

QUANTITY TABLE

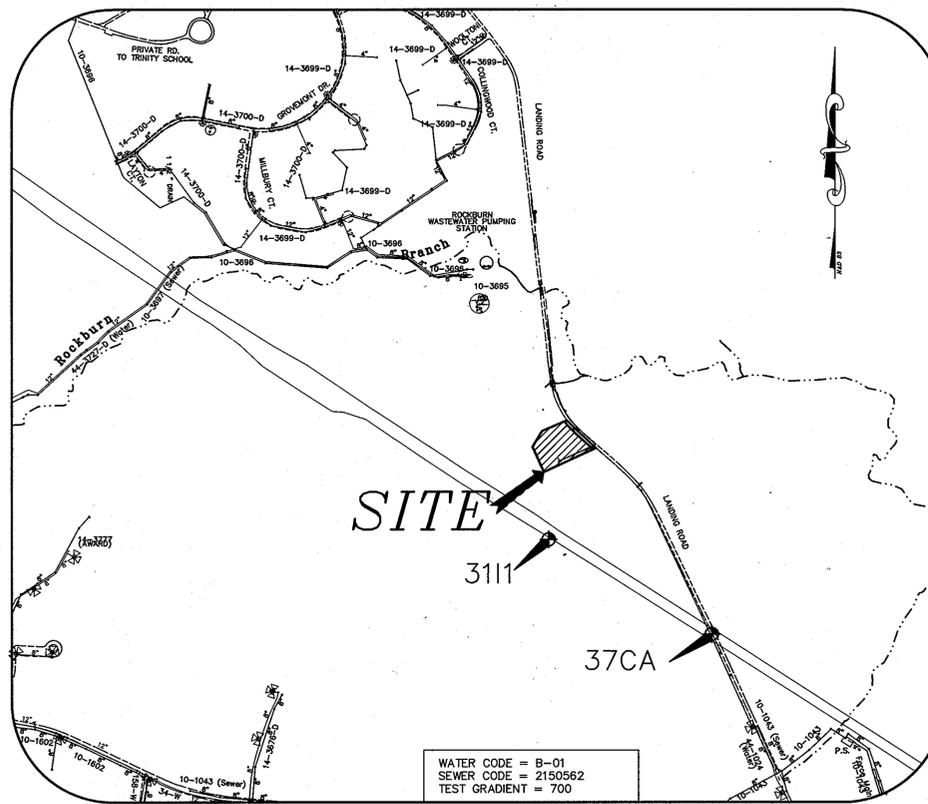
ITEMS	QUANTITIES		TYPE	MANUFACTURER/SUPPLIER
	ESTIMATED			
STANDARD MH (HO. CO. STD.G-5.12)	1			
AIR RELEASE VALVE MANHOLE	3	3	C.I.	EDIW U.S.A.
8" SEWER MAIN	11.5 L.F.			
2" HDPE FORCE MAIN W/ FUSED JOINTS & TRACER WIRE	549 L.F.	1825 L.F.		
1 1/4" FORCE MAIN	448 L.F.	225 L.F.		
4" SHC	248 L.F.			
# SEWER HOUSE CONNECTIONS	4 EACH	4 EACH		
12" WATER MAIN	1004 LF	1060 L.F.	D.I.P.	J.M. MFG.
4" WATER MAIN	322 LF	322 L.F.	D.I.P.	J.M. MFG.
1" WATER HOUSE CONNECTION	60 LF	100 L.F.	1"	READING TUBE
# WATER HOUSE CONNECTIONS	4 EACH	4 EACH		MUELLER
4" CAP & BUTTRESS	1 EACH	1 EACH	EPOXY COAT	STAR PIPE
12"x4" TEE	1 EACH	1 EACH	EPOXY COAT	STAR PIPE
1/8" H.B. (12")	4 EACH	4 EACH	EPOXY COAT	STAR PIPE
F.H.	2 EACH	2 EACH	5'6"	MUELLER
12"x6" F.H.T. & V.	2 EACH	2 EACH	EPOXY COAT	STAR PIPE
1/32" HB	3 EACH	0		

NAME OF UTILITY CONTRACTOR: W.F. WILSON
 SURVEY AND DRAFTING DIVISION AS-BUILT DATE:

INDEX OF DRAWINGS

NO.	DESCRIPTION
1	COVER SHEET
2	SEWER & WATER PLAN
3	WATER MAIN PROFILE
4	SEWER MAIN PROFILE
5	SEWER MAIN PROFILE
6	WATER & SEWER DETAILS

EROSION AND SEDIMENT CONTROL FOR THIS CONTRACT IS PROVIDED UNDER GP-05-86



VICINITY MAP

SCALE 1"=600'

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

**CONTRACT NO.: 14-4256-D
 KESSLER PROPERTY
 LOT 1 & NON-BUILDABLE BULK PARCEL A
 WATER AND SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS**

THIS SHEET REPLACES SHEET PREVIOUSLY SIGNED ON 9/4/2008

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.
- TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON APRIL 1997 BY O'CONNELL & LAWRENCE, INC. BOUNDARY SHOWN HEREON BASED ON FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT MARCH 2003 BY MILDENBERG BOENDER & ASSOCIATES.
- 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. 241A AND NO. 241B. ALL VERTICAL CONTROLS ARE BASED ON NAVD '29. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE HO.CO. GEODETIC CONTROL STA. 3111 & 37CA.
 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 OWNED 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:
 AT&T1-800-252-1133
 BGE(CONSTRUCTION SERVICES).....410-850-4620
 BGE(EMERGENCY).....410-685-1400
 BUREAU OF UTILITIES.....410-313-4900
 COLONIAL PIPELINE CO.....410-795-1390
 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 EXCAVATED. 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(a) OF THE HOWARD COUNTY CODE.
- PLEASE USE CAUTION WHILE EXCAVATING IN THE VICINITY OF OVERHEAD ELECTRICAL LINES.

- WATER**
- ALL WATER MAINS SHALL BE PVC 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 PIPE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS. FIRE HYDRANTS ARE D.I.P. ONLY. VALVES ARE TO BE ATTACHED WITH IRON FITTINGS AND CONCRETE ANCHORS. THE DIMENSION RATIO FOR PVC MAIN SHALL BE 18, EPOXY COATED DIP OR PVC FITTINGS.
 - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
 - THE EXISTING 3" WATER MAIN, CONTRACT 135-W, SHALL BE REPLACED WITH AN 8" WATER MAIN UNDER CONTRACT 44-4073. THE CONSTRUCTION OF THIS 8" WATER MAIN HAS NOT BEEN SCHEDULED YET. PLEASE NOTE THAT WE HAVE INCLUDED BOTH CONTRACT INFORMATION. THE CONTRACTOR SHALL USE THE APPROPRIATE ELEVATION AT THE TIME OF CONSTRUCTION OF THIS CONTRACT.
- 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 4" HDPE SDR11 WITH 6" HDPE SLEEVE & TRACER WIRE AS SHOWN.
 - 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 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." INDICATED THAT THE CELLAR CANNOT BE SERVED.
 - ALL SHC TO GRINDING PUMP TO BE 4".
 - LOT 1 AND LOT 2 WILL USE A COMMON TWIN GRINDING PUMP AS SHOWN ON PLAN AND SAME AS LOT 3 AND LOT 4.
 - ALL GRINDING PUMPS TO BE ENVIRONMENTAL ONE AND MODEL GP 2014.
 - ENVIRONMENTAL ONE PUMP TO BE PRIVATELY OWNED, MAINTAINED AND INSTALLED BY THE PROPERTY OWNER.

AS BUILT
 BY: DJ DATE: 2-11-11

OWNER
 KESSLER PROPERTY, LLC
 8000 MAIN STREET
 ELLICOTT CITY, MARYLAND 21043
 410-480-9105

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.

DEVELOPER'S SIGNATURE _____ DATE _____
 DONALD REUWER JR.
 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.

ENGINEER'S SIGNATURE _____ DATE _____
 R. JACOB HIKMAT
 ENGINEER'S NAME

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

HOWARD SCD _____ DATE _____

USDA-NATURAL RESOURCES CONSERVATION SERVICE

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

John K. Robertson 12/2/10
 HOWARD SCD DATE

PLAN REFERENCE NUMBERS:
 GP-05-86

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND

11/21/10
 CHIEF, BUREAU OF UTILITIES DATE

12/2/10
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hill Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0286 Ball. (301) 621-5521 Wash. (410) 997-0288 Fax

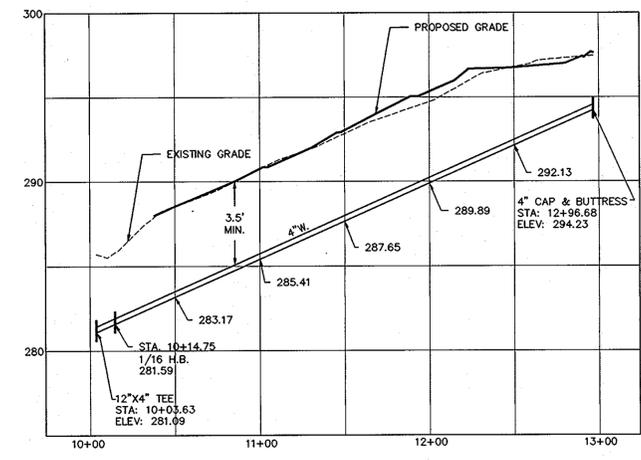
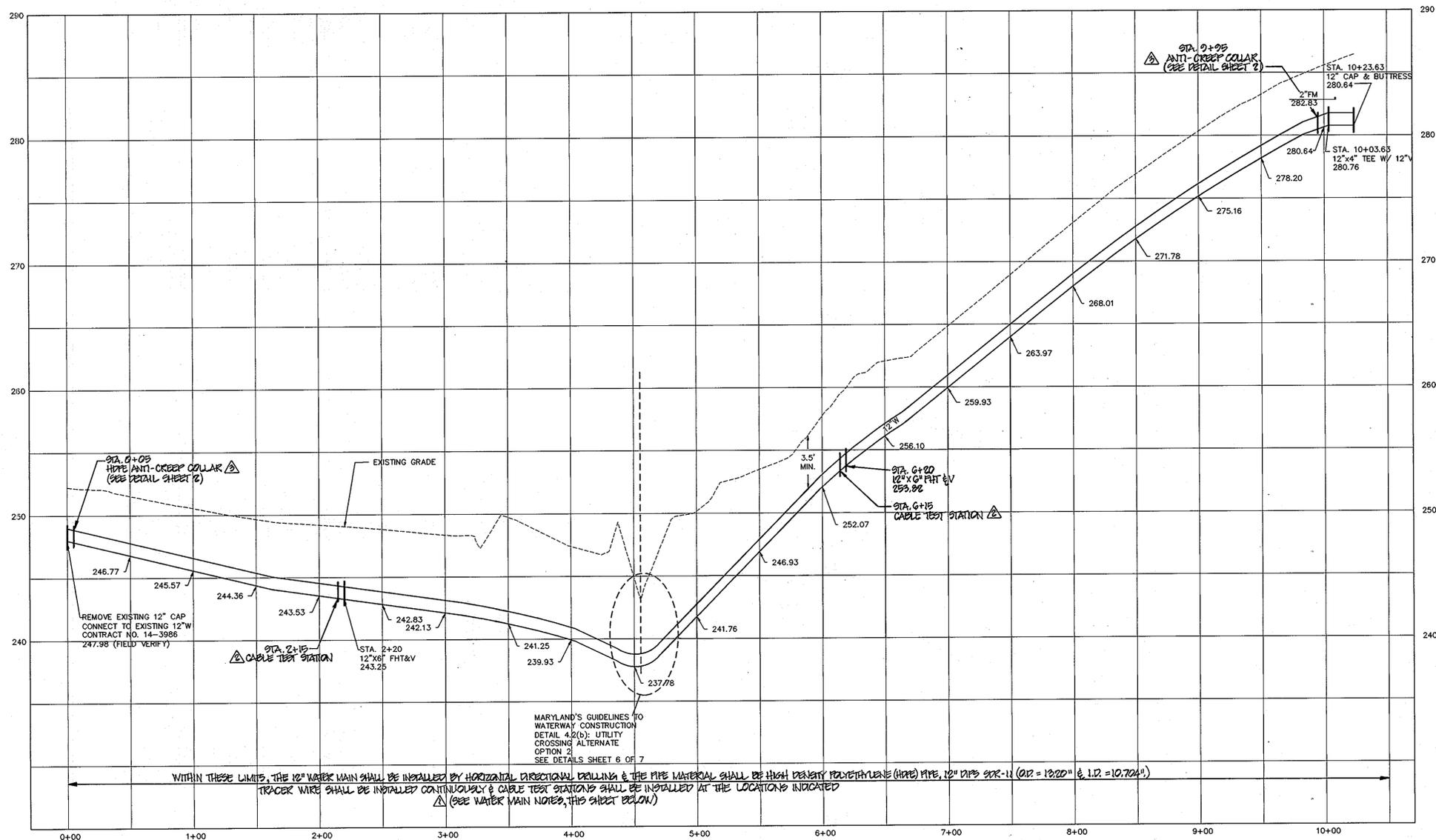
engineering	MMM				
illustration	MMM				
approval	RJH				
project	04-009	MMB	1	REV GENERAL NOTES AND QUANTITY TABLE	9/22/10
date	OCT.2010	BY	NO.	REVISION	DATE

COVER SHEET

600' SCALE MAP NO. 31 BLOCK NO. 24

KESSLER PROPERTY
 LOT 1 & NON BUILDABLE BULK PARCEL A
 CONTRACT 14-4256-D
 FIRST ELECTION DISTRICT
 HOWARD COUNTY

scale AS SHOWN
 1 OF 6



WATER MAIN PROFILE

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

WATER MAIN NOTES:

1. TRACER WIRE, LOCATING TAPE AND CABLE TEST STATIONS SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME II WATER AND SEWER STANDARDS FOR HOPE WATER PIPE INSTALLATION.
2. FIRE HYDRANT INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.

WITHIN THESE LIMITS, THE 12" WATER MAIN SHALL BE INSTALLED BY HORIZONTAL DIRECTIONAL DRILLING & THE PIPE MATERIAL SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) PIPE, 12" PIPS 900-11 (OD = 12.00" & I.D. = 10.704")
TRACER WIRE SHALL BE INSTALLED CONTINUOUSLY & CABLE TEST STATIONS SHALL BE INSTALLED AT THE LOCATIONS INDICATED (SEE WATER MAIN NOTES, THIS SHEET BELOW)

MARYLAND'S GUIDELINES TO WATERWAY CONSTRUCTION
DETAIL 4.2(2): UTILITY CROSSING ALTERNATE OPTION 2
SEE DETAILS SHEET 6 OF 7

THIS SHEET REPLACES SHEET PREVIOUSLY SIGNED ON 8/15/05

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

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION

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	RJH	FCC	ADD WATER MAIN NOTES RE. TRACER WIRE & FIRE HYDRANT INSTALLATION	9/6/09	
		FCC	INDICATE INSTALLATION OF ANTI-CREEP COLLARS & REFERENCE DETAIL	9/29/09	
		FCC	INDICATE INSTALLATION OF CABLE TEST STATIONS	9/29/09	
		FCC	ADD NOTE RE. HOPE PIPE AT AREA OF HORIZ. DIRECTIONAL DRILL	9/29/09	
date	MARCH 2008	BY	NO.	REVISION	DATE

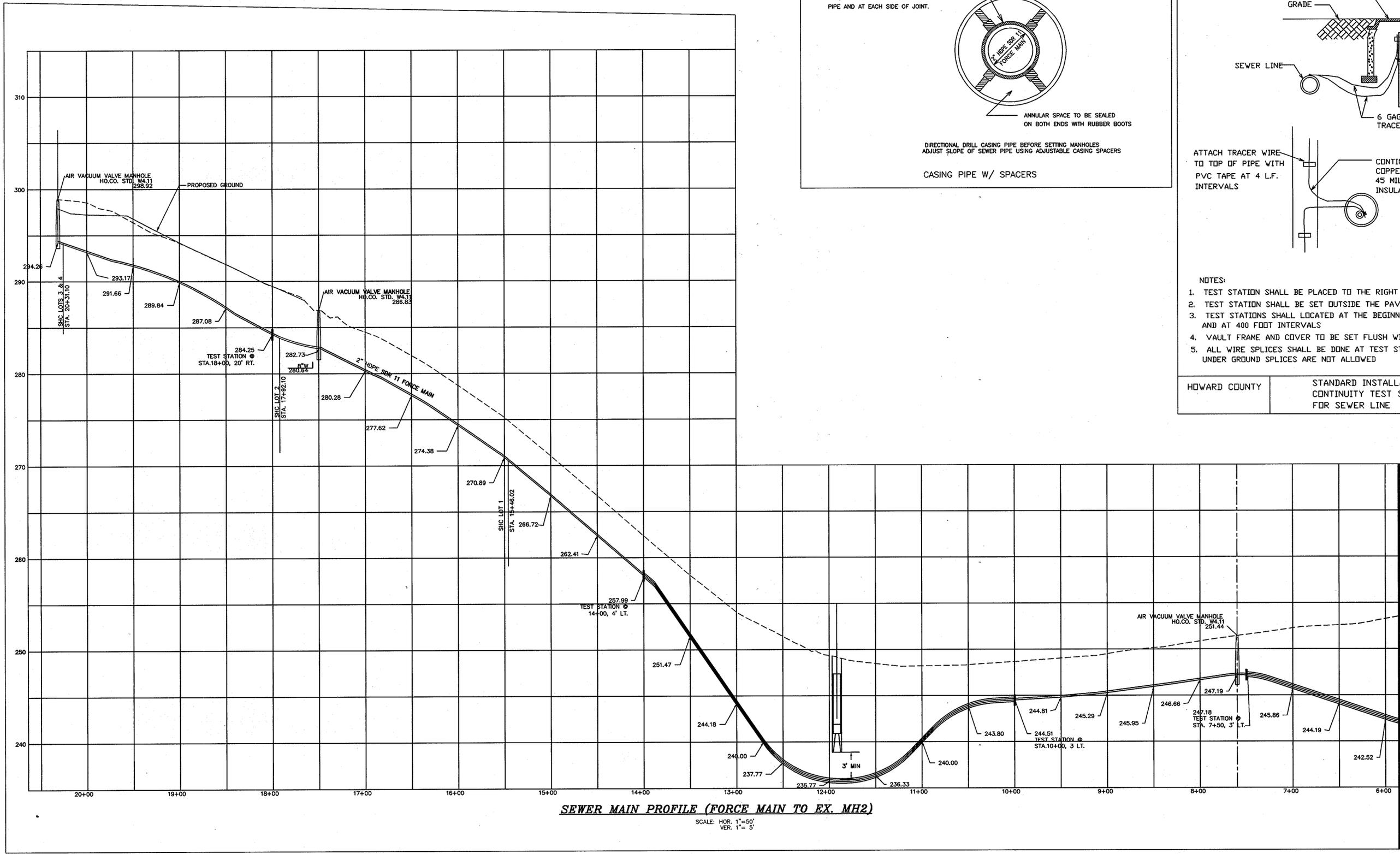
WATER PROFILE
600' SCALE MAP NO. _____ BLOCK NO. _____

KESSLER PROPERTY
LOT 1 & NON-BUILDABLE BULK PARCEL A
CONTRACT 14-4256-D
FIRST ELECTION DISTRICT
HOWARD COUNTY

scale
AS SHOWN
3 OF 6

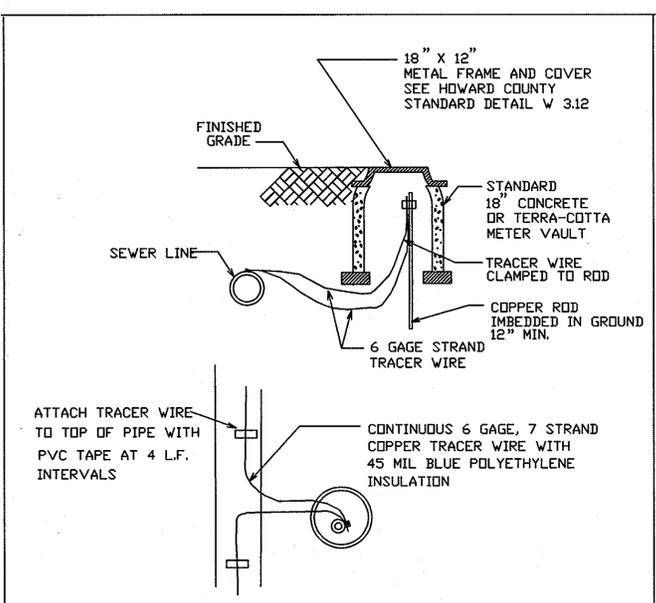
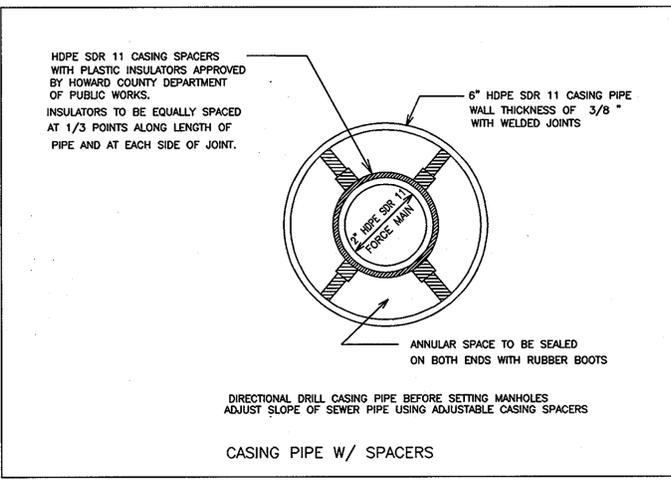
OWNER
KESSLER PROPERTY, LLC
8000 MAIN STREET
ELLCOTT CITY, MARYLAND 21043
410-480-9105
AS BUILT
DATE: 2-11-11

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SEWER MAIN PROFILE (FORCE MAIN TO EX. MH2)

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



- NOTES:
1. TEST STATION SHALL BE PLACED TO THE RIGHT OR LEFT OF THE SEWER LINE
 2. TEST STATION SHALL BE SET OUTSIDE THE PAVED ROADWAY
 3. TEST STATIONS SHALL LOCATED AT THE BEGINNING AND END OF THE PIPE RUN AND AT 400 FOOT INTERVALS
 4. VAULT FRAME AND COVER TO BE SET FLUSH WITH FINAL GRADE
 5. ALL WIRE SPLICES SHALL BE DONE AT TEST STATIONS
UNDER GROUND SPLICES ARE NOT ALLOWED

HOWARD COUNTY STANDARD INSTALLATION
CONTINUITY TEST STATION
FOR SEWER LINE

MATCHLINE THIS SHEET

AS BUILT
2008 MAR 2-11-11

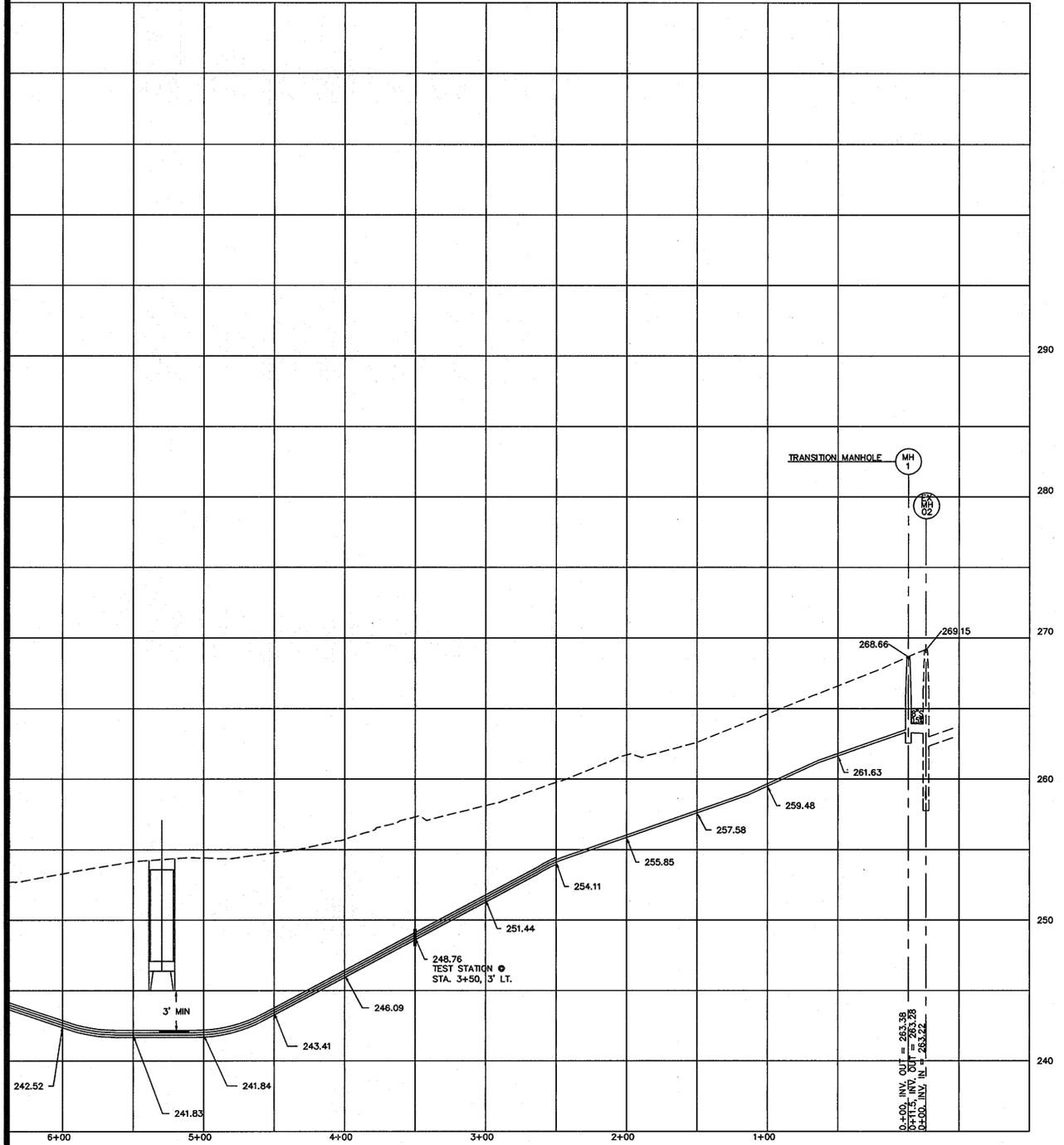
THIS SHEET REPLACES SHEET PREVIOUSLY SIGNED ON 8/15/05

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Chief, Bureau of Utilities: <i>John C. ...</i> 4/1/08		DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND Chief, Development Engineering Division: <i>John ...</i> 4/1/08		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) 997-0296 Pa.				engineering HSP illustration HSP approval RJH project 04-009 MBE 2 REVISE PROFILES 3/9/08 date MARCH 2008 BY NO. REVISION DATE		SEWER PROFILE 600' SCALE MAP NO. 31 BLOCK NO. 24		KESSLER PROPERTY LOT 1 & NON BUILDABLE BULK PARCEL A CONTRACT 14-4256-D FIRST ELECTION DISTRICT HOWARD COUNTY		scale AS SHOWN 4 OF 6
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<p>MARYLAND'S GUIDELINES TO WATERWAY CONSTRUCTION DETAIL 4.2 : UTILITY CROSSING</p> <p>I. DESCRIPTION THE WORK SHALL CONSIST OF INSTALLING EROSION CONTROL DEVICES IN AND ADJACENT TO THE CONSTRUCTION OF UTILITY CROSSING.</p> <p>II. INSTALLATION GUIDELINES ALL EROSION AND SEDIMENT CONTROL DEVICES, INCLUDING DEWATERING BASINS, SHOULD BE IMPLEMENTED AS THE FIRST ORDER OF BUSINESS ACCORDING TO A PLAN APPROVED BY THE WMA OR LOCAL AUTHORITY. (SEE THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.) THE PROPOSED CONSTRUCTION SEQUENCE IS AS FOLLOWS (REFER TO DETAIL 4.2): 1. THE CONTRACTOR SHOULD INSURE THAT A CONTINUOUS PERIMETER CONTROL BARRIER IS IN PLACE TO MINIMIZE THE AMOUNT OF POLLUTANTS ENTERING THE FLOW. A DIVERSION PIPE AS SHOWN IN MOWC 1.4 : DIVERSION PIPE OR OTHER MEASURE SHOULD BE INSTALLED AND SANDBAG OR STONE BARRIERS AS SHOWN IN MOWC 1.5 : SANDBAG/STONE DIVERSION SHOULD BE CONSTRUCTED ACCORDING TO SPECIFICATIONS TO DIVERT THE STREAMFLOW. 2. EXCAVATED TOPSOIL AND SUBSOIL SHOULD BE KEPT SEPARATE, PLACED ON THE UPLAND SIDE OF THE EXCAVATION, AND REPLACED IN THEIR NATURAL ORDER. 3. ALL CONSTRUCTION SHOULD TAKE PLACE DURING STREAM LOW FLOWS. THE LENGTH OF CONSTRUCTION TIME SHOULD BE LIMITED TO A MAXIMUM OF 5 CONSECUTIVE DAYS FOR EACH CROSSING. 4. ALL UTILITY CROSSINGS SHOULD BE PLACED A MINIMUM OF 3 FEET (1 METER) BENEATH THE STREAM BED UNLESS AN ALTERNATE SECTION IS SPECIFICALLY APPROVED BY THE WMA. FOR INSTANCES WHERE A 3-FOOT COVER IS NOT VIABLE, TWO ALTERNATE STABILIZATION OPTIONS ARE GIVEN IN THE DETAIL 4.2. A LOW FLOW CHANNEL SHALL BE CONSTRUCTED THROUGH ALL RIPRAP PLACEMENTS ACROSS THE STREAM BED. 5. THE STREAM SHOULD BE DIVERTED BY AN APPROVED TEMPORARY STREAM DIVERSION. THE CONSTRUCTION AREA SHOULD BE DEWATERED, AND ANY DISTURBED BANKS SHOULD BE STABILIZED. THE CONTRACTOR MAY elect TO CONTROL THE UTILITY CROSSING IN TWO STAGES. IN THIS CASE, A WMA APPROVED FLOW BARRIER MAY BE CONSTRUCTED TO KEEP THE CONSTRUCTION AREA DRY. 6. ONCE THE CROSSING IS COMPLETED, THE DIVERSION SHOULD BE REMOVED FROM UPSTREAM TO DOWNSTREAM. SEDIMENT CONTROL DEVICES, INCLUDING PERIMETER EROSION CONTROLS, ARE TO REMAIN IN PLACE UNTIL ALL DISTURBED AREAS ARE STABILIZED IN ACCORDANCE WITH AN APPROVED SEDIMENT AND EROSION CONTROL PLAN AND THE INSPECTION AUTHORITY APPROVES THEIR REMOVAL.</p>	<p>MARYLAND'S GUIDELINES TO WATERWAY CONSTRUCTION DETAIL 4.2(a) : UTILITY CROSSING</p>	<p>MARYLAND'S GUIDELINES TO WATERWAY CONSTRUCTION DETAIL 4.2(b) : UTILITY CROSSING</p>
<p>STREAM CROSSINGS REVISED NOVEMBER 2000 PAGE 4.2-1 MARYLAND DEPARTMENT OF THE ENVIRONMENT WATER MANAGEMENT ADMINISTRATION</p>	<p>STREAM CROSSINGS REVISED NOVEMBER 2000 PAGE 4.2-2 MARYLAND DEPARTMENT OF THE ENVIRONMENT WATER MANAGEMENT ADMINISTRATION</p>	<p>STREAM CROSSINGS REVISED NOVEMBER 2000 PAGE 4.2-3 MARYLAND DEPARTMENT OF THE ENVIRONMENT WATER MANAGEMENT ADMINISTRATION</p>

MATCHLINE THIS SHEET



SEWER MAIN PROFILE (MH-5 TO EX. MH 401)

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

SEWER MAIN PROFILE (MH-5 TO EX. MH 401)

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

BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, AND 100-YEAR FLOODPLAINS

- NO EXCESS FILL, CONSTRUCTION MATERIAL, OR DEBRIS SHALL BE STOCKPILED OR STORED IN NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN.
- PLACE MATERIALS IN A LOCATION AND MANNER THAT DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF NON-TIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN.
- DO NOT USE THE EXCAVATED MATERIAL AS BACKFILL IF IT CONTAINS WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE. IF ADDITIONAL BACKFILL IS REQUIRED, USE CLEAN MATERIAL FREE OF WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE.
- PLACE HEAVY EQUIPMENT ON MATS OR SUITABLY OPERATE THE EQUIPMENT TO PREVENT DAMAGE TO NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN.
- REPAIR AND MAINTAIN ANY SERVICEABLE STRUCTURE OR FILL SO THERE IS NO PERMANENT LOSS OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, OR WATERWAYS, OR PERMANENT MODIFICATION OF THE 100-YEAR FLOODPLAIN IN EXCESS OF THAT LOST UNDER THE ORIGINALLY AUTHORIZED STRUCTURE OR FILL.
- RECTIFY ANY NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, OR 100-YEAR FLOODPLAIN TEMPORARILY IMPACTED BY ANY CONSTRUCTION.
- ALL STABILIZATION IN THE NONTIDAL WETLAND AND NONTIDAL WETLAND BUFFER SHALL CONSIST OF THE FOLLOWING SPECIES: ANNUAL RYEGRASS (LOLIUM MULTIFLORUM), MILLET (SETARIA ITALICA), BARLEY (HORDEUM SP.), OATS (UNIOLA SP.), AND/OR RYE (SECALE CEREALE). THESE SPECIES WILL ALLOW FOR THE STABILIZATION OF THE SITE WHILE ALSO ALLOWING FOR THE VOLUNTARY REVEGETATION OF NATURAL WETLAND SPECIES. OTHER NON-PERSISTENT VEGETATION MAY BE ACCEPTABLE, BUT MUST BE APPROVED BY THE NONTIDAL WETLANDS & WATERWAYS DIVISION. KENTUCKY 31 FESCUE SHALL NOT BE UTILIZED IN WETLAND OR BUFFER AREAS. SHOULD BE SEEDED AND MULCHED TO REDUCE EROSION AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.
- AFTER INSTALLATION HAS BEEN COMPLETED, MAKE POST-CONSTRUCTION GRADES AND ELEVATIONS THE SAME AS THE ORIGINAL GRADES AND ELEVATIONS IN TEMPORARILY IMPACTED AREAS.
- TO PROTECT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM:
USE 1 WATERS : IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH JUNE 15, INCLUSIVE, DURING ANY YEAR.
- STORMWATER MANAGEMENT RUNOFF FROM IMPERVIOUS SURFACES SHALL BE CONTROLLED TO PREVENT THE WASHING OF DEBRIS INTO THE WATERWAY.
- CULVERTS SHALL BE CONSTRUCTED AND ANY RIPRAP PLACED SO AS NOT TO OBSTRUCT THE MOVEMENT OF AQUATIC SPECIES, UNLESS THE PURPOSE OF THE ACTIVITY IS TO IMPOUND WATER.

OWNER
KESSLER PROPERTY, LLC
8000 MAIN STREET
ELLCOTT CITY, MARYLAND 21043
410-480-9105

THIS SHEET REPLACES SHEET PREVIOUSLY SIGNED ON 8/15/05

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
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) 997-0298 Fax.



engineering	HSP				
illustration	HSP				
approval	RJH				
project	04-009				
date	MARCH 2008	BY	NO.	REVISION	DATE

SEWER PROFILE
600' SCALE MAP NO. _____ BLOCK NO. _____

KESSLER PROPERTY
LOT 1 & NON BUILDABLE BULK PARCEL A
CONTRACT 14-4256-D
FIRST ELECTION DISTRICT
HOWARD COUNTY

scale
AS SHOWN
5 OF 6

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