ITEMS	QUANTITIES						
	ESTIMATED	QUANTITIES	TYPE	MANUFACTURER/SUPPLIER			
STANDARD MH (HO. CO. STD.G-5.01)	5	5 EA.	PRECAST	ATLANTIC CONC. PRODUCTS/			
8" SEWER MAIN	707 L.F.	707 L.F.	PYC SDR35	J.M.EAGLE/			
4" SEWER HOUSE CONNECTION	20L.F.	20 L.F.	PVC SDR35	J.MEAGLE/			
# SEWER HOUSE CONNECTIONS	3 EACH	3EA.	PVCSDR35	J.M.EAGLE/			
# MANHOLE SEWER HOUSE CONNECTIONS	1 EACH	IEA.	PVCSDR35	J.M. EAGLE/			
B" WATER MAIN	415 L.F.	415 L.F.	CL.54DIP	GRIFFIN PIPE/			
" WATER MAIN	4.10 L.F.	410L.F.	CL.54DIP	GRIFFIN PIPE/			
.5" WATER HOUSE CONNECTION	40L.F.	39 L.F.	K'COPPER	READING TUBE/			
TWIN WHC (LOTS 3/4)	2 EACH	IEA.	Y'BRANCH	MUELLER GO./			
2"x 8" R.	: 1 EACH	I EA.	MJOIP	SIGMA CORP./			
6" CAP & BUTTRESS	1 EACH	I EA.	MJDIP	SIGMA CORP./			
Ж н.в. (8") 1/32 н.в. (8")	2 EACH	2EA.	MJ	SIGMA CORP./			
3"x6" R.	1 EACH	IEA.	MJ	SIGMA CORP.			
.H	1 EACH	IEA.	6-0"	MUELLER CO./			
3"x6" F.H.T. & V.	1 EACH	IEA.	T=DIP	SIGMA CORP!			
			V=GATEV.	MUELLER CO./			
The The Thirty And							

CONTRACT NO.: 24-4292-D ELKHORN OVERLOOK 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 AND PROFILES

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. 9/13/06 DÉVELOPER'S SIGNATURE RITAGO NIKMAT, AUTHORIZED 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 REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS. THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE SOIL

PLAN REFERENCE NUMBERS: F-05-131 ### SCALE 1"=600'

AG-Was 44-3846-D

WATER CODE = D-04

SEWER CODE = 2152700

REST GRADIENT = 700

BLOCK NUMBER = 11

TYPE OF BUILDING SFD

No. OF UNITS 4

No. OF WATER HOUSE CONNECTION 4

No. OF SEWER HOUSE CONNECTIONS 4

DRAINAGE AREA PATAPSCO

TREATMENT PLANT PATAPSCO WWTP

PARCEL NUMBER = 246

GENERAL NOTES

- 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.

 2. TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON MAY 2004 BY MILDENBERG BOENDER & ASSOCIATES .
- 3. 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. 36FB AND NO. 36FC.
 ALL VERTICAL CONTROLS ARE BASED ON NAVD '29. VERTICAL CONTROLS
 PROVIDED ON THE DRAWINGS ARE HO.CO. GEODETIC CONTROL STA. 36FB
- 4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE
- 5. 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 BRAING 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 OWNED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPLANIES TO SCHEDULE THE BRACING OF THE POLES.
- 6. 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.
- 7. WHERE TEST PITS HAVE BEEN MADE ON EXISITING UTILITIES, THAY 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 LOCATEED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
- 8. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEASE FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

AT&T	1-800-252-1133
BGE(CONSTRUCTION SERVICES)	410-850-4620
BGE(EMERGENCY)	410-685-1400
BURÈAU OF UTILITIES	410-313-4900
COLONIAL PIPELINE CO	410-795-1390
STATE HIGHWAY ADMINISTRATION	410-531-5533
VERIZON1-800	-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 CONSTRUCTOR.
- 10. THE CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATED. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- 11. 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(a) OF THE HOWARD COUNTY CODE.
- 12. PLEASE USE CAUTION WHILE EXCAVATIING IN THE VICINITY OF OVERHEAD ELECTRICAL LINES.

WATER

- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
 TOPS OF ALL WATER MAINS SHALL HAVE A MIMIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
- 3. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.

 4. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS LINESS OTHERWISE PROVIDED FOR
- ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.

 5. 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
- 6. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.

SEWER

- 1. ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
 2. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE
- 3. FORCE MAINS SHALL BE D.I.P. ONLY.
- 4. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- 5. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER, STANDARD DETAIL G5.52. WHERE WATERTIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- 6. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATED THAT THE CELLAR CANNOT BE SERVED.

AS BUILT

OWNER

ELKHORN L.L.C.

C/O MILDENBERG BOENDER AND ASSOC., INC.
5072 DORSEY HALL DRIVE SUITE 202
ELLICOTT CITY, MARYLAND 21043
(401)997-0296

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

CHIEF, DEVELOPMENT ENGINEERING DIVISION DA

MILDENBERG,
BOENDER & ASSOC., INC.

Engineers Planners Surveyors

5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21(42)
(410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0298 Fax.

3		engineering MMM				
	illustration MMM			· · ·		
	approval JBM					
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		04-015	MMM	2	REV. QUANTITY TABLE	4/22/10
		date SEPT.2005	BY	NO.	REVISION	DATE
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TITLE SHEET

600' SCALE MAP NO. 36 BLOCK NO. 11

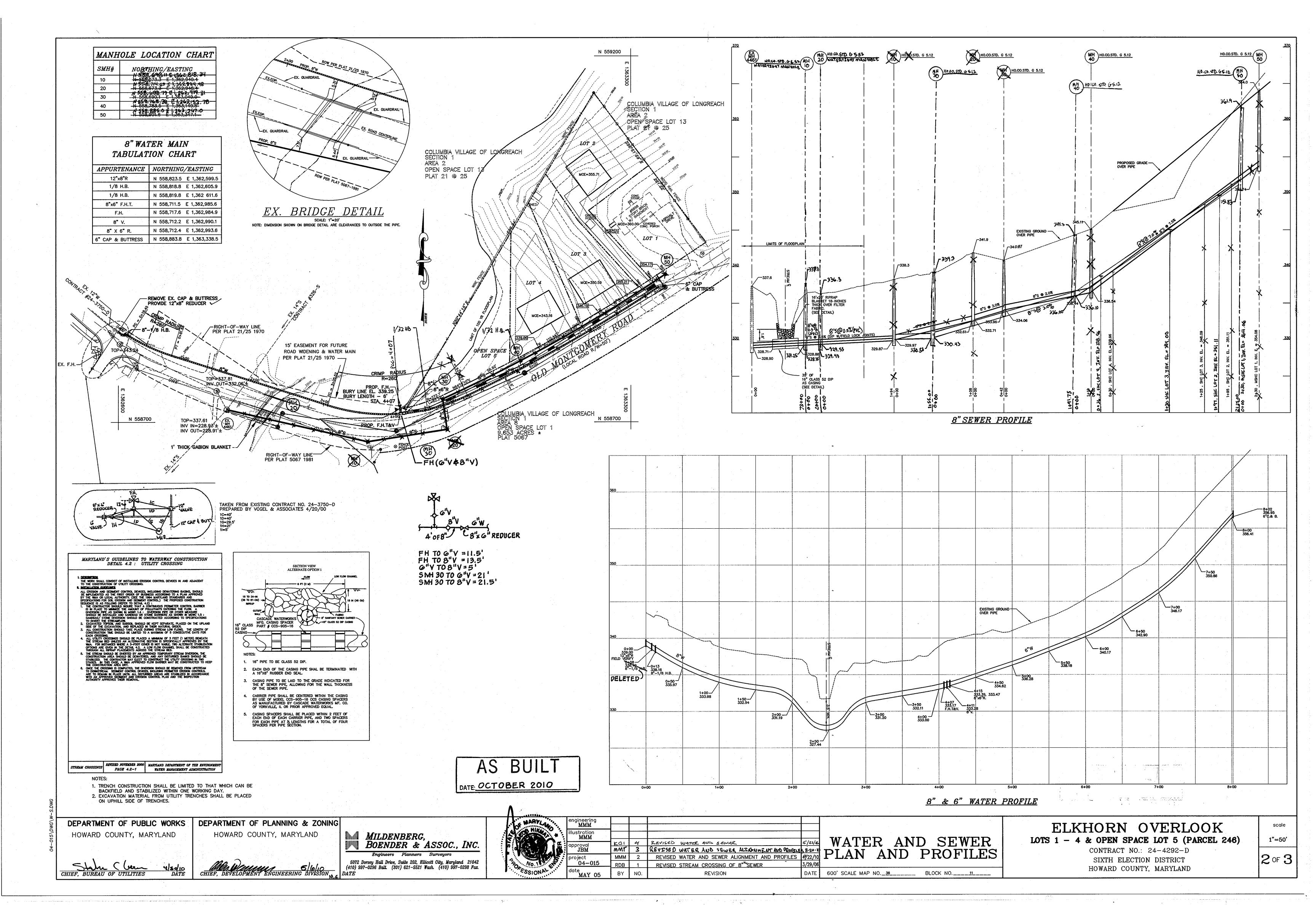
ELKHORN OVERLOOK LOTS 1 - 4 & OPEN SPACE LOT 5 (PARCEL 246)

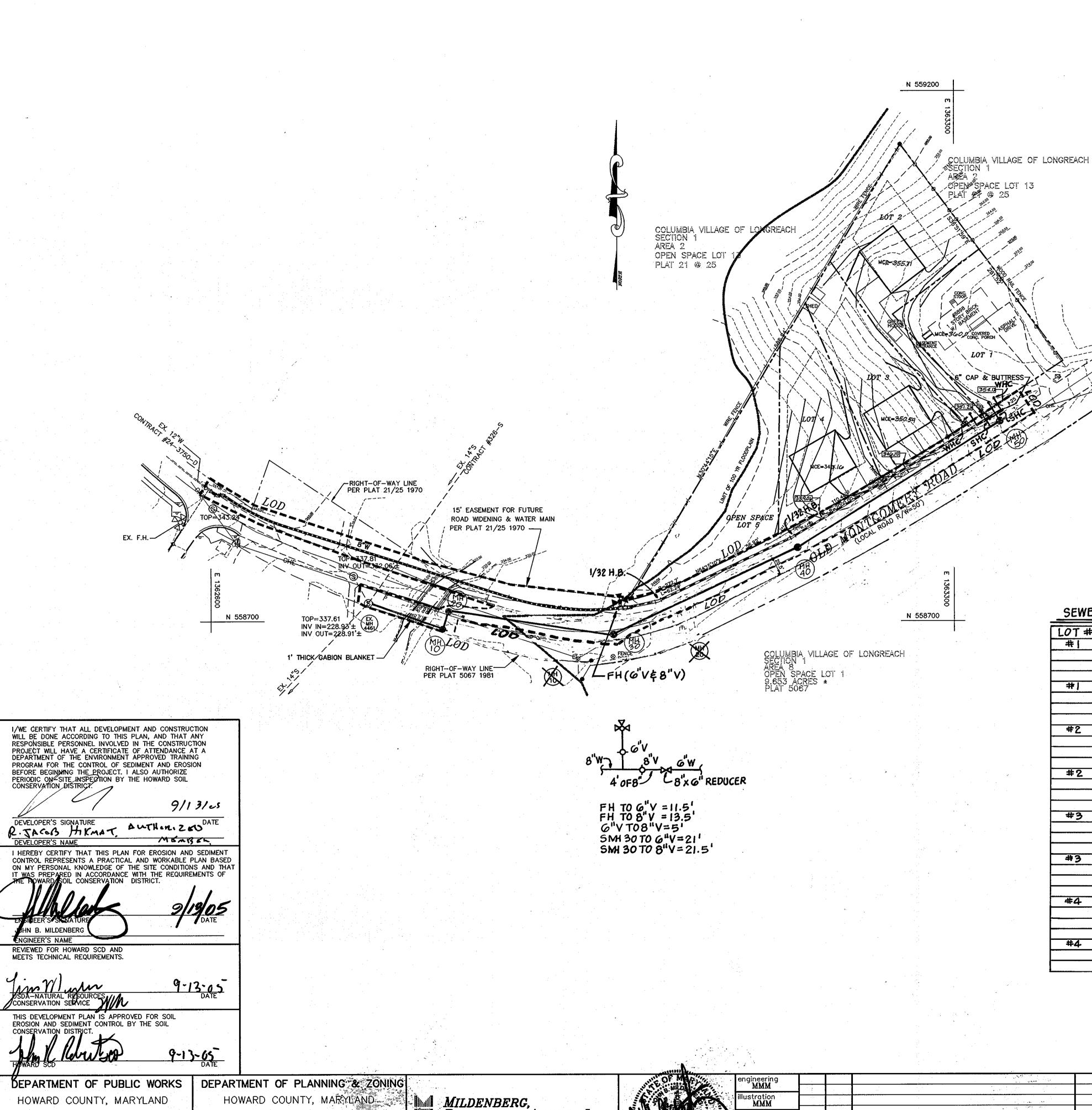
CONTRACT NO.: 24-4292-D
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

OF **3**

AS SHOWN

1 of 3





SEQUENCE OF CONSTRUCTION:

1. OBTAIN GRADING PERMIT (1 DAY).

2. CONSTRUCT UTILITIES AS INDICATED (10 DAYS). -TRENCH EXCAVATION SHALL BE LIMITED TO THAT WHICH CAN BE BACKFILLED AND STABILIZED WITHIN ONE WORKING DAY.

- EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCH. 3. SEE SHEET 2 OF 3 FOR STREAM CROSSING DETAIL.

4. PROVIDE SILT FENCE AT THE DISCRETION OF THE SEDIMENT CONTROL INSPECTOR.

5. STABILIZE REMAINING DISTURBED AREA (2 DAYS).

WATER VALVES - AS BUILTS SEWER AND WATER HOUSE CONNECTIONS - AS BUILTS

	FROM	TO	DISTANCE	REMARKS		VALVES	FROM	TO	DISTANCE
_	SM-50	SHC	21.7'				FH STA.4+07	O"VALVE	11.5
	SHC LOT 2	SHC	7.91			STA.4+07	8"VSTA.4+11	6" VALVE	5'
	SHC LOT I	SHC	51		,		SMH-30	G"VALVE	21
	5M-50	WHC	23.7'			8"V STA.4+11	FH STA.4+07	8" VALVE	13.5'
	SHC LOT I	WHC	5'				6"VSTA.4+07	8"VALVE	5'
	WHC LOT 2	WHC	27.5'				SM-30	8"VALVE	21.5'
	SM-50	SHC	21.4'						
	WHC LOT 2	SHC	15.5'			· ·			
	SHC LOT I	SHC	7.91				•		
	SM-50	WHC	32'						
	WHC LOT I	WHC	27.51			•			
	SHC LOT 2	WHC	15.51				•		
				*					
	SM-40	SHC	126'	SEE SKETCH BELOW	:	**			
	T-WHC LOTS 3/4	SHC	251						
	L.F. OF H. LOT3	SHC	231						e e
									•

L.F. OF H. = LEFT FRONT OF HOUSE R. F. OF H. = RIGHT FRONT OF HOUSE

R.F. 0FH. LOT4 WHC 23.0'

T-WHC LOTS 3/4 5HC 65.5'

R.F. OF H. LOT4 WHC 23.6'

WHC 1031 WHC 25'

SM-40 SHC 41' SEE SKETCH BELOW L.F. OF H. LOT 4 SHC 25'

WHC 1031

WHC 65.51

SM1-40

SM-40

SHC LOT 4

SHC LOT 3

AS BUILT DATE OCTOBER 2010

BOENDER & ASSOC., INC. 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 2 (410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0298

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N. BATTON	illustration MMM	- 14		
	approval JBM			
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	project 04-015	MBA	3	REV. WATER & SEWER ALIGNMENT; REV. LOD
		MMM	Ń	REV. ALIGNMENT OF WATER & SEWER; REY. LOD
	date SEPT.2005	BY	NO.	REVISION
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SEDIMENT CONTROL PLAN

600' SCALE MAP NO. 36 BLOCK NO. 11

ELKHORN OVERLOOK LOTS 1 - 4 & OPEN SPACE LOT 5 (PARCEL 246)

CONTRACT NO.: 24-4292-D SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

3 OF 3

1"=50'

scale