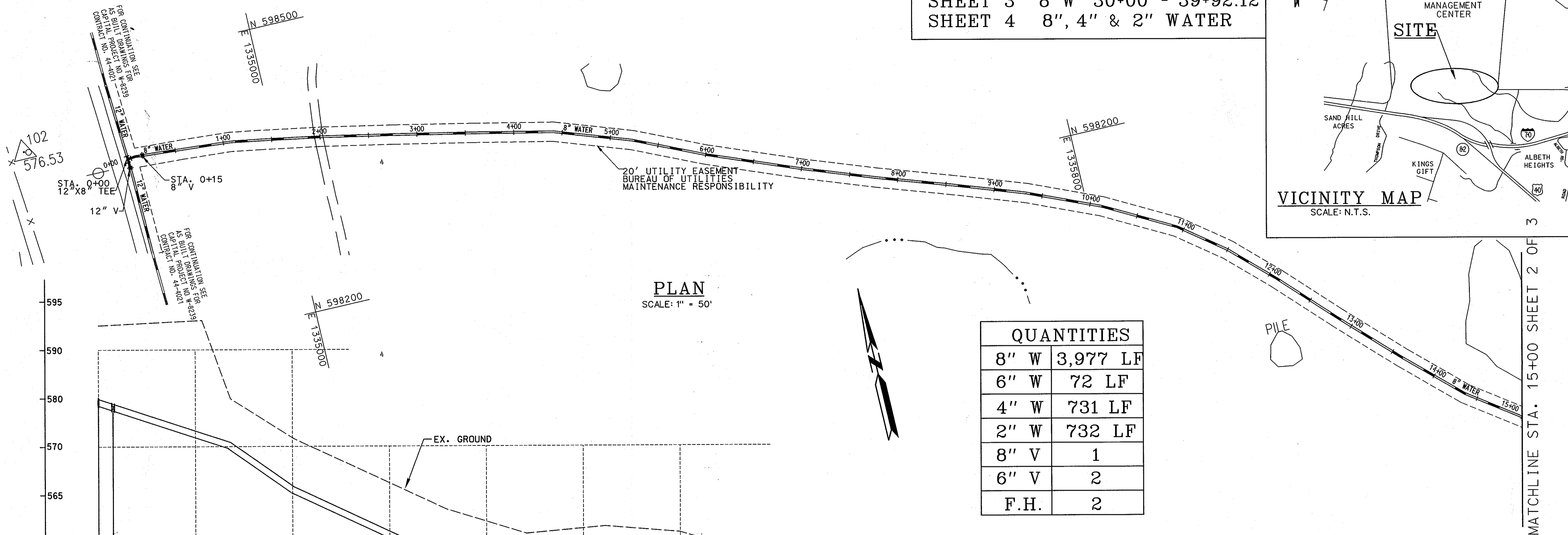
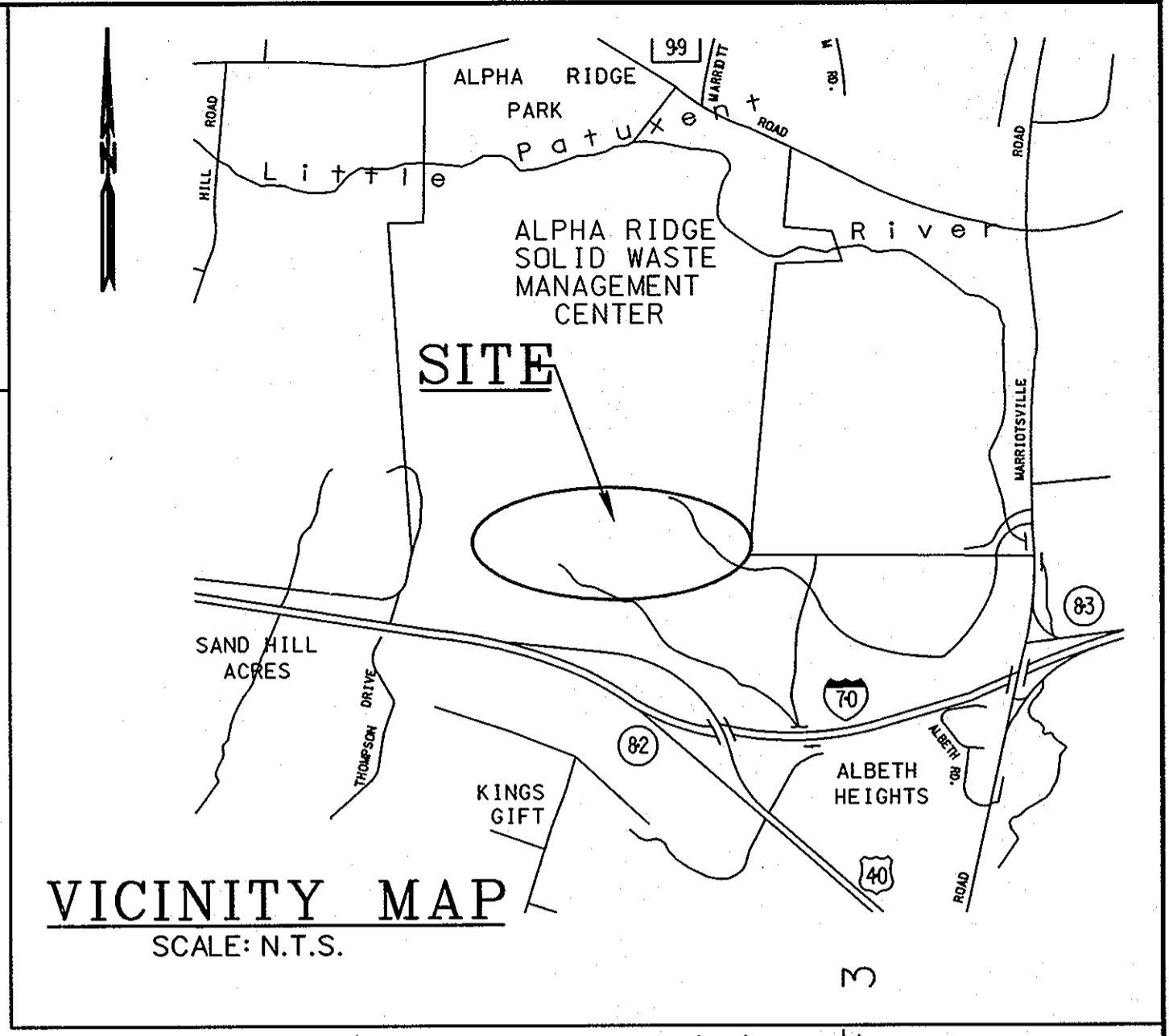


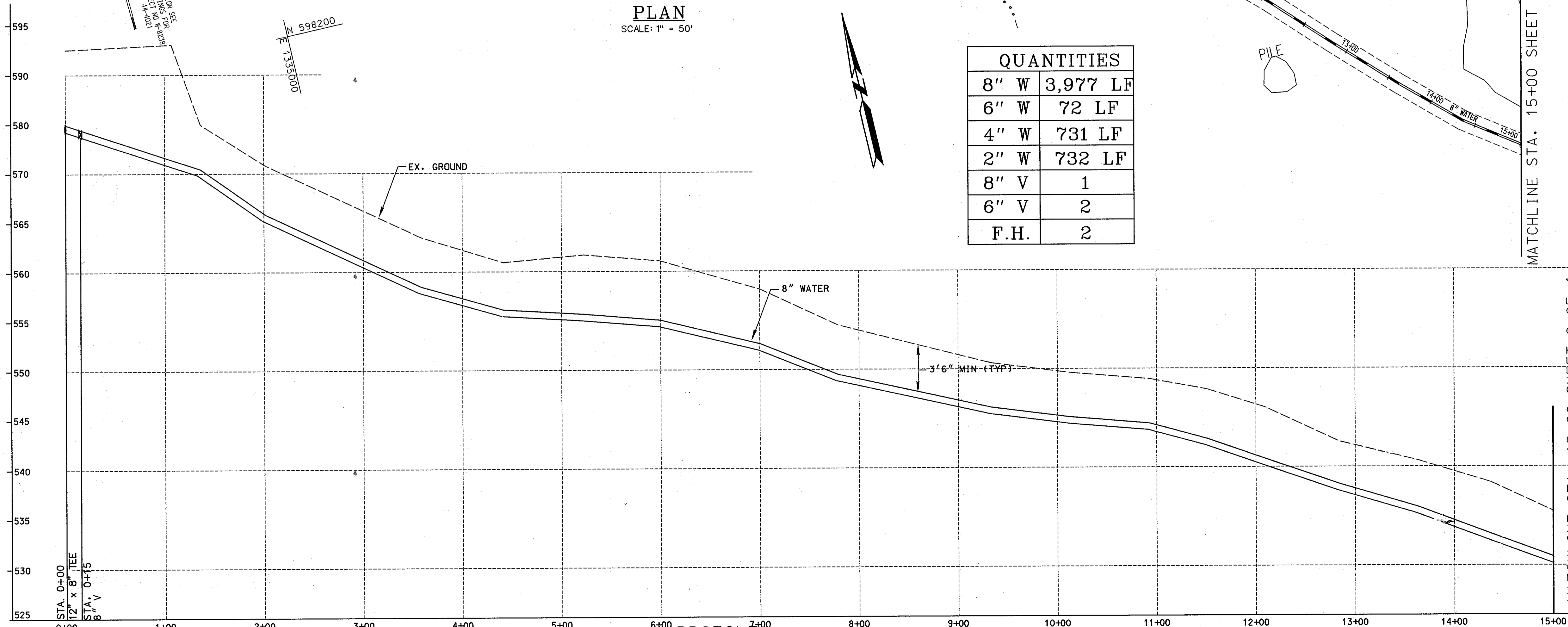
NOTE:
 THESE PLANS REPRESENT AS-BUILT CONDITIONS
 (11-2004) AS PREPARED BY KCI TECHNOLOGIES, INC.
 THIS PROJECT WAS A DETAIL-BUILD UNDER
 DIRECTION OF HOWARD COUNTY DEPARTMENT OF
 PUBLIC WORKS.

INDEX OF SHEETS			
SHEET 1	8" W	0+00 - 15+00	
SHEET 2	8" W	15+00 - 30+00	
SHEET 3	8" W	30+00 - 39+92.12	
SHEET 4	8", 4" & 2" WATER		



PLAN
 SCALE: 1" = 50'

QUANTITIES	
8" W	3,977 LF
6" W	72 LF
4" W	731 LF
2" W	732 LF
8" V	1
6" V	2
F.H.	2



PROFILE
 SCALE: HORIZONTAL 1" = 50'
 VERTICAL 1" = 5'

PLOTTED: 12:58 PM on Thursday, December 09, 2004
 By: Bob Jacobson, Division: Environmental Engineering
 File: M:\2004\04\3433\Alpha Ridge\AsBuilt.dwg

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	
DIRECTOR OF PUBLIC WORKS	DATE
CHIEF OF BUREAU OF UTILITIES	DATE
CHIEF, BUREAU OF ENGINEERING	DATE
CHIEF, UTILITY DESIGN DIVISION	DATE

ENGINEERS
 PLANNERS
 SCIENTISTS
 CONSTRUCTION MANAGERS
 10 NORTH PARK DRIVE
 HUNT VALLEY, MD 21030
 PHONE: (410) 316-7800
 FAX: (410) 316-7817
 www.kci.com

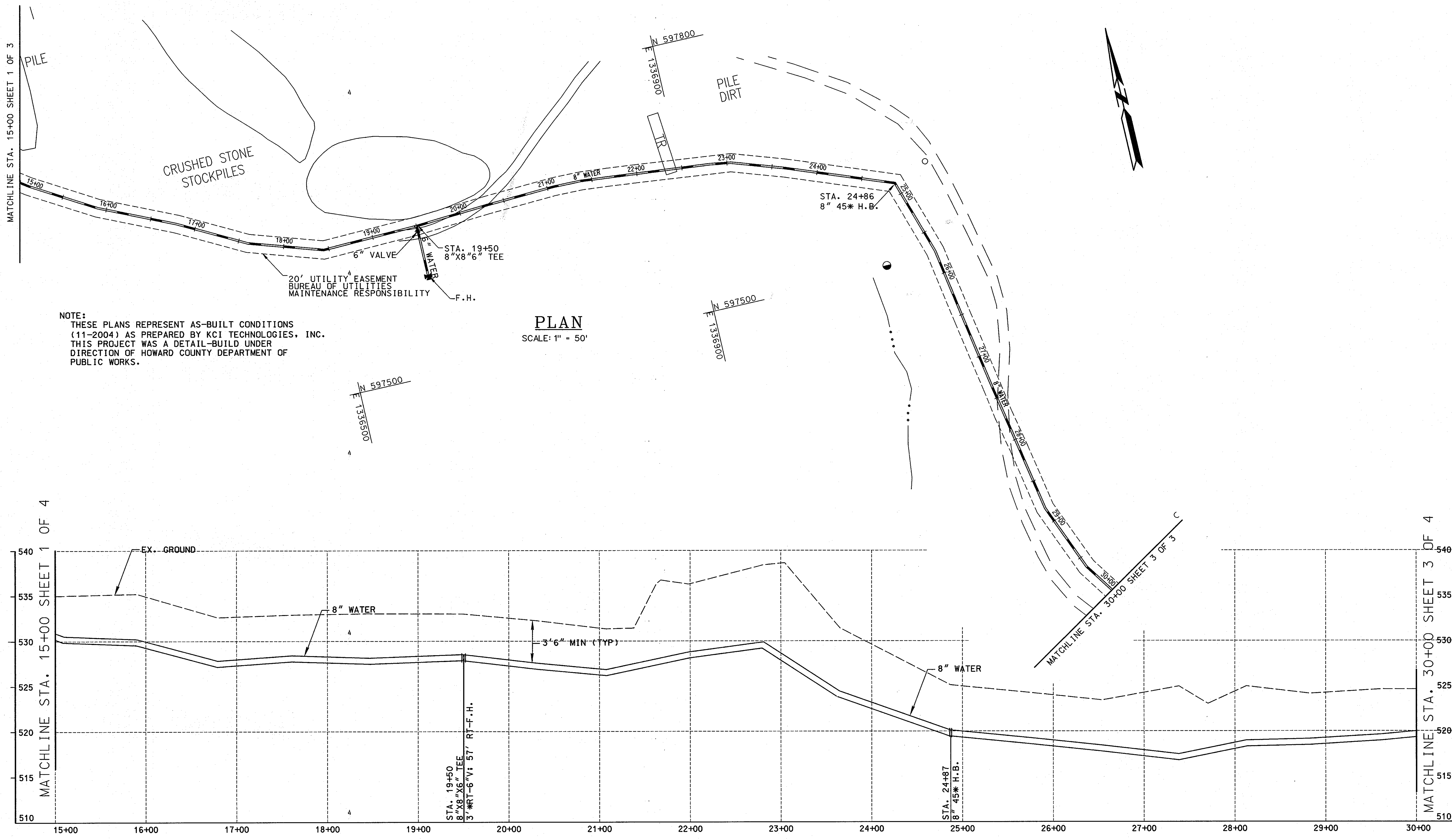
DES:			
DRN:	RWJ		
CHK:	TWW		
DATE:	12/04		
BY:	RWJ	NO.	1
		REVISION	As-Built
		DATE:	12/10/04

PLAN AND PROFILE
 8-INCH WATER MAIN
 STA. 0+00 - 15+00
 600' SCALE MAP NO. 16 BLOCK NO. 9 & 10

MEKENIE COURT/ALPHA RIDGE LANDFILL
 WATER MAIN LOOPING
 CAPITAL PROJECT NO. W-8239
 CONTRACT NO. 44-4158
 ELECTION DISTRICT NO. 3 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 1 OF 4

AS BUILT



NOTE:
 THESE PLANS REPRESENT AS-BUILT CONDITIONS
 (11-2004) AS PREPARED BY KCI TECHNOLOGIES, INC.
 THIS PROJECT WAS A DETAIL-BUILD UNDER
 DIRECTION OF HOWARD COUNTY DEPARTMENT OF
 PUBLIC WORKS.

PLAN
 SCALE: 1" = 50'

PROFILE
 SCALE: HORIZONTAL 1" = 50'
 VERTICAL 1" = 5'

AS BUILT

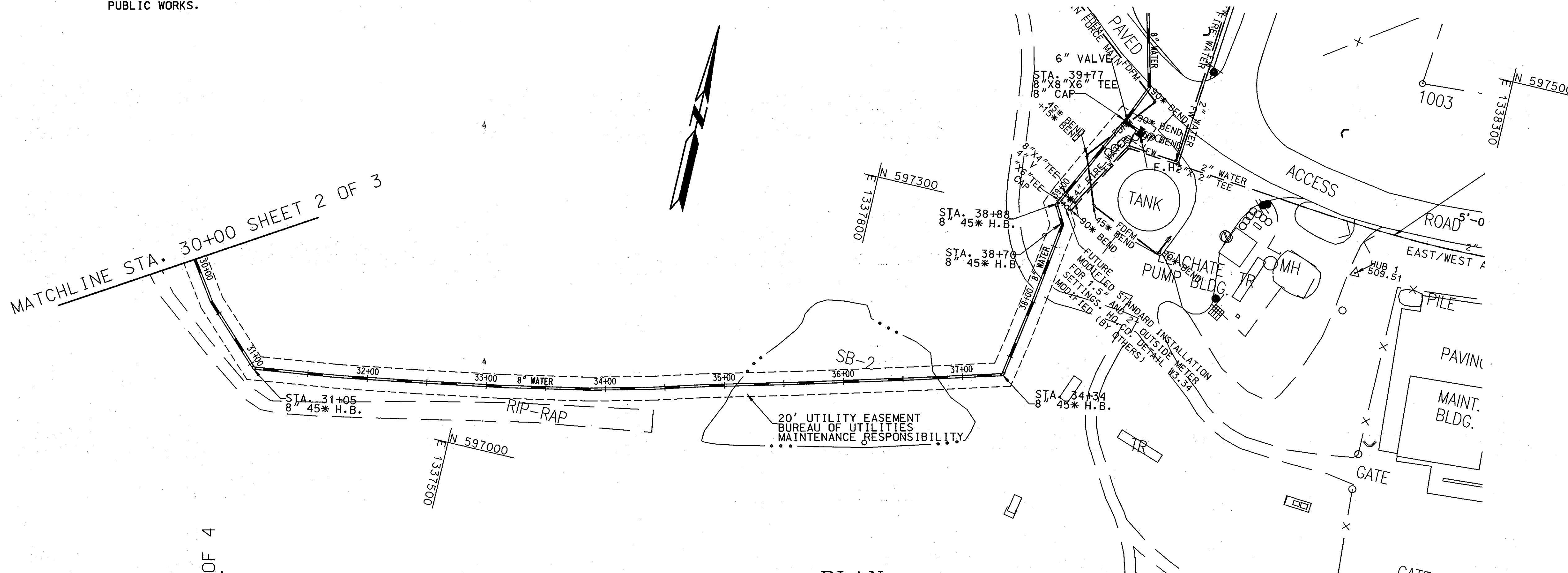
PLOTTED: 12:59 PM on Thursday, December 09, 2004
 BY: Bob Jacobson, Division Environmental Engineering
 FILE: H:\2004\0044158\3000.dwg

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND		ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS 10 NORTH PARK DRIVE HUNT VALLEY, MD 21030 PHONE: (410) 316-7800 FAX: (410) 316-7817 WWW.KCI.COM	DES: _____ DRN: RWJ CHK: TWW DATE: 12/04	PLAN AND PROFILE 8-INCH WATER MAIN STA. 15+00 - 30+00	MEKENIE COURT/ALPHA RIDGE LANDFILL WATER MAIN LOOPING CAPITAL PROJECT NO. W-8239 CONTRACT NO. 44-4158 ELECTION DISTRICT NO. 3 HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 2 OF 4
DIRECTOR OF PUBLIC WORKS _____ DATE _____ CHIEF, BUREAU OF UTILITIES _____ DATE _____	CHIEF, BUREAU OF ENGINEERING _____ DATE _____ CHIEF, UTILITY DESIGN DIVISION _____ DATE _____		BY: RWJ NO. 1 AS-BUILT REVISION DATE: 12/10/04	600' SCALE MAP NO. 16 BLOCK NO. 9 & 10		

NOTE:
 THESE PLANS REPRESENT AS-BUILT CONDITIONS
 (11-2004) AS PREPARED BY KCI TECHNOLOGIES, INC.
 THIS PROJECT WAS A DETAIL-BUILD UNDER
 DIRECTION OF HOWARD COUNTY DEPARTMENT OF
 PUBLIC WORKS.

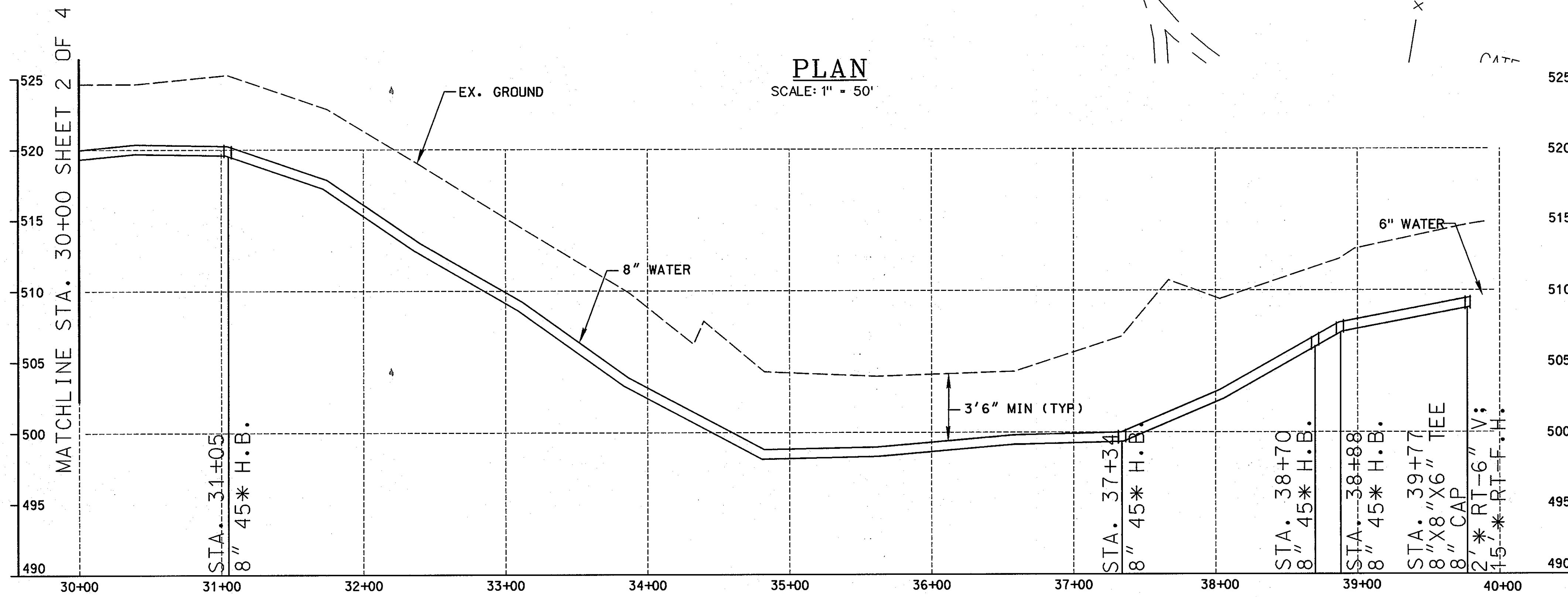
FOR 8" W, 4" W, & 2" WHC SEE SHEET 4 OF 4

MATCHLINE STA. 30+00 SHEET 2 OF 3



PLAN

SCALE: 1" = 50'



PROFILE

SCALE: HORIZONTAL 1" = 50'
 VERTICAL 1" = 5'

AS BUILT

PLOTTED: 12:59 PM on Thursday, December 09, 2004
 BY: Bob Jacobson, Division: Environmental Engineering
 FILE: J:\2004\10\09\44-1583\Alpha Ridge\ASBUILT.dwg

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND			
DIRECTOR OF PUBLIC WORKS	DATE	CHIEF, BUREAU OF ENGINEERING	DATE
CHIEF, BUREAU OF UTILITIES	DATE	CHIEF, UTILITY DESIGN DIVISION	DATE

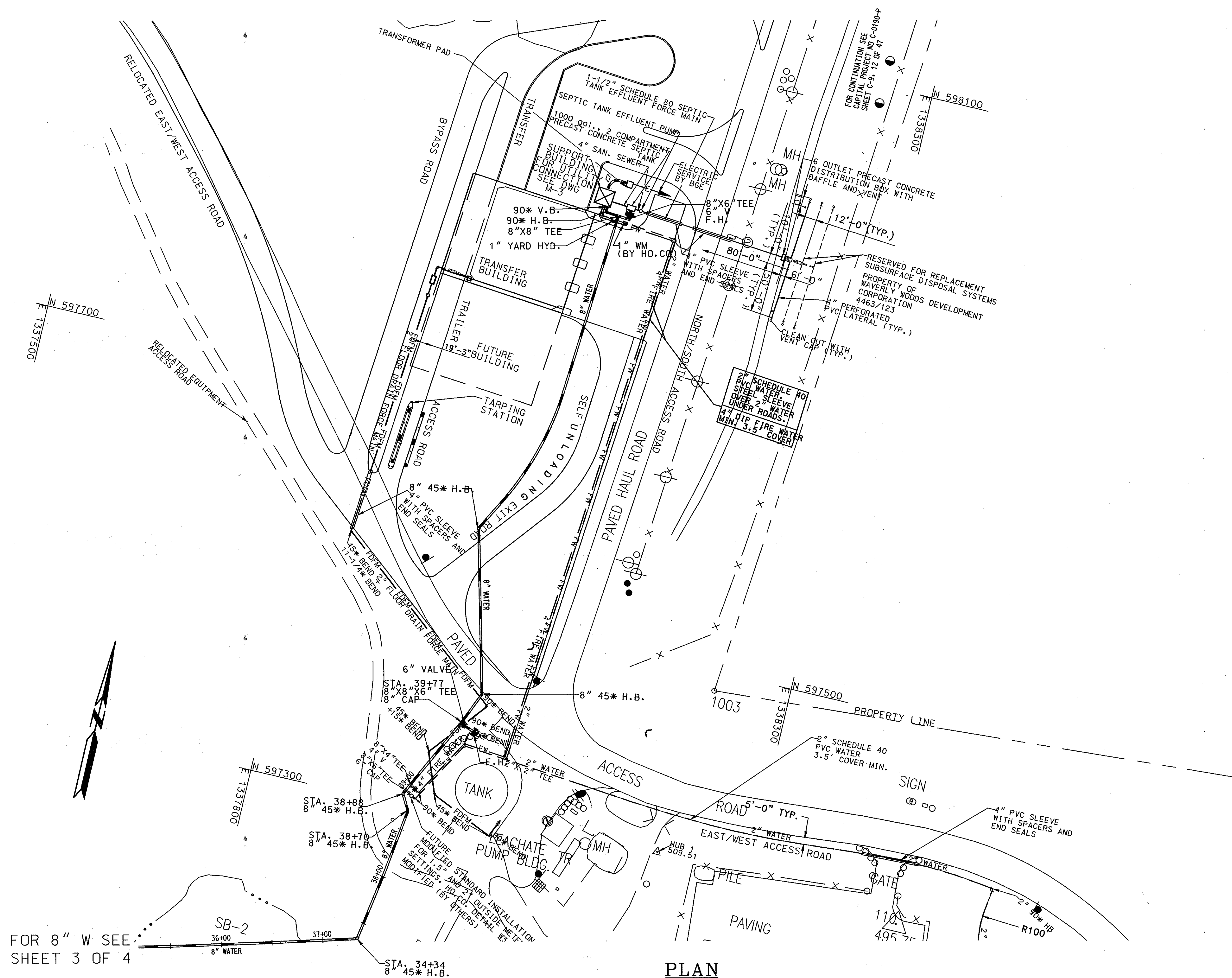

KCI
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 SCIENTISTS
 CONSTRUCTION MANAGERS
 10 North Park Drive
 Hunt Valley, MD 21030
 Phone: (410) 316-7800
 Fax: (410) 316-7817
 www.kci.com

DES:				
DRN:	RWJ			
CHK:	TWW			
DATE:	12/04			
BY:	RWJ	NO.	1	AS BUILT
REVISION				
DATE:	12/04			

PLAN AND PROFILE
8-INCH WATER MAIN
STA. 30+00 - 39+77
 600' SCALE MAP NO. 16 BLOCK NO. 9 & 10

MEKENIE COURT/ALPHA RIDGE LANDFILL
WATER MAIN LOOPING
CAPITAL PROJECT NO. W-8239
CONTRACT NO. 44-4158
ELECTION DISTRICT NO. 3 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 3 OF 4



FOR 8" W SEE SHEET 3 OF 4

PLAN
SCALE: 1" = 50'

AS BUILT

PLOTTED: 08:17 AM on Friday, December 10, 2004
 BY: Bob Jacobson, Division Environmental Engineering
 FILE: H:\2004\3000\4158\3000.dwg

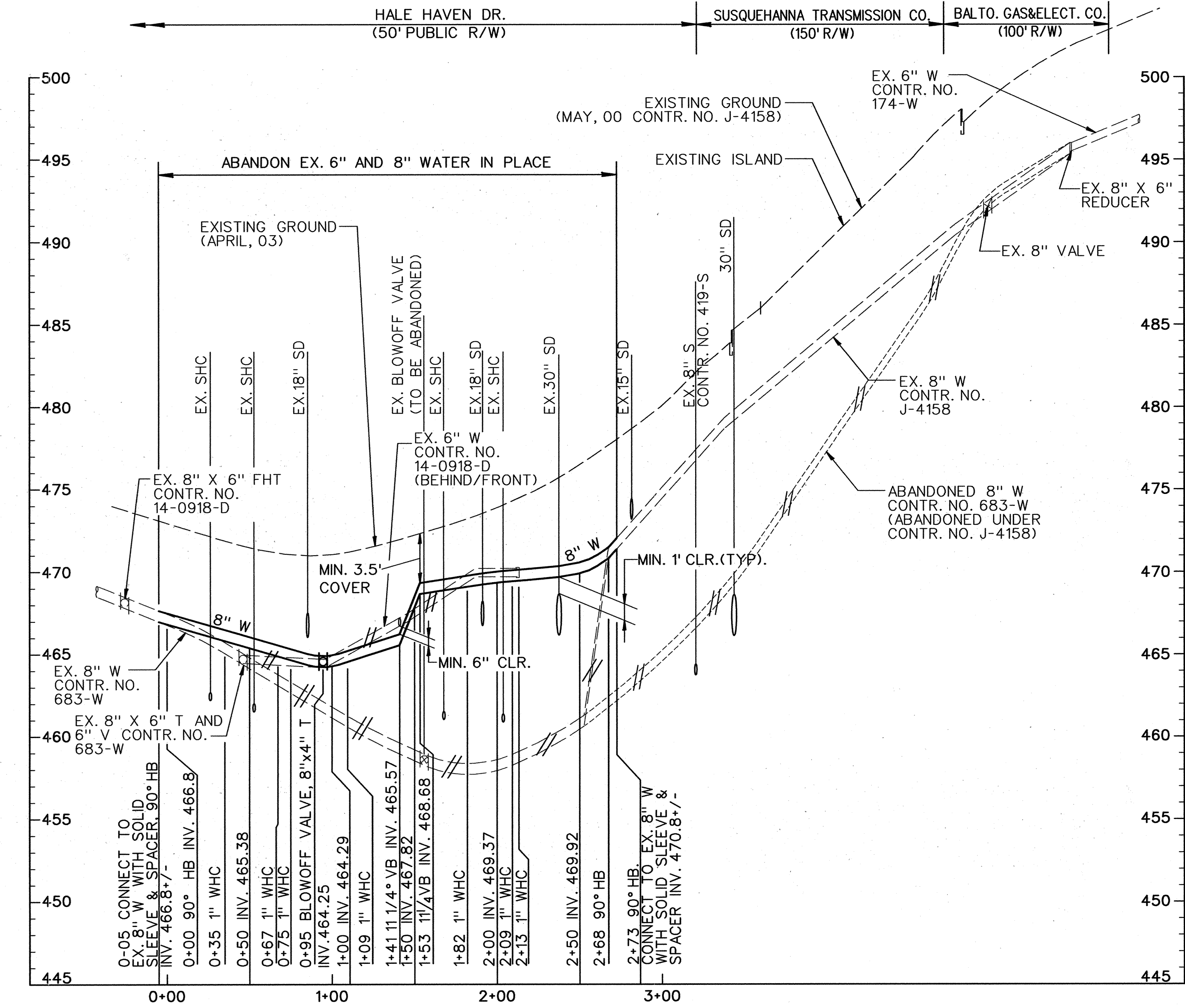
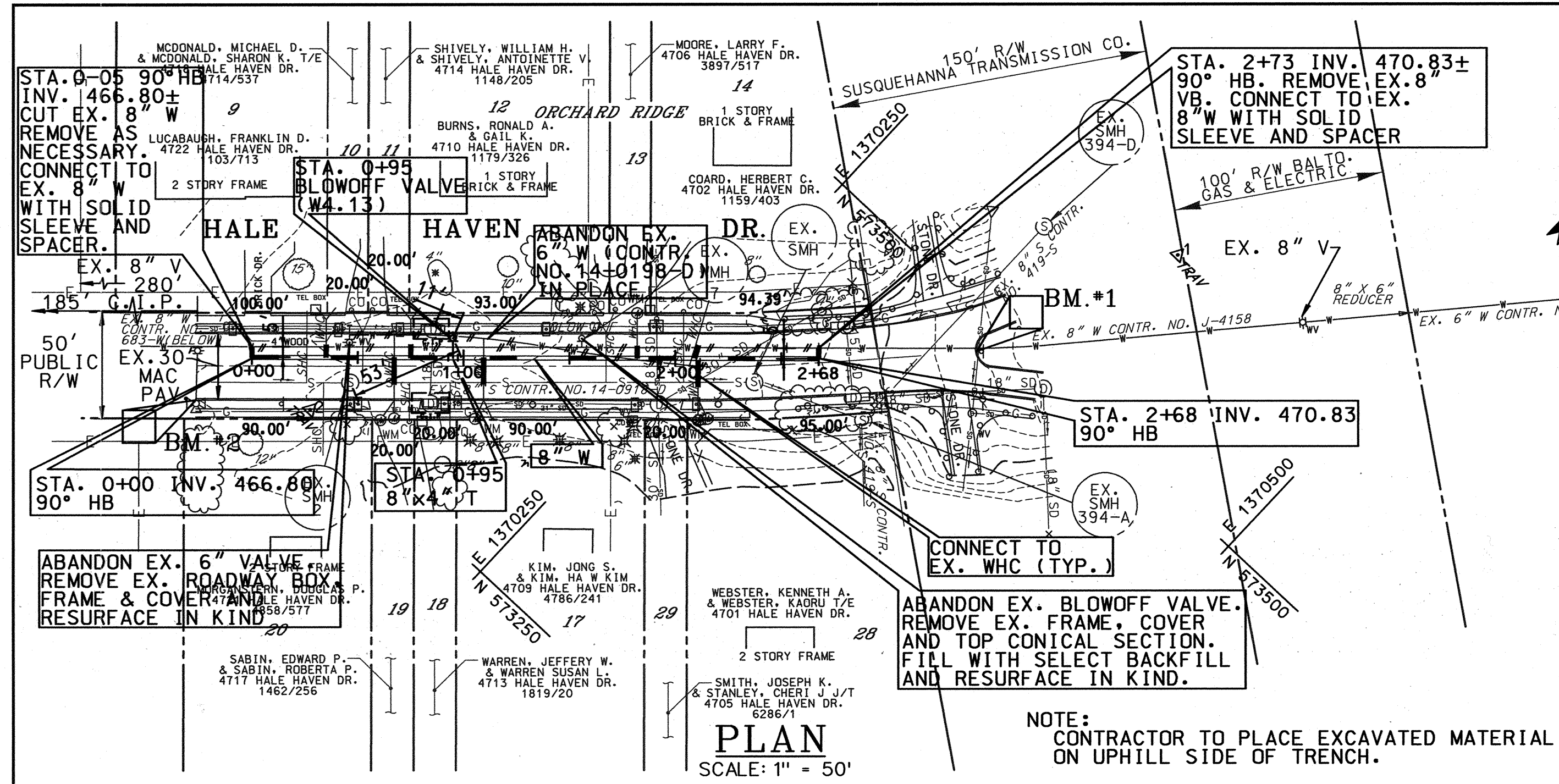
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND			
DIRECTOR OF PUBLIC WORKS	DATE	CHIEF, BUREAU OF ENGINEERING	DATE
CHIEF, BUREAU OF UTILITIES	DATE	CHIEF, UTILITY DESIGN DIVISION	DATE


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DES:					
DRN:	RWJ				
CHK:	TWW				
DATE:	12/04	BY:	RWJ	NO.:	1
					As Built
				REVISION	
				DATE:	12/14/04

PLAN 8", 2" WHC & 4" FIRE WATER	
600' SCALE MAP NO.	16
BLOCK NO.	9 & 10

MEKENIE COURT/ALPHA RIDGE LANDFILL WATER MAIN LOOPING CAPITAL PROJECT NO. W-8239 CONTRACT NO. 44-4158 ELECTION DISTRICT NO. 3 HOWARD COUNTY, MARYLAND		SCALE AS SHOWN SHEET 4 OF 4
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INDEX OF SHEETS

SHEET No.	DESCRIPTION
1	PLAN AND PROFILE
2	EROSION & SEDIMENT CONTROL, NOTES & DETAILS

QUANTITIES

ITEM	UNIT	ESTIMATE	AS-BUILT	MATERIAL SUPPLIER
8" DIP WATER	LF	268	300	ATLANTIC STATES
RECONNECT WHC	EA	7		
BLOWOFF VALVE	EA	1	1	KUPFERLE FOUNDRY

NAME OF UTILITY CONTRACTOR: _____

CHECKBOX

AS-BUILT DATE: _____

SURVEY AND DRAFTING DIVISION

RESTORATION SCHEDULE

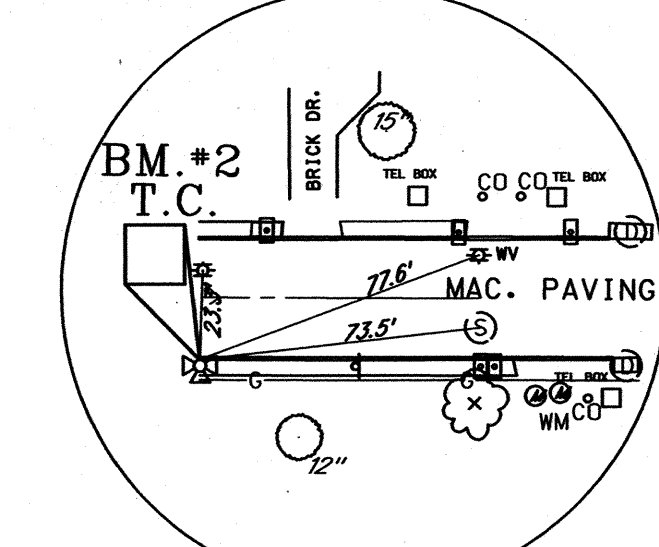
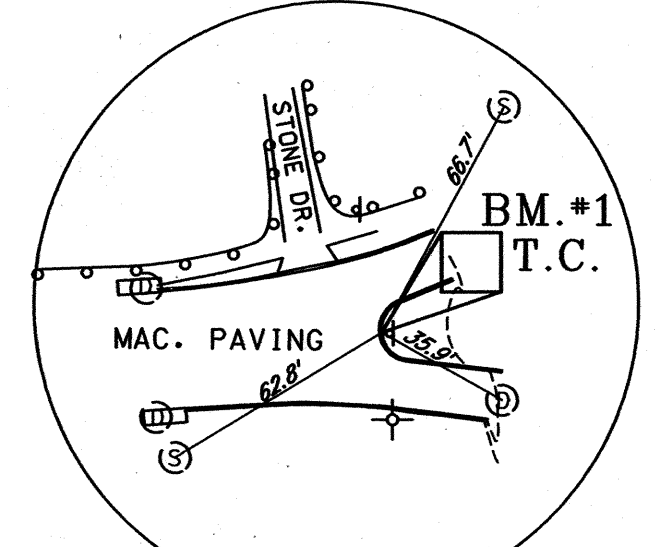
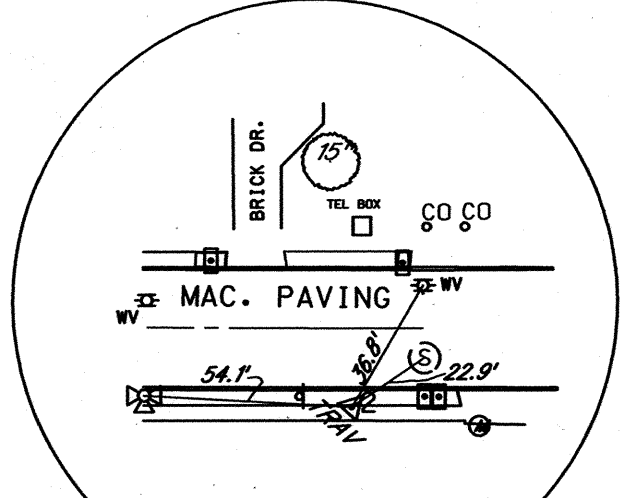
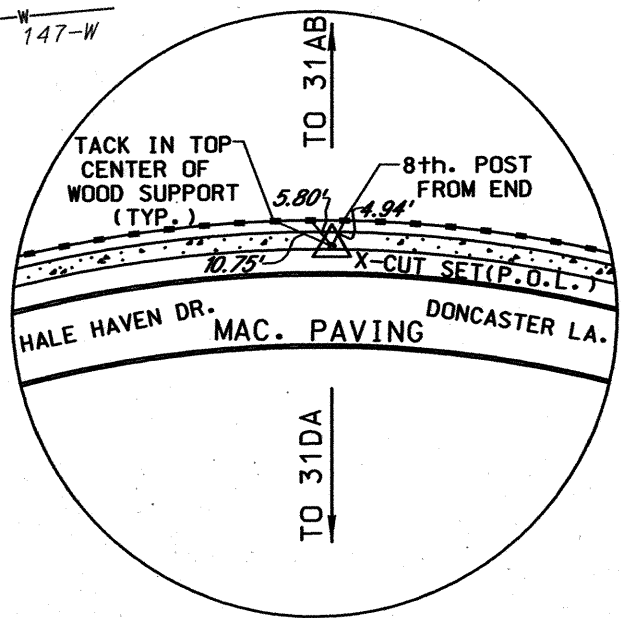
LOCATION	DISTANCE	TYPE
WATER STATION 0+00 TO 2+68	268'	BITUMINOUS CONCRETE

TRAVERSE COORDINATE SCHEDULE

NUMBER	NORTHING	EASTING	ELEVATION
TRAV. 1	573558.92	1370361.63	493.79
TRAV. 2	573225.77	1370112.04	472.61

8" D.I.P. WATER STAKEOUT COORDINATES SCHEDULE

STATION	NORTHING	EASTING
0+00	573228.71	1370071.66
0+95 BLOWOFF	573293.41	1370141.22
2+78	573410.98	1370267.64



REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.

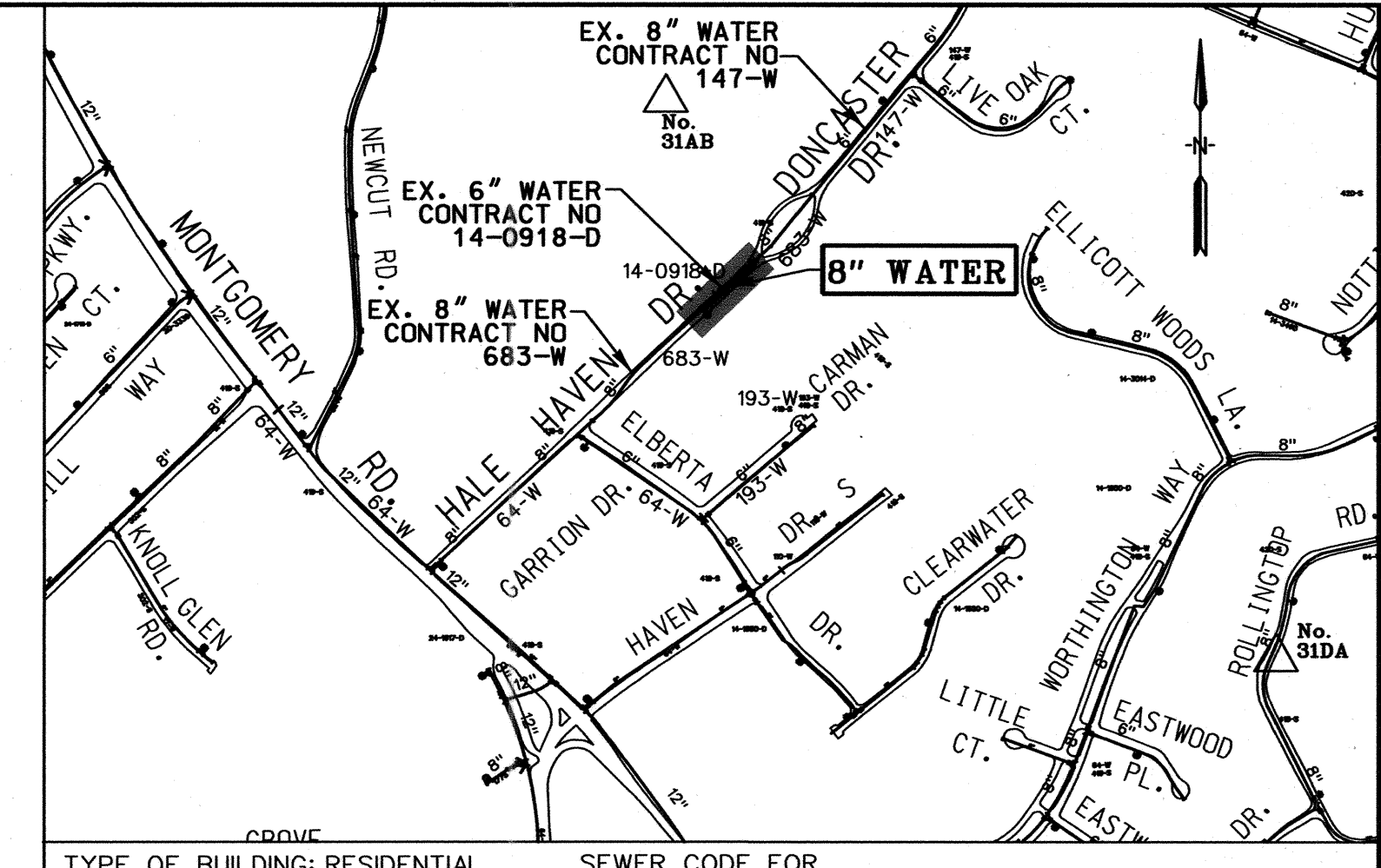
U.S. NATURAL RESOURCES CONSERVATION SERVICE DATE _____

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

APPROVED _____ DATE _____
HOWARD S.C.D.

LEGEND

	CURB INLET PROTECTION		EXISTING FIRE HYDRANT
	TRAVERSE POINT		EXISTING VALVE
	WATER		EXISTING WATER MAIN
	PROPOSED FIRE HYDRANT		EXISTING GAS MAIN
	PROPOSED VALVE		EXISTING UNDER GROUND ELECTRIC
	PROPOSED WATER HOUSE CONNECTION		EXISTING OVERHEAD SERVICE
	ABANDON WATERMAIN IN PLACE		DECIDUOUS TREE
	EXISTING SAN. SEWER		CONIFEROUS TREE
	EXISTING MANHOLE		



TYPE OF BUILDING: RESIDENTIAL
NUMBER OF PARCELS: 12
SEWER HOUSE CONNECTIONS: 0
WATER HOUSE CONNECTIONS: 2
DRAINAGE AREA: PATAPSCO

SEWER CODE FOR COUNTY USE ONLY: 5992000
SEWER No: 7031
WATER CODE: G01

HO. CO. SURVEY CONTROL
No. 31AB
No. 31DA

HOWARD COUNTY GEODETIC SURVEY CONTROL
NAD83(91) (HORIZONTAL)
NGVD29 (VERTICAL)

N 573984.472 (NAD83/91)
E 1369949.391 (NAD83/91)
ELEVATION 500.66 (NGVD29)

N 571982.646 (NAD83/91)
E 1372144.970 (NAD83/91)
ELEVATION 482.36 (NGVD29)

- GENERAL NOTES**
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR EXPENSE.
 - ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES NAD 1983/91.
 - ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA NGVD29
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 12". CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED. 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 MONEY 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 (P) AT THE LOCATION OF THE PIT. 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.
 - CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
AT&T.....1-800-252-1133
BG&E (CONTRACTOR SERVICES).....410-850-4620
BG&E - UNDERGROUND DAMAGE CONTROL.....410-787-9068
BUREAU OF UTILITIES (DPW).....410-313-4900
VERIZON.....1-800-743-0033 / 410-224-9210
COLONIAL PIPELINE CO.....410-795-1390
MISS UTILITY.....1-800-257-7777
STATE HIGHWAY ADMINISTRATION.....410-531-5533
 - 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.
 - CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. 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)313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER MAINS, 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.
 - 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 THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
 - FIRE HYDRANTS SHALL BE SET TO 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.
 - CONSTRUCTION STAKEOUT SHALL BE PERFORMED BY THE CONTRACTOR.

"As-Built"

PLOTTED: 03:45 PM on Monday, November 08, 2004
PLOT FILE: \\W2010\010105\DRAWINGS\C101WS.DGN

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Raymond J. ... 11/18/04
DIRECTOR OF PUBLIC WORKS DATE

Paul J. ... 11-15-04
CHIEF, BUREAU OF UTILITIES DATE

Paul J. ... 11/15/04
CHIEF, BUREAU OF ENGINEERING DATE

Paul J. ... 11-15-04
CHIEF, UTILITY DESIGN DIVISION DATE

ENGINEERS
PLANNERS
SCIENTISTS
CONSTRUCTION MANAGERS

KCI TECHNOLOGIES

10 NORTH PARK DRIVE
HUNT VALLEY, MD 21030
PHONE: (410) 316-7800
FAX: (410) 316-7817
WWW.KCI.COM



DES: KAK	KCI	As-Built	11/04
DRN: KFJ			
CHK: TWW			
DATE: 6/03			
BY	NO.	REVISION	DATE

PLAN AND PROFILE

600' SCALE MAP NO. 31 BLOCK NO. 8

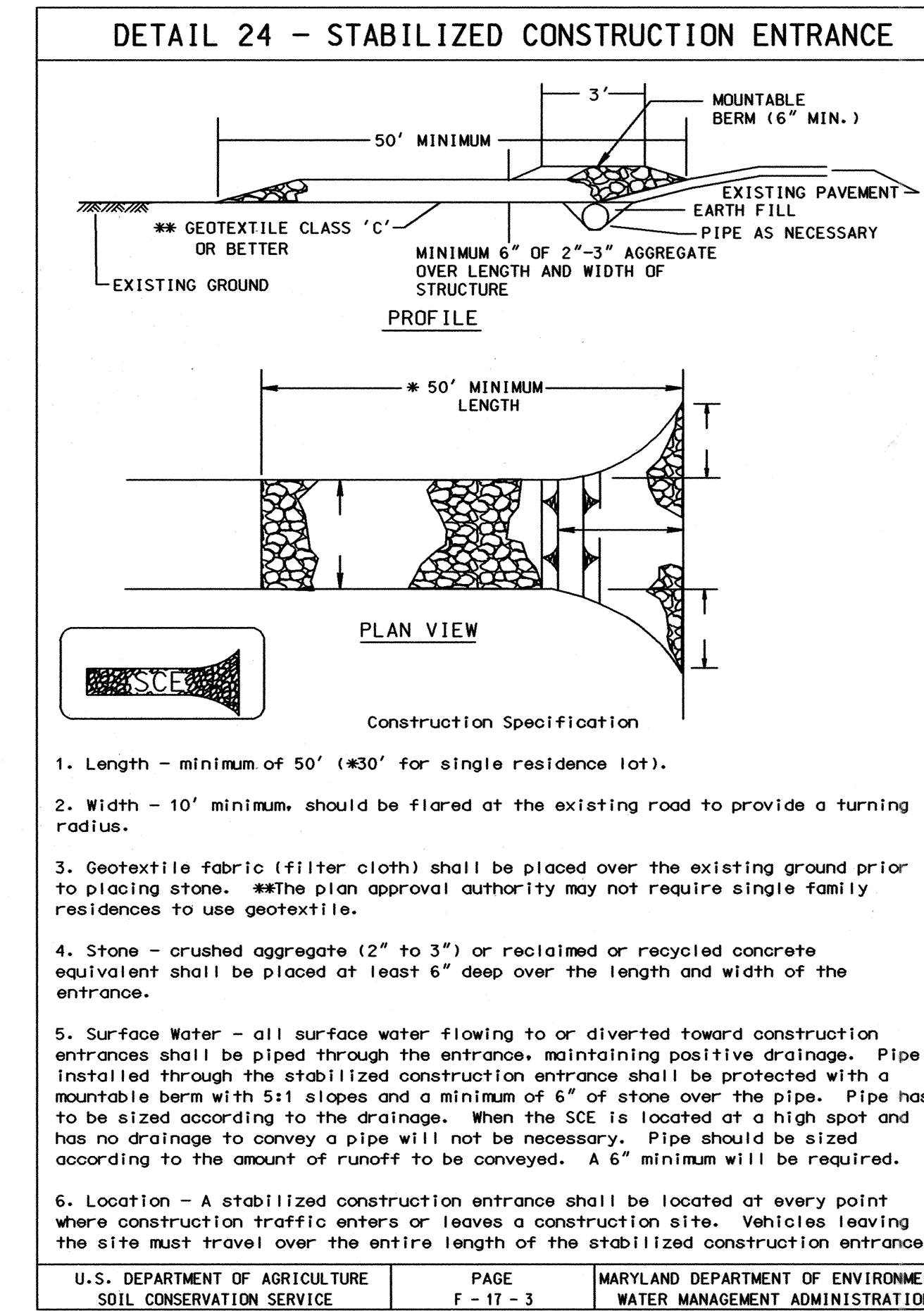
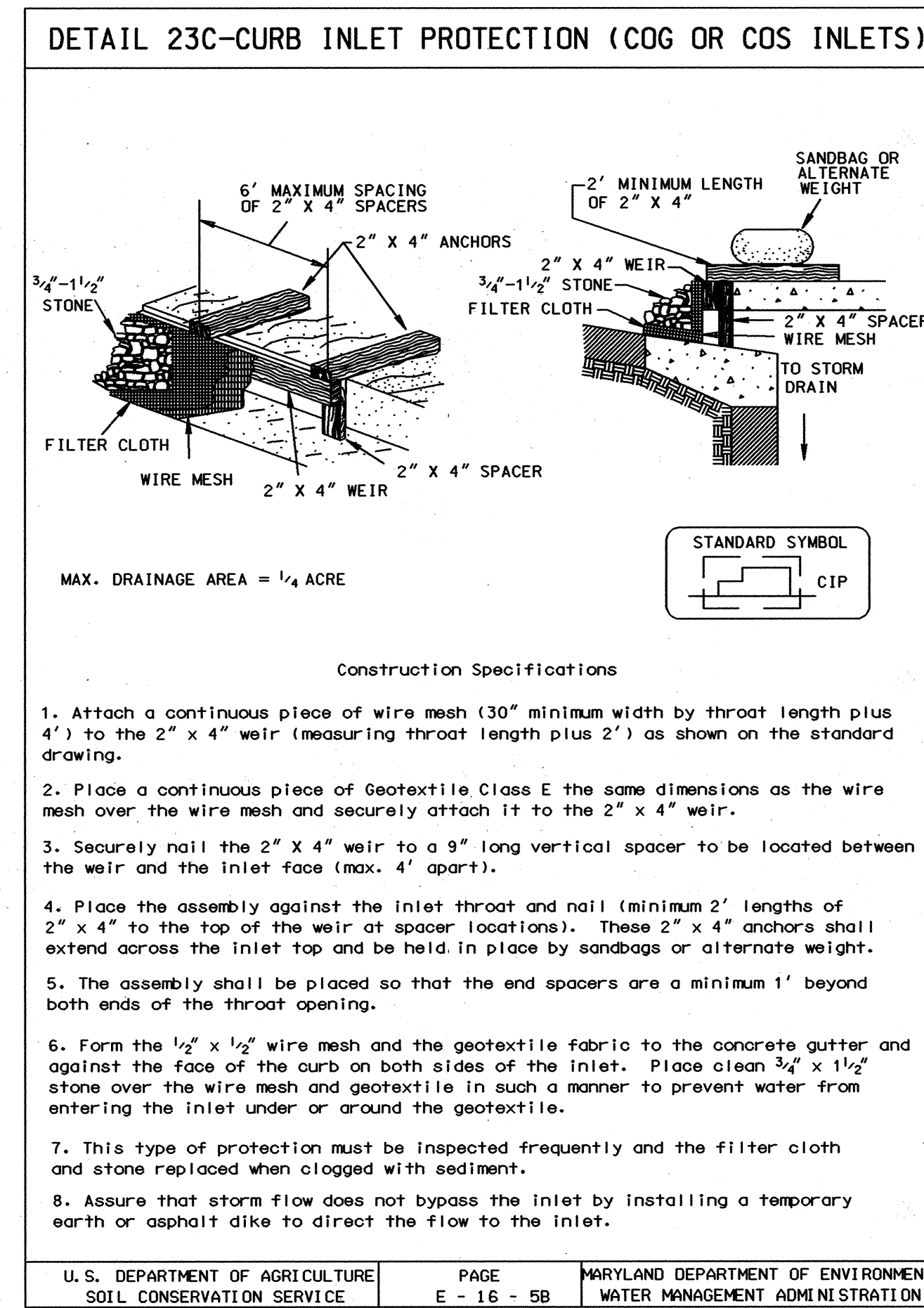
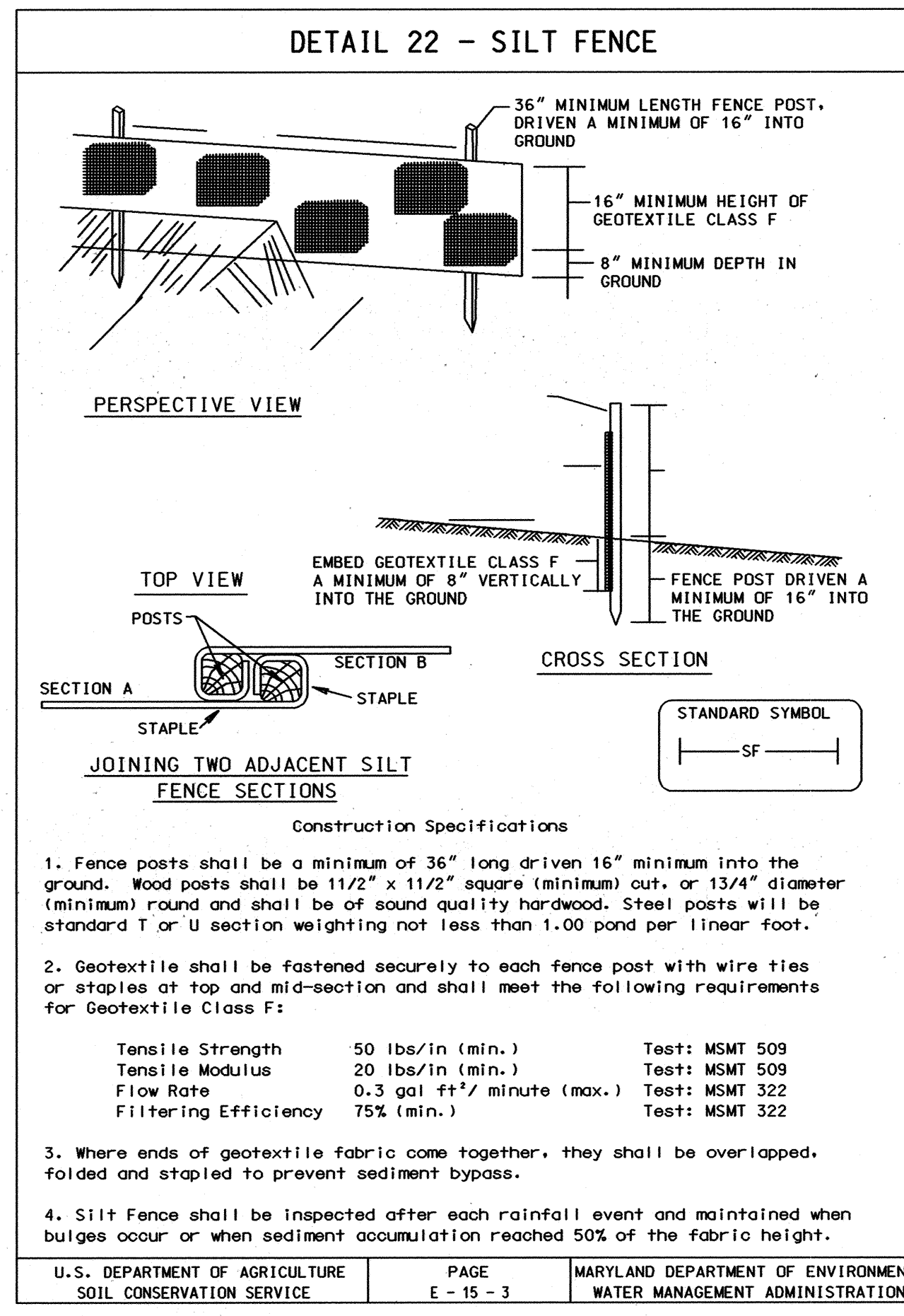
HALE HAVEN DR.
8" WATER MAIN REPLACEMENT

CAPITAL PROJECT No. W-8240
CONTRACT No. 44-4146

ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 1 OF 2

11/20/01/010105/1/DRAWINGS/C101WS.DGN



PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- PREFERRED** - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14LBS/1000 SQ FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ FT.).
- ACCEPTABLE** - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT.) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (.05 LBS/1000 SQ FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT.) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: - APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT.).

SEEDING - FOR PERIODS MARCH 1 THRU APRIL 30, AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (.07 LBS/1000 SQ FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING OR USE SOD.

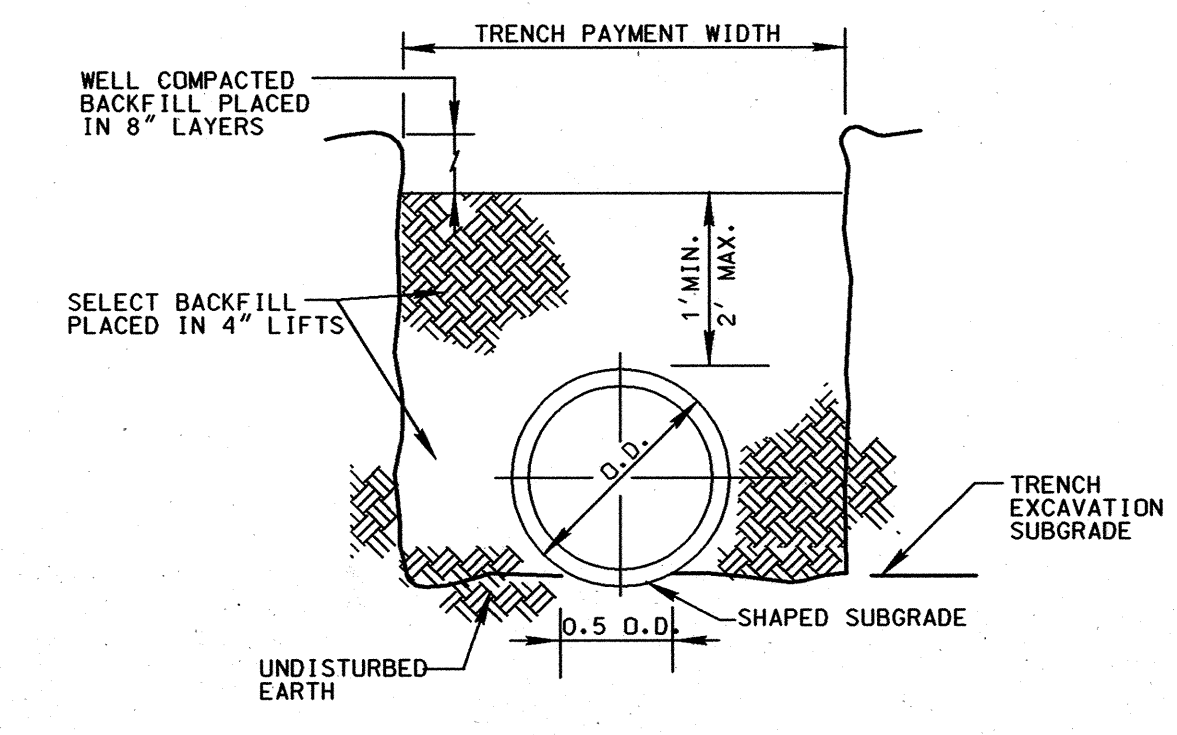
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REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

TRAFFIC MAINTENANCE

FOR TRAFFIC MAINTENANCE REQUIREMENTS SEE SPECIFICATION DOCUMENT D, PARAGRAPH 4.16.

- SEQUENCE OF CONSTRUCTION**
- OBTAIN GRADING PERMIT.
 - LAYOUT ALIGNMENT AT SITE. (1 DAY)
 - EXCAVATE DITCH TO THE GRADE SPECIFIED ON THE PROFILE. INSTALL WATER MAIN AND BACKFILL TRENCH AND RESURFACE WITH BITUMINOUS PAVING (30 DAYS) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO 25' OF PIPE LENGTH OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
 - CLEAN UP CONSTRUCTION SITE. (1 DAY)
 - REMOVE SEDIMENT CONTROL DEVICES AFTER PERMISSION IS GRANTED BY THE SEDIMENT CONTROL INSPECTOR. (1 DAY)



DETAIL TRENCH IN EARTH

NO SCALE

*BASED ON HOWARD COUNTY STANDARD DETAIL G2-01

- STANDARD SEDIMENT CONTROL NOTES**
- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. (313-1855).
 - ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
 - FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
 - 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
 - ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
 - ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (SEC. G20.0) FOR PERMANENT SEEDINGS, SOD, TEMPORARY SEEDING AND MULCHING. TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
 - ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
 - SITE ANALYSIS:

TOTAL AREA OF SITE	N/A	ACRES
AREA DISTURBED	0.025	ACRES
AREA TO BE ROOFED OR PAVED	0.025	ACRES
AREA TO BE VEGETATIVELY STABILIZED	N/A	ACRES
TOTAL CUT	N/A	CU. YDS.
TOTAL FILL	N/A	CU. YDS.
OFFSITE WASTE/BORROW AREA LOCATION	N/A	
 - ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF THE DISTURBANCE.
 - ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
 - ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
 - TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE (3) PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
 - CONTRACTOR SHALL PLACE EXCAVATED MATERIALS ON UPHILL SIDE OF TRENCH AND PLACE SILT FENCE ON DOWNHILL SIDE OF TRENCH.

DEVELOPER'S CERTIFICATION

"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."

Paulo J. Sepon 6/20/03
BUREAU OF ENGINEERING
DEPARTMENT OF PUBLIC WORKS

ENGINEER'S CERTIFICATION

"I/WE 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."

Timothy N. Wolfe 6/24/03
TIMOTHY N. WOLFE
DATE

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.

Jim Meyer 6/24/03
JIM MEYER
N.S. NATURAL RESOURCES
CONSERVATION SERVICE
DATE

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

John R. Robertson 6/26/03
APPROVED
DATE
HOWARD S.C.D.

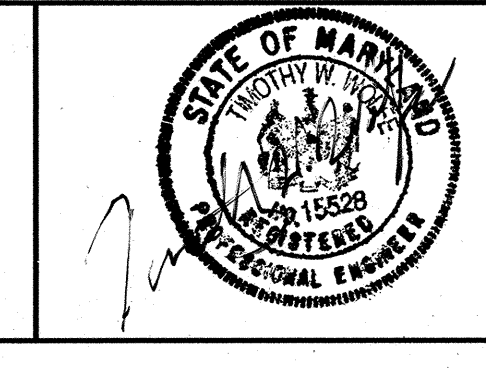
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Paulo J. Sepon 6/20/03
DATE
7/3/03
DATE

ENGINEERS
PLANNERS
SCIENTISTS
CONSTRUCTION MANAGERS

KCI TECHNOLOGIES

10 NORTH PARK DRIVE
HUNT VALLEY, MD 21030
PHONE: (410) 316-7800
FAX: (410) 316-7817
WWW.KCI.COM



DES:	KAK	KCI	AS-BUILTS	11/04
DRN:	KFJ			
CHK:	TWW			
DATE:	6/03			
BY:	NO.	REVISION	DATE	600' SCALE MAP NO. 31 BLOCK NO. 8

EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

HALE HAVEN DR.
8" WATER MAIN REPLACEMENT
CAPITAL PROJECT No. W-8240
CONTRACT No. 44-4146
ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND


SCALE AS SHOWN
SHEET 2 OF 2

SCHOOLMASTER PLACE WATER MAIN REPLACEMENT

CAPITAL PROJECT W-8246 CONTRACT NO.44-4020

GENERAL NOTES:

PART 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.
- THE PLANS AND PROFILES SHOWING EXISTING CONDITIONS HAVE BEEN DEVELOPED USING THE AS-BUILT CONSTRUCTION PLANS FOR THE EXISTING 6-INCH WATER MAIN, AS SHOWN ON DRAWING 11 OF 17, CONTRACT NO. 556-D-W & S, DATED SEPTEMBER, 1974 AS THE BASE TOPOGRAPHIC INFORMATION FOR THE DESIGN.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12". 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 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 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&T.....1-800-252-1133
 BGE(CONTRACTOR SERVICES).....410-850-4620
 BGE(UNDERGROUND DAMAGE CONTROL).....410-787-9068
 BUREAU OF UTILITIES.....410-313-4900
 VERIZON.....1-800-743-0033
 COLONIAL PIPELINE CO.....410-795-1390
 MISS UTILITY.....1-800-257-7777
 STATE HIGHWAY ADMINISTRATION.....410-531-5533

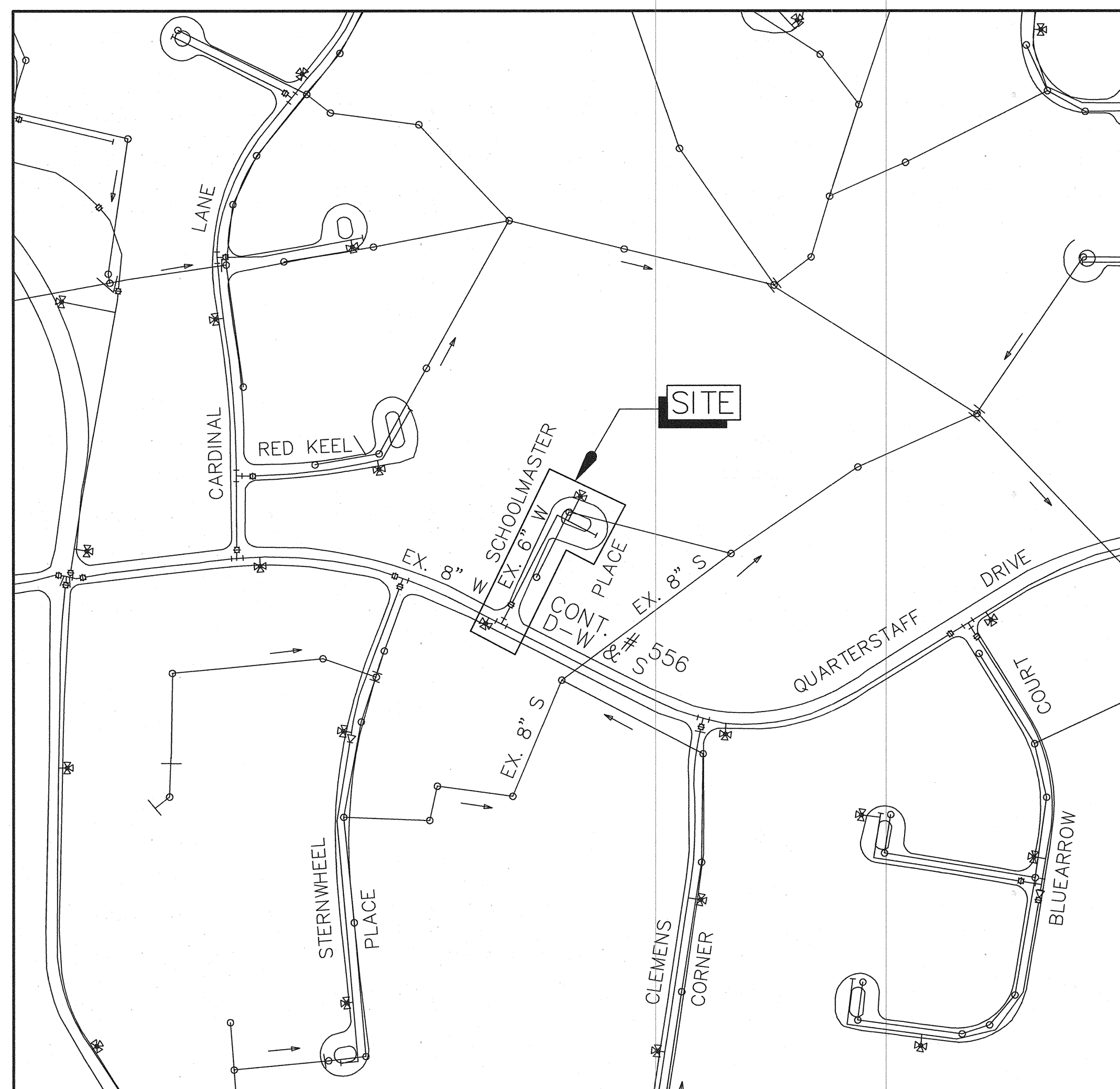
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR 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.

PART II 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 RESTRAINED AND 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 SECTION 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- FIVE DAYS PRIOR TO TIE-IN CONNECTIONS, CONTACT THE HOWARD COUNTY BUREAU OF UTILITIES, 410-313-4900, FOR ASSISTANCE.

AS BUILT
REPLACEMENT SHEET
(NOVEMBER 9, 2004)

ITEM	QUANTITIES		TYPE MATERIAL	SUPPLIER
	ESTIMATED	AS BUILT		
8" WATER	330 LF	321 LF	D.I.P.	US PIPE / BRS
6" WATER	5 LF	5 LF	-	-
3/4" WATER	35 LF	-	-	TYPE K
FIRE HYDRANT	1 EA	1 EA	-	MUELLER CO.
8" VALVE	1 EA	1 EA	-	MUELLER CO.




TYPE OF BUILDING: RESIDENTIAL
 NUMBER OF PARCELS: 11
 WATER HOUSE CONNECTIONS: 11
 DRAINAGE AREA: _____

VICINITY MAP
 SCALE: 1" = 200'

WATER AND SEWER CODES FOR
 COUNTY USE ONLY
 WATER CODE.

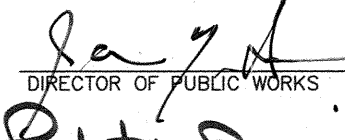
DEVELOPER'S CERTIFICATION

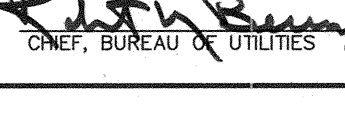
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT."

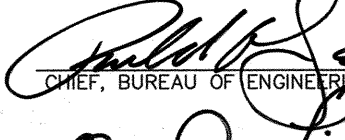
 11/12/04
 SIGNATURE OF DEVELOPER DATE
 PRINT NAME BELOW SIGNATURE


INDEX OF SHEETS	
SHEET	DESCRIPTION
1	TITLE SHEET
2	PLAN AND PROFILE

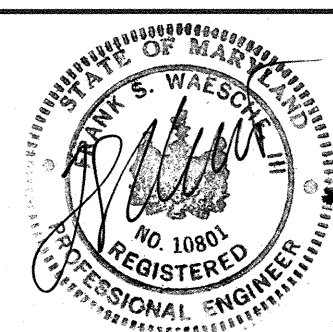
DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

 11/16/04
 DIRECTOR OF PUBLIC WORKS DATE

 11-16-04
 CHIEF, BUREAU OF UTILITIES DATE

 11/15/04
 CHIEF, UTILITY DESIGN DIVISION DATE

 WALLACE,
 MONTGOMERY
 & ASSOCIATES, LLP
 CIVIL AND STRUCTURAL ENGINEERS
 110 WEST ROAD
 TOWSON, MARYLAND 21204



DES: WCW
 DRN: SDH
 CHK: LAF
 DATE: OCT, 2002

BY NO. REVISION

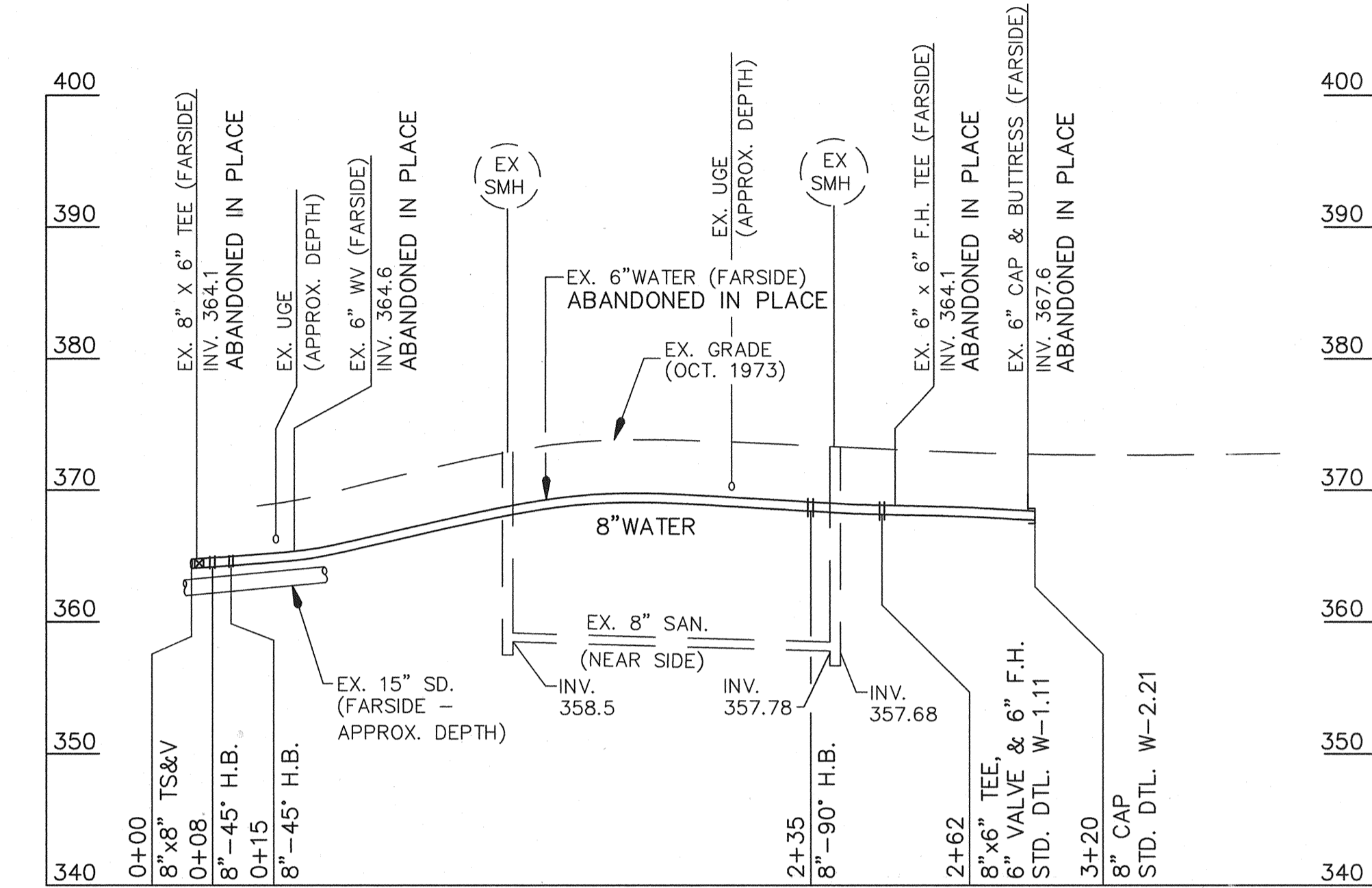
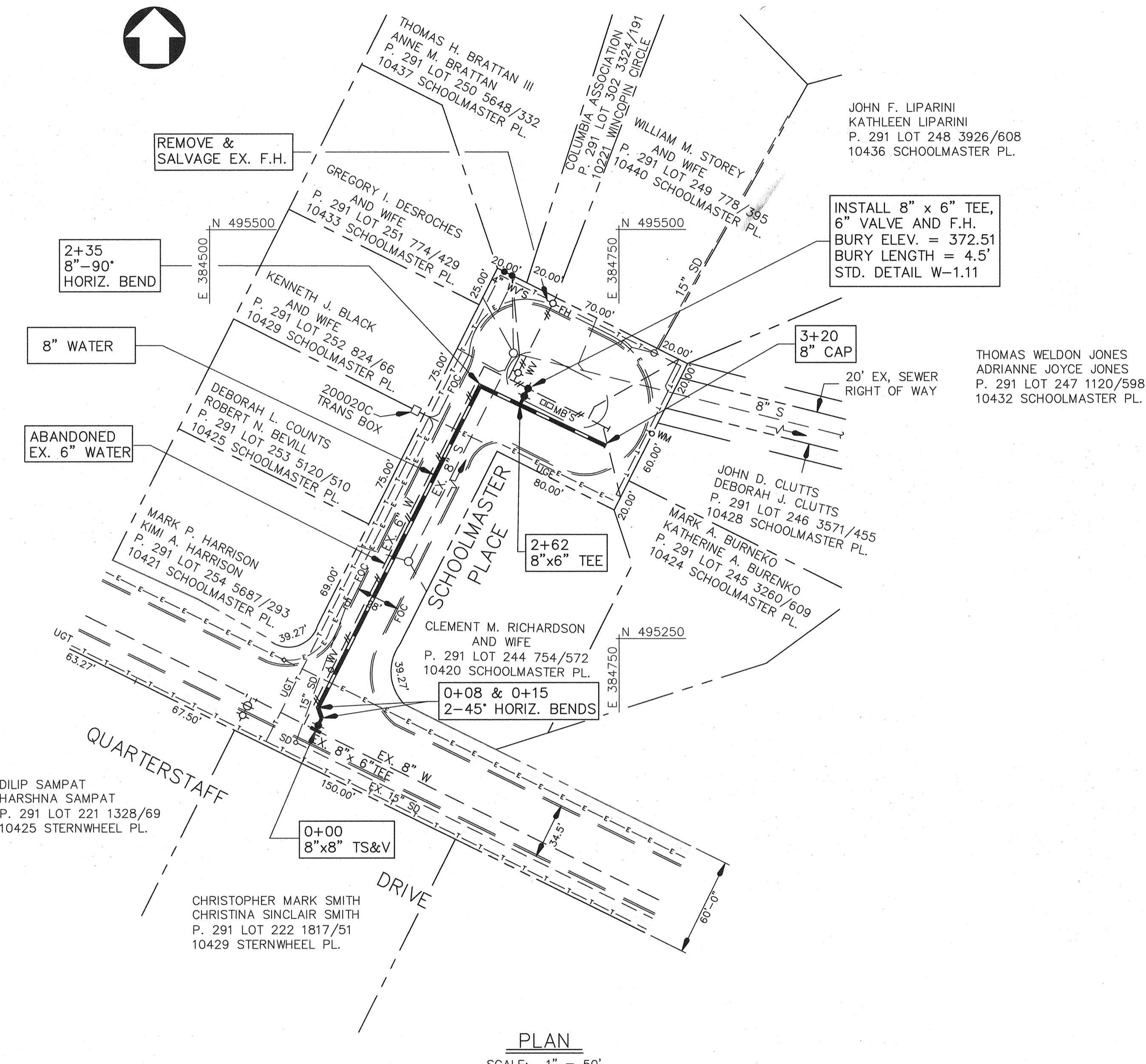
TITLE SHEET

DATE 600' SCALE MAP NO. 35 BLOCK NO. 18

SCHOOLMASTER PLACE
 WATER MAIN REPLACEMENT
 CAPITAL PROJECT W-8246
 CONTRACT NO. 44-4020
 ELECTION DISTRICT NO. 5
 HOWARD COUNTY, MARYLAND

SCALE
 AS
 SHOWN

SHEET
 1 OF 2



PROFILE - 8" WATER
SCALE: 1" = 50' HORIZ.
1" = 10' VERT.

WATER MAIN CONSTRUCTION PROCEDURES

1. INSTALL 8"x8" TS&V. CLOSE NEW 8" VALVE.
2. PLACE NEW 8" WATER NEXT TO EX. 6" W. CONSTRUCT BUTRESSES AND ANCHORS IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAILS.
3. PERFORM HYDROSTATIC DETAILS TESTING AND DISINFECTION PROCEDURES IN ACCORDANCE WITH HOWARD COUNTY SPECIFICATIONS. COUNTY TO OPEN NEW 8" VALVE.
4. CONNECT EXISTING WATER HOUSE CONNECTIONS TO THE NEW 8" WATER MAIN.
5. CLOSE EX. 6" VALVE, REMOVE VALVE BOX & FILL HOLE WITH STONE.
6. PATCH ROAD

AS BUILT
REPLACEMENT SHEET
(NOVEMBER 9, 2004)

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

11/18/04
11-16-04

11/15/04
11-15-04

WALLACE,
MONTGOMERY
& ASSOCIATES, LLP

CIVIL AND STRUCTURAL ENGINEERS
110 WEST ROAD
TOWSON, MARYLAND 21204



DES:	WCW				
DRN:	SDH				
CHK:	LAF				
DATE:	OCT. 2002	BY	NO.	REVISION	DATE

PLAN AND PROFILE

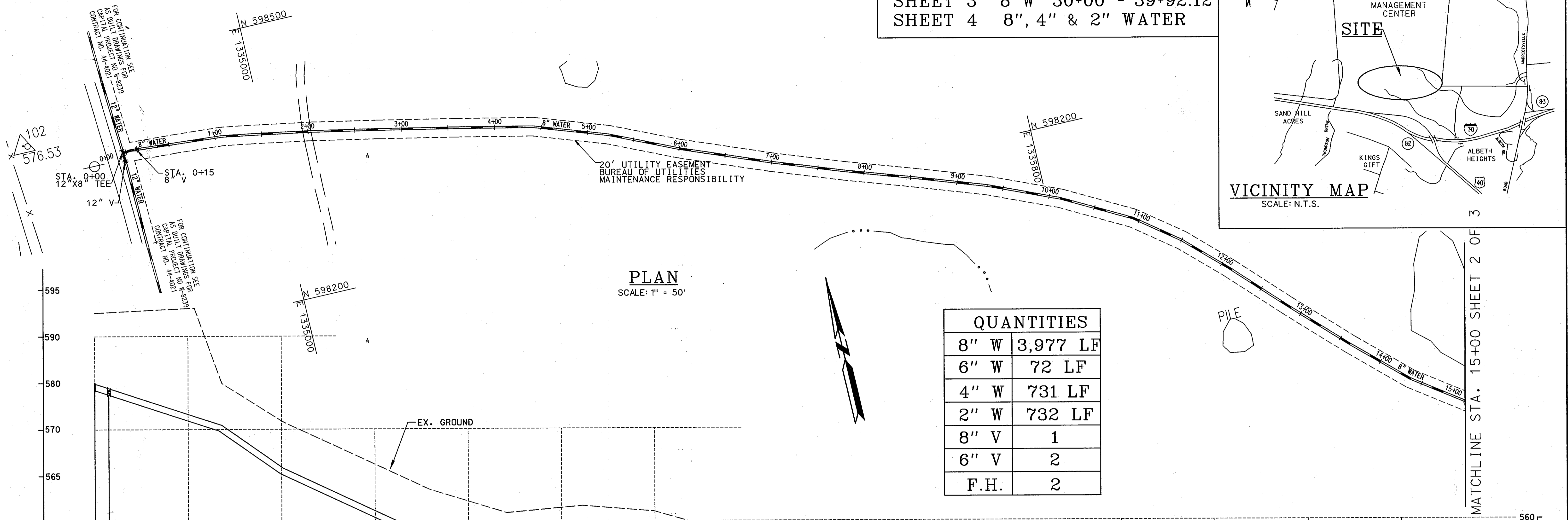
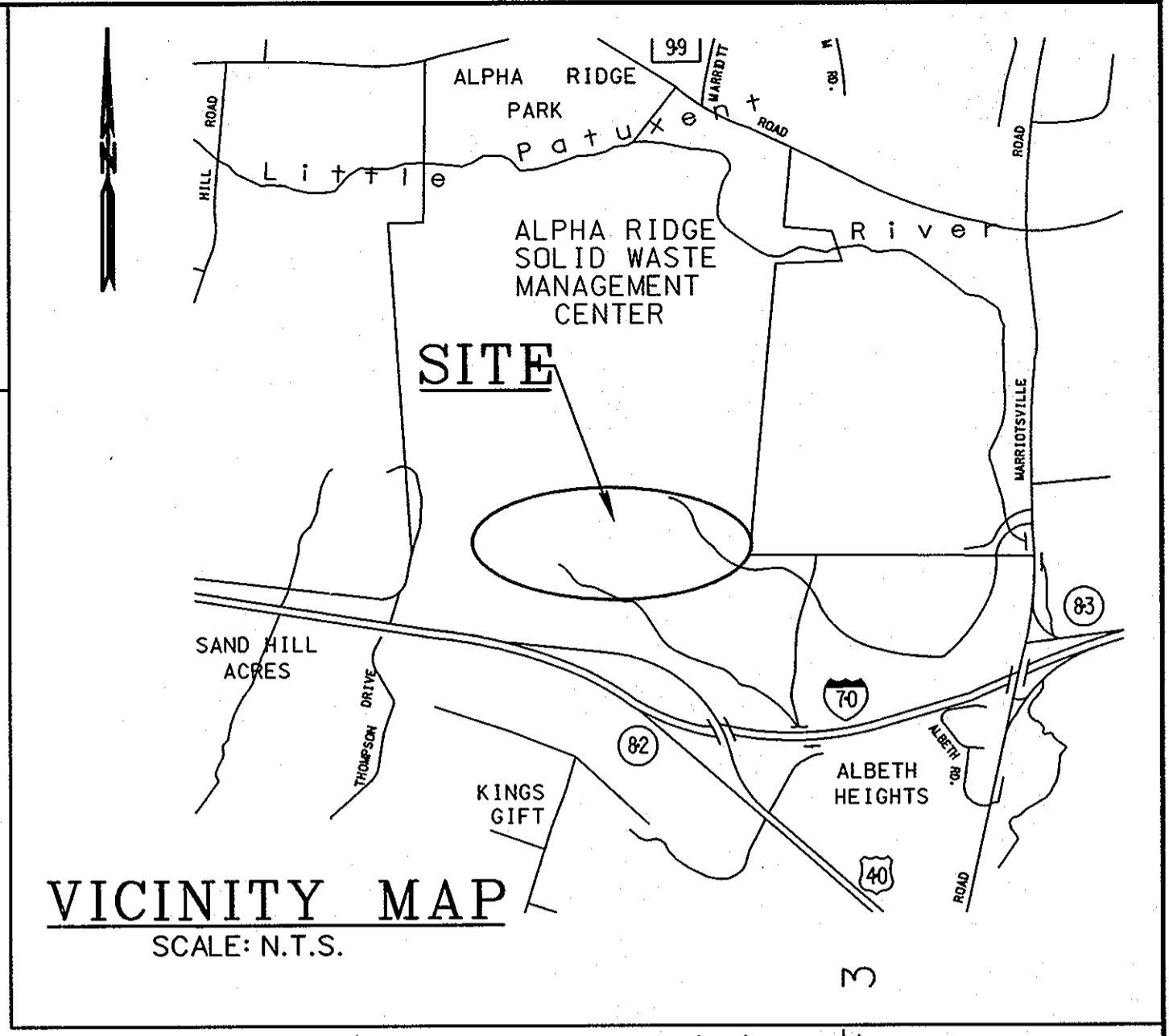
600' SCALE MAP NO. 35 BLOCK NO. 18

SCHOOLMASTER PLACE
WATER MAIN REPLACEMENT
CAPITAL PROJECT W-8246
CONTRACT NO. 44-4020
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 2

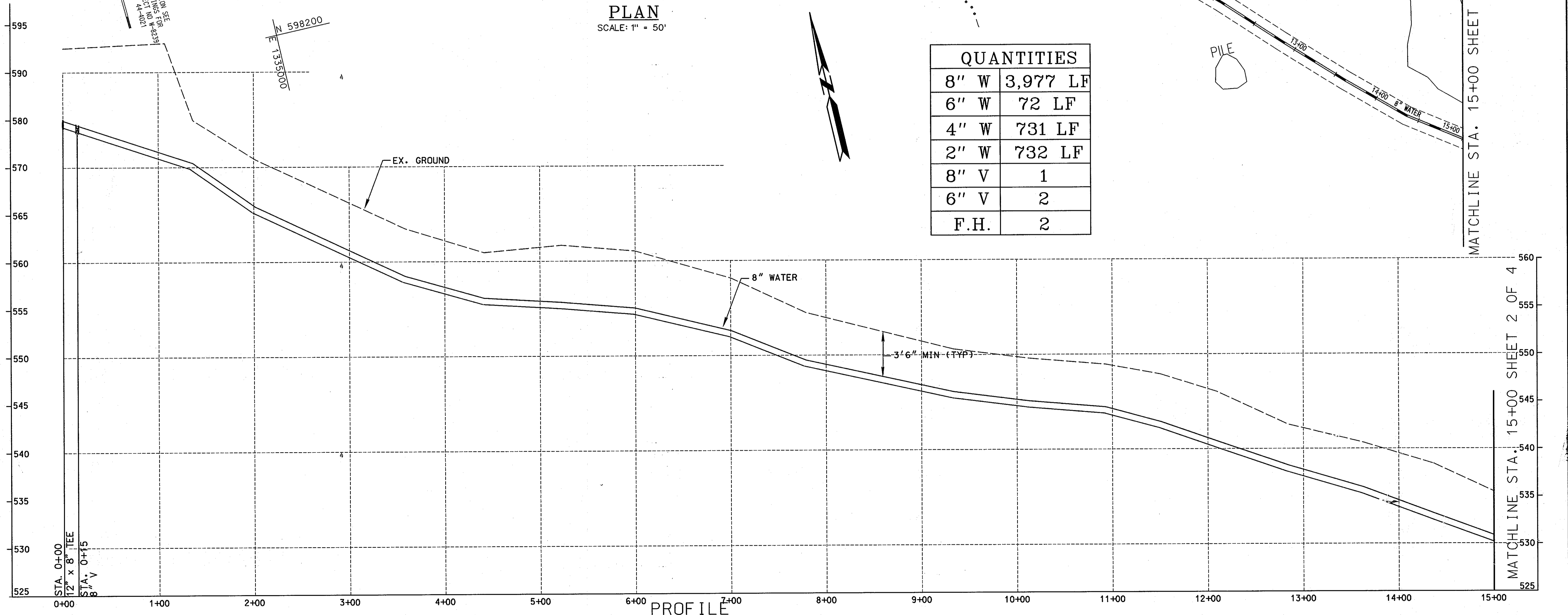
NOTE:
 THESE PLANS REPRESENT AS-BUILT CONDITIONS
 (11-2004) AS PREPARED BY KCI TECHNOLOGIES, INC.
 THIS PROJECT WAS A DETAIL-BUILD UNDER
 DIRECTION OF HOWARD COUNTY DEPARTMENT OF
 PUBLIC WORKS.

INDEX OF SHEETS			
SHEET 1	8" W	0+00 - 15+00	
SHEET 2	8" W	15+00 - 30+00	
SHEET 3	8" W	30+00 - 39+92.12	
SHEET 4	8", 4" & 2" WATER		



PLAN
 SCALE: 1" = 50'

QUANTITIES	
8" W	3,977 LF
6" W	72 LF
4" W	731 LF
2" W	732 LF
8" V	1
6" V	2
F.H.	2



PROFILE
 SCALE: HORIZONTAL 1" = 50'
 VERTICAL 1" = 5'

PLOTTED: 12:58 PM on Thursday, December 09, 2004
 By: Bob Jacobson, Division: Environmental Engineering
 File: M:\2004\04\3433\Alpha Ridge\AsBuilt.dwg

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	
DIRECTOR OF PUBLIC WORKS	DATE
CHIEF OF BUREAU OF UTILITIES	DATE
CHIEF, BUREAU OF ENGINEERING	DATE
CHIEF, UTILITY DESIGN DIVISION	DATE

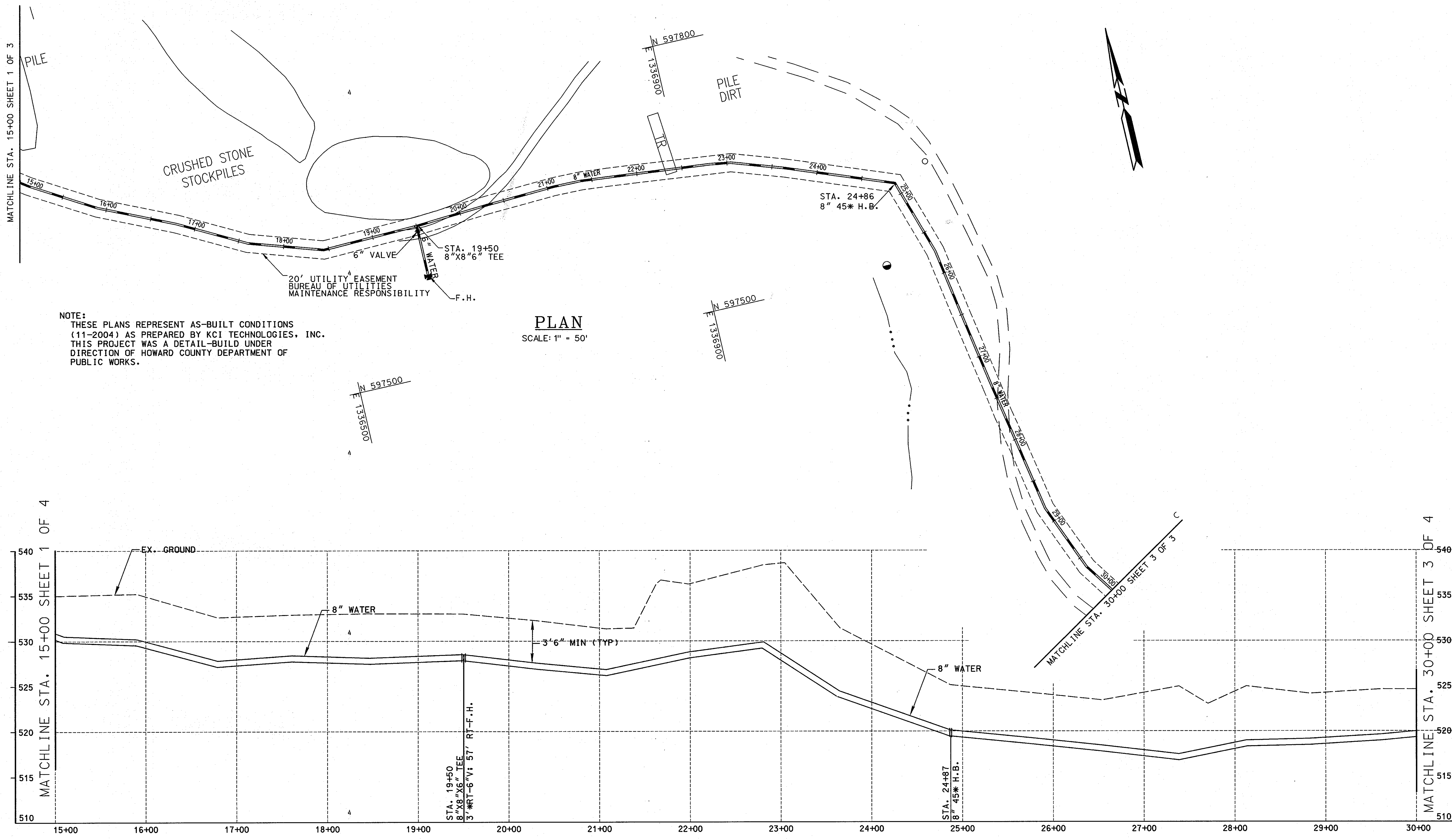
ENGINEERS
 PLANNERS
 SCIENTISTS
 CONSTRUCTION MANAGERS
 10 NORTH PARK DRIVE
 HUNT VALLEY, MD 21030
 PHONE: (410) 316-7800
 FAX: (410) 316-7817
 www.kci.com

DES:			
DRN:	RWJ		
CHK:	TWW		
DATE:	12/04		
BY:	RWJ	NO.	1
REVISION:	As-Built	DATE:	12/10/04

PLAN AND PROFILE
 8-INCH WATER MAIN
 STA. 0+00 - 15+00
 600' SCALE MAP NO. 16 BLOCK NO. 9 & 10

MEKENIE COURT/ALPHA RIDGE LANDFILL
 WATER MAIN LOOPING
 CAPITAL PROJECT NO. W-8239
 CONTRACT NO. 44-4158
 ELECTION DISTRICT NO. 3 HOWARD COUNTY, MARYLAND
 SCALE AS SHOWN
 SHEET 1 OF 4

AS BUILT



NOTE:
 THESE PLANS REPRESENT AS-BUILT CONDITIONS
 (11-2004) AS PREPARED BY KCI TECHNOLOGIES, INC.
 THIS PROJECT WAS A DETAIL-BUILD UNDER
 DIRECTION OF HOWARD COUNTY DEPARTMENT OF
 PUBLIC WORKS.

PLAN
 SCALE: 1" = 50'

PROFILE
 SCALE: HORIZONTAL 1" = 50'
 VERTICAL 1" = 5'

AS BUILT

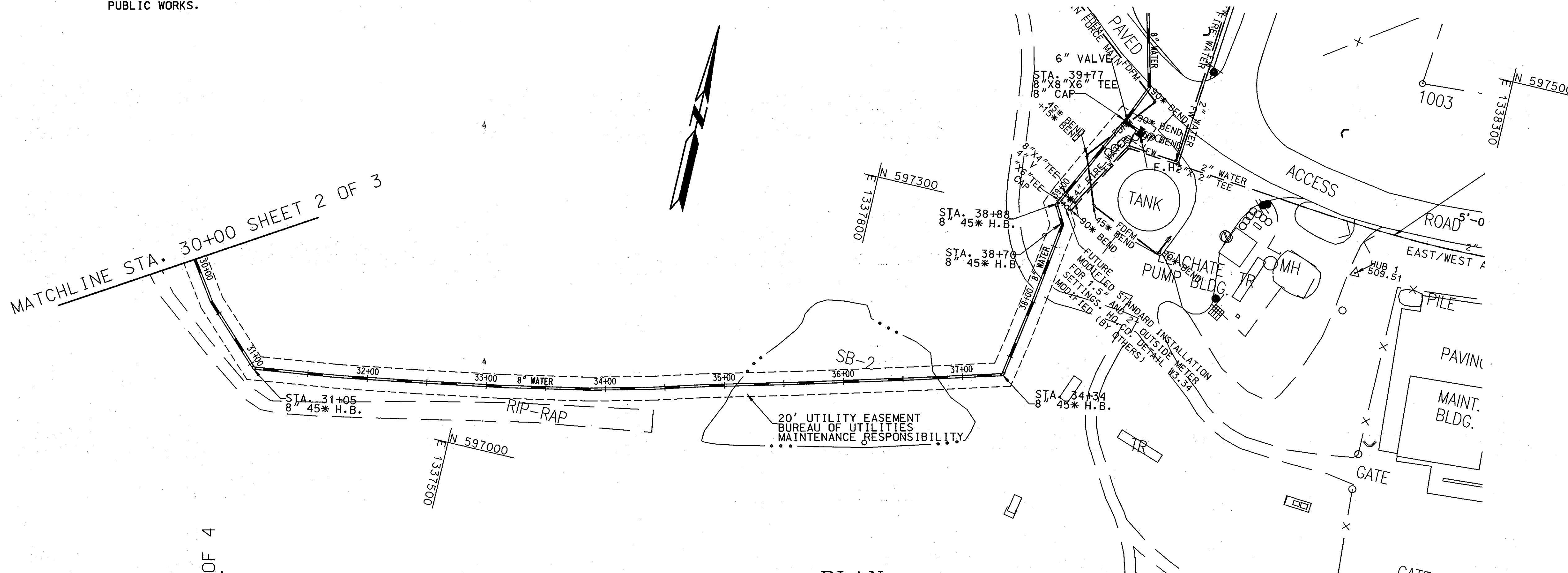
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 BY: Bob Jacobson, Division Environmental Engineering
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DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND		ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS 10 North Park Drive Hunt Valley, MD 21030 Phone: (410) 316-7800 Fax: (410) 316-7817 www.kci.com	DES: _____ DRN: RWJ CHK: TWW DATE: 12/04	PLAN AND PROFILE 8-INCH WATER MAIN STA. 15+00 - 30+00	MEKENIE COURT/ALPHA RIDGE LANDFILL WATER MAIN LOOPING CAPITAL PROJECT NO. W-8239 CONTRACT NO. 44-4158 ELECTION DISTRICT NO. 3 HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 2 OF 4
DIRECTOR OF PUBLIC WORKS _____ DATE _____ CHIEF, BUREAU OF UTILITIES _____ DATE _____	CHIEF, BUREAU OF ENGINEERING _____ DATE _____ CHIEF, UTILITY DESIGN DIVISION _____ DATE _____		BY: RWJ NO. 1 AS-BUILT REVISION DATE: 12/10/04	600' SCALE MAP NO. 16 BLOCK NO. 9 & 10		

NOTE:
 THESE PLANS REPRESENT AS-BUILT CONDITIONS
 (11-2004) AS PREPARED BY KCI TECHNOLOGIES, INC.
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 PUBLIC WORKS.

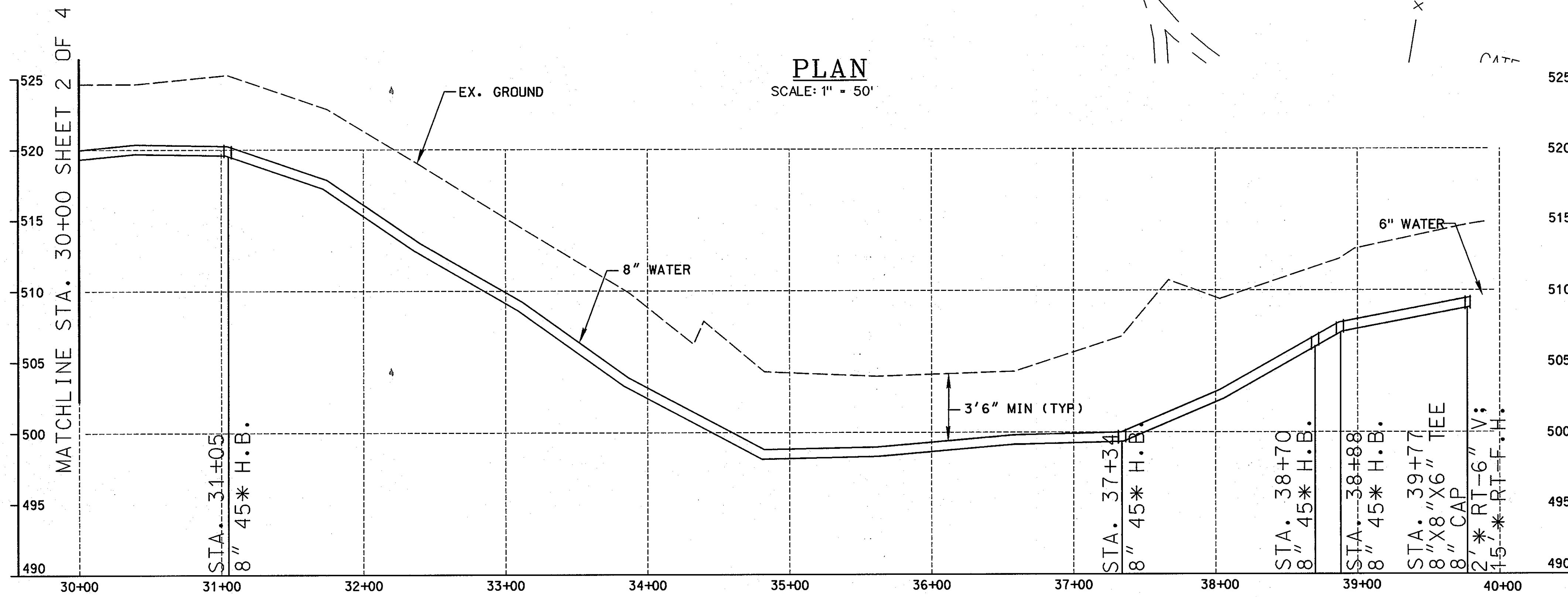
FOR 8" W, 4" W, & 2" WHC SEE SHEET 4 OF 4

MATCHLINE STA. 30+00 SHEET 2 OF 3



PLAN

SCALE: 1" = 50'



PROFILE

SCALE: HORIZONTAL 1" = 50'
 VERTICAL 1" = 5'

AS BUILT

PLOTTED: 12:59 PM on Thursday, December 09, 2004
 BY: Bob Jacobson, Division: Environmental Engineering
 FILE: J:\2004\10\04\44-1583\Alpha Ridge\ASBUILT.dwg

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND			
DIRECTOR OF PUBLIC WORKS	DATE	CHIEF, BUREAU OF ENGINEERING	DATE
CHIEF, BUREAU OF UTILITIES	DATE	CHIEF, UTILITY DESIGN DIVISION	DATE

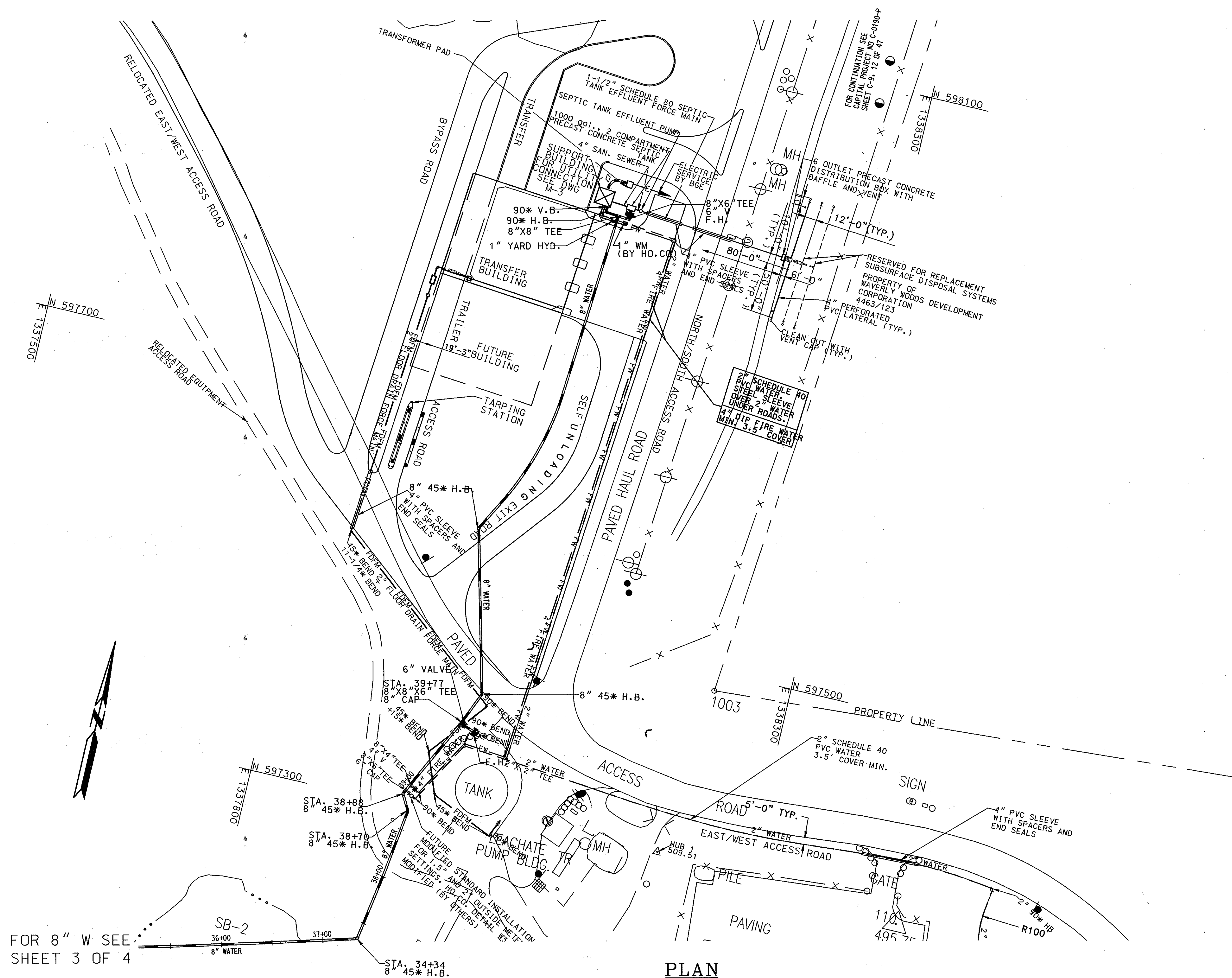

KCI TECHNOLOGIES
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 Phone: (410) 316-7800
 Fax: (410) 316-7817
 www.kci.com

DES:				
DRN:	RWJ			
CHK:	TWW			
DATE:	12/04			
BY:	RWJ	NO.	1	AS BUILT
REVISION				
DATE:	12/04			

PLAN AND PROFILE
8-INCH WATER MAIN
STA. 30+00 - 39+77
 600' SCALE MAP NO. 16 BLOCK NO. 9 & 10

MEKENIE COURT/ALPHA RIDGE LANDFILL
WATER MAIN LOOPING
CAPITAL PROJECT NO. W-8239
CONTRACT NO. 44-4158
ELECTION DISTRICT NO. 3 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 3 OF 4



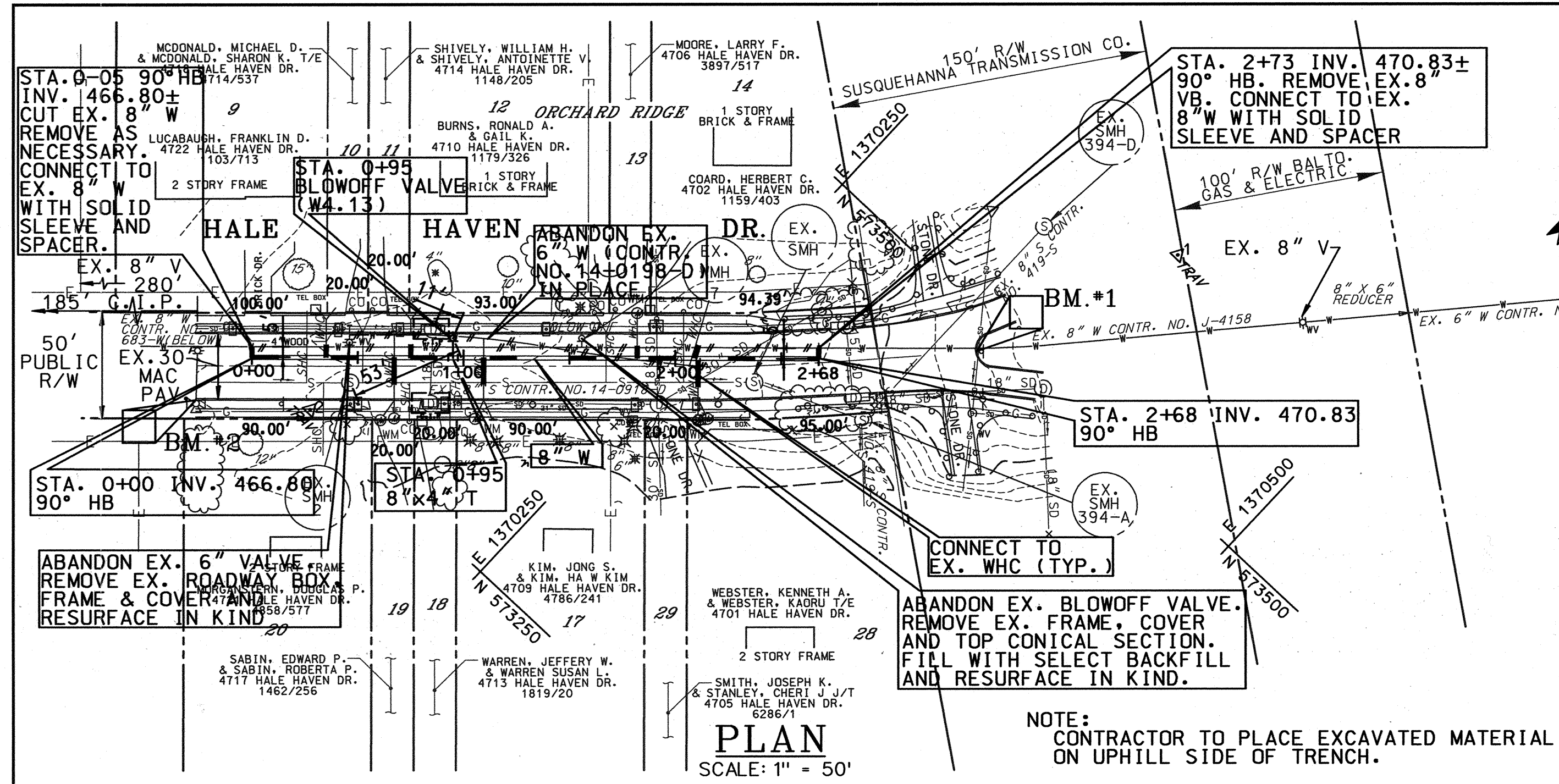
FOR 8" W SEE SHEET 3 OF 4

PLAN
SCALE: 1" = 50'

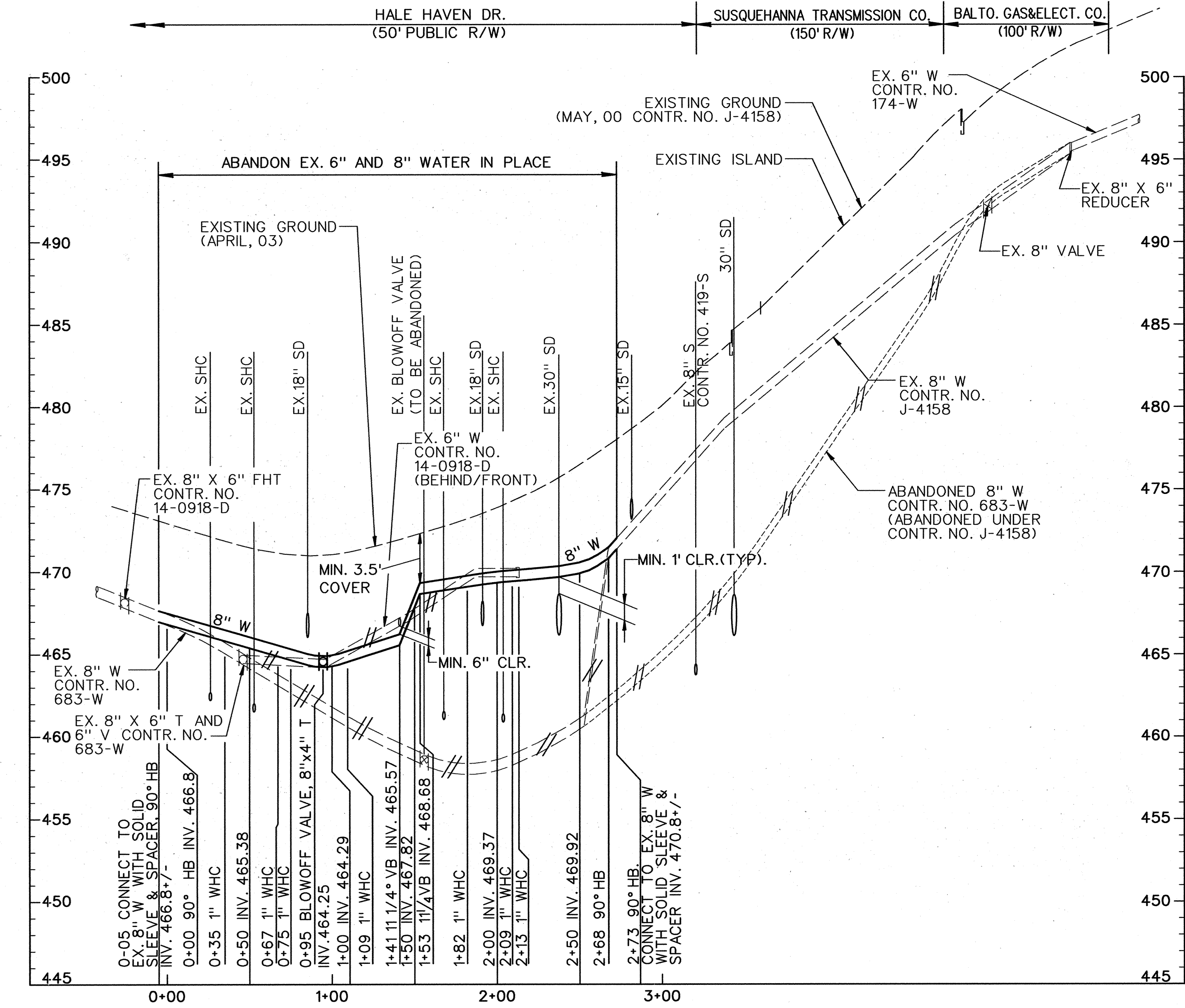
AS BUILT

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 BY: Bob Jacobson, Division Environmental Engineering
 FILE: M:\2004\3000\4158\3000.dwg

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND		ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS 10 North Park Drive Hunt Valley, MD 21030 Phone: (410) 316-7800 Fax: (410) 316-7817 www.kci.com		DES: _____ DRN: RWJ CHK: TWW DATE: 12/04 BY: RWJ NO.: 1 REVISION: <i>As Built</i>	PLAN 8", 2" WHC & 4" FIRE WATER	MEKENIE COURT/ALPHA RIDGE LANDFILL WATER MAIN LOOPING CAPITAL PROJECT NO. W-8239 CONTRACT NO. 44-4158 ELECTION DISTRICT NO. 3 HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 4 OF 4
DIRECTOR OF PUBLIC WORKS _____ DATE _____ CHIEF OF BUREAU OF UTILITIES _____ DATE _____	CHIEF OF BUREAU OF ENGINEERING _____ DATE _____ CHIEF OF UTILITY DESIGN DIVISION _____ DATE _____			600' SCALE MAP NO. 16 BLOCK NO. 9 & 10			



NOTE: CONTRACTOR TO PLACE EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.



PROFILE
SCALE: HORIZONTAL 1" = 50'
VERTICAL 1" = 5'

INDEX OF SHEETS

SHEET No.	DESCRIPTION
1	PLAN AND PROFILE
2	EROSION & SEDIMENT CONTROL, NOTES & DETAILS

QUANTITIES

ITEM	UNIT	ESTIMATE	AS-BUILT	MATERIAL SUPPLIER
8" DIP WATER	LF	268	300	ATLANTIC STATES
RECONNECT WHC	EA	7		
BLOWOFF VALVE	EA	1	1	KUPFERLE FOUNDRY

NAME OF UTILITY CONTRACTOR: _____

CHECKBOX

AS-BUILT DATE: _____

SURVEY AND DRAFTING DIVISION

RESTORATION SCHEDULE

LOCATION	DISTANCE	TYPE
WATER STATION 0+00 TO 2+68	268'	BITUMINOUS CONCRETE

TRAVERSE COORDINATE SCHEDULE

NUMBER	NORTHING	EASTING	ELEVATION
TRAV. 1	573558.92	1370361.63	493.79
TRAV. 2	573225.77	1370112.04	472.61

8" D.I.P. WATER STAKEOUT COORDINATES SCHEDULE

STATION	NORTHING	EASTING
0+00	573228.71	1370071.66
0+95 BLOWOFF	573293.41	1370141.22
2+78	573410.98	1370267.64

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.

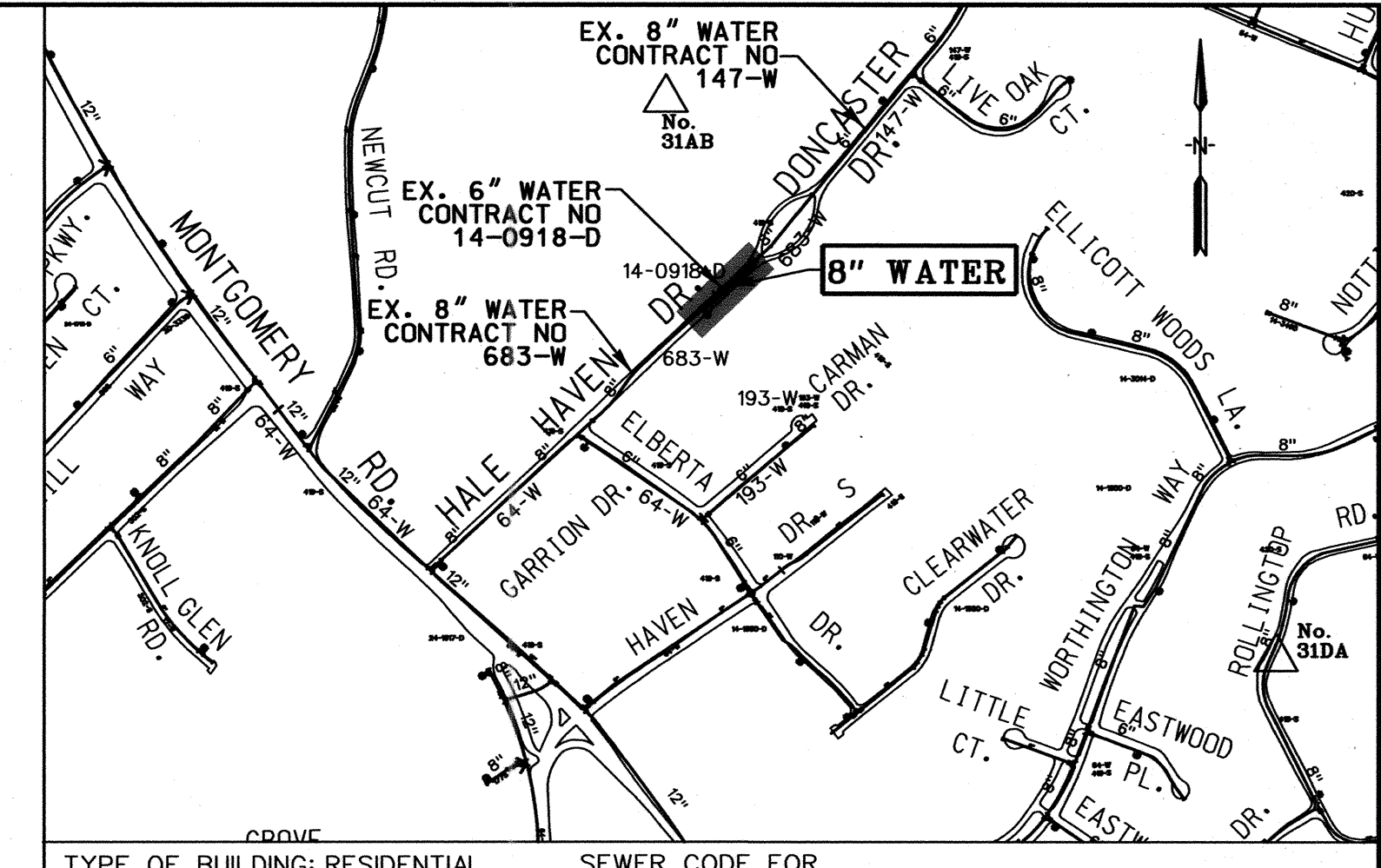
U.S. NATURAL RESOURCES CONSERVATION SERVICE DATE _____

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

APPROVED _____ DATE _____
HOWARD S.C.D.

LEGEND

- CURB INLET PROTECTION
- TRAVERSE POINT
- WATER
- PROPOSED FIRE HYDRANT
- PROPOSED VALVE
- PROPOSED WATER HOUSE CONNECTION
- ABANDON WATERMAIN IN PLACE
- EXISTING SAN. SEWER
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING VALVE
- EXISTING WATER MAIN
- EXISTING GAS MAIN
- EXISTING UNDER GROUND ELECTRIC
- EXISTING OVERHEAD SERVICE
- DECIDUOUS TREE
- CONIFEROUS TREE



TYPE OF BUILDING: RESIDENTIAL
NUMBER OF PARCELS: 12
SEWER HOUSE CONNECTIONS: 0
WATER HOUSE CONNECTIONS: 2
DRAINAGE AREA: PATAPSCO

SEWER CODE FOR COUNTY USE ONLY: 5992000
SEWER No: 7031
WATER CODE: G01

HO. CO. SURVEY CONTROL
No. 31AB
N 573984.472 (NAD83/91)
E 1369949.391 (NAD83/91)
ELEVATION 500.66 (NGVD29)

No. 31DA
N 571982.646 (NAD83/91)
E 1372144.970 (NAD83/91)
ELEVATION 482.36 (NGVD29)

- ### GENERAL NOTES
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR EXPENSE.
 - ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES NAD 1983/91.
 - ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA NGVD29
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 12". CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED. 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 MONEY 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 PIT. 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.
 - CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
AT&T.....1-800-252-1133
BG&E (CONTRACTOR SERVICES).....410-850-4620
BG&E - UNDERGROUND DAMAGE CONTROL.....410-787-9068
BUREAU OF UTILITIES (DPW).....410-313-4900
VERIZON.....1-800-743-0033 / 410-224-9210
COLONIAL PIPELINE CO.....410-795-1390
MISS UTILITY.....1-800-257-7777
STATE HIGHWAY ADMINISTRATION.....410-531-5533
 - 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.
 - CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. 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)313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER MAINS, 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.
 - 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 THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
 - FIRE HYDRANTS SHALL BE SET TO 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.
 - CONSTRUCTION STAKEOUT SHALL BE PERFORMED BY THE CONTRACTOR.

"As-Built"

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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] 11/18/04
DIRECTOR OF PUBLIC WORKS DATE

[Signature] 11-16-04
CHIEF, BUREAU OF UTILITIES DATE

[Signature] 11/15/04
CHIEF, BUREAU OF ENGINEERING DATE

[Signature] 11-15-04
CHIEF, UTILITY DESIGN DIVISION DATE

ENGINEERS
PLANNERS
SCIENTISTS
CONSTRUCTION MANAGERS

KCI
TECHNOLOGIES

10 NORTH PARK DRIVE
HUNT VALLEY, MD 21030
PHONE: (410) 316-7800
FAX: (410) 316-7817
www.kci.com



DES: KAK	KCI	As-Built	11/04
DRN: KFJ			
CHK: TWW			
DATE: 6/03			
BY	NO.	REVISION	DATE

600' SCALE MAP NO. 31 BLOCK NO. 8

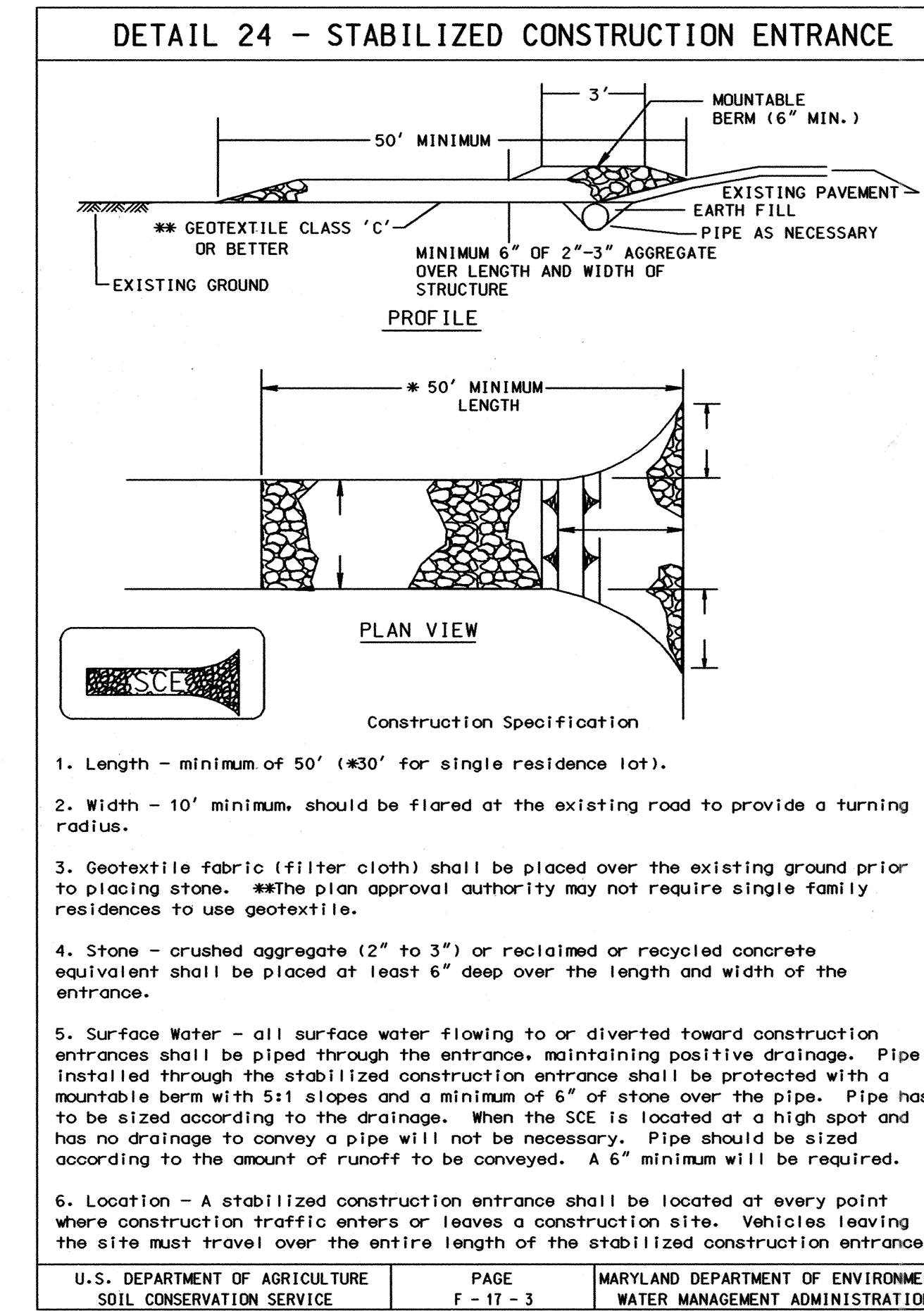
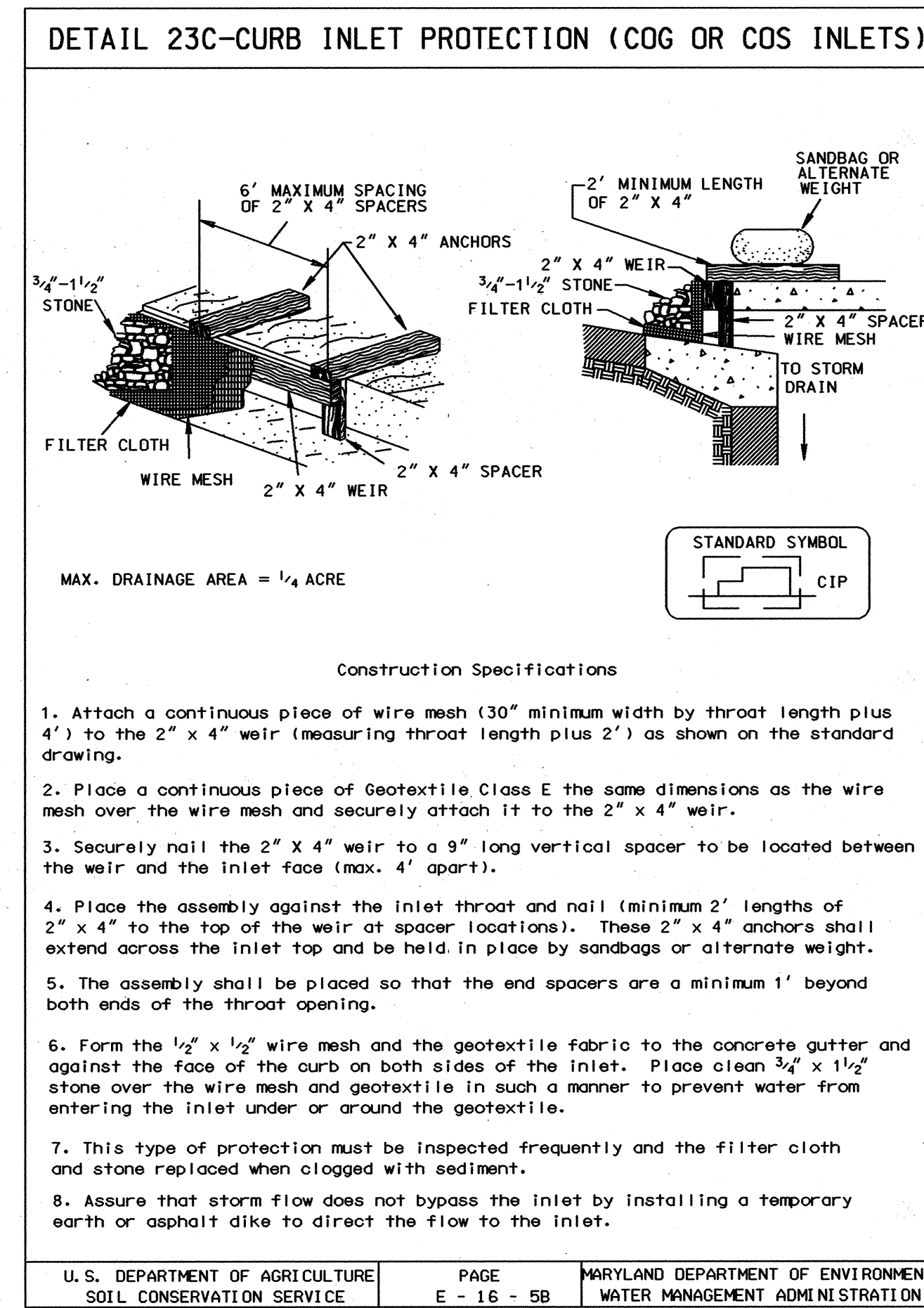
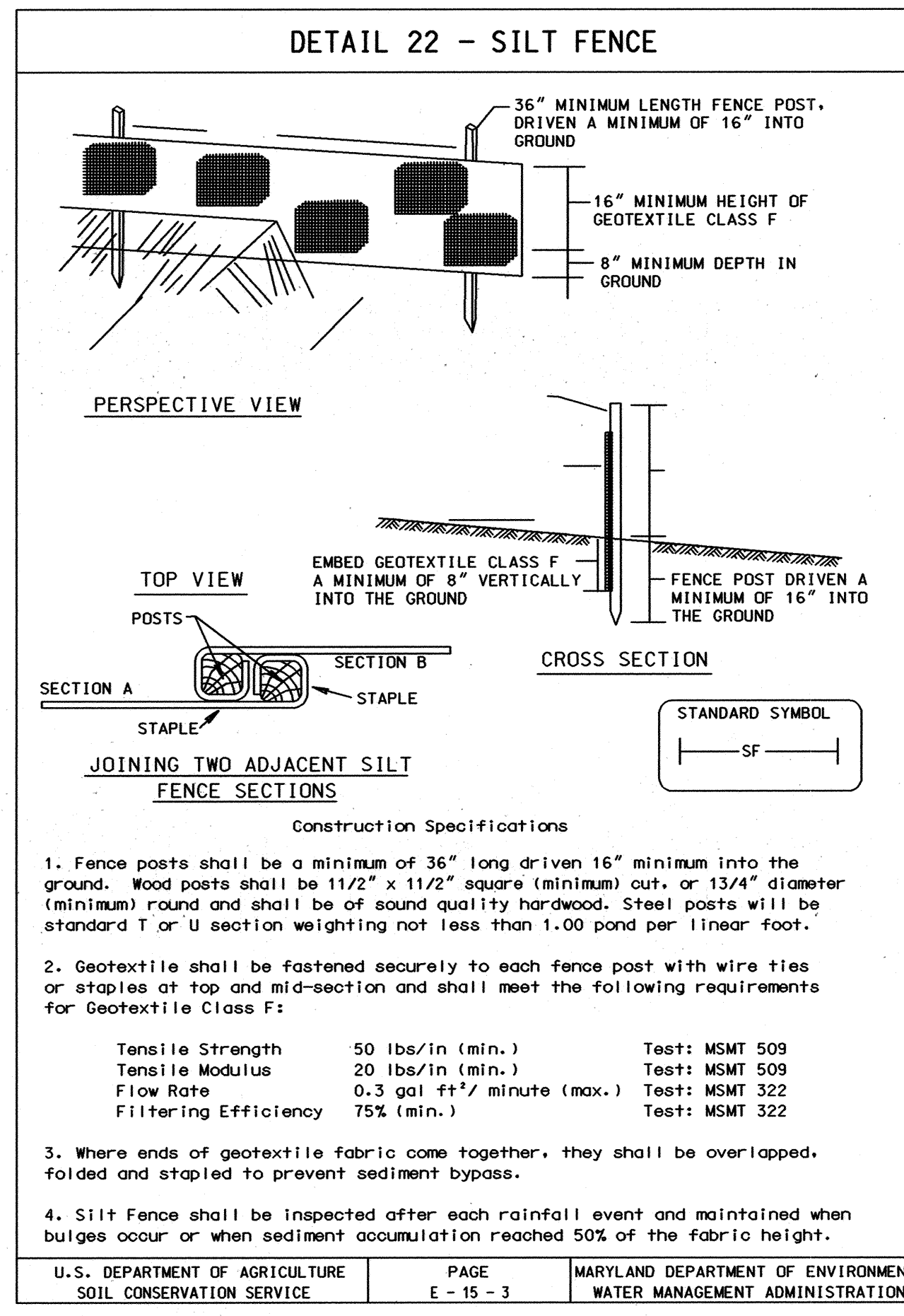
PLAN AND PROFILE

HALE HAVEN DR.
8" WATER MAIN REPLACEMENT
CAPITAL PROJECT No. W-8240
CONTRACT No. 44-4146

ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND

SCALE	AS SHOWN
SHEET	1 OF 2

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PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- PREFERRED** - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14LBS/1000 SQ FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ FT.).
- ACCEPTABLE** - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT.) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (.05 LBS/1000 SQ FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT.) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: - APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT.).

SEEDING: - FOR PERIODS MARCH 1 THRU APRIL 30, AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (.07 LBS/1000 SQ FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING OR USE SOD.

MULCHING: - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FT OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ FT.) FOR ANCHORING.

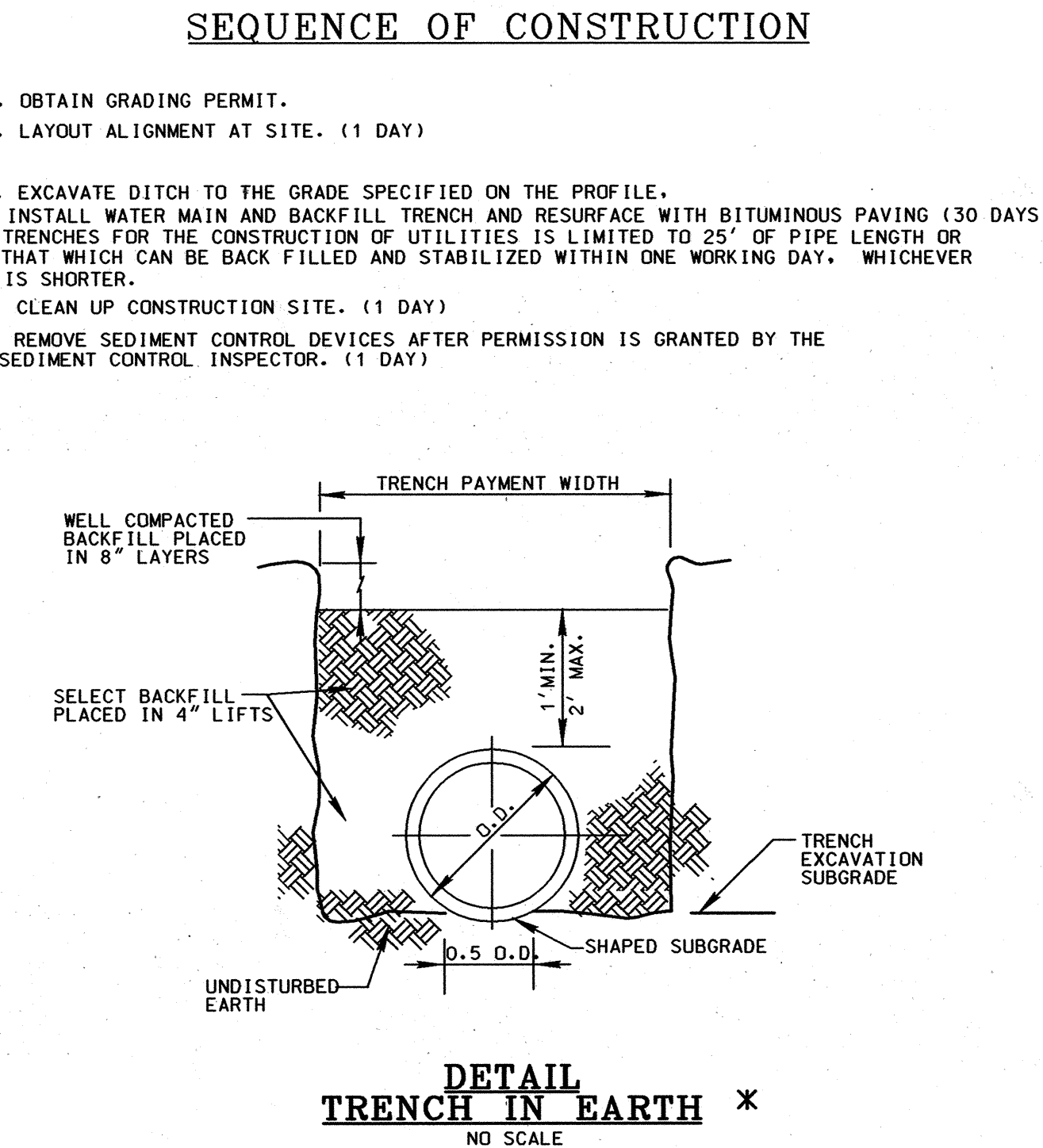
REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

TRAFFIC MAINTENANCE

FOR TRAFFIC MAINTENANCE REQUIREMENTS SEE SPECIFICATION DOCUMENT D, PARAGRAPH 4.16.

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- LAYOUT ALIGNMENT AT SITE. (1 DAY)
- EXCAVATE DITCH TO THE GRADE SPECIFIED ON THE PROFILE. INSTALL WATER MAIN AND BACKFILL TRENCH AND RESURFACE WITH BITUMINOUS PAVING (30 DAYS) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO 25' OF PIPE LENGTH OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
- CLEAN UP CONSTRUCTION SITE. (1 DAY)
- REMOVE SEDIMENT CONTROL DEVICES AFTER PERMISSION IS GRANTED BY THE SEDIMENT CONTROL INSPECTOR. (1 DAY)



STANDARD SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. (313-1855).
- ALL VEGETIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
 - 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (SEC. G20.0) FOR PERMANENT SEEDINGS, SOD, TEMPORARY SEEDING AND MULCHING. TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:

TOTAL AREA OF SITE	N/A	ACRES
AREA DISTURBED	0.025	ACRES
AREA TO BE ROOFED OR PAVED	0.025	ACRES
AREA TO BE VEGETATIVELY STABILIZED	N/A	ACRES
TOTAL CUT	N/A	CU. YDS.
TOTAL FILL	N/A	CU. YDS.
OFFSITE WASTE/BORROW AREA LOCATION	N/A	
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF THE DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE (3) PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
- CONTRACTOR SHALL PLACE EXCAVATED MATERIALS ON UPHILL SIDE OF TRENCH AND PLACE SILT FENCE ON DOWNHILL SIDE OF TRENCH.

DEVELOPER'S CERTIFICATION

"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.

Paulo J. Jepsen 6/20/03
BUREAU OF ENGINEERING DATE
DEPARTMENT OF PUBLIC WORKS

ENGINEER'S CERTIFICATION

"I/WE 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.

Timothy W. Wolfe 6/24/03
TIMOTHY W. WOLFE DATE

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.

Jim Meyer 6/24/03
JIM MEYER DATE
U.S. NATURAL RESOURCES WMM
CONSERVATION SERVICE

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

John R. Robertson 6/26/03
APPROVED DATE
HOWARD S.C.D.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

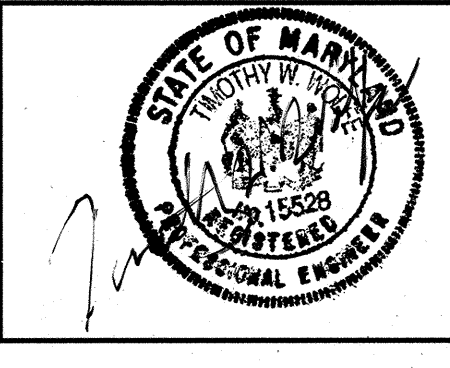
Paulo J. Jepsen 6/20/03
DATE
CHIEF, BUREAU OF ENGINEERING

John R. Robertson 6/26/03
DATE
CHIEF, UTILITY DESIGN DIVISION

ENGINEERS
PLANNERS
SCIENTISTS
CONSTRUCTION MANAGERS

KCI TECHNOLOGIES

10 NORTH PARK DRIVE
HUNT VALLEY, MD 21030
PHONE: (410) 316-7800
FAX: (410) 316-7817
WWW.KCI.COM



DES:	KAK	KCI	AS-BUILTS	11/04
DRN:	KFJ			
CHK:	TWW			
DATE:	6/03			
BY:	NO.			
REVISION:				
DATE:	600' SCALE MAP NO. 31		BLOCK NO. 8	

EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

AS-BUILT

HALE HAVEN DR.
8" WATER MAIN REPLACEMENT
CAPITAL PROJECT No. W-8240
CONTRACT No. 44-4146
ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 2

PLOTTED: 11/20/09 PM on Thursday, June 19, 2003
 BY: Kevin Jackson, Division: Environmental Engineering
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
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SCHOOLMASTER PLACE WATER MAIN REPLACEMENT

CAPITAL PROJECT W-8246 CONTRACT NO. 44-4020

GENERAL NOTES:

PART 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.
- THE PLANS AND PROFILES SHOWING EXISTING CONDITIONS HAVE BEEN DEVELOPED USING THE AS-BUILT CONSTRUCTION PLANS FOR THE EXISTING 6-INCH WATER MAIN, AS SHOWN ON DRAWING 11 OF 17, CONTRACT NO. 556-D-W & S, DATED SEPTEMBER, 1974 AS THE BASE TOPOGRAPHIC INFORMATION FOR THE DESIGN.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12". 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 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 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&T.....1-800-252-1133
 BGE(CONTRACTOR SERVICES).....410-850-4620
 BGE(UNDERGROUND DAMAGE CONTROL).....410-787-9068
 BUREAU OF UTILITIES.....410-313-4900
 VERIZON.....1-800-743-0033
 COLONIAL PIPELINE CO.....410-795-1390
 MISS UTILITY.....1-800-257-7777
 STATE HIGHWAY ADMINISTRATION.....410-531-5533

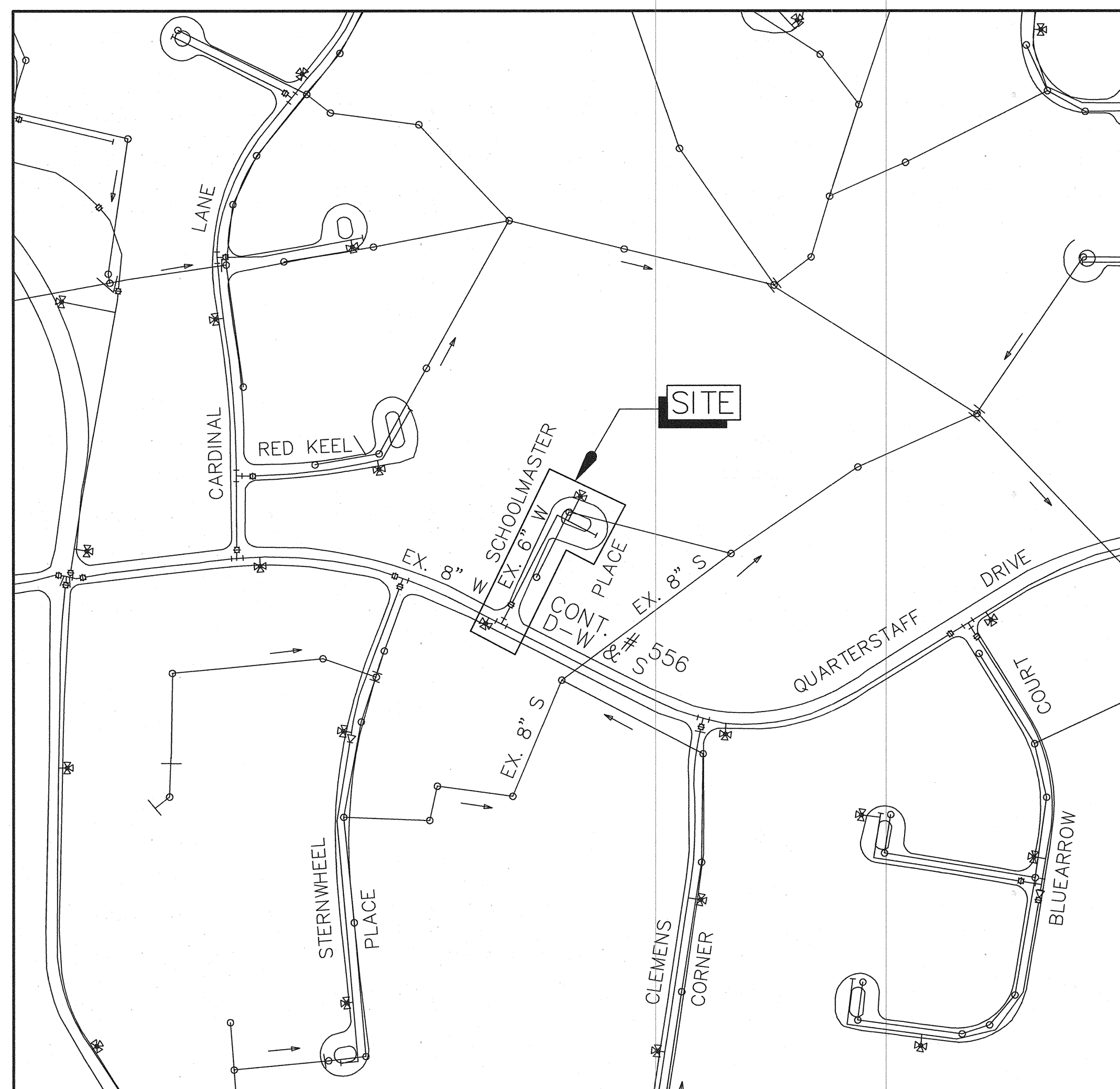
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR 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.

PART II 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 RESTRAINED AND 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 SECTION 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- FIVE DAYS PRIOR TO TIE-IN CONNECTIONS, CONTACT THE HOWARD COUNTY BUREAU OF UTILITIES, 410-313-4900, FOR ASSISTANCE.

AS BUILT
REPLACEMENT SHEET
(NOVEMBER 9, 2004)

ITEM	QUANTITIES		TYPE MATERIAL	SUPPLIER
	ESTIMATED	AS BUILT		
8" WATER	330 LF	321 LF	D.I.P.	US PIPE / BRS
6" WATER	5 LF	5 LF	-	-
3/4" WATER	35 LF	-	-	TYPE K
FIRE HYDRANT	1 EA	1 EA	-	MUELLER CO.
8" VALVE	1 EA	1 EA	-	MUELLER CO.




TYPE OF BUILDING: RESIDENTIAL
 NUMBER OF PARCELS: 11
 WATER HOUSE CONNECTIONS: 11
 DRAINAGE AREA: _____

VICINITY MAP
 SCALE: 1" = 200'

WATER AND SEWER CODES FOR
 COUNTY USE ONLY
 WATER CODE.

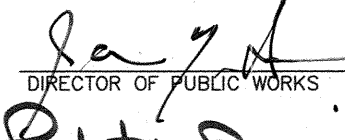
DEVELOPER'S CERTIFICATION

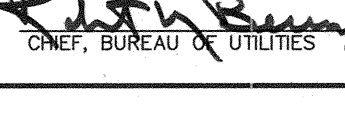
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT."

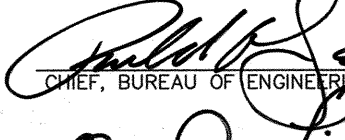
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 SIGNATURE OF DEVELOPER DATE
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INDEX OF SHEETS	
SHEET	DESCRIPTION
1	TITLE SHEET
2	PLAN AND PROFILE

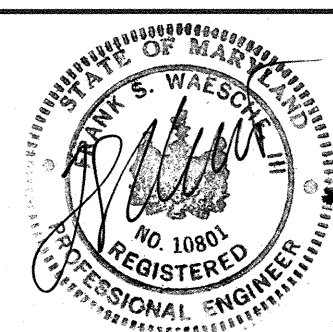
DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

 11/16/04
 DIRECTOR OF PUBLIC WORKS DATE

 11-16-04
 CHIEF, BUREAU OF UTILITIES DATE

 11/15/04
 CHIEF, UTILITY DESIGN DIVISION DATE

 WALLACE,
 MONTGOMERY
 & ASSOCIATES, LLP
 CIVIL AND STRUCTURAL ENGINEERS
 110 WEST ROAD
 TOWSON, MARYLAND 21204



DES: WCW
 DRN: SDH
 CHK: LAF
 DATE: OCT, 2002

BY NO. REVISION

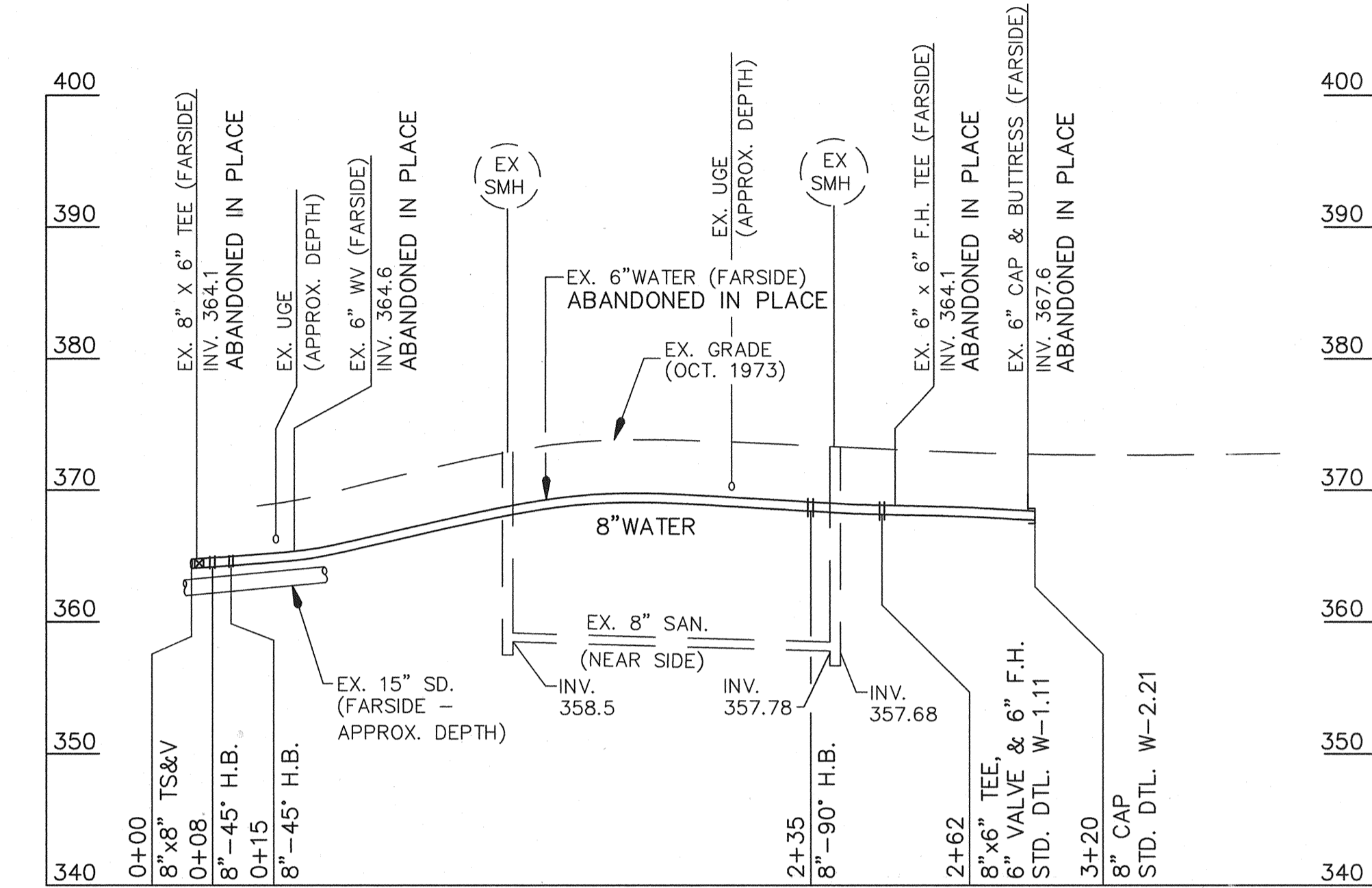
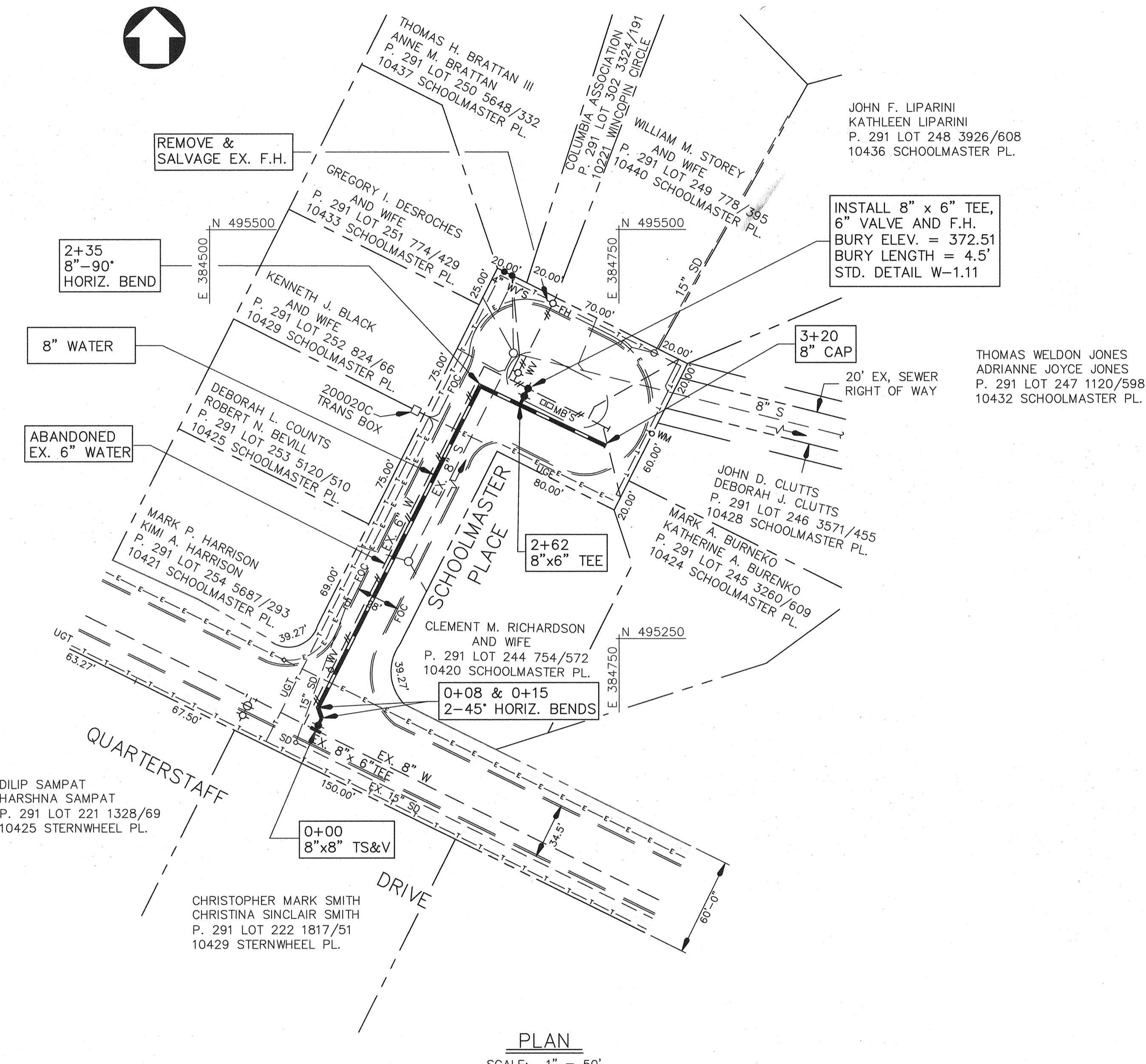
TITLE SHEET

DATE 600' SCALE MAP NO. 35 BLOCK NO. 18

SCHOOLMASTER PLACE
 WATER MAIN REPLACEMENT
 CAPITAL PROJECT W-8246
 CONTRACT NO. 44-4020
 ELECTION DISTRICT NO. 5
 HOWARD COUNTY, MARYLAND

SCALE
 AS
 SHOWN

SHEET
 1 OF 2



PROFILE - 8" WATER
SCALE: 1" = 50' HORIZ.
1" = 10' VERT.

WATER MAIN CONSTRUCTION PROCEDURES

1. INSTALL 8"x8" TS&V. CLOSE NEW 8" VALVE.
2. PLACE NEW 8" WATER NEXT TO EX. 6" W. CONSTRUCT BUTRESSES AND ANCHORS IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAILS.
3. PERFORM HYDROSTATIC DETAILS TESTING AND DISINFECTION PROCEDURES IN ACCORDANCE WITH HOWARD COUNTY SPECIFICATIONS. COUNTY TO OPEN NEW 8" VALVE.
4. CONNECT EXISTING WATER HOUSE CONNECTIONS TO THE NEW 8" WATER MAIN.
5. CLOSE EX. 6" VALVE, REMOVE VALVE BOX & FILL HOLE WITH STONE.
6. PATCH ROAD

AS BUILT
REPLACEMENT SHEET
(NOVEMBER 9, 2004)

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

11/18/04
11-16-04

11/15/04
11-15-04

WALLACE, MONTGOMERY & ASSOCIATES, LLP
CIVIL AND STRUCTURAL ENGINEERS
110 WEST ROAD
TOWSON, MARYLAND 21204



DES:	WCW				
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PLAN AND PROFILE
600' SCALE MAP NO. 35 BLOCK NO. 18

SCHOOLMASTER PLACE
WATER MAIN REPLACEMENT
CAPITAL PROJECT W-8246
CONTRACT NO. 44-4020
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 2