

QUANTITY TABLE

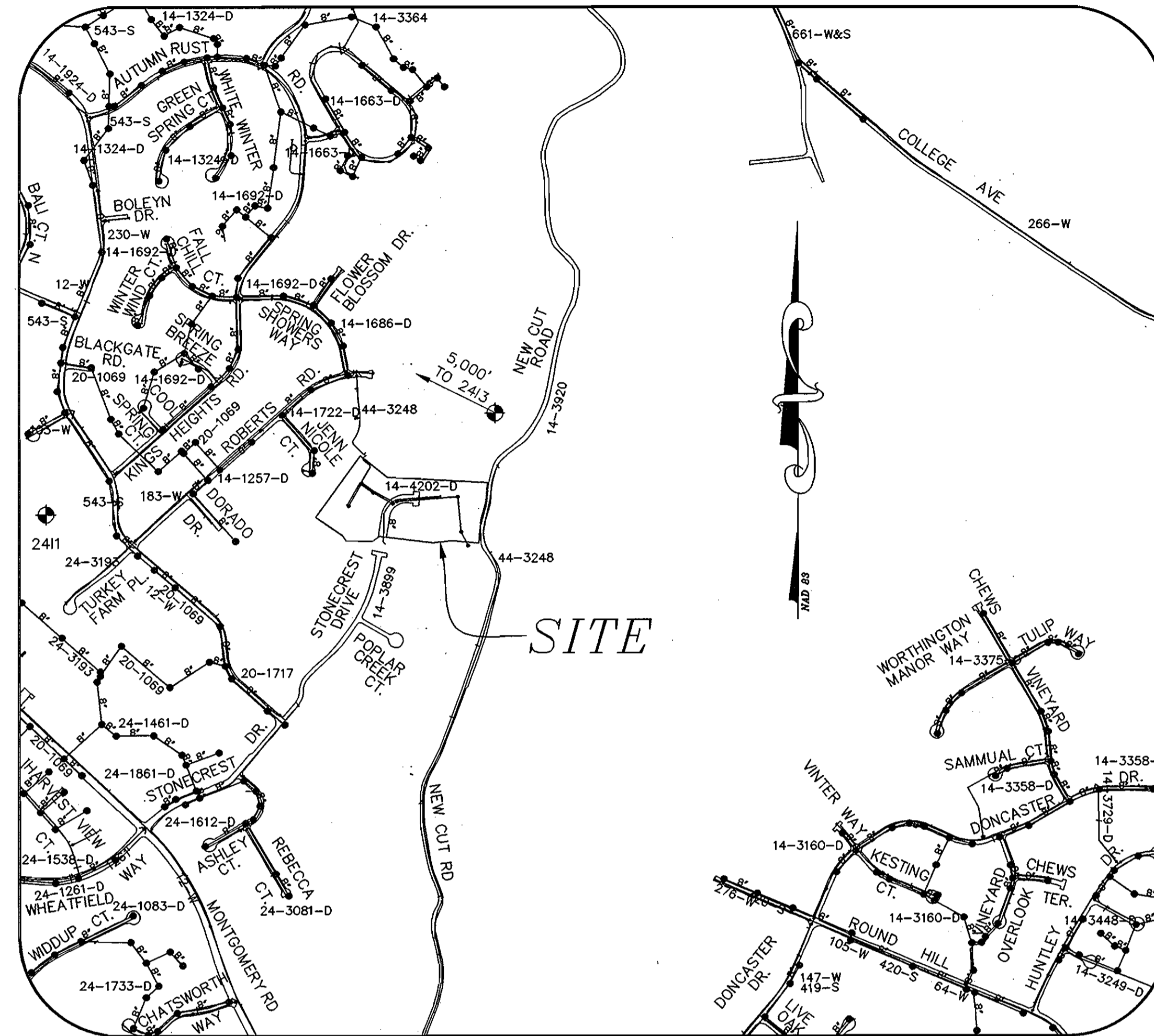
ITEMS	QUANTITIES		TYPE	MANUFACTURER/SUPPLIER
	ESTIMATED	QUANTITIES		
STANDARD MANHOLES(HO.CO. STD.G-5.12)	9	9	PRECAST	ATLANTIC CON. PRODUCTS
WATERTIGHT MANHOLE(HO.CO. STD.G-5.52) TYPE A DROP MANHOLE(HO.CO. STD.S-1.32)	1	1	PRECAST	ATLANTIC CON. PRODUCTS
8" SEWER MAIN	837 L.F.	802	SDR-35	J.M. MFG. / BRS.
8" SEWER MAIN (DIP)	322 L.F.	312	CL-92 CL-94	GRIFIN PIPE / BRS.
4" SEWER HOUSE CONNECTIONS	257 L.F.	238	SDR-35	J.M. MFG. / BRS.
# OF SEWER HOUSE CONNECTIONS	15 EACH	15		
8" WATER MAIN	815 L.F.	798	CL-52	GRIFIN PIPE
6" WATER MAIN	257 L.F.	253	CL-52	"
4" WATER MAIN	163 L.F.	159	CL-52	"
1" WATER HOUSE CONNECTIONS	266 L.F.	230	TYPE-K	READING/BR.
# OF WATER HOUSE CONNECTIONS	15 EACH	15		
1/8 H.B.	7 EACH	7	M.J.	SIGMA / BRS.
1/16 H.B.	3 EACH	3	M.J.	"
1/32 H.B. * (NOT USED)	1 EACH	~	M.J.	"
FIRE HYDRANT	1 EACH	1	5'	MUELLER / BRS.
8"x6" F.H.T. & VALVE	1 EACH	1	M.J.	SIGMA / BRS.
8"x8" TEE	3 EACH	3	M.J.	"
8" VALVE	5 EACH	5	GATE	MUELLER / BRS.
8"x6" REDUCER	1 EACH	1	M.J.	SIGMA / BRS.
8"x4" REDUCER	1 EACH	1	M.J.	"
6" CAP & BUTTRESS	1 EACH	1	M.J.	"
4" CAP & BUTTRESS	1 EACH	1	M.J.	"
1 1/2" DRAIN (HO. CO. STD.W-4.12)	2 EACH	2	COOP.	MUELLER / BRS.
NAME OF UTILITY CONTRACTOR: C.C.S.				
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 & DETAILS

TYPE OF BUILDING	SFD
No. OF UNITS	15
No. OF WATER HOUSE CONNECTION	15
No. OF SEWER HOUSE CONNECTIONS	15
DRAINAGE AREA	PATAPSCO
TREATMENT PLANT	PATAPSCO WWTP

PLAN REFERENCE NUMBERS:
F-06-36



VICINITY MAP

SCALE 1"=600'

WATER CODE = F16
SEWER CODE = 1400510
TEST GRADIENT = 550

**CONTRACT NO.: 14-4202-D
STONE MANOR SECTION 3
LOTS 1 THRU 15
& OPEN SPACE LOTS 16-18
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS**

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 OR ABOUT JULY 2003 BY MILDENBERG, BOENDER & ASSOC., INC. BOUNDARY SHOWN HEREON BASED ON FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT AUGUST 2003 BY MILDENBERG BOENDER & ASSOCIATES INC.
- 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. 2411 AND NO. 2413. ALL VERTICAL CONTROLS ARE BASED ON NAVD '29. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE HO.CO. GEODETIC CONTROL STA. 2411 & 2413.
- 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 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 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
MISS UTILITY.....1-800-257-7777
- 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(g) OF THE HOWARD COUNTY CODE.
- PLEASE USE CAUTION WHILE EXCAVATING 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 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.
 - UNLESS OTHERWISE SHOWN STANDARD 1" WATER HOUSE CONNECTIONS AND INSIDE WATER METERS TO BE USED FOR ALL UNITS.

- 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 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.

DEVELOPERS
VALDA LLC
5300 DORSEY HALL DRIVE
ELLCOTT CITY, MARYLAND 21042

I/VE 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.

Donald Reuver Jr. 4/17/06
DEVELOPER'S SIGNATURE DATE
DONALD REUVER 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.

Jim Meyer 4/13/06
ENGINEER'S SIGNATURE DATE
JIM MEYER
ENGINEER'S NAME

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

Jim Meyer 4/27/06
DATE

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

John R. Rhoads
DATE

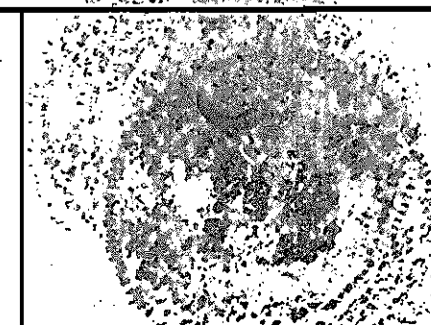
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Jim Meyer 4/13/06
DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

John R. Rhoads 5/10/06
DATE

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Fax (301) 621-5521 Wash. (410) 997-0298 Fax



engineering	DJF				
illustration	DJF				
approval	JBM				
project	03-028	K.C.1	1	AS-BUILT DATA SHOWN	4/23/06
date	MAR 2006	BY	NO.	REVISION	DATE

COVER SHEET

600' SCALE MAP NO. 25 BLOCK NO. 19

STONE MANOR SECTION 3
PARCEL 68 & 69 LOTS 1 THRU 15 & OPEN SPACE LOTS 16-18
CONTRACT 14-4202-D
SECOND ELECTION DISTRICT
HOWARD COUNTY

scale
AS SHOWN
1 OF 4

MANHOLE LOCATION CHART				
SMH#	NORTHING & EASTING	CL STATION	OFFSET	TOP ELEVATION
1	N. 576897.7764 E. 1369043.1266	-----	-----	365.24
2	N. 577002.3819 E. 1369043.3718	-----	-----	387.45
3	N. 577102.3816 E. 1369043.6062	-----	-----	383.10
4	N. 577109.0278 E. 1368821.6999	-----	-----	406.19
5	N. 577113.9967 E. 1368655.7951	13+61	4.59' RIGHT	407.74
6	N. 577101.8975 E. 1368627.8383	13+29	7.54' RIGHT	406.28
7	N. 577184.6700 E. 1368510.3327	-----	-----	410.60
8	N. 577247.0236 E. 1368440.7624	-----	-----	416.31
9	N. 577116.0747 E. 1368345.3067	-----	-----	413.98
10	N. 577263.2659 E. 1368452.6022	-----	-----	417.36

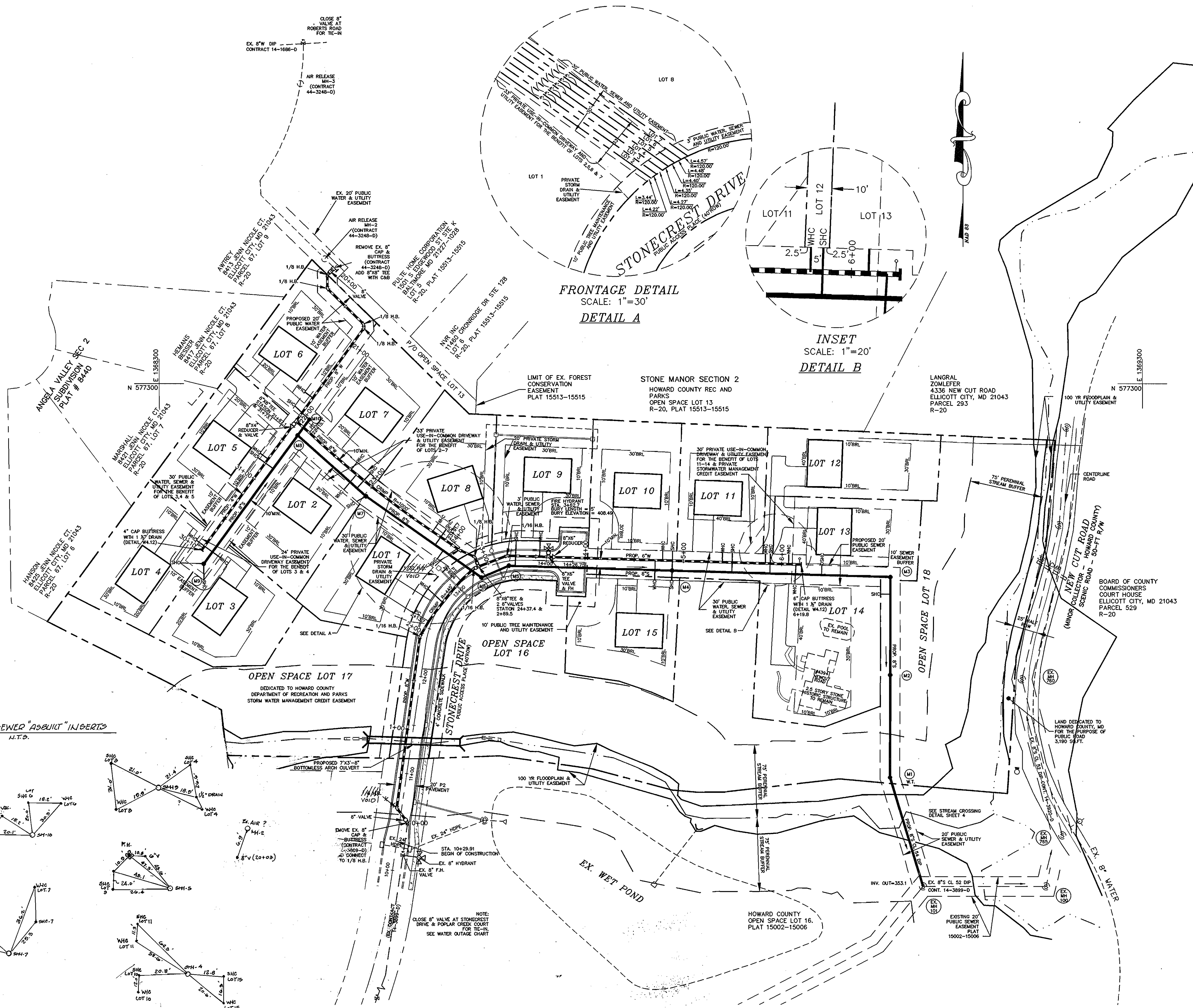
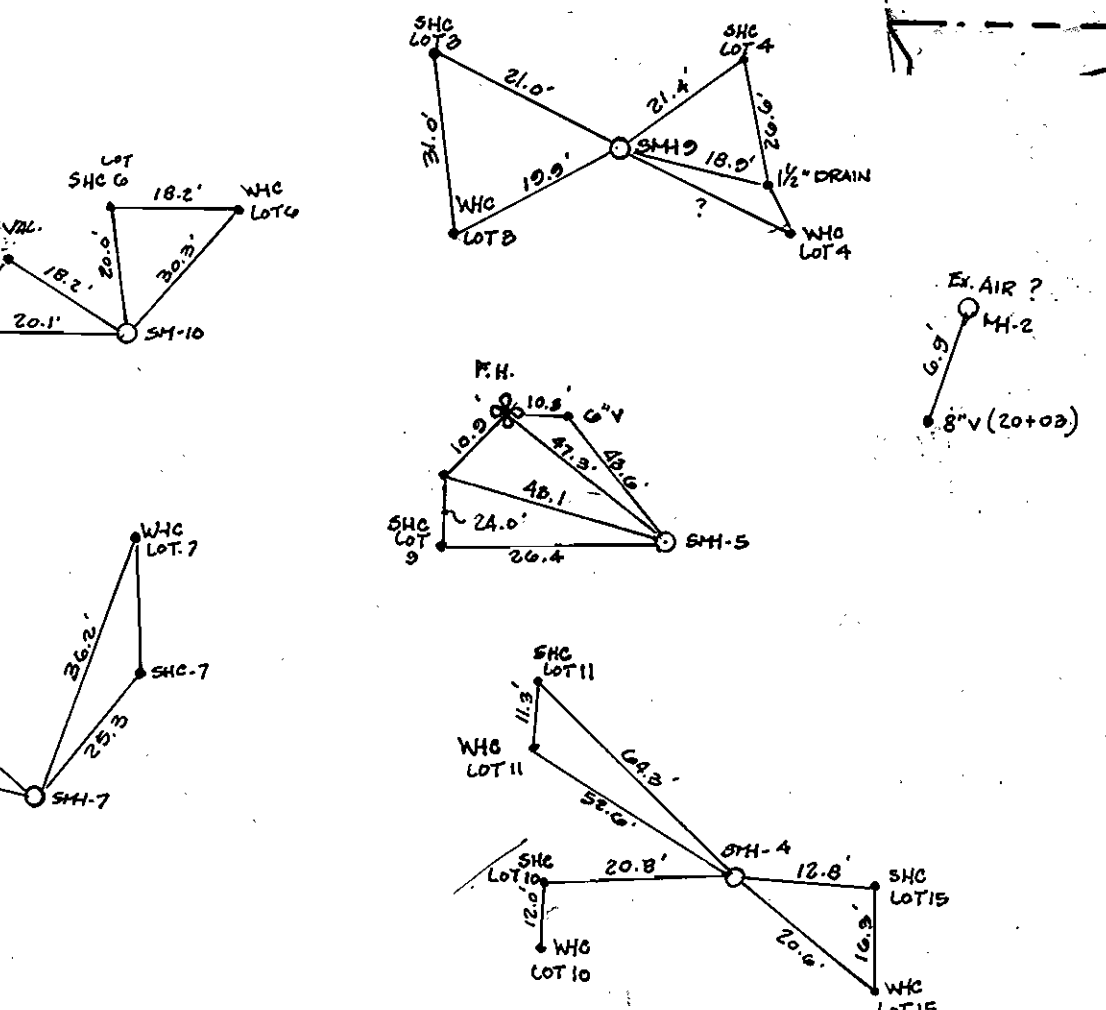
SEWER HOUSE CONNECTION TABLE				
UNIT #	% SLOPE	INV. @ R.O.W.	MIN. CELLAR ELEV.	
1	2	399.59	403.89	
2	2	402.80	406.90	
3	5	405.02	408.72	
4	5	405.37	409.27	
5	3	404.17	410.17	
6	5	404.46	410.96	
7	2	403.16	407.48	
8	2	400.11	404.01	
9	2	397.65	401.15	
10	2	396.89	401.39	
11	5	392.14	398.79	
12	2	388.81	388.81	
13 (PROP)	5	383.67	383.67	
14	5	377.00	382.30	
15	2	396.69	400.97	

8" WATER MAIN TABULATION CHART				
APPURTENANCE	ROAD NAME or NORTHING & EASTING	CL STATION	OFFSET	
1/8 H.B. & 8" V.	STONECREST DRIVE	10+50	8.22' RIGHT	
1/8 H.B.	STONECREST DRIVE	10+63	5.00' LEFT	
1/16 H.B.	STONECREST DRIVE	12+40	7.23' LEFT	
1/16 H.B.	STONECREST DRIVE	13+26	4.28' LEFT	
8" V.	STONECREST DRIVE	13+28.24	4.00' LEFT	
8"x8" TEE	STONECREST DRIVE	13+31	3.71' LEFT	
1/16 H.B.	STONECREST DRIVE	13+61	5.65' LEFT	
8"x6" FHT & V	STONECREST DRIVE	14+02	4.05' LEFT	
FIRE HYD	STONECREST DRIVE	14+02	9.05' LEFT	
8"x6" REDUCER	STONECREST DRIVE	14+06	4.05' LEFT	
1-1/2" DRAIN	N. 577115.1564 E. 1368951.1105	-----	-----	
6" CAP & BUTTRISS	N. 577115.1035 E. 1368952.8766	-----	-----	
8"x8" TEE & 8" V.	N. 577418.1 E. 1368477.9	-----	-----	
1/8 H.B.	N. 577411.0047 E. 1368470.9217	-----	-----	
1/8 H.B.	N. 577396.8629 E. 1368471.0267	-----	-----	
1/8 H.B.	N. 577360.5520 E. 1368507.8801	-----	-----	
1/8 H.B.	N. 577356.4959 E. 1368508.1877	-----	-----	
8"x8" TEE	N. 577261.8541 E. 1368439.1983	-----	-----	
1/32 H.B.	N. 577129.8892 E. 1368605.4653	-----	-----	
1/8 H.B.	N. 577122.9287 E. 1368621.0273	-----	-----	
8" V.	N. 577116.7221 E. 1368623.4150	-----	-----	
8" V.	N. 577258.6530 E. 1368436.8980	-----	-----	
8"x4" REDUCER	N. 577256 E. 1368435	-----	-----	
1-1/2" DRAIN	N. 577132.1825 E. 1368344.6737	-----	-----	
4" CAP & BUTTRISS	N. 577121.9653 E. 1368337.2258	-----	-----	

WATER OUTAGE CHART	
ADDRESS	N/F OWNERS
#4412 NW STONECREST DR. (LOT 13)	CHANG K KIM
#4408 NW STONECREST DR. (LOT 14)	SEONGWON LEE
#4415 STONECREST DR. (LOT 17)	PINAK SHAH
#4601 POPLAR CREEK CT. (LOT 18)	TRANG M PHAM

NOTE: CONTRACTOR TO NOTIFY ADDRESSES OF WATER OUTAGE PRIOR TO SHUTOFF.

WATER & SEWER "ABUJIT" INVERTS
N.T.D.

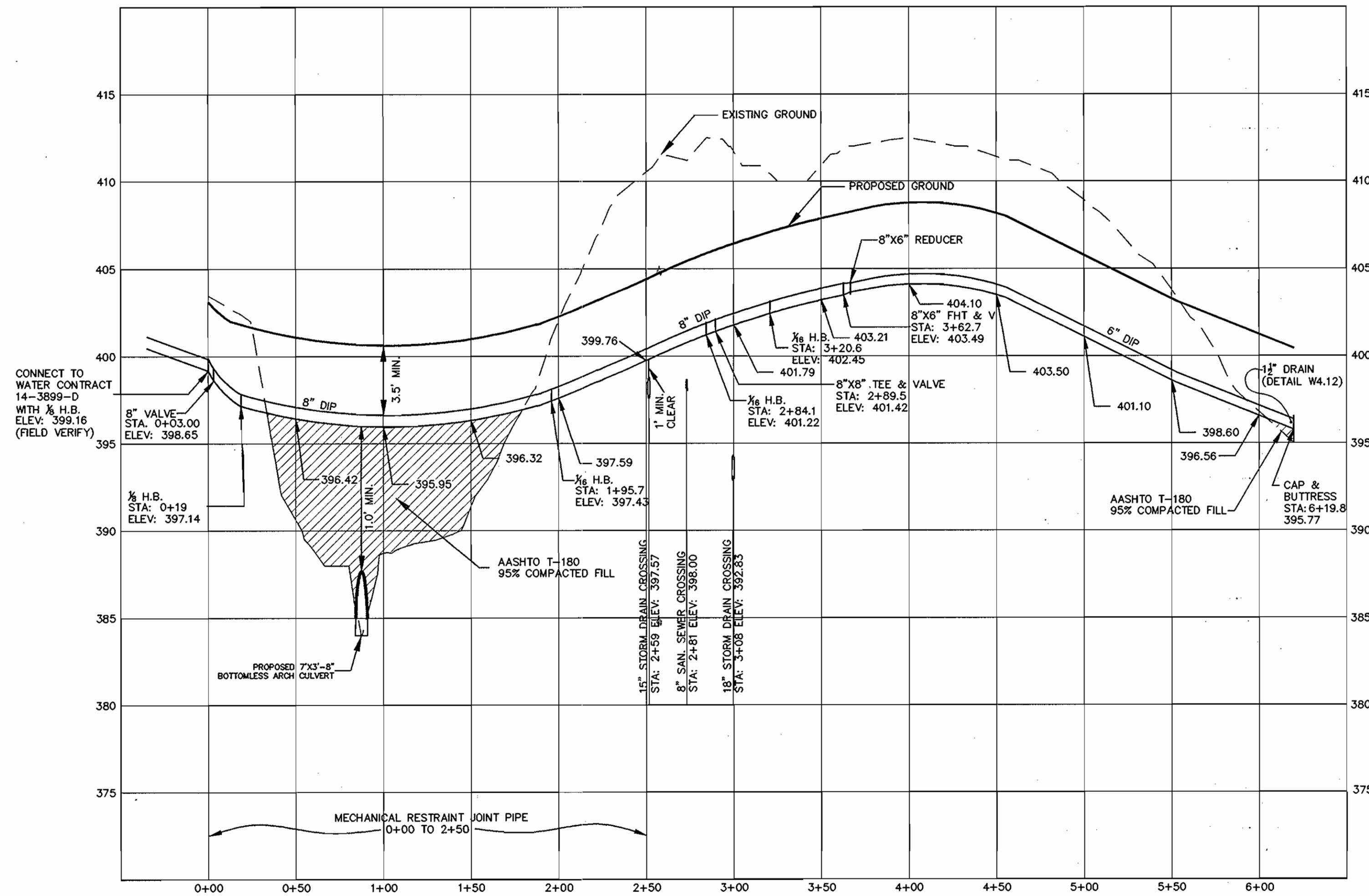


FRONTAGE DETAIL
SCALE: 1"=30'
DETAIL A

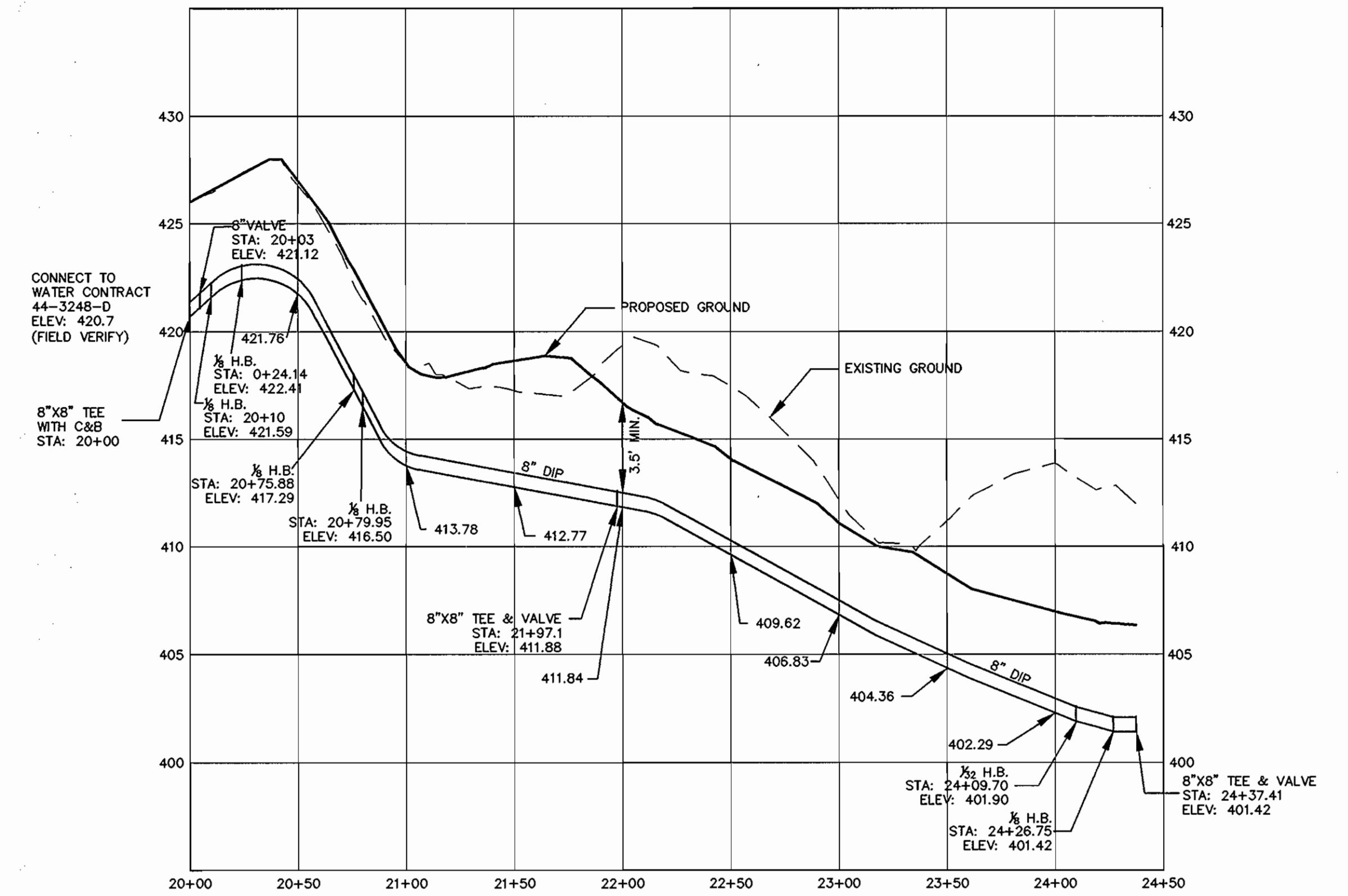
INSET
SCALE: 1"=20'
DETAIL B

H:\03-028\DWG\FINAL\MS.DWG

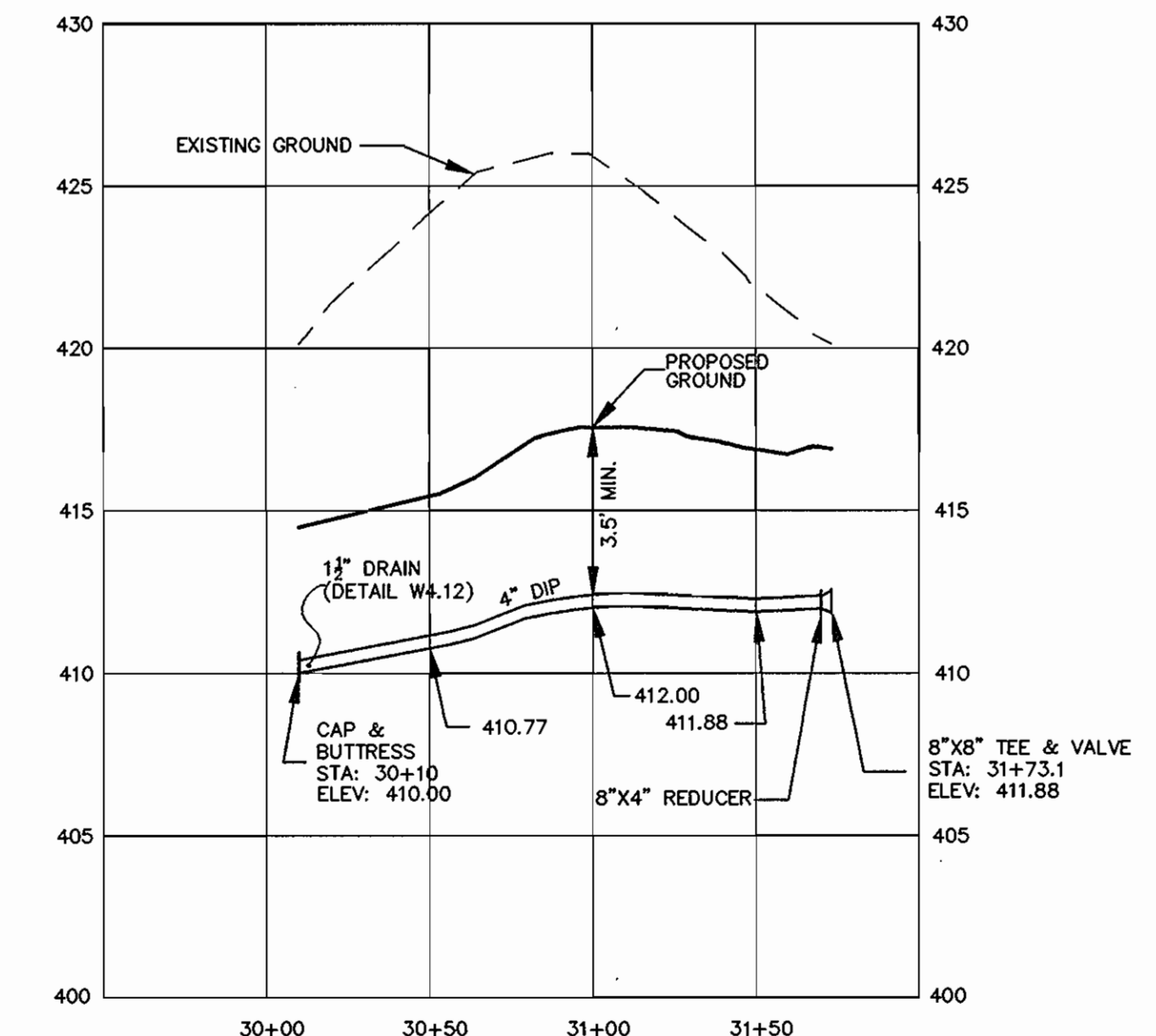
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND [Signature] 4/2/06 CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND [Signature] 5/2/06 CHIEF, DEVELOPMENT ENGINEERING DIVISION	MILDENBERG, BOENDER & ASSOC., INC. Engineers Planners Surveyors 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042 (410) 997-0296 Fax (301) 821-5211 Wash. (410) 997-0288 Fax	engineering DJF illustration DJF approval JBM project 03-028 KCI 1 ABUJIT DATA SHOWN date MAR 2006 BY NO. REVISION DATE	WATER & SEWER PLAN 600' SCALE MAP NO. 25 BLOCK NO. 19	STONE MANOR SECTION 3 PARCEL 68 & 69 LOTS 1 THRU 15 & OPEN SPACE LOTS 16-18 CONTRACT 14-4202-D SECOND ELECTION DISTRICT HOWARD COUNTY	scale 1" = 50' 2 OF 4
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WATER MAIN PROFILE
STATION 0+00 TO 6+80
 SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



WATER MAIN PROFILE
STATION 20+00 TO 24+37.41
 SCALE: HORIZ. 1"=50'
 VERT. 1"=5'

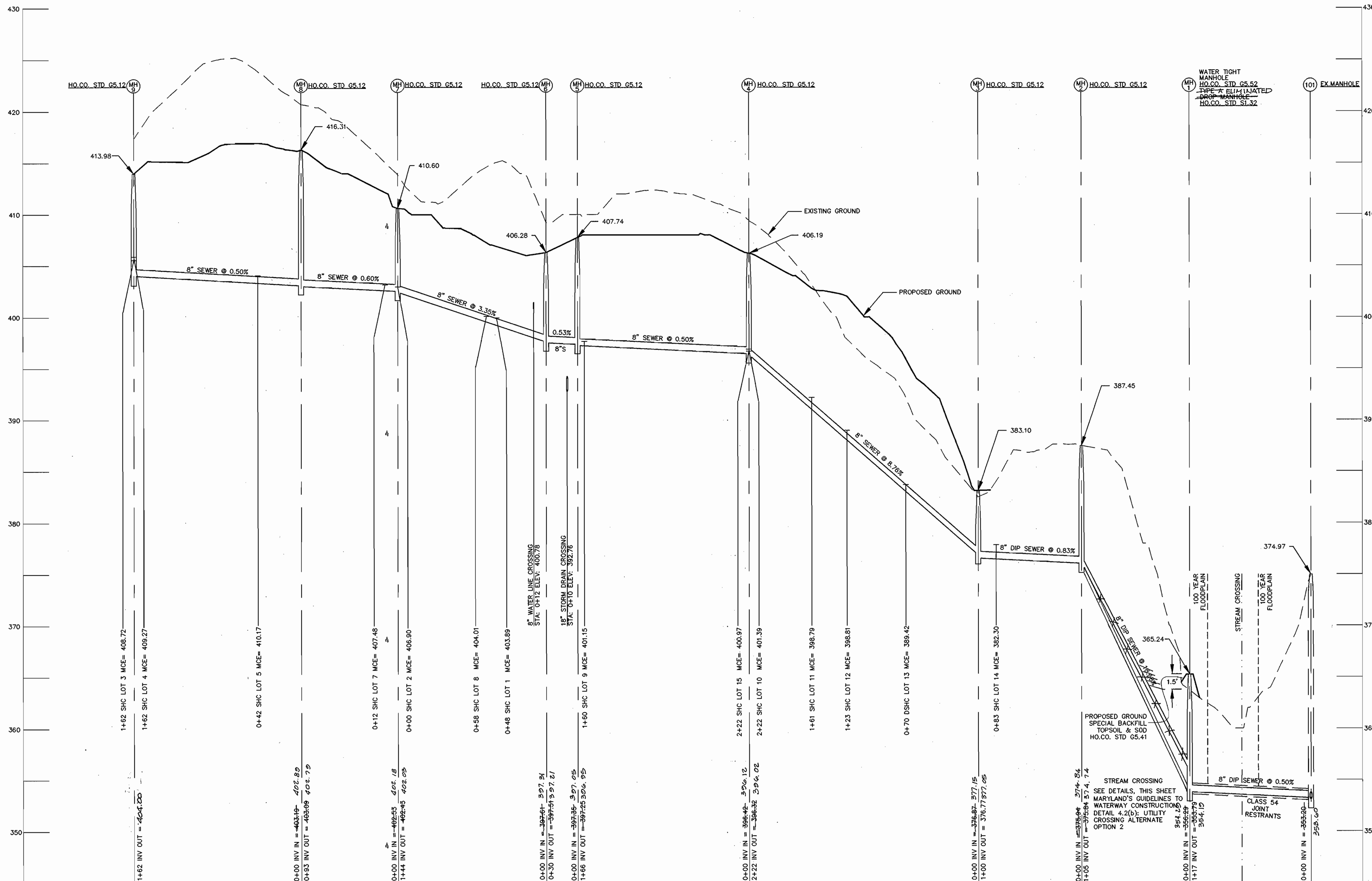


WATER MAIN PROFILE
STATION 30+10 TO 31+73.1
 SCALE: HORIZ. 1"=50'
 VERT. 1"=5'

[Handwritten Signature]
 PROFESSIONAL ENGINEER

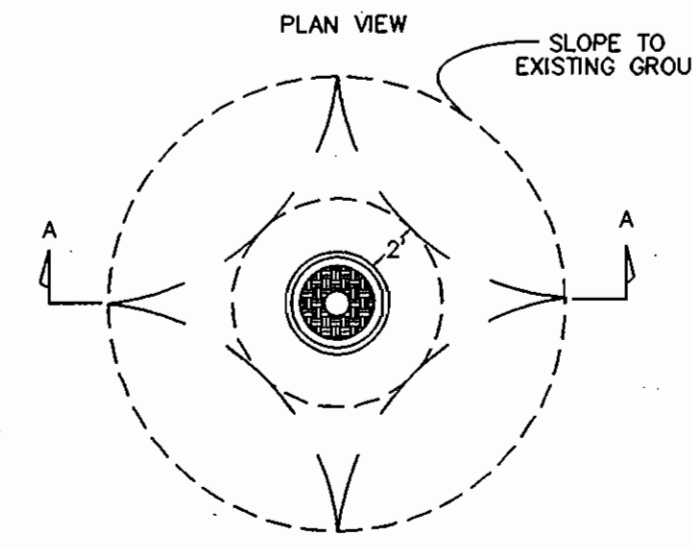
FH: 03-028.DWG/VFINAL.M&S.DWG

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>[Signature]</i> CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND <i>[Signature]</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	MILDENBERG, BOENDER & ASSOC., INC. Engineers Planners Surveyors 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042 (410) 997-0298 Ball (301) 621-5521 Wash. (410) 997-0298 Fax.	engineering DJP illustration DJP approval JBM project 03-028 date MAR 2006	WATER PROFILES	STONE MANOR SECTION 3 PARCEL 68 & 69 LOTS 1 THRU 15 & OPEN SPACE LOTS 16-18 CONTRACT 14-4202-D SECOND ELECTION DISTRICT HOWARD COUNTY	scale AS SHOWN 3 OF 4
			BY NO. REVISION DATE	600' SCALE MAP NO. 25 BLOCK NO. 19		

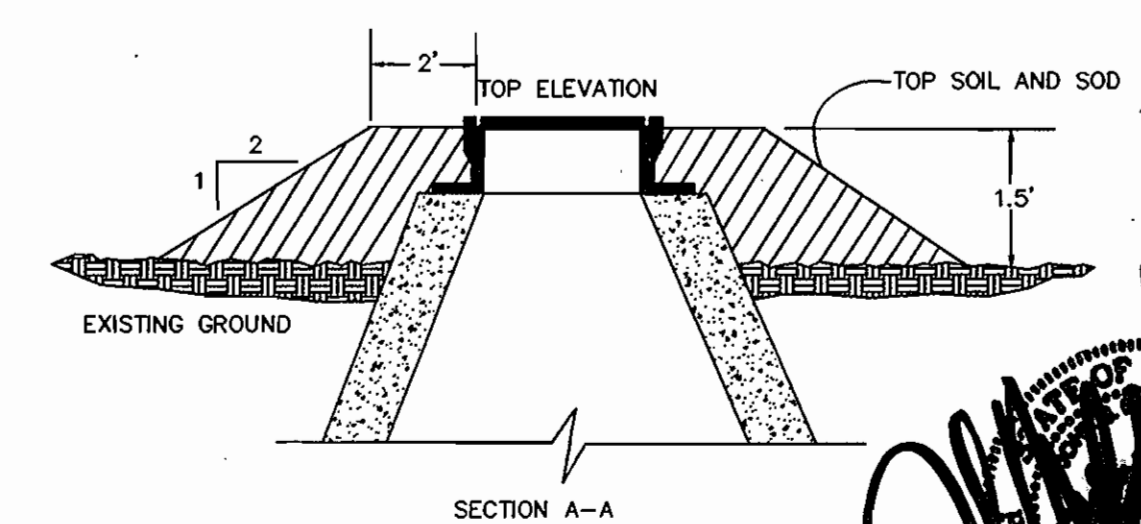


SEWER MAIN PROFILE

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



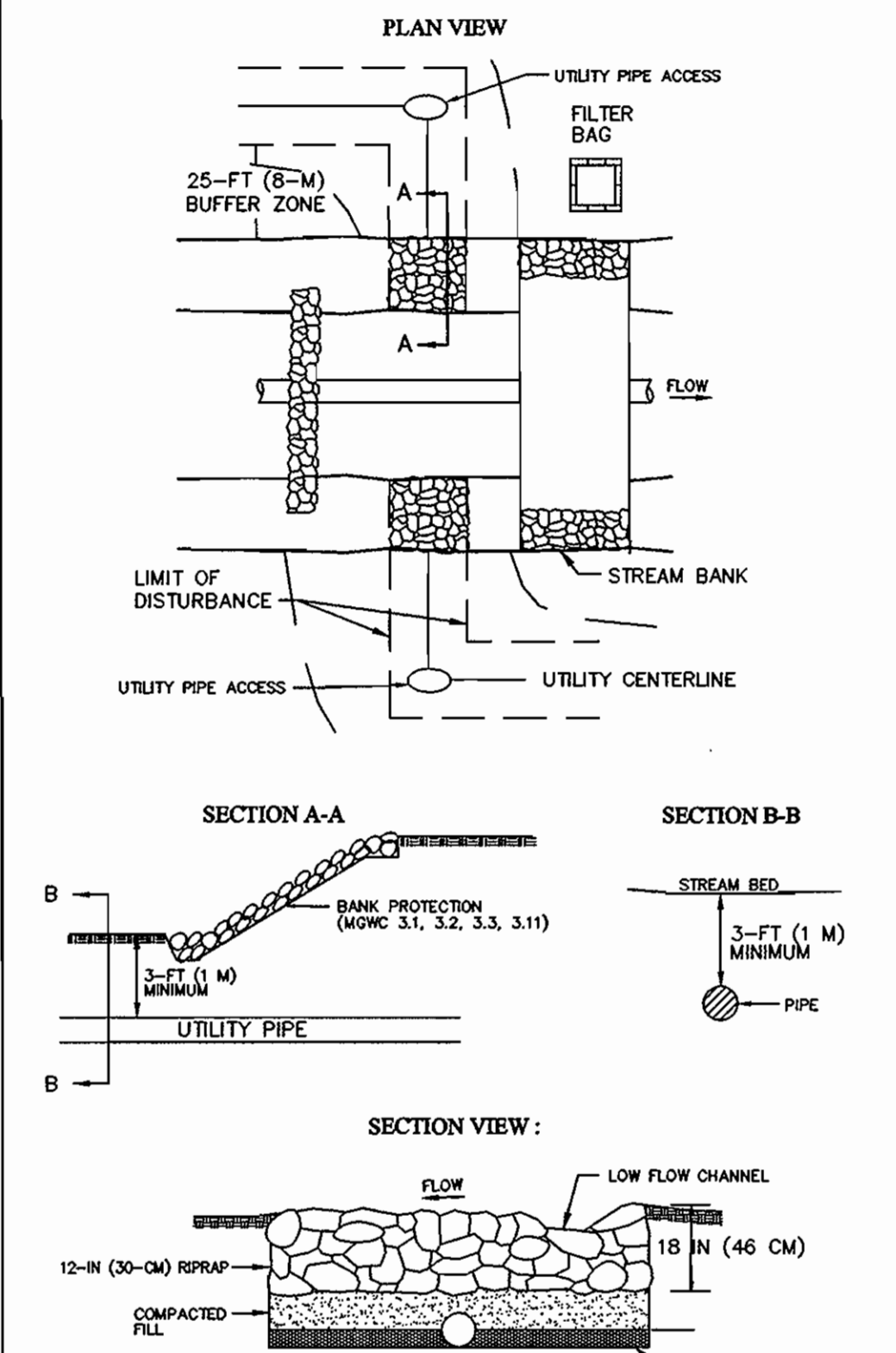
SPECIAL BACKFILL AT MANHOLE
G 5.41



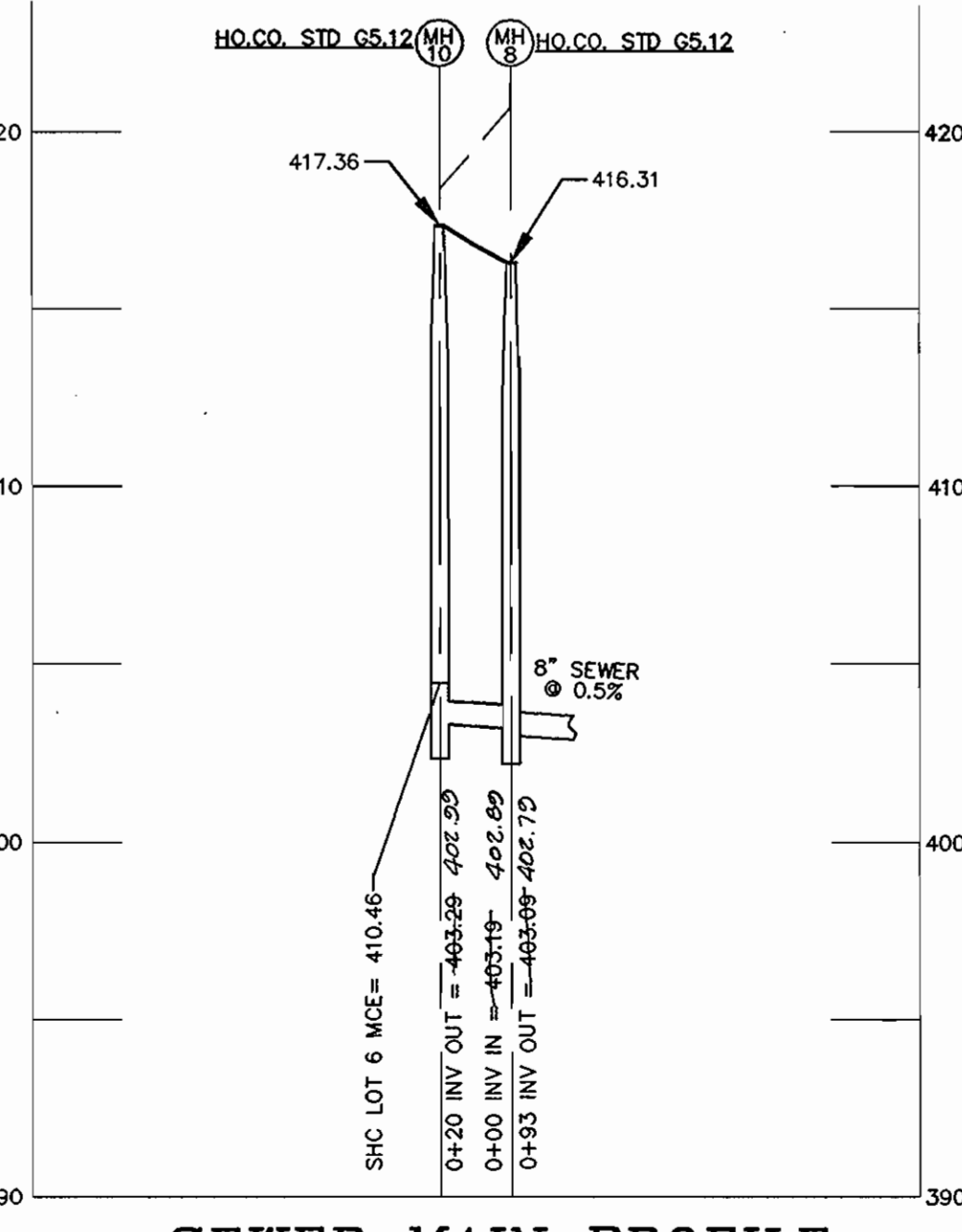
SECTION A-A

**MARYLAND'S GUIDELINES TO WATERWAY CONSTRUCTION
DETAIL 4.2 : UTILITY CROSSING**

- DESCRIPTION**
THE WORK SHALL CONSIST OF INSTALLING EROSION CONTROL DEVICES IN AND ADJACENT TO THE CONSTRUCTION OF UTILITY CROSSING.
- 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 SHALL 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 OF OTHER MEASURE SHOULD BE INSTALLED AND SANDBAG OR STONE BARRIERS AS SHOWN IN MOWC 1.5. SANDBAG OR STONE DIVERSION SHOULD BE CONSTRUCTED ACCORDING TO SPECIFICATIONS TO DIVERT THE STREAMFLOW.
 2. EXCAVATED TRENCH 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 ALTERNATIVE 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 BRIDGEP LACEMENTS 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 CONSTRUCT 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 INSPECTOR AUTHORITY APPROVES THEIR REMOVAL.



STREAM CROSSINGS REVISED NOVEMBER 2000 MARYLAND DEPARTMENT OF THE ENVIRONMENT
PAGE 4.2 WATER MANAGEMENT ADMINISTRATION



SEWER MAIN PROFILE

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



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

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE

**MILDENBERG,
BOENDER & ASSOC., INC.**
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0286 Ball. (301) 821-5521 Wash. (410) 997-0288 Fax.

engineering	DJP				
illustration	DJP				
approval	JBM				
project	03-02B	KCI	1	ADULT DATA SHOWN	01/05/07
date	MAR 2006	BY	NO.	REVISION	DATE

**SEWER
PROFILES & DETAILS**
600' SCALE MAP NO. 25 BLOCK NO. 19

STONE MANOR SECTION 3
PARCEL 68 & 69 LOTS 1 THRU 15 & OPEN SPACE LOTS 16-18
CONTRACT 14-4202-D
SECOND ELECTION DISTRICT
HOWARD COUNTY

scale
AS SHOWN
4 OF 4