

GENERAL NOTES

- PART I**
- APPROXIMATE LOCATION 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 PROJECT BOUNDARY AND TOPOGRAPHICAL INFORMATION SHOWN HEREON IS BASED ON A FIELD SURVEY AND BOUNDARY SURVEY PERFORMED BY ROBERT H. VOGEL ENGINEERING, INC. DATED JANUARY, 2006.
 - 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. 24FB, NO. 2413.
ALL VERTICAL CONTROLS ARE BASED ON NAVD '88. VERTICAL CONTROL PROVIDED ON THE DRAWINGS ARE 24FB AND 2413. (ENGINEER/SURVEY FIRM SHALL PROVIDE DESCRIPTION OF VERTICAL CONTROL POINTS, I.E., IRON BARS, CROSS CUTS ON CONCRETE STRUCTURES, ETC.)
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED.
 - 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 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 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 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 LOCATION OF THE TEST PIT. A NOTES 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 OPERATION AT HIS OWN EXPENSE.
 - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN THESE PLANS:
AT & T _____ 1-800-252-1133
BGE (CONSTRUCTION SERVICE) _____ 410-637-8715
BGE (EMERGENCY) _____ 410-685-0125
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 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 THE CONSTRUCTION OF THE MAIN.
 - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-7450 AT LEAST FIVE WORKING DAYS BEFORE ANY 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(c) OF THE HOWARD COUNTY CODE.
 - PROVIDE CAST IRON ROADWAY BOXES FOR WHC BALL VALVES WITHIN THE PAVED AREAS.
 - FOR OUTSIDE WATER METER SETTING, SEE HO. CO. DETAIL W 3.33.

TYPE OF BUILDING:	SFA UNITS
NO. OF BUILDINGS:	32
NO. OF SINGLE WHC'S:	2
NO. OF TWIN WHC'S:	15
NO. OF SINGLE SPTS:	19
NO. OF TWIN SPTS:	11
DRAINAGE AREA:	PATAPSCO
TREATMENT PLANT:	PATAPSCO

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH FINAL ROAD CONSTRUCTION PLAN SDP-07-007.

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

John R. Robertson 2/14/08
HOWARD COUNTY SOIL CONSERVATION DISTRICT DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

[Signature]
U.S. SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

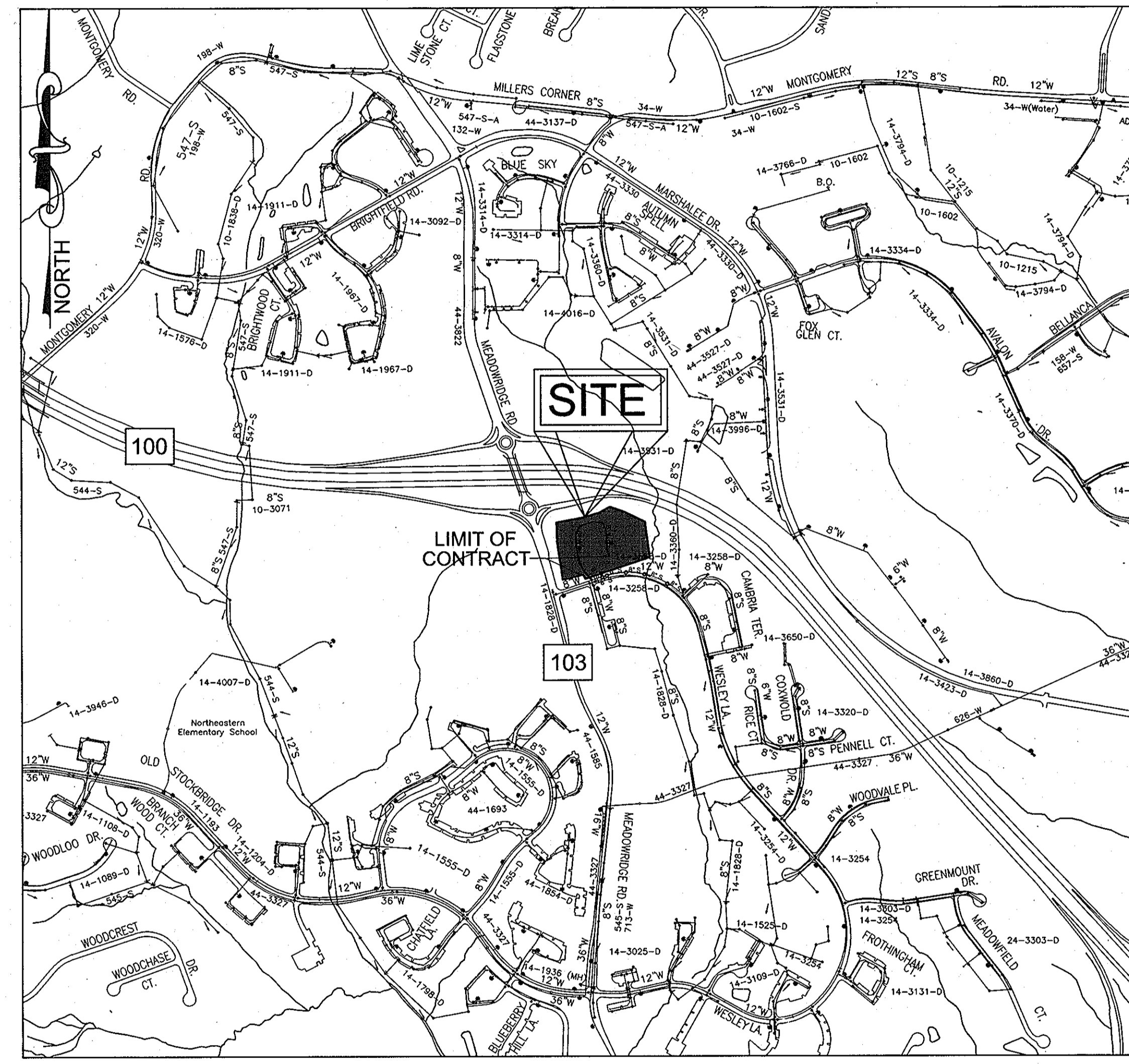
[Signature] 2/15/08
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

[Signature] 2/15/08
CHIEF, BUREAU OF UTILITIES DATE

FOX HUNT ESTATES

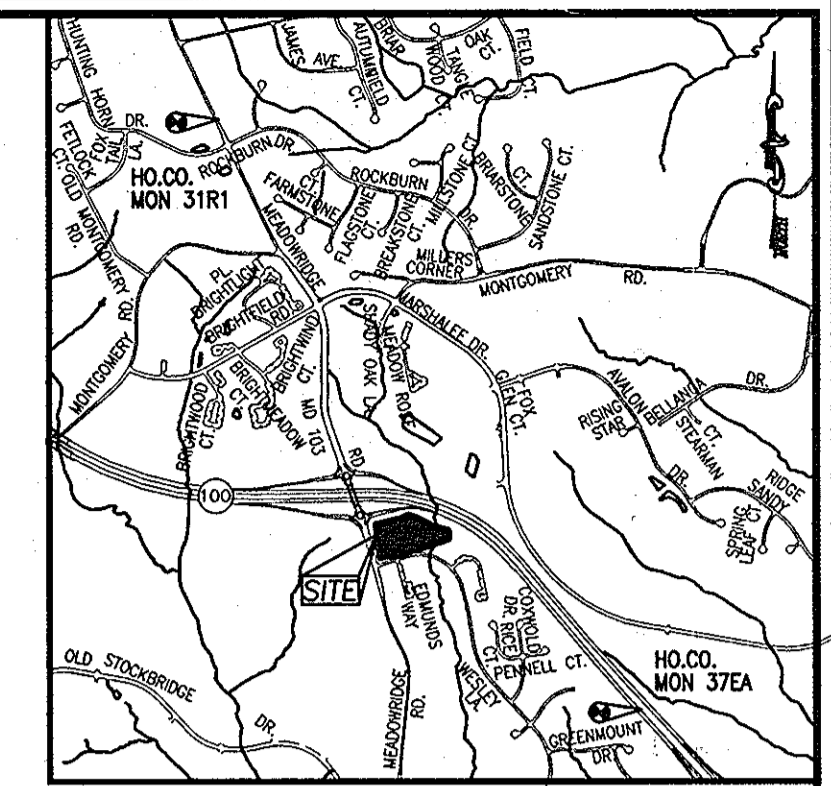
LOTS 4-35 AND OPEN SPACE LOTS 36 & 37 HOWARD COUNTY, MARYLAND CONTRACT NO. 44-4445-D



VICINITY MAP
SCALE: 1"=600'

WATER CODE: D-06
SEWER CODE: 2610400
WATER TEST GRADIENT: 700

BENCHMARKS				
NO.	NORTHING	EASTING	ELEVATION	TYPE
37EA	559149.111	1376916.213	291.76	CONC. MONUMENT
31R1	565303.465	1372517.678	401.75	CONC. MONUMENT



LOCATION MAP
SCALE 1"=2000'

PART II - WATER

- ALL WATER MAINS TO BE D.I.P. CLASS 54 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-6" 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 INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE 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.

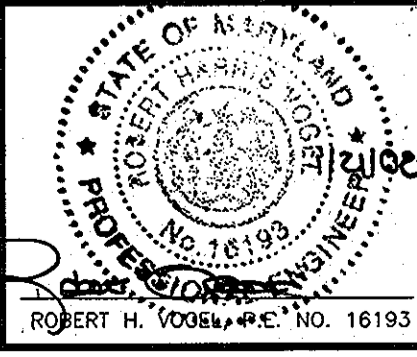
PART III - SEWER

- 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 G5.52. WHERE WATERTIGHT MANHOLE FRAME 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 CELLAR CANNOT BE SERVED.

QUANTITIES				
NAME OF UTILITY CONTRACTOR: SEA EXCAVATING				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE:				
ITEMS	ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" W (DIP) CLASS 54	658 LF	649	CL54 TS	US PIPE & FOUNDRY / NO SUPPLY
6" W (DIP) CLASS 54	117 LF	111	CL54 TS	US PIPE & FOUNDRY / NO SUPPLY
8" X 6" TEE	3 EACH	3	SWIVEL GROM	TYLER UNION / FERGUSON
FIREHYDRANT	3 EACH	3	1 1/2" 45°	MUELLER / FERGUSON
8" VALVE	2 EACH	2	8" 22 1/2°	AMERICAN FLOW CONTROL / FERGUSON
6" CAP & BUTTRESS	1 EACH	1	GATE OPEN RIGHT	AMERICAN FLOW CONTROL / FERGUSON
8" X 6" REDUCER	1 EACH	1	8" X 6" EPOXY	TYLER UNION FOUNDRY / FERGUSON
1/32 HB	2 EACH	2	8" 11 1/4°	TYLER UNION FOUNDRY / FERGUSON
1/16 HB	6 EACH	6	8" 22 1/2°	TYLER UNION FOUNDRY / FERGUSON
8" SEWER MAIN	1274 LF	1214	SOR 35	NORTH AMERICAN PIPE / FERGUSON
SEWER MANHOLES	14 EACH	14	STD PRECAST	CONTRACTORS PRECAST CORP. / C.P.C.
1/8 HB	2 EACH	2	8" 45°	TYLER UNION FOUNDRY / FERGUSON
1-1/2" WHC	294 LF	269 L.F.	K SOFT	MUEHLER / FERGUSON
4" SHC	539 LF	341	SOR 35	NORTH AMERICAN PIPE / FERGUSON
6" VALVE	3 EACH	3	GATE OPEN RIGHT	AMERICAN FLOW CONTROL / FERGUSON

UNITS WHC METER SETTING			
LOT 4	DOUBLE 1" METER SETTING	LOT 20	DOUBLE 1" METER SETTING
LOT 5	DOUBLE 1" METER SETTING	LOT 21	DOUBLE 1" METER SETTING
LOT 6	DOUBLE 1" METER SETTING	LOT 22	DOUBLE 1" METER SETTING
LOT 7	DOUBLE 1" METER SETTING	LOT 23	DOUBLE 1" METER SETTING
LOT 8	DOUBLE 1" METER SETTING	LOT 24	DOUBLE 1" METER SETTING
LOT 9	DOUBLE 1" METER SETTING	LOT 25	DOUBLE 1" METER SETTING
LOT 10	DOUBLE 1" METER SETTING	LOT 26	SINGLE 1" METER SETTING
LOT 11	DOUBLE 1" METER SETTING	LOT 27	DOUBLE 1" METER SETTING
LOT 12	DOUBLE 1" METER SETTING	LOT 28	DOUBLE 1" METER SETTING
LOT 13	DOUBLE 1" METER SETTING	LOT 29	SINGLE 1" METER SETTING
LOT 14	DOUBLE 1" METER SETTING	LOT 30	DOUBLE 1" METER SETTING
LOT 15	DOUBLE 1" METER SETTING	LOT 31	DOUBLE 1" METER SETTING
LOT 16	DOUBLE 1" METER SETTING	LOT 32	DOUBLE 1" METER SETTING
LOT 17	DOUBLE 1" METER SETTING	LOT 33	DOUBLE 1" METER SETTING
LOT 18	DOUBLE 1" METER SETTING	LOT 34	DOUBLE 1" METER SETTING
LOT 19	DOUBLE 1" METER SETTING	LOT 35	DOUBLE 1" METER SETTING

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410.461.7666
ELLCOTT CITY, MD 21043 FAX: 410.461.8961
ATTN: MR. DONALD R. REUWER

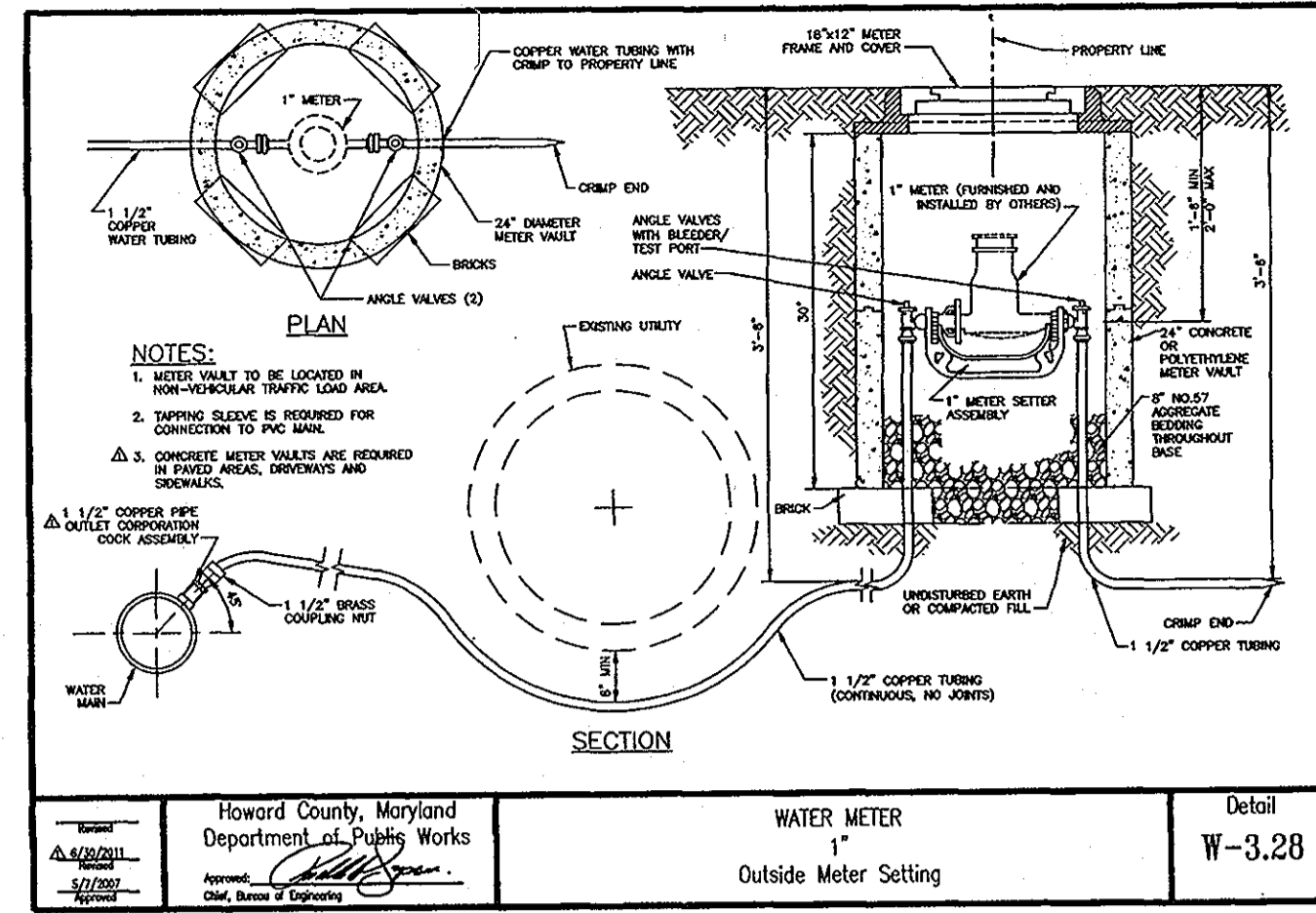
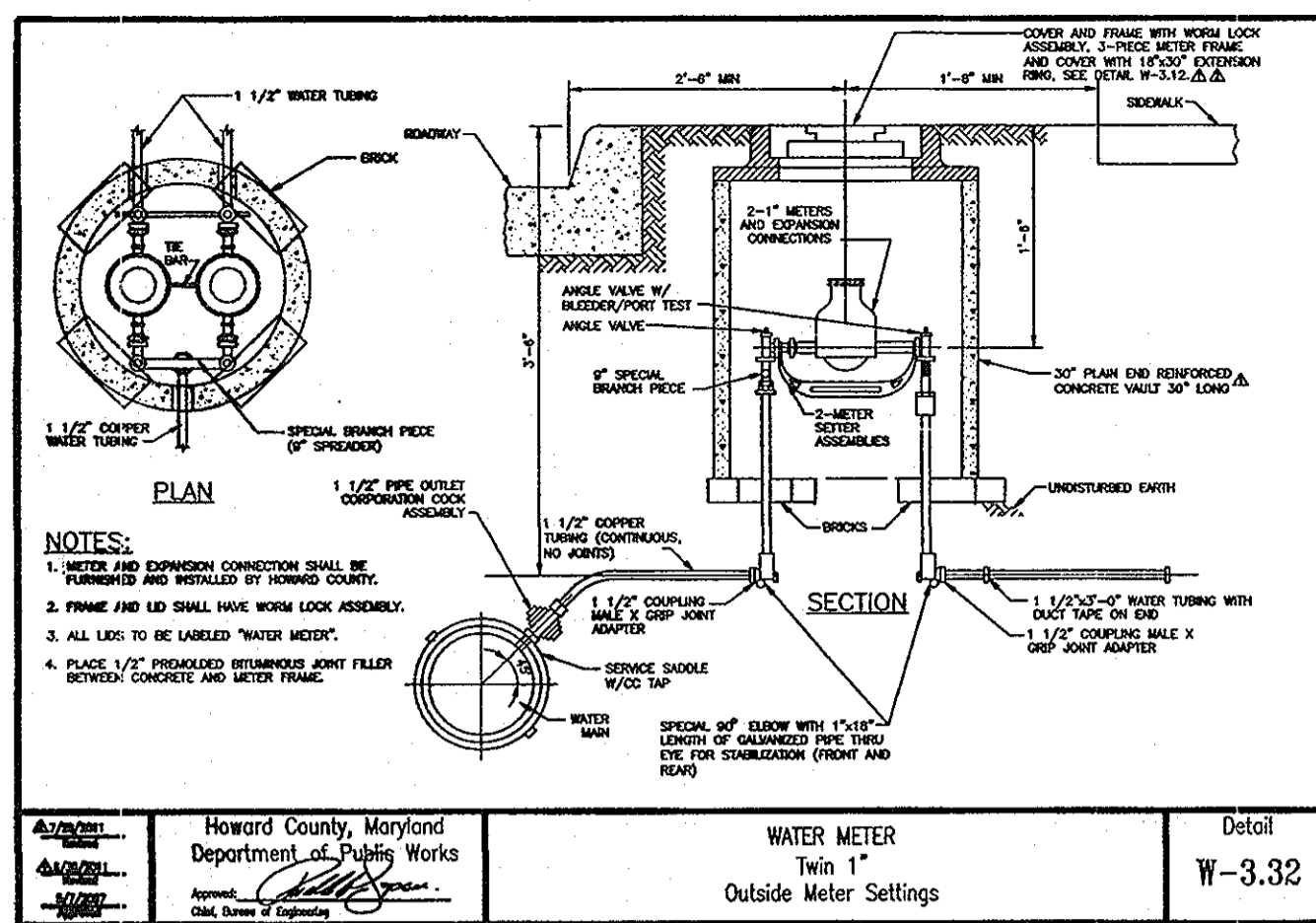


DESIGN BY: RJ	KCE 3 AS BUILT	1-21-14
DRAWN BY: RJ	JMR 2 MODIFY WATER MAIN PROFILE	8-6-13
CHECKED BY: RHV	JMR 1 CREATE LOTS FOR LOTS 4-35, MAKE ALL WATER AND SEWER PUBLIC, REVISE WATER AND SEWER LAYOUT AND PROFILES, REVISE WHC'S AND SHO'S	5-14-12
DATE: JANUARY 2008	BY NO	REVISION DATE

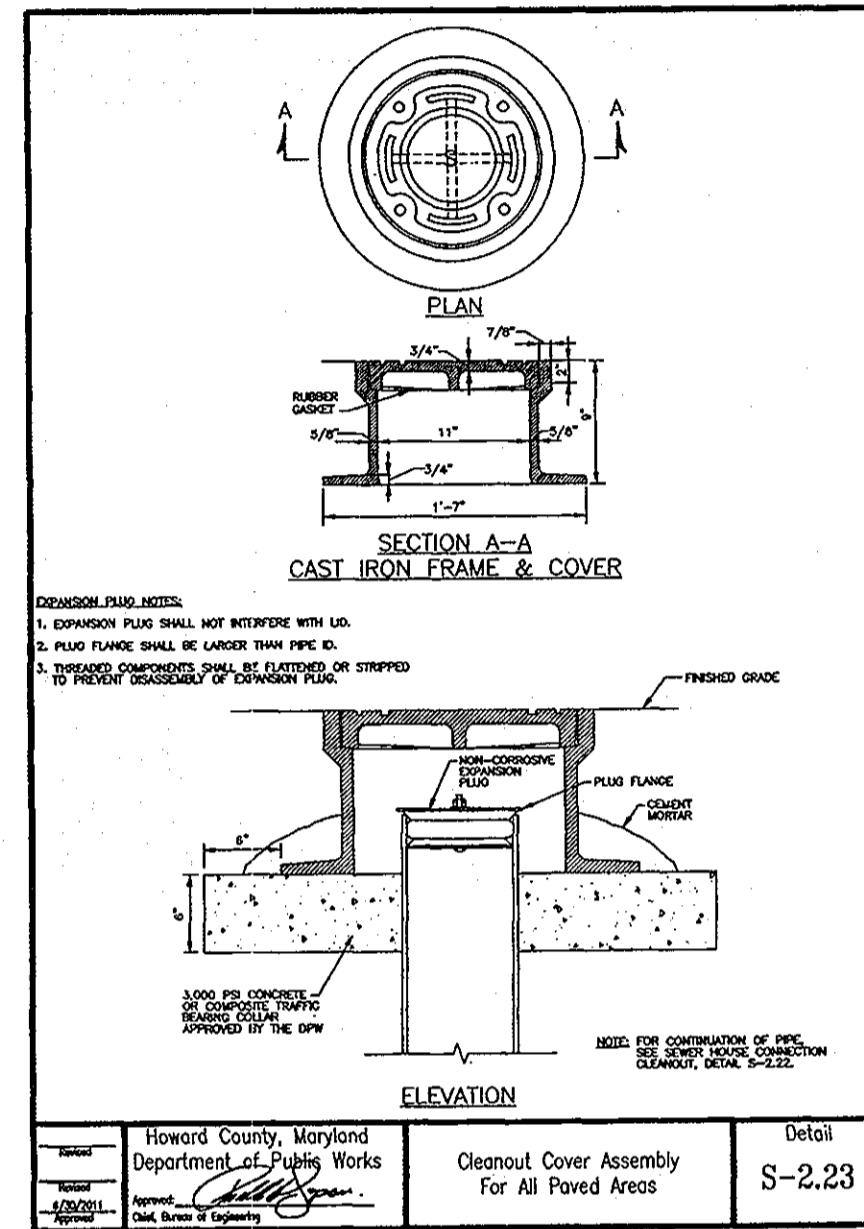
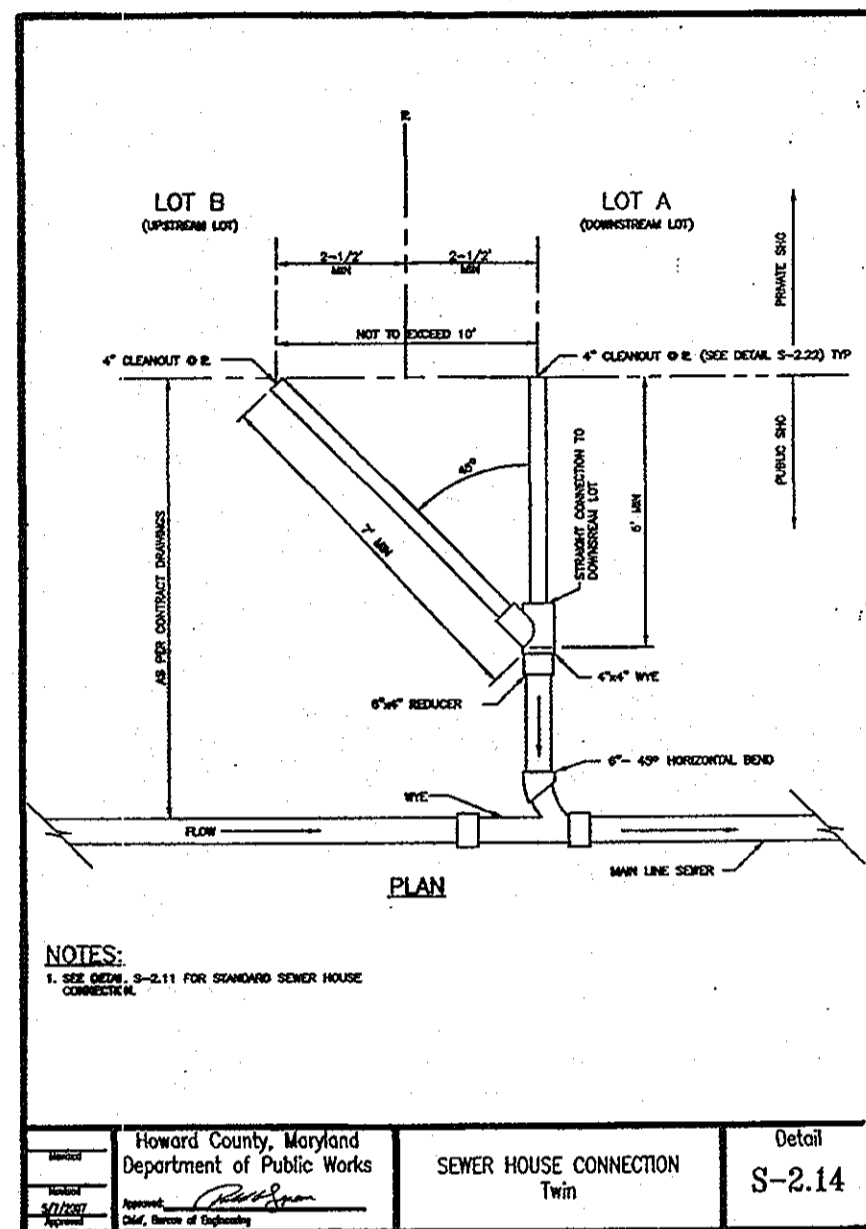
FINAL WATER & SEWER CONSTRUCTION PLAN
600' SCALE MAP NO. 37 BLOCK NO. 3

FOX HUNT ESTATES
LOTS 4-35 AND OPEN SPACE LOTS 36 & 37
CONTRACT NO. 44-4445-D
TAX MAP 37 GRID 3 1ST ELECTION DISTRICT
PARCEL '806' HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 1 OF 4



1. ALL WATER HOUSE CONNECTIONS ARE 1-1/2" WITH 1" OUTSIDE METER SETTING.
2. PROVIDE CAST IRON ROADWAY BOXES FOR WHC BALL VALVES WITHIN THE PAVED AREAS.
3. THE STANDARD DETAIL FOR THE 1" SINGLE OUTSIDE METER SETTING IS W-3.28; THE DETAIL FOR THE TWIN 1" OUTSIDE METER SETTING IS W-3.32.



SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH FINAL ROAD CONSTRUCTION PLAN SDP-07-007.

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

HOWARD COUNTY SOIL CONSERVATION DISTRICT DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S. SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

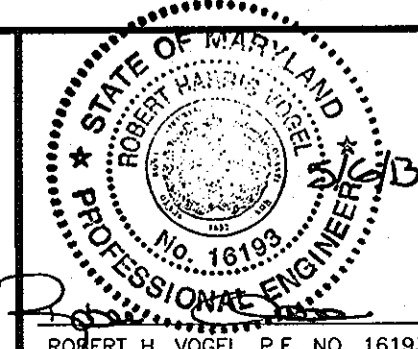
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 5-21-13

DEVELOPER
 100% LAND, INC.
 5300 DORSEY HALL DR STE 102
 ELLICOTT CITY MD 21042-7819
 ATTN: MR. DONALD R. REUWER
 (443) 367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF UTILITIES DATE 5/18/13

ROBERT H. VOGEL ENGINEERING, INC.
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 8407 MAIN STREET ELLICOTT CITY, MD 21043
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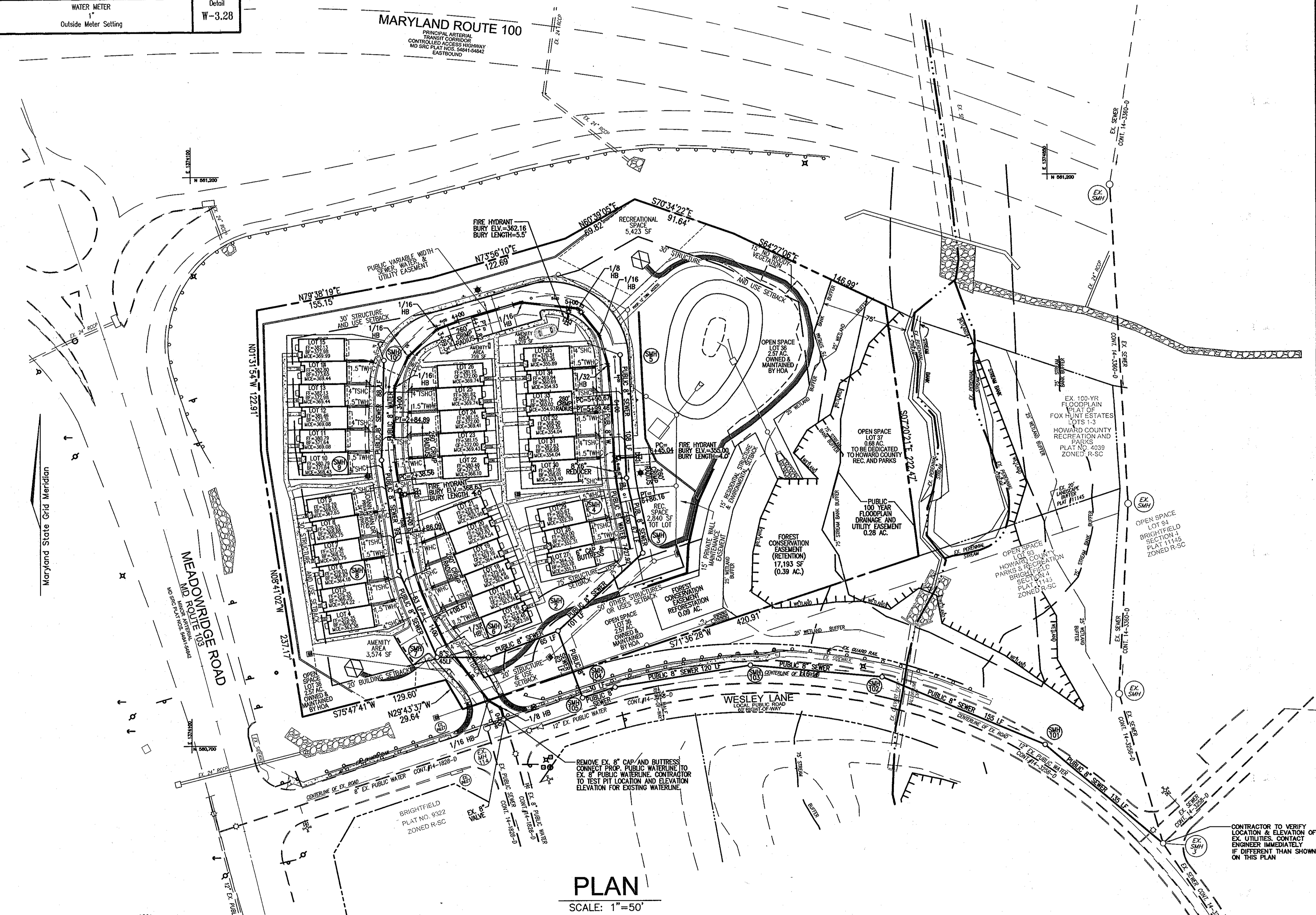


DESIGN BY: RJ				
DRAWN BY: RJ	JMR	2	MODIFY WATER MAIN PROFILE	8-6-15
CHECKED BY: RHV	JMR	1	CREATE LOTS FOR UNITS 4-35. MAKE ALL WATER AND SEWER PUBLIC. REVISE WATER AND SEWER LAYOUT AND PROFILES. REVISE WHC'S AND SHC'S.	5-14-12
DATE: JANUARY 2008	BY: NO		REVISION	DATE

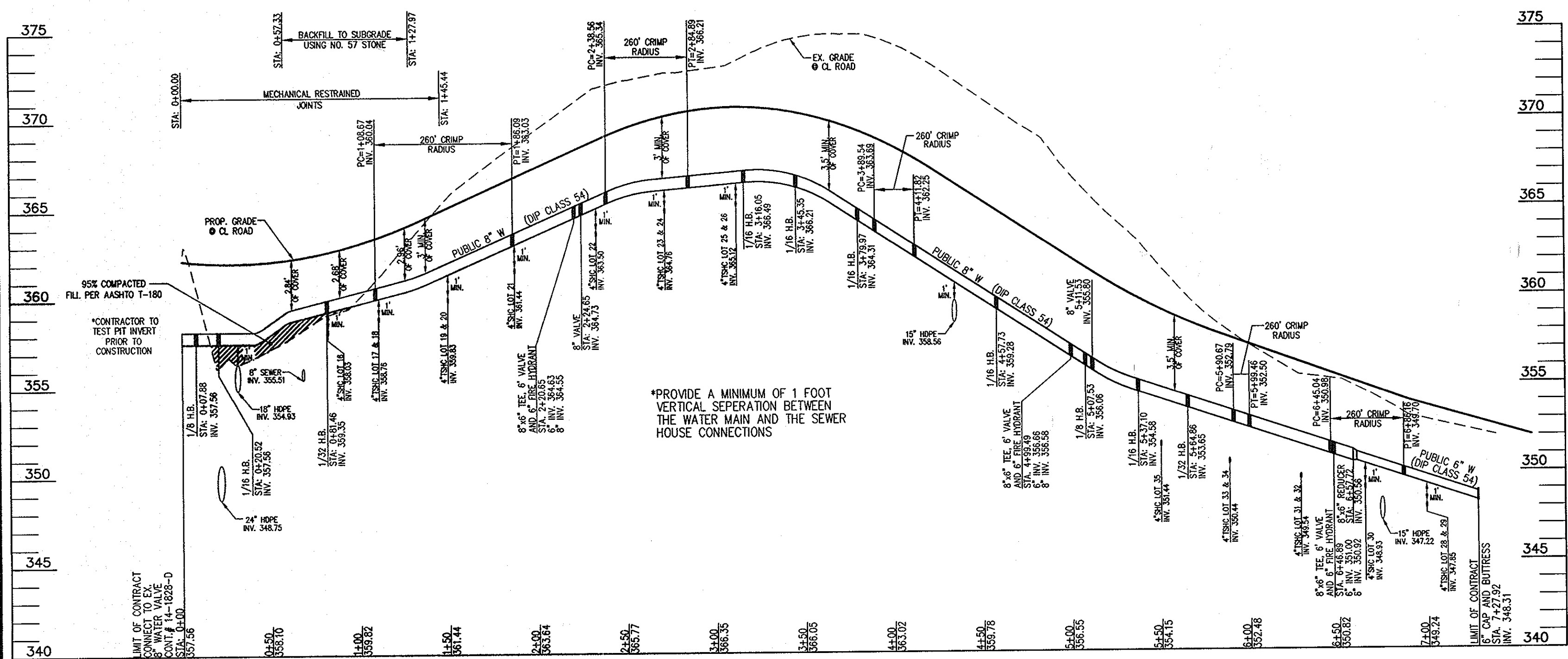
FINAL WATER & SEWER CONSTRUCTION PLAN
 600' SCALE MAP NO. 37 BLOCK NO. 3

FOX HUNT ESTATES LOTS 4-35 AND OPEN SPACE LOTS 36 & 37 CONTRACT NO. 44-4445-D
 TAX MAP 37 GRID 3 1ST ELECTION DISTRICT
 PARCEL '606' HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 2 OF 4



CONTRACTOR TO VERIFY LOCATION & ELEVATION OF EX. UTILITIES. CONTACT ENGINEER IMMEDIATELY IF DIFFERENT THAN SHOWN ON THIS PLAN



WATER PROFILE
SCALE: 1"=50'HORIZ.
1"=5' VERT.

WATER VALVES FOR HUNT ESTATES / 44-4445-D

From 6" FH VALVE 2+20	TO FH 2+20-15'8"	TO SMH 9-36'5"
From 8" ISOLATION VALVE 2+24	TO FH 2+20-15'4"	TO SMH 9-32'5"
From 6" FH VALVE 4+08	TO FH 4+19-10'8"	TO M2-53'4"
From 8" ISOLATION VALVE 4+14	TO FH 4+19-14'11"	TO M2-42'5"
From 6" FH VALVE 6+46	TO FH 6+46-19'3"	TO SMH 4-19'1"

WATER HOUSE CONNECTIONS FOX HUNT ESTATES / 44-4445-D

From LOTS 1/2	TO SMH 7-65'6"	TO SMH 8-26'0"	From LOTS 19/20	TO FH 2+20-31'11"	TO SMH 9-26'10"
From LOTS 3/4	TO SMH 8-18'5"	TO FH 2+20-45'8"	From LOTS 21/22	TO SMH 9-49'7"	TO SMH 10-50'6"
From LOTS 5/6	TO SMH 9-45'10"	TO SMH 10-45'10"	From LOT 23	TO SMH 9-81'0"	TO SMH 10-30'4"
From LOTS 7/8	TO SMH 9-12'3"	TO SMH 10-42'8"	From LOTS 24/25	TO SMH 3-29'3"	TO SMH 4-58'5"
From LOTS 9/10	TO SMH 9-49'11"	TO SMH 10-42'4"	From LOT 26	TO SMH 4-309'6"	TO M1B-61'4"
From LOTS 11/12	TO SMH 9-87'2"	TO SMH 10-10'5"	From LOTS 27/28	TO SMH 5-55'8"	TO I-1-38'5"
From LOTS 13/14	TO SMH 7-31'11"	TO SMH 8-69'0"	From LOTS 29/30	TO SMH 5-26'8"	TO I-1-38'0"
From LOTS 15/16	TO SMH 7-63'6"	TO SMH 8-33'10"	From LOTS 31/32	TO SMH 5-26'8"	TO I-1-38'0"
From LOTS 17/18	TO SMH 8-35'9"	TO FH 2+20-48'8"			

WATER MAIN LOCATION CHART

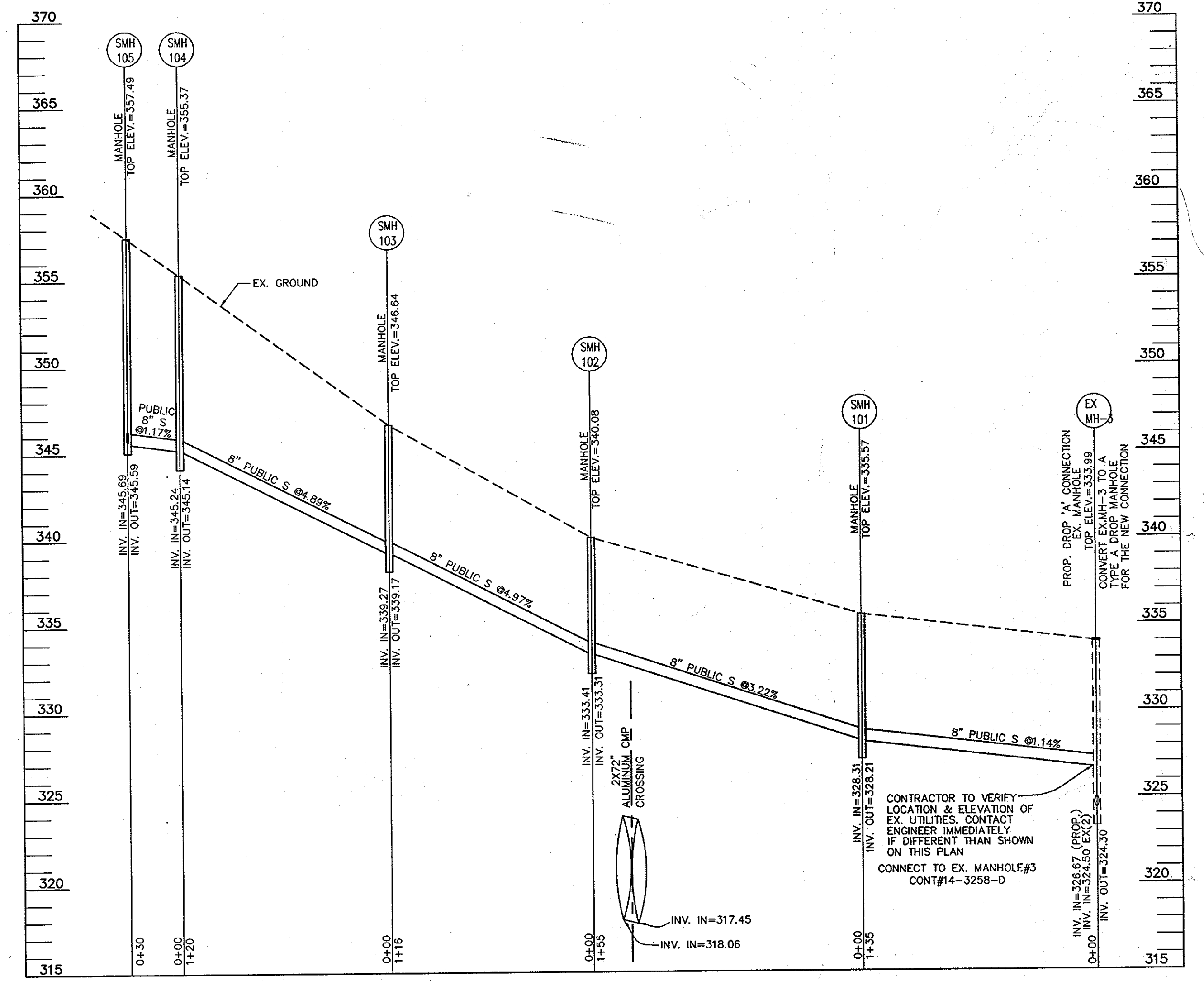
WL STA.	APPURTENANCE
JOANN KHAN DRIVE	
WL STA. 0+00	CONNECT TO EX. 8" VALVE
WL STA. 0+07.88	1/8 HB
WL STA. 0+20.52	1/16 HB
WL STA. 0+81.46	1/32 HB
WL STA. 1+08.67	PC 260' CRIMP RADIUS
WL STA. 1+86.09	PT 260' CRIMP RADIUS
WL STA. 2+20.65	8"x6" TEE, 6" VALVE, AND FIRE HYDRANT
WL STA. 2+24.65	8" VALVE
WL STA. 2+38.56	PC 260' CRIMP RADIUS
WL STA. 2+84.89	PT 260' CRIMP RADIUS
WL STA. 3+16.05	1/16 HB
WL STA. 3+45.35	1/16 HB
WL STA. 3+79.97	1/16 HB
WL STA. 3+89.54	PC 260' CRIMP RADIUS
WL STA. 4+11.82	PT 260' CRIMP RADIUS
WL STA. 4+57.73	1/16 HB
WL STA. 4+99.49	8"x6" TEE, 6" VALVE, AND FIRE HYDRANT
WL STA. 5+07.53	1/8 HB
WL STA. 5+11.53	8" VALVE
WL STA. 5+37.10	1/16 HB
WL STA. 5+64.86	1/32 HB
WL STA. 5+90.67	PC 260' CRIMP RADIUS
WL STA. 5+99.46	PT 260' CRIMP RADIUS
WL STA. 6+45.04	PC 260' CRIMP RADIUS
WL STA. 6+46.89	8"x6" TEE, 6" VALVE, AND FIRE HYDRANT
WL STA. 6+57.72	8"x6" REDUCER
WL STA. 6+86.16	PT 260' CRIMP RADIUS
WL STA. 7+27.92	6" CAP & BUTTRESS

SEWER HOUSE CONNECTIONS FOX HUNT ESTATES / 44-4445-D

From LOT 1	TO SMH 7-45'3"	TO SMH 8-44'6"
From LOT 2	TO SMH 7-82'2"	TO SMH 8-14'0"
From LOT 3	TO SMH 7-81'9"	TO SMH 8-12'11"
From LOT 4	TO SMH 8-36'6"	TO SMH 9-67'9"
From LOT 5	TO SMH 8-41'3"	TO SMH 9-62'6"
From LOT 6	TO SMH 8-77'11"	TO SMH 9-23'10"
From LOT 7	TO SMH 9-13'8"	TO SMH 10-95'11"
From LOT 8	TO SMH 9-29'8"	TO SMH 10-68'8"
From LOT 9	TO SMH 9-33'10"	TO SMH 10-69'4"
From LOT 10	TO SMH 9-66'0"	TO SMH 10-21'11"
From LOT 11	TO SMH 9-71'2"	TO SMH 10-23'11"
From LOT 12	TO I-2-108'6"	TO SMH 10-15'5"
From LOT 13	TO SMH 7-30'5"	TO SMH 8-80'8"
From LOT 14	TO SMH 7-44'7"	TO SMH 8-53'2"
From LOT 15	TO SMH 7-48'11"	TO SMH 8-60'7"
From LOT 16	TO SMH 1-80'10"	TO SMH 8-28'11"
From LOT 17	TO SMH 7-85'2"	TO SMH 8-28'9"
From LOT 18	TO SMH 8-43'11"	TO FH 2+20-34'11"
From LOT 19	TO FH 2+20-12'5"	TO SMH 9-34'8"
From LOT 20	TO SMH 9-33'10"	TO SMH 10-71'11"
From LOT 21	TO SMH 9-36'7"	TO SMH 10-67'11"
From LOT 22	TO SMH 9-65'8"	TO SMH 10-37'11"
From LOT 23	TO SMH 9-70'6"	TO SMH 10-33'6"
From LOT 24	TO M4-37'2"	TO SMH 3-26'10"
From LOT 25	TO SMH 3-43'4"	TO SMH 4-42'9"
From LOT 26	TO SMH 3-47'11"	TO SMH 4-38'9"
From LOT 27	TO SMH 4-25'5"	TO FH 6+46-38'11"
From LOT 28	TO FH 6+46-40'11"	TO I-1-55'9"
From LOT 29	TO FH 6+46-42'8"	TO I-1-51'5"
From LOT 30	TO I-1-35'5"	TO SMH 5-42'9"
From LOT 31	TO I-1-34'9"	TO SMH 5-31'11"
From LOT 32	TO SMH 5-30'9"	TO FH 4+19-26'10"

SEWER MANHOLE SCHEDULE

NO.	TYPE	TOP ELEV.	INV. IN.	INV. OUT
EX. MH3	STD. PRECAST MH HO. CO. STD. DET. G5.12	333.99	8" EX. (2) 324.50 8" PRP. (1) 326.67	324.30
SMH 101	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 560698.67 E 1374846.84	335.57	328.31
SMH 102	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 560758.56 E 1374704.40	340.08	333.41
SMH 103	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 560769.37 E 1374589.19	346.64	339.27
SMH 104	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 560750.55 E 1374470.68	355.37	345.24
SMH 105	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 560741.29 E 1374442.09	357.49	345.69



SEWER PROFILE
SCALE: 1"=50'HORIZ.
1"=5' VERT.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH FINAL ROAD CONSTRUCTION PLAN SDP-07-007.

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

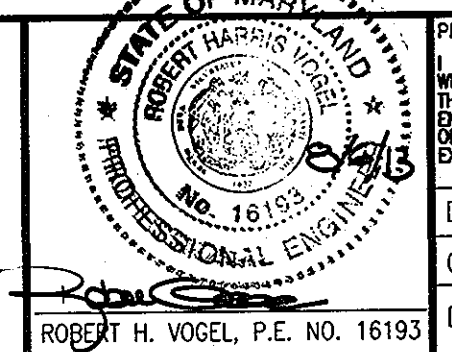
HOWARD COUNTY SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION M.G. DATE 8/13

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELICOTT CITY, MD 21043
TEL: 410.481.7666
FAX: 410.481.8961



PROFESSIONAL CERTIFICATE

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, EXPIRES ON DATE 10-27-2014

DRN: JMR	DES: RHV
CHK: RHV	
DATE: AUGUST 2013	

KC# 3	J.S. OWLEY	1-21-14
R#V 2	REVISE PUBLIC WATER PROFILE.	7-30-13
R#V 1	CREATE LOTS FOR UNITS 4-35. MAKE ALL WATER AND SEWER	5-14-12
	PUBLIC. REVISE WATER AND SEWER LAYOUT AND PROFILES.	
	REVISE WHO'S AND SHO'S.	

BY NO REVISION DATE 600' SCALE MAP NO. 37 BLOCK NO. 3

FINAL WATER & SEWER CONSTRUCTION PLAN

FOX HUNT ESTATES LOTS 4-35 AND OPEN SPACE LOTS 36 & 37 CONTRACT NO. 44-4445-D

SCALE AS SHOWN

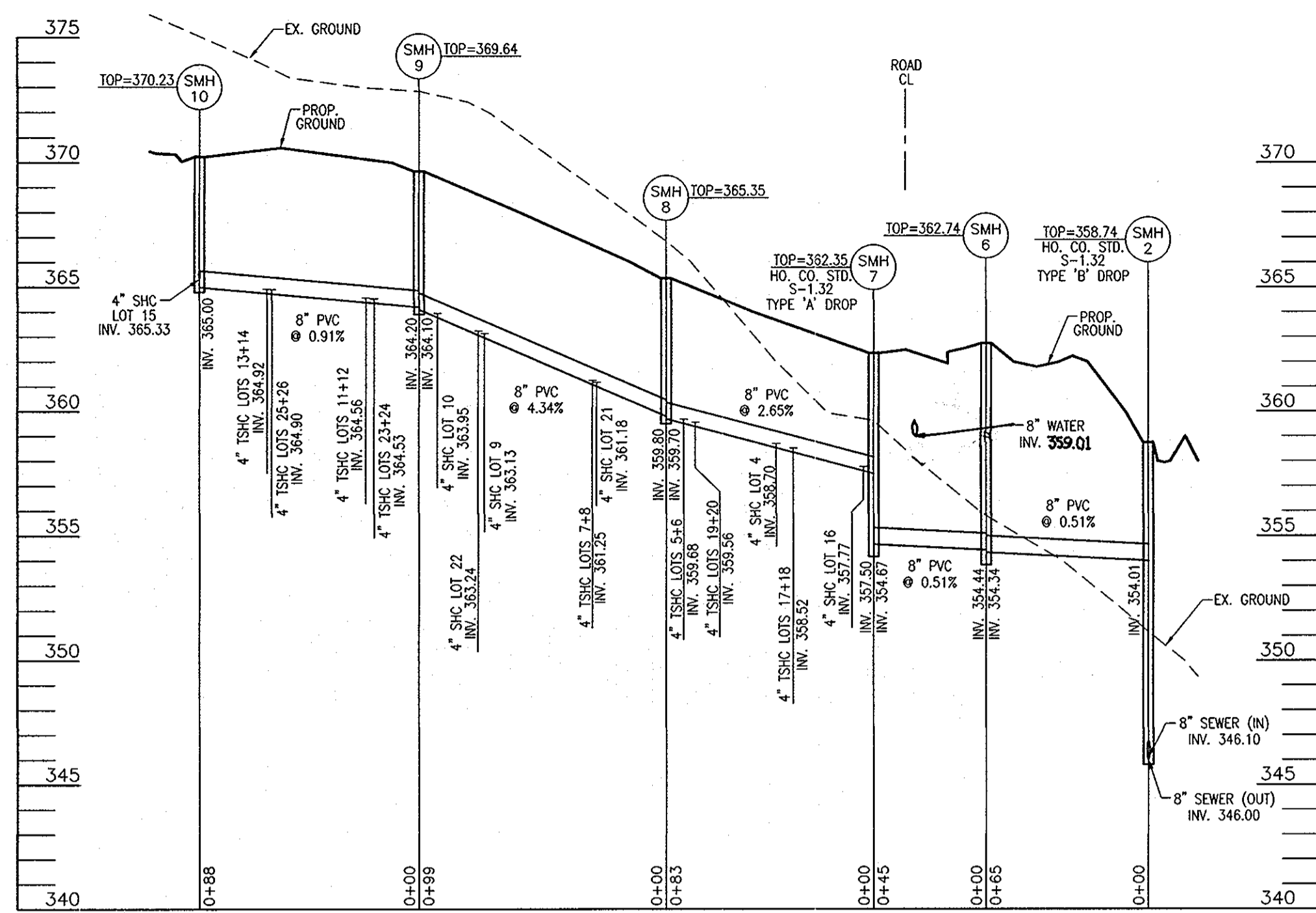
SHEET 3 OF 4

TAX MAP 37 GRID 3 1ST ELECTION DISTRICT

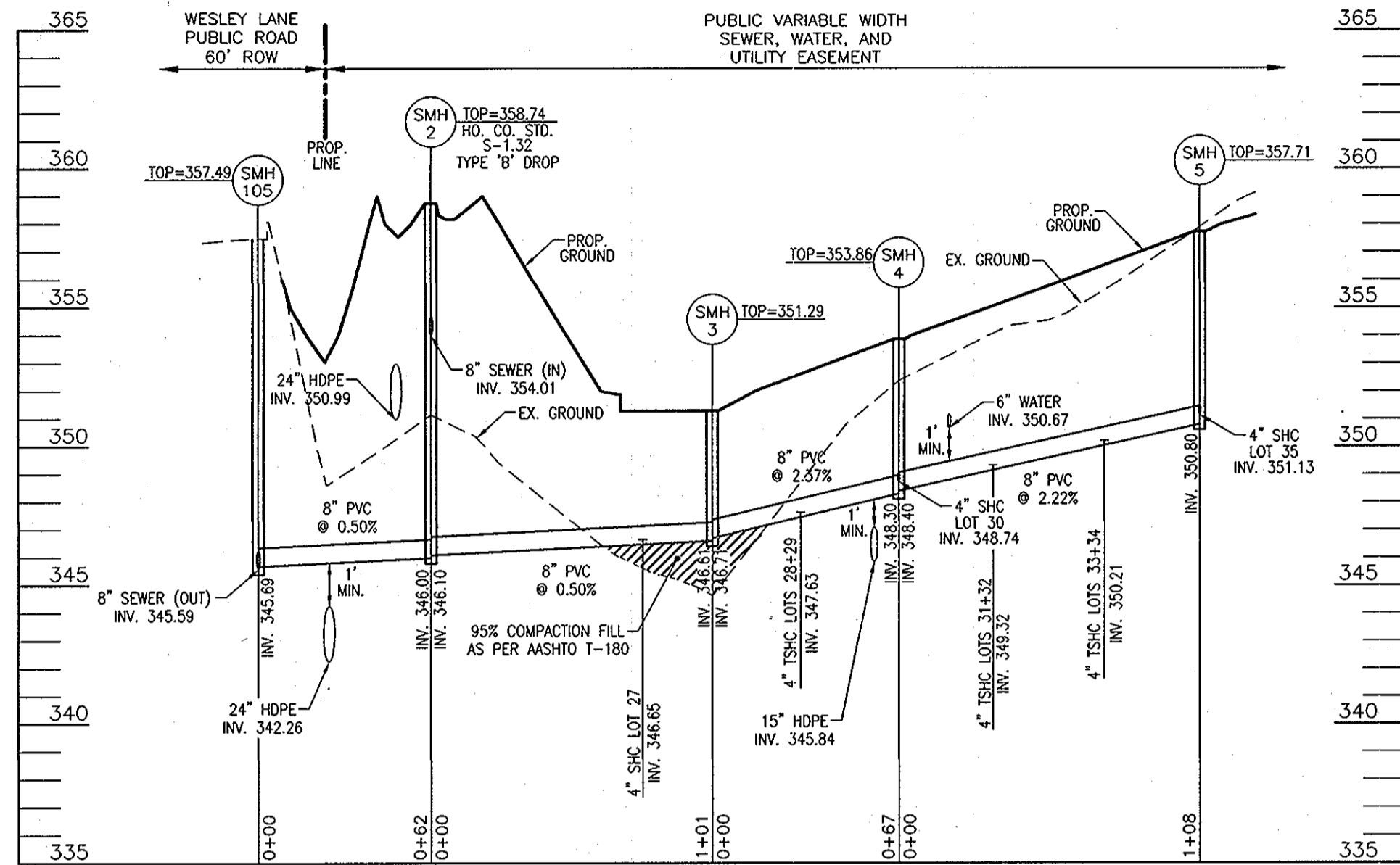
PARCEL 606'S HOWARD COUNTY, MARYLAND

DEVELOPER
LAND DESIGN AND DEVELOPMENT
5300 DORSEY HALL DR STE 102
ELICOTT CITY MD 21042-7819
ATTN: MR. DONALD R. REUWER
(443) 367-0422

SDP-07-007



SEWER PROFILE
SCALE: 1"=50' HORIZ.
1"=5' VERT.



SEWER PROFILE
SCALE: 1"=50' HORIZ.
1"=5' VERT.

SEWER CONNECTION TABULATION							
LOT#	EL. @ MAIN	TYPE	DIST. TO ESMNT.	EL. @ ESMNT.	DIST. ESMT. TO HSE	EL. @ HSE	MCE
4	358.70	SHC	18'	359.06	66'	360.38	363.38
5	359.68	TSHC	16'	360.00	61'	361.22	364.22
6	359.68	TSHC	17'	360.02	58'	361.18	364.18
7	361.25	TSHC	15'	361.55	60'	362.75	365.75
8	361.25	TSHC	17'	361.59	58'	362.75	365.75
9	363.13	SHC	15'	363.43	61'	364.65	367.65
10	363.95	SHC	15'	364.25	59'	365.43	368.43
11	364.56	TSHC	16'	364.88	60'	366.08	369.08
12	364.56	TSHC	18'	364.92	58'	366.08	369.08
13	364.92	TSHC	16'	365.24	60'	366.44	369.44
14	364.92	TSHC	18'	365.28	58'	366.44	369.44
15	365.33	SHC	15'	365.63	68'	366.99	369.99
16	357.77	SHC	30'	358.37	61'	359.59	362.59
17	358.52	TSHC	25'	359.02	67'	360.36	363.36
18	358.52	TSHC	27'	359.06	70'	360.46	363.46
19	359.56	TSHC	27'	360.10	67'	361.44	364.44
20	359.56	TSHC	31'	360.18	68'	361.54	364.54
21	361.18	SHC	28'	361.74	58'	362.90	365.90
22	363.24	SHC	28'	363.80	65'	365.10	368.10
23	364.53	TSHC	26'	365.05	69'	366.43	369.43
24	364.53	TSHC	28'	365.09	66'	366.41	369.41
25	364.90	TSHC	26'	365.42	66'	366.74	369.74
26	364.90	TSHC	29'	365.48	63'	366.74	369.74
27	346.65	SHC	13'	346.91	60'	348.11	351.11
28	347.63	TSHC	26'	348.15	58'	349.31	352.31
29	347.63	TSHC	28'	348.19	60'	349.39	352.39
30	348.74	SHC	25'	349.24	58'	350.40	353.40
31	349.32	TSHC	26'	349.84	60'	351.04	354.04
32	349.32	TSHC	28'	349.88	58'	351.04	354.04
33	350.21	TSHC	26'	350.73	60'	351.93	354.93
34	350.21	TSHC	28'	350.77	58'	351.93	354.93
35	351.13	SHC	30'	351.73	58'	352.89	355.89

SEWER MANHOLE SCHEDULE							
NO.	TYPE	LOCATION	TOP ELEV.	INV. IN.	INV. OUT		
SMH 2	TYPE 'B' DROP MH HO. CO. STD. DET. S-1.32	N 560800.02 E 1374420.78	358.74	354.01	346.00		
SMH 3	STD. PRECAST MH HO. CO. STD. DET. G-5.12	N 560868.35 E 1374495.26	351.29	346.71	346.61		
SMH 4	STD. PRECAST MH HO. CO. STD. DET. G-5.12	N 560934.27 E 1374481.32	353.86	348.74	348.30		
SMH 5	STD. PRECAST MH HO. CO. STD. DET. G-5.12	N 561042.60 E 1374475.87	357.71	351.13	350.80		
SMH 6	STD. PRECAST MH HO. CO. STD. DET. G-5.12	N 560776.96 E 1374360.01	362.74	354.44	354.34		
SMH 7	STD. PRECAST MH HO. CO. STD. DET. S-1.32	N 560777.24 E 1374314.96	362.35	357.50	354.67		
SMH 8	STD. PRECAST MH HO. CO. STD. DET. G-5.12	N 560853.10 E 1374281.70	365.35	359.80	359.70		
SMH 9	STD. PRECAST MH HO. CO. STD. DET. G-5.12	N 560950.88 E 1374266.77	369.64	364.20	364.10		
SMH 10	STD. PRECAST MH HO. CO. STD. DET. G-5.12	N 561038.54 E 1374269.11	370.23	365.33	365.00		

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH FINAL ROAD CONSTRUCTION PLAN SDP-07-007.

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

HOWARD COUNTY SOIL CONSERVATION DISTRICT DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S. SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

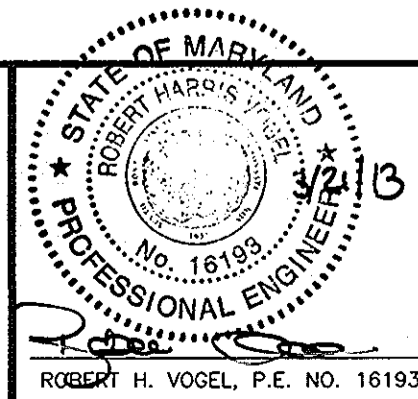
DEVELOPER
100% LAND, INC.
5300 DORSEY HALL DR STE 102
ELLICOTT CITY MD 21042-7819
ATTN: MR. DONALD R. REUWER
(443) 367-0422

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 5/21/13

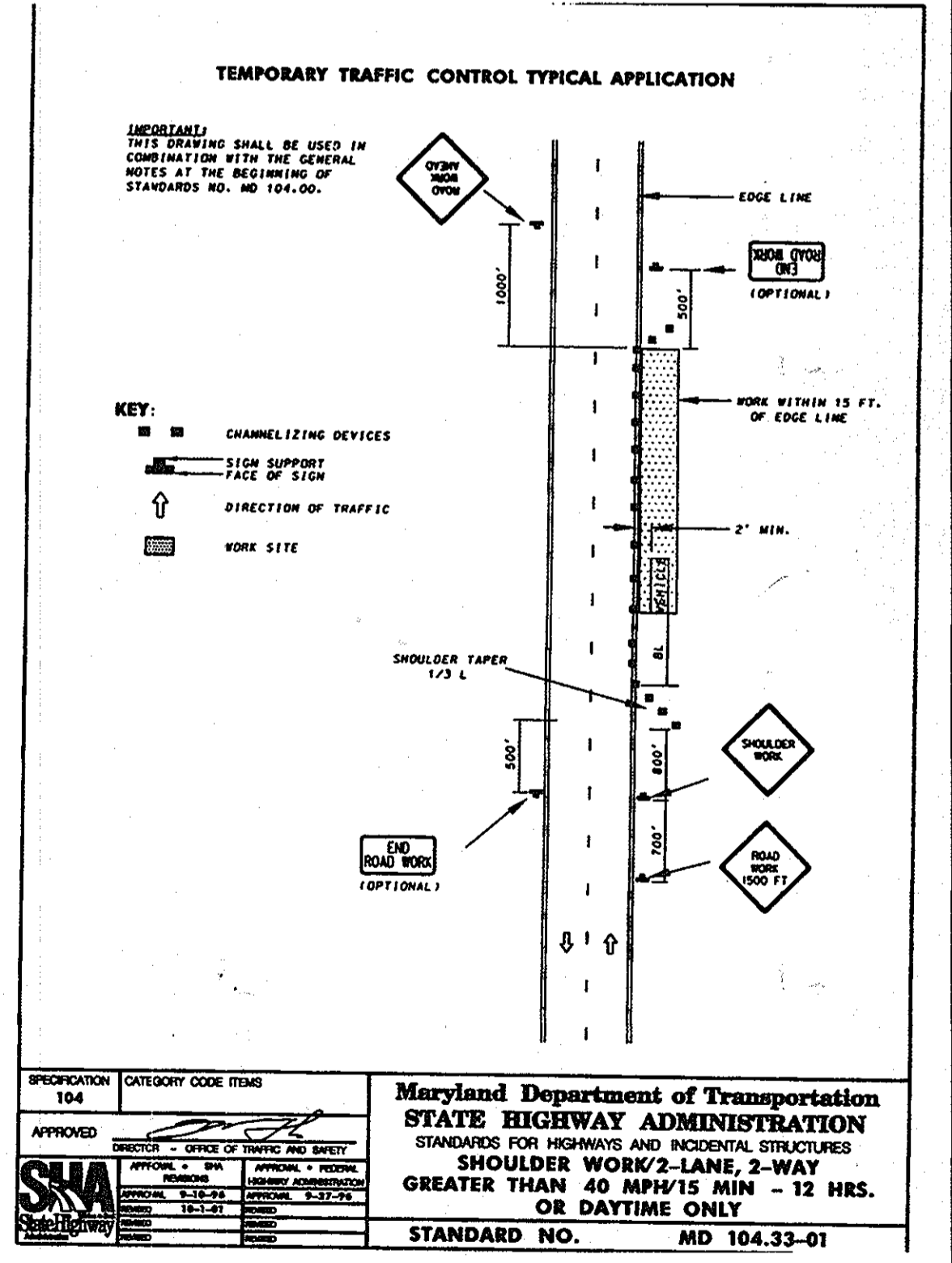
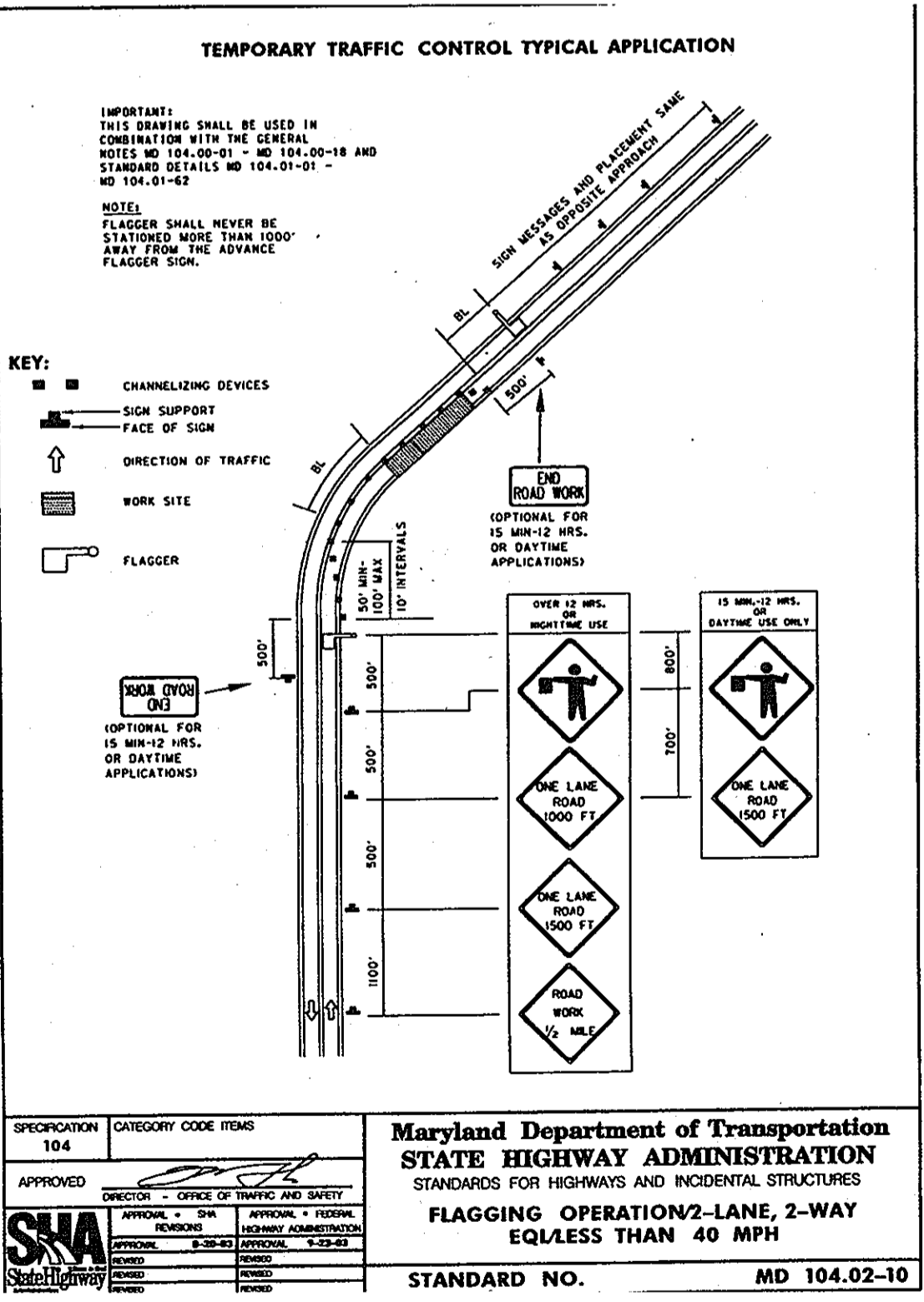
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF UTILITIES DATE 5/14/13

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961



DESIGN BY:	RJ			
DRAWN BY:	RJ	JMR 2	MODIFY WATER MAIN PROFILE	8-06-13
		JMR 1	CREATE LOTS FOR LOTS 4-35. MAKE ALL WATER	5-14-12
CHECKED BY:	RHV		AND SEWER PUBLIC. REVISE WATER AND SEWER	
			LAYOUT AND PROFILES. REVISE WHC'S AND SHC'S.	
DATE:	JANUARY 2008	BY:	NO	REVISION
				DATE



MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES FLAGGING OPERATION 2-LANE, 2-WAY EQUALS LESS THAN 40 MPH STANDARD NO. MD 104.02-10

MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES SHOULDER WORK 2-LANE, 2-WAY GREATER THAN 40 MPH 15 MIN - 12 HRS. OR DAYTIME ONLY STANDARD NO. MD 104.03-01

FINAL WATER & SEWER CONSTRUCTION PLAN

FOX HUNT ESTATES LOTS 4-35 AND OPEN SPACE LOTS 36 & 37 CONTRACT NO. 44-4445-D

SCALE AS SHOWN SHEET 4 OF 4