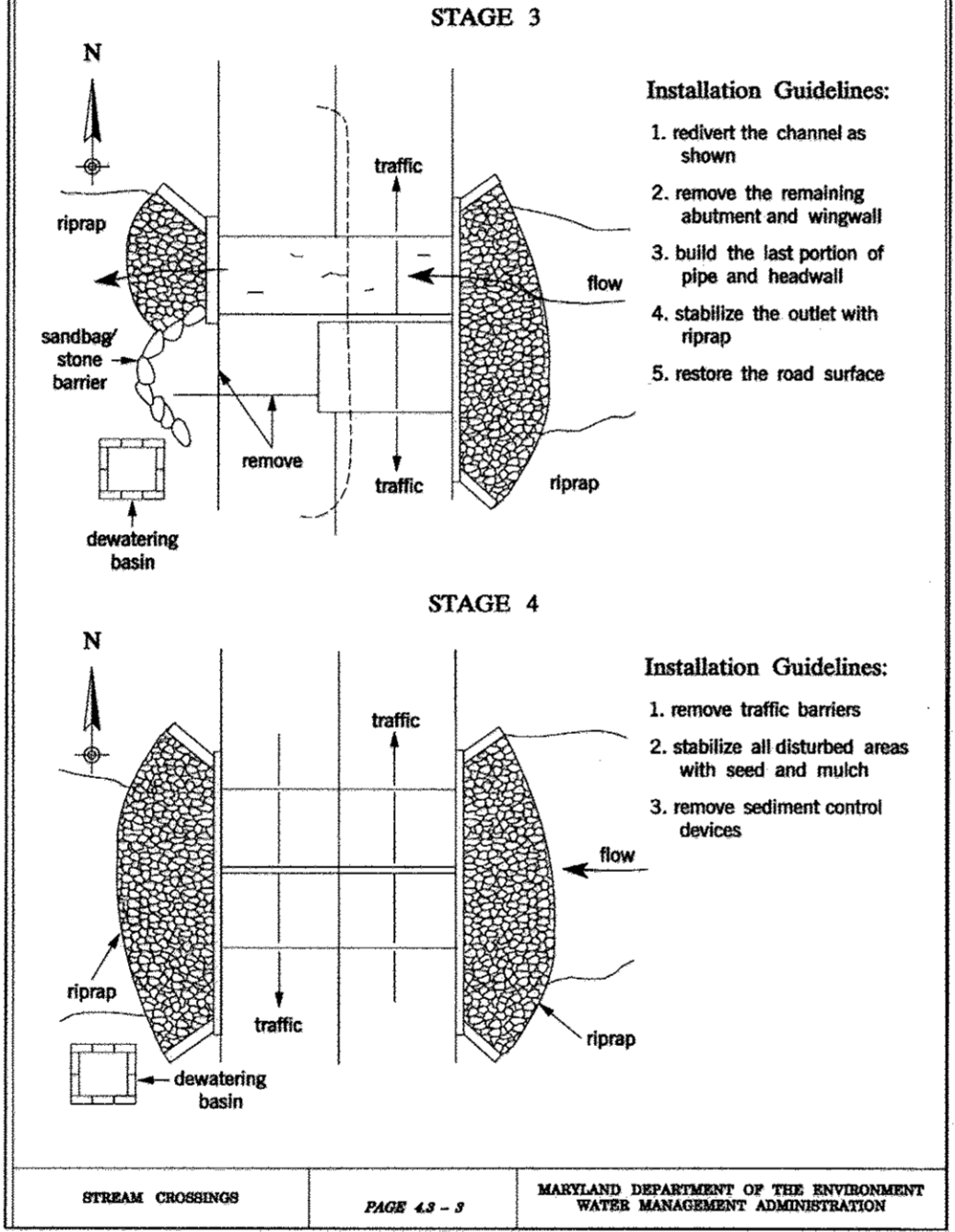
DAVID HORVATH  
LOT 35  
MEADOWOOD SEC 2 AREA 1  
PLAT 9151  
L 11464 / F 00409  
ZONED: RR-DEC



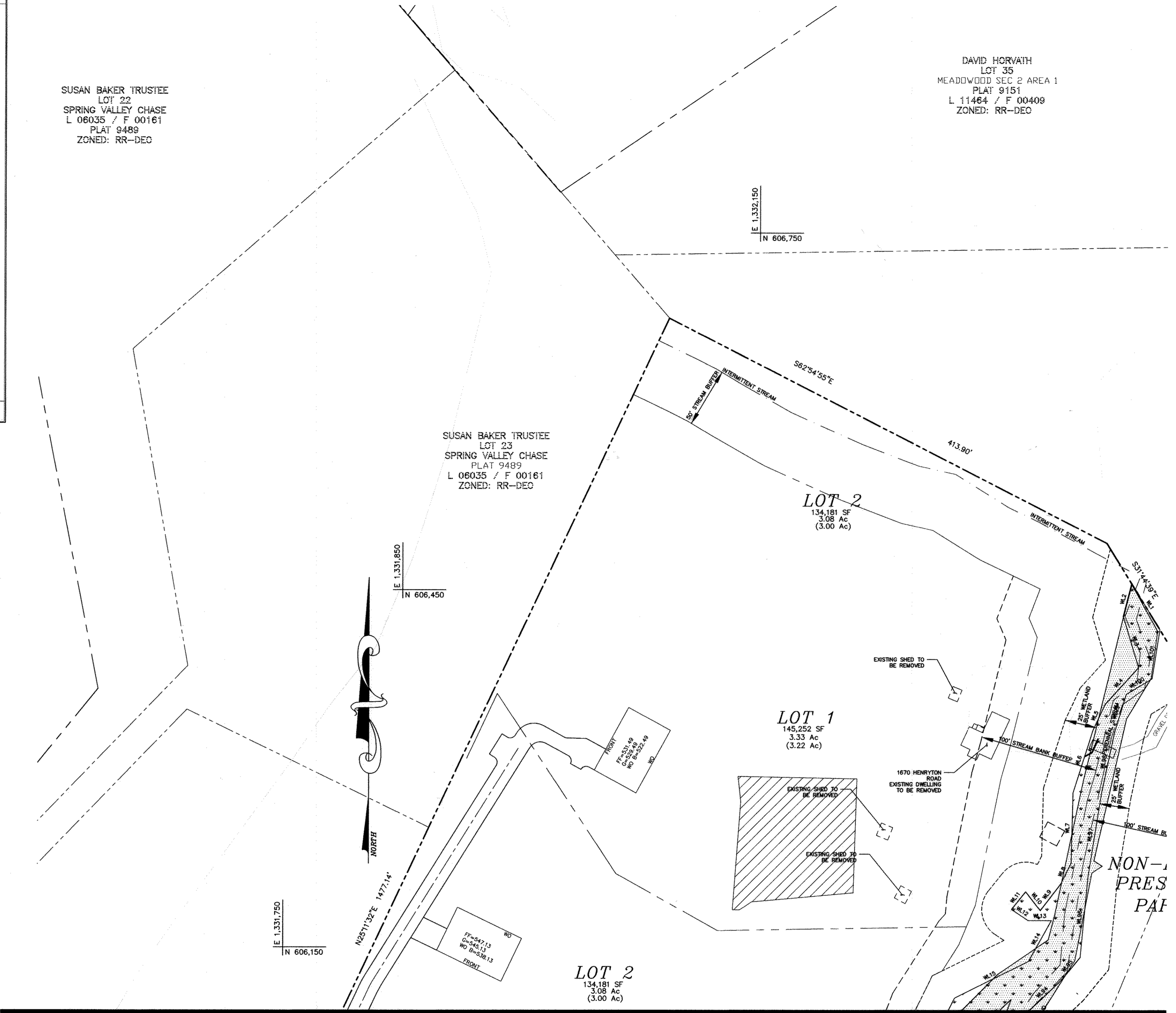
PROFILE - WATER MAIN

SCALE: 1"=50' HOR  
1"=5' VER

Maryland's Guidelines To Waterway Construction  
DETAIL 4.3: CULVERT INSTALLATION-STAGES 3&4

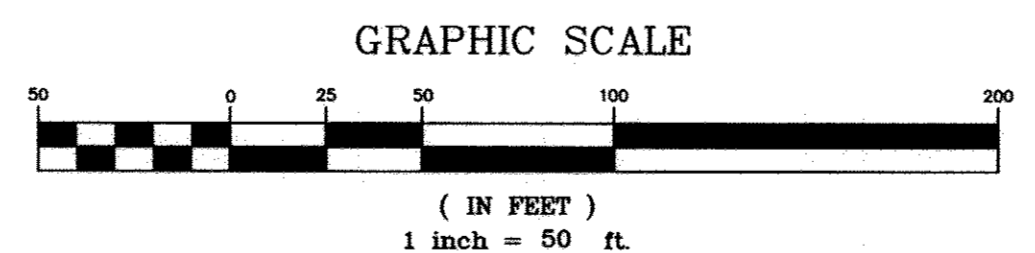


STREAM CROSSING PAGE 4.3 - 3 MARYLAND DEPARTMENT OF THE ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



MATCHLINE SHEET 2

EXISTING DWELLING AT 1670 HENRYTON ROAD SHALL BE REMOVED. EXISTING WELL AND SEPTIC TO BE ABANDONED BY LICENSED CONTRACTOR.



OUTSIDE METER SETTINGS FOR 1" METERS SHALL BE USED.

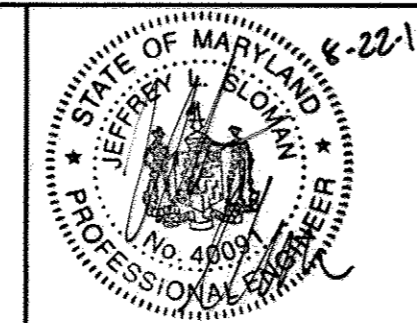
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HOWARD COUNTY, MARYLAND  
S. J. C. / et al.

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
C. J. P. / et al. 9-12-13

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engineering	JLS				
illustration	JLS				
approval	RH				
project	12-028	MBA	1	REMOVE FIRE HYDRANT #2	1/26/13
date	AUG 2013	BY	NO.	REVISION	DATE

WATER PLAN, PROFILES AND DETAILS  
600' SCALE MAP NO. 10 BLOCK NO. 13

MELCHIOR PROPERTY  
LOTS 1 THRU 6, NON-BUILDABLE PRESERVATION PARCEL A  
CONTRACT NO. 44-4791-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY

scale AS SHOWN  
3 OF 3

P: 12004.12-028 MARIOTT'S PRESERVE (MELCHIOR) DWG 12-028 W&S - MAY 2013