

ROBEY PUBLIC SAFETY TRAINING CENTER SEWER EXTENSION


HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

CAPITAL PROJECTS No. S-6261

CONTRACT NO. 14-4577

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 IN APRIL & OCTOBER, 2007 BY KCI TECHNOLOGIES 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 STATION NO. ALPHA 3, BASE A, BASE F AND 16DA. ALL VERTICAL CONTROLS ARE BASED ON NAVD 88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE REBAR WITH DISC AND CONC. COLUMN WITH DISC.
- 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 OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH 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 LOCATION 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.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

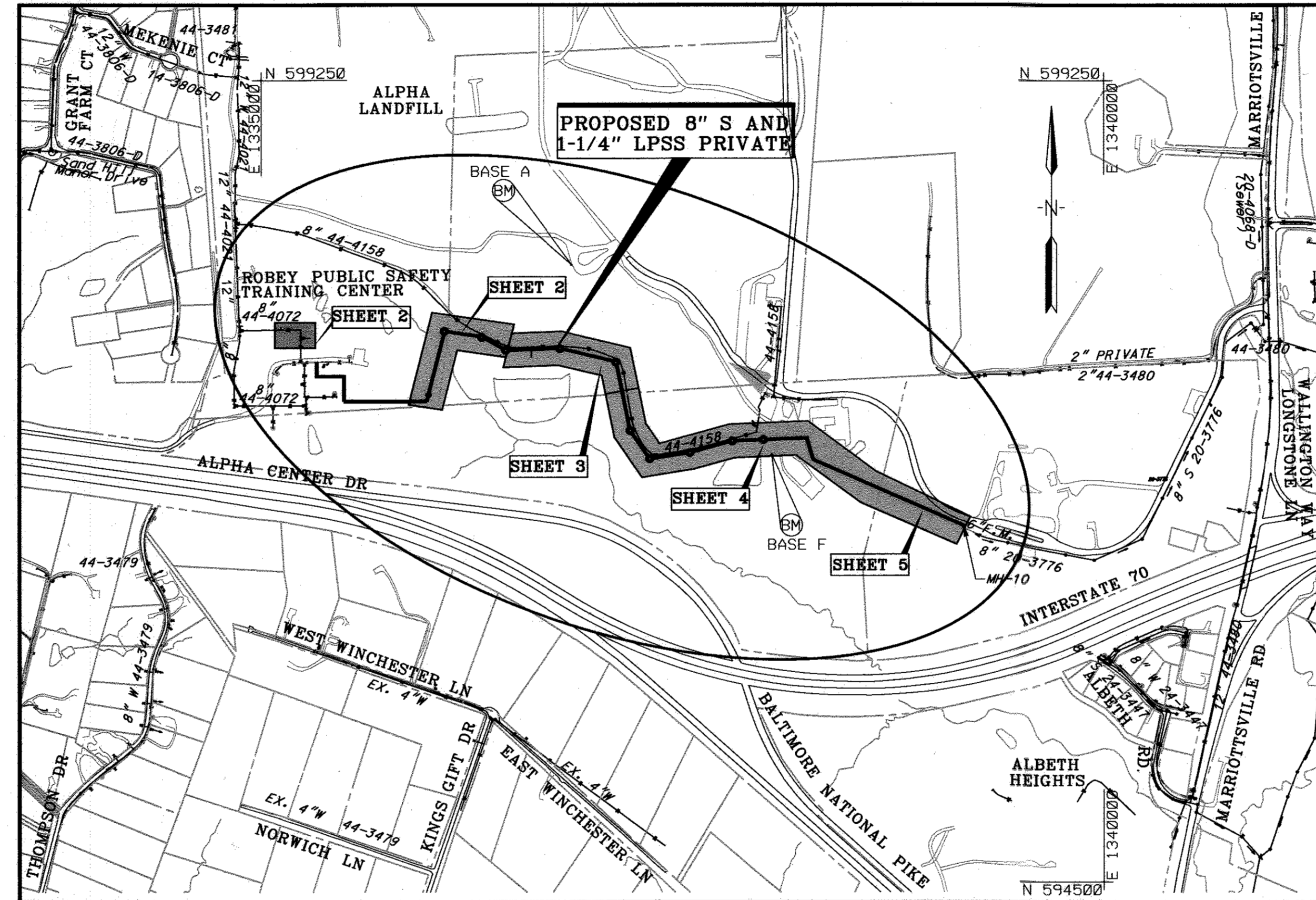
AT&T.....	1-800-252-1133
BGE (CONSTRUCTION SERVICES).....	410-850-4620
BGE (EMERGENCY).....	410-685-1400
BUREAU OF UTILITIES.....	410-313-4900
COLONIAL PIPELINE CO.....	410-795-1390
MISS UTILITY.....	1-800-257-7777
STATE HIGHWAY ADMINISTRATION.....	410-531-5533
VERIZON.....	1-800-743-0033 / 410-224-9210
TRANSCON.....	410-984-3442
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)313-7450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUTTING OR BORING / JACKING OF ANY COUNTY ROADS 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.

SEWER GENERAL NOTES

- ALL SEWER MAINS SHALL BE DIP OR PVC UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- 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.

SUGGESTED SEQUENCE OF CONSTRUCTION FOR SEWER

- CONSTRUCT NEW GRAVITY SEWER, LPSS AND ALL SANITARY SEWER APPURTENANCES FROM EX. MH 10 (DOWNSTREAM) TO EX. MH 2 (UPSTREAM).
- TEST ALL SANITARY GRAVITY SEWERS AND PRESSURE SEWERS INCLUDING GRINDER PUMP STATION PER HOWARD COUNTY STANDARD SPECIFICATIONS AND MANUFACTURER RECOMMENDATIONS.
- CONNECT GRAVITY SEWER TO EX. MH 2 AND REMOVE EXISTING GRINDER PUMP STATION EX GP-1 PER DRAWING NOTES (SEE SHEET 2 OF 7). COORDINATE BYPASS PUMPING IF NECESSARY.
- CONNECT EXISTING GRAVITY SEWER AT EXISTING STORAGE TANK AREA (SMH-A TO SMH-11) - SEE PLAN AND PROFILE ON SHEET 2 OF 7.
- COMPLETE RESTORATION.

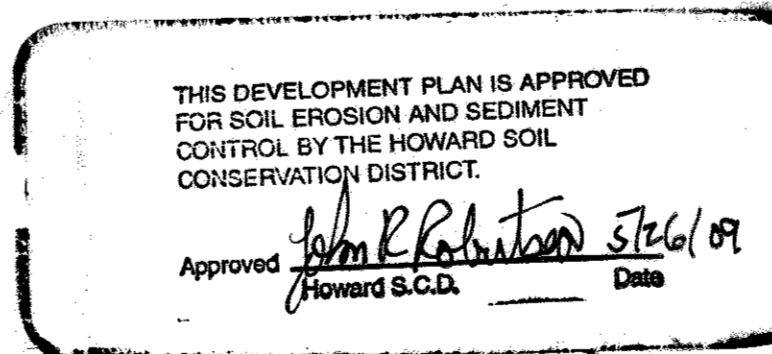


LOCATION MAP

SCALE: 1" = 600'

HORIZONTAL AND VERTICAL CONTROL BASED ON MARYLAND NAD83(91) (HORIZONTAL) AND NAVD88 (VERTICAL) DATUM. HOWARD COUNTY GEODETIC SURVEY CONTROL NUMBERS:

NO. BASE A	NO. BASE F
N 598156.23	N 597030.50
E 1336841.78	E 1338031.40
ELEV. 564.87	ELEV. 512.93



PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO.: 28911 EXPIRATION DATE: 1/11/10

INDEX OF SHEETS

SHEET No.	DESCRIPTION
1.....	TITLE SHEET
2.....	8" SANITARY SEWER PLAN AND PROFILE
3.....	8" SANITARY SEWER PLAN AND PROFILE
4.....	8" & 1-1/4" SANITARY SEWER PLAN AND PROFILE
5.....	1-1/4" SANITARY SEWER FORCE MAIN PLAN AND PROFILE
6.....	GRINDER PUMP STATION PLAN AND DETAILS
7.....	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

QUANTITIES

ITEM	UNIT	ESTIMATE	AS-BUILT	MATERIAL SUPPLIER
8" SEWER (DIP)	L.F.	390	390	BELAIR RD SUPPLY CO.
8" SEWER (PVC)	L.F.	2466	2463	" " " "
1 1/4" FM (HDPE)	L.F.	1624	1624	FLYING "W" PLASTICS
4' DIA. MH	EA	8	8+(ARV)	ATLANTIC CONCRETE
4' DIA. MH TYPE A DROP MH	EA	2	2	PRODUCTS
GRINDER PUMP STATION	EA	1	1	APCO CORP.
6" STEEL PIPE ASTM A5307	L.F.	136	136	MONUMENTAL SUPPLY CO

NAME OF UTILITY CONTRACTOR: W.F. WILSON & SONS, INC.

RESTORATION SCHEDULE

LOCATION	DISTANCE (FT.)	TYPE
PAVED PRIVATE ROAD (SH. 4 OF 7)	20	ASPHALT
EX. SMH-A - EX. SMH-11	52	MULCH & SEEDING
RIP RAP DITCH (SH. 2,3,4 OF 7)	127	RIPRAP
EX. MH 10 TO EX. MH 2	3845	MULCH & SEEDING

TYPE OF BUILDING: N/A
 NUMBER OF PARCELS: N/A
 NUMBER OF SEWER HOUSE CONNECTION: 0
 DRAINAGE AREA: LITTLE PATUXENT

LEGEND

TRAVERSE POINT	EXISTING FIRE HYDRANT
LIMIT OF DISTURBANCE	EXISTING VALVE
WATER HOUSE CONNECTION	EXISTING WATER MAIN
SEWER HOUSE CONNECTION	EXISTING GAS MAIN
TEST PIT LOCATION	EXISTING OVERHEAD ELECTRIC
BORING LOCATION	EXISTING UNDERGROUND ELECTRIC
DECIDUOUS TREE	EXISTING SEWER MAIN
CONIFEROUS TREE	EXISTING MANHOLE
	WATERS OF THE U.S.
	WETLAND
	WETLAND BUFFER

AS-BUILT
DATE 09.15.10

PLOTTED: 03:56 PM on Tuesday, March 10, 2009
BY: Chandler, Kenta Division: 0102 Environmental Engineering
FILE: M:\2004\0103\464_25\Drawings\C-01-04-464-25Title.dwg

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Mark DeLuca 5/21/09 DATE
DIRECTOR OF PUBLIC WORKS

Paul K. Johnson 5/5/09 DATE
CHIEF, BUREAU OF ENGINEERING

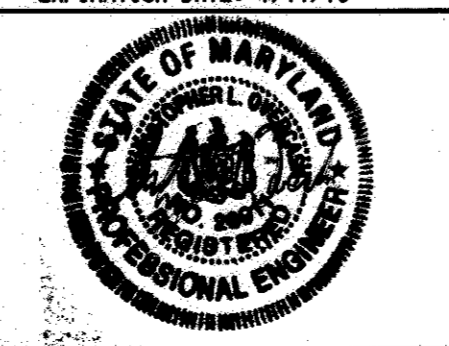
John Chen 5/15/09 DATE
CHIEF, BUREAU OF UTILITIES

Dy. Chen 5/5/09 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: CLO			
DRN: CK			
CHK: TWW			
DATE: DEC. 2008	BY: LFN	AS BUILT MARKUPS	9/10
	NO.	REVISION	DATE

TITLE SHEET

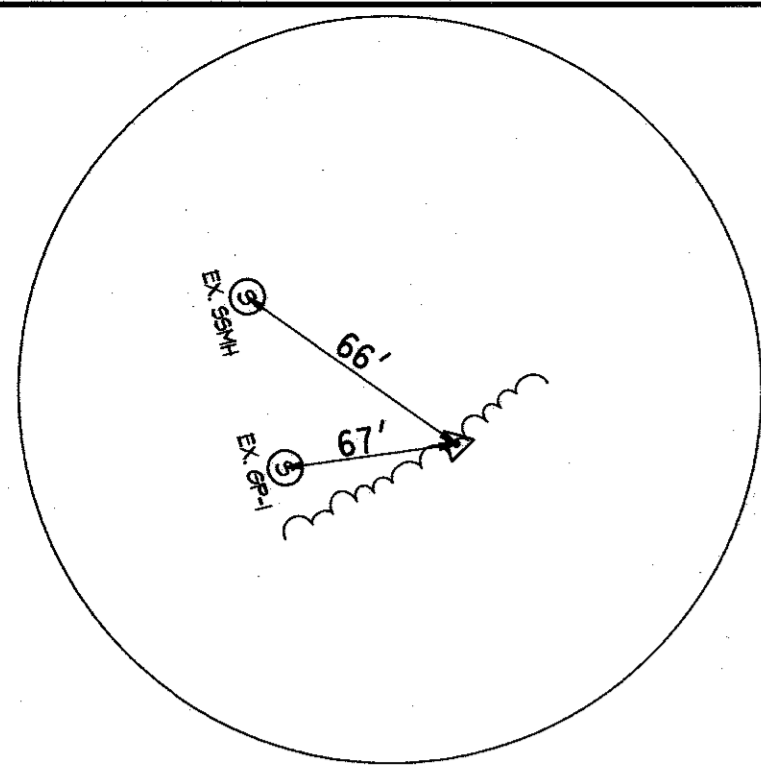
600' SCALE MAP NO. 16 BLOCK NO. 9 & 10

**ROBEY PUBLIC SAFETY
TRAINING CENTER
SEWER EXTENSION**

CAPITAL PROJECTS No. S-6261
CONTRACT NO. 14-4577

ELECTION DISTRICT NO.3 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN SHEET 1 OF 7



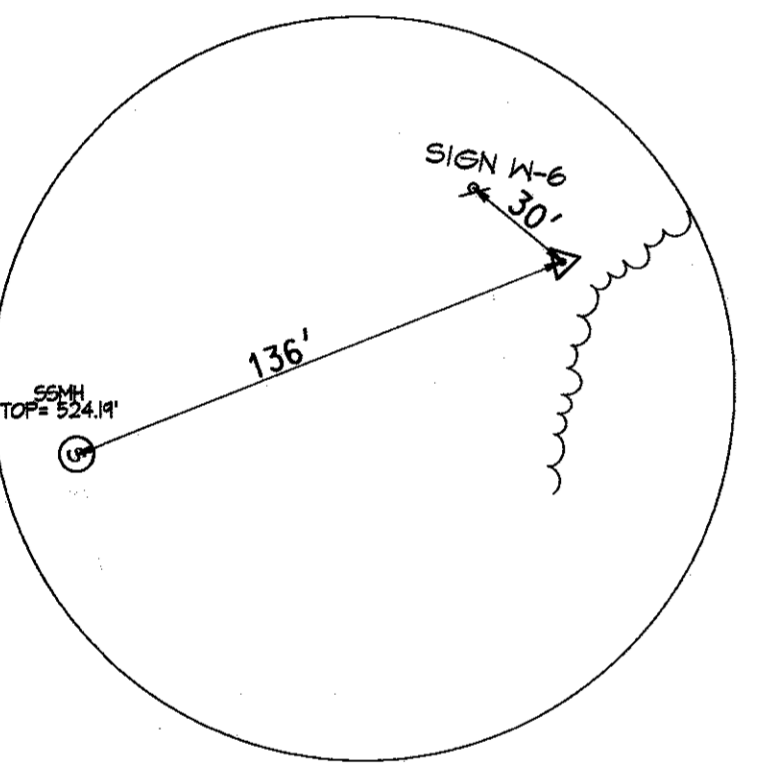
TRAV. #7
SCALE=N.T.S

EX. GRINDER PUMP REMOVAL & CONNECTION TO PROP. SYSTEM

1. REMOVE EX. GRINDER PUMP STATION GP-1 AND RETURN TO HOWARD COUNTY.
2. ABANDON AND REMOVE IN ITS ENTIRETY EX. 8" PVC CONNECTION FROM EX. MH-2 TO EX. GP-1 PER HOWARD COUNTY STANDARD DETAIL E-3.02.
3. CORE DRILL AND CONNECT PROP. 8" S PRIVATE TO EX. MH 2.
4. MODIFY EX. MH-2 FLOW CHANNEL TO FLOW TO PROPOSED SYSTEM. (SEE HOWARD COUNTY STD DETAIL G-5.32-TYPE "E")
5. ABANDON EX. GP-1 SITE WITH SELECT BACKFILL MATERIAL.

GENERAL NOTES

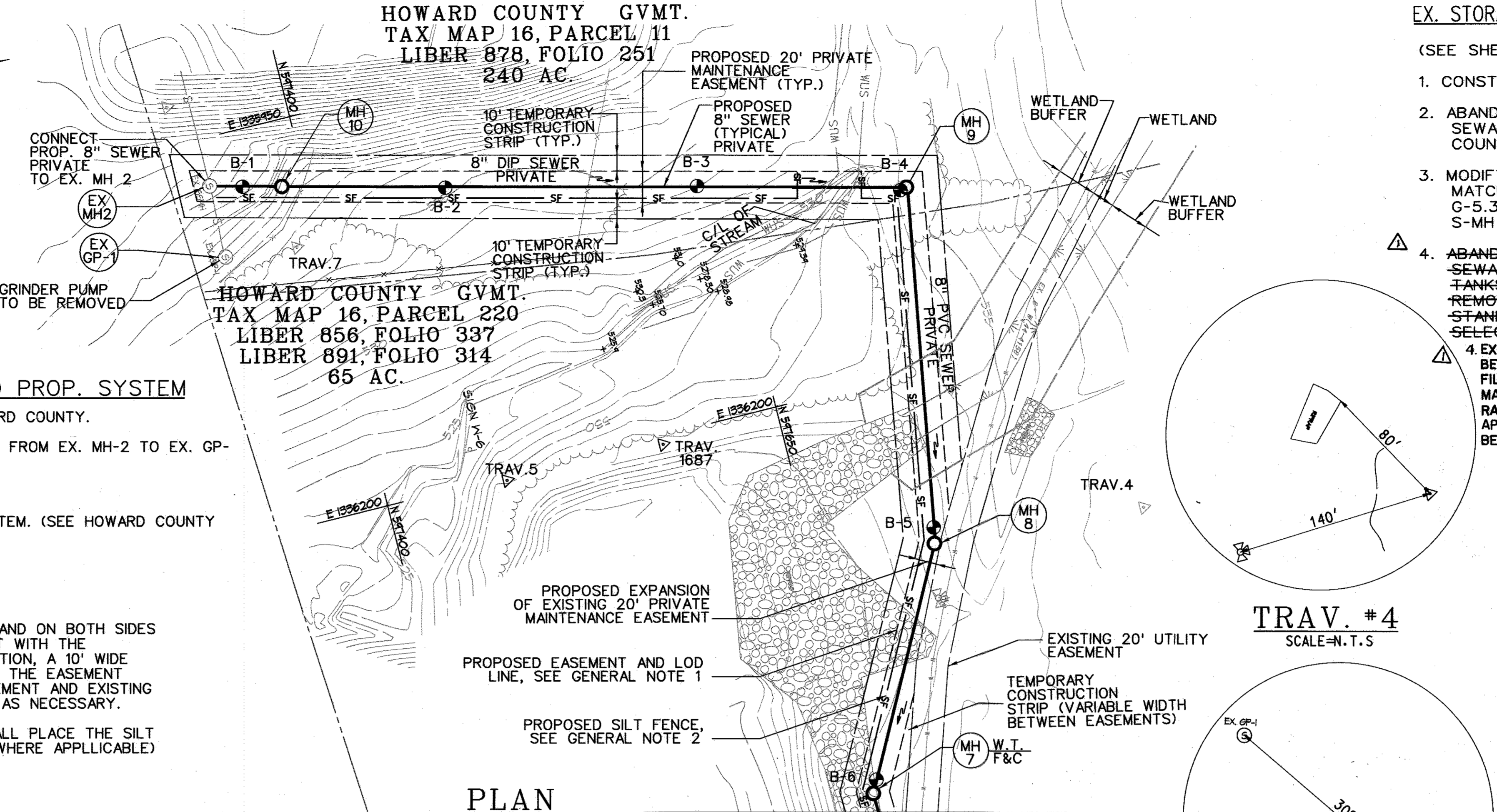
1. THE LIMIT OF DISTURBANCE (LOD) IS 10' FROM THE CENTER OF, AND ON BOTH SIDES OF THE PROPOSED SEWER. THIS LINE IS GENERALLY COINCIDENT WITH THE PROPOSED EASEMENT AND IS NOT SHOWN FOR CLARITY. IN ADDITION, A 10' WIDE TEMPORARY CONSTRUCTION STRIP IS PROVIDED ON EACH SIDE OF THE EASEMENT FOR USE DURING CONSTRUCTION. BETWEEN THE PROPOSED EASEMENT AND EXISTING EASEMENT A VARIABLE WIDTH CONSTRUCTION STRIP IS INDICATED AS NECESSARY.
2. SILT FENCE IS SHOWN DIAGRAMMATICALLY. THE CONTRACTOR SHALL PLACE THE SILT FENCE GENERALLY COINCIDENT WITH THE PROPOSED EASEMENT (WHERE APPLICABLE) AND THE LIMITS OF DISTURBANCE (SEE NOTE 1, ABOVE).



TRAV. #5
SCALE=N.T.S

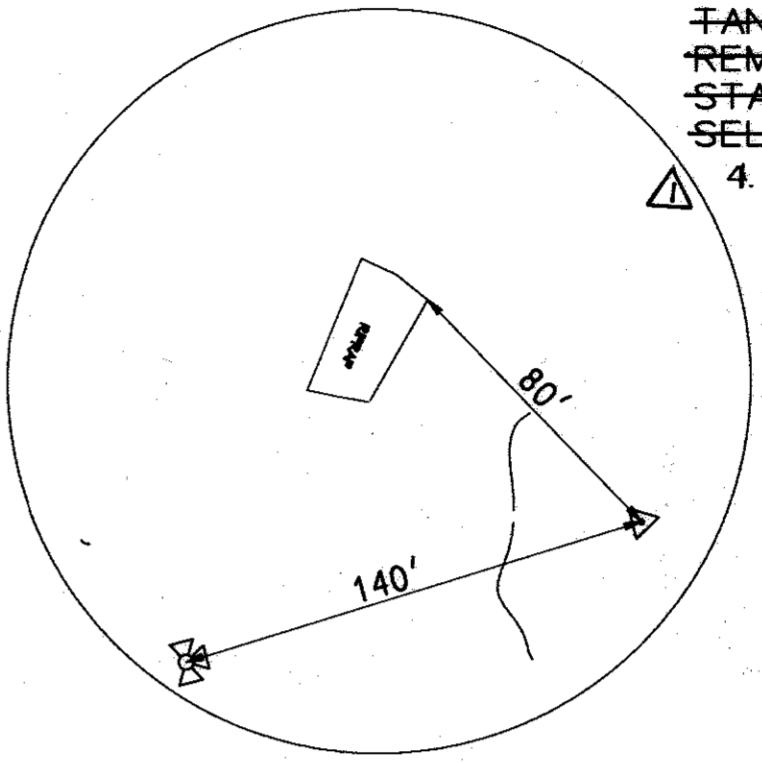
SANITARY SEWER STAKEOUT COORDINATES SCHEDULE		
NUMBER	NORTHING	EASTING
SMH 7	597649.95	1336448.76
SMH 8	597725.22	1336306.91
SMH 9	597762.65	1336087.24
SMH 10	597384.66	1335991.04

TRAVERSE COORDINATE SCHEDULE			
NUMBER	NORTHING	EASTING	ELEVATION
TRAV.#4	597857.33	1336316.60	538.53
TRAV.#5	597475.98	1336203.08	531.15
TRAV.#7	597384.48	1336030.12	536.02
TRAV.1687	597576.08	1336205.30	532.40

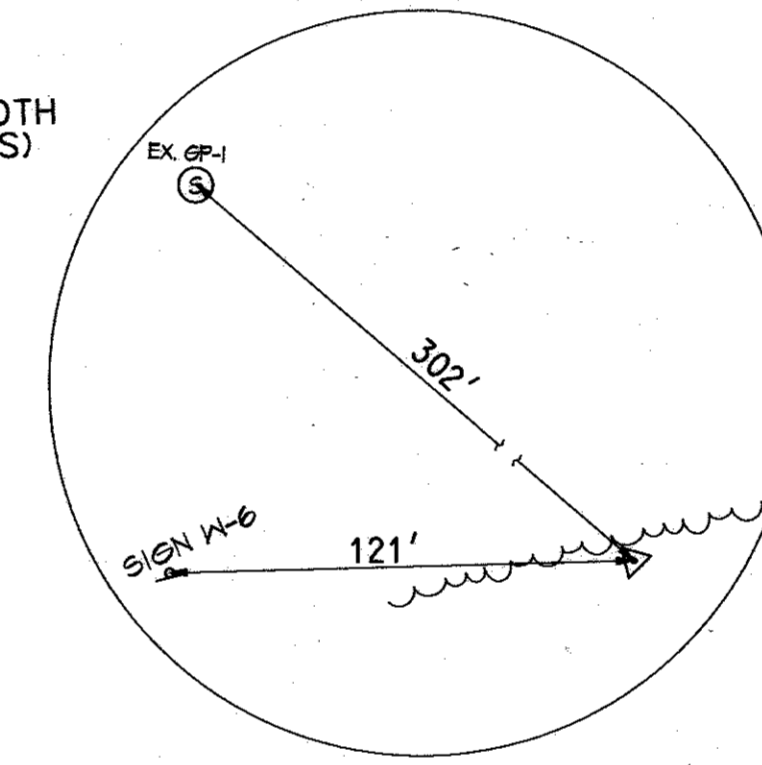


PLAN
SCALE: 1"=50'

MATCHLINE SHEET 3 OF 7

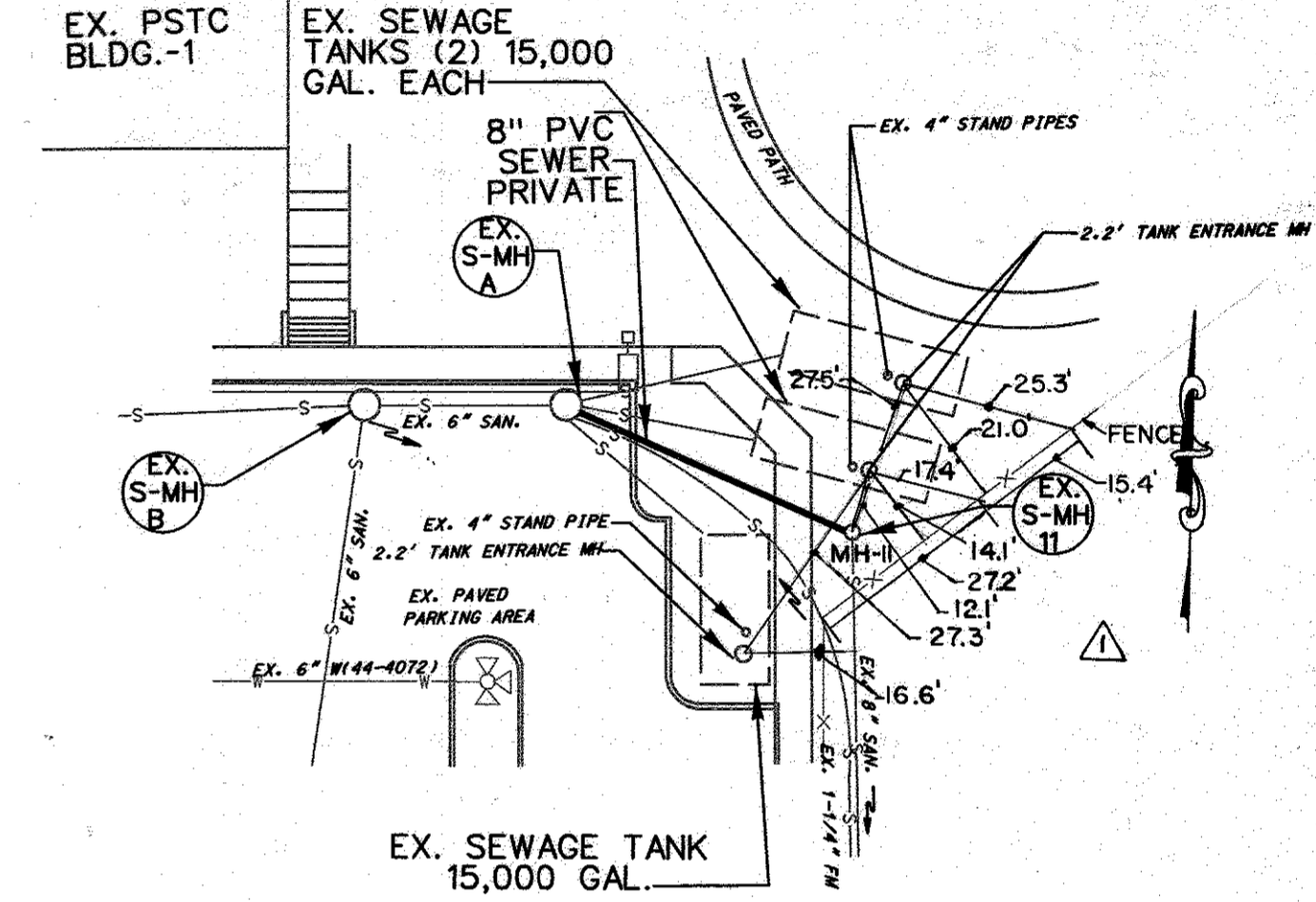


TRAV. #4
SCALE=N.T.S

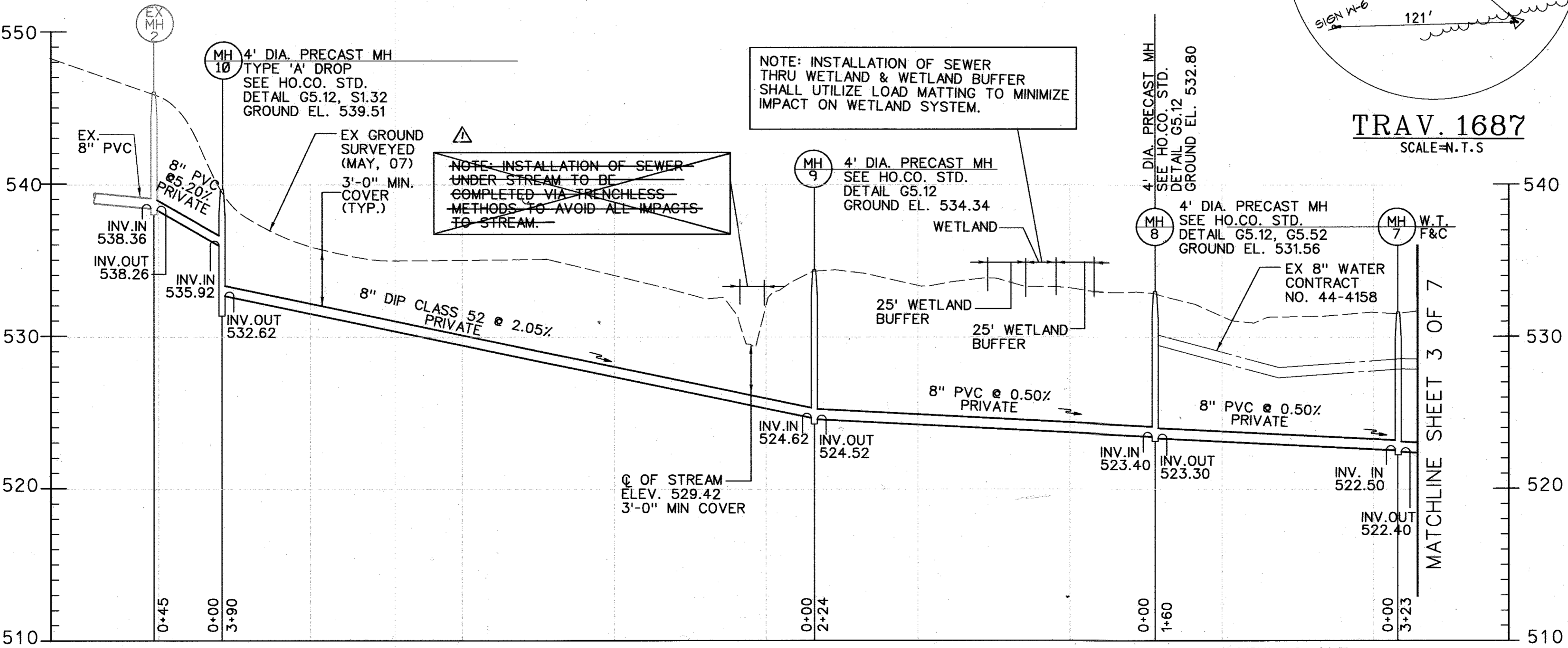


TRAV. 1687
SCALE=N.T.S

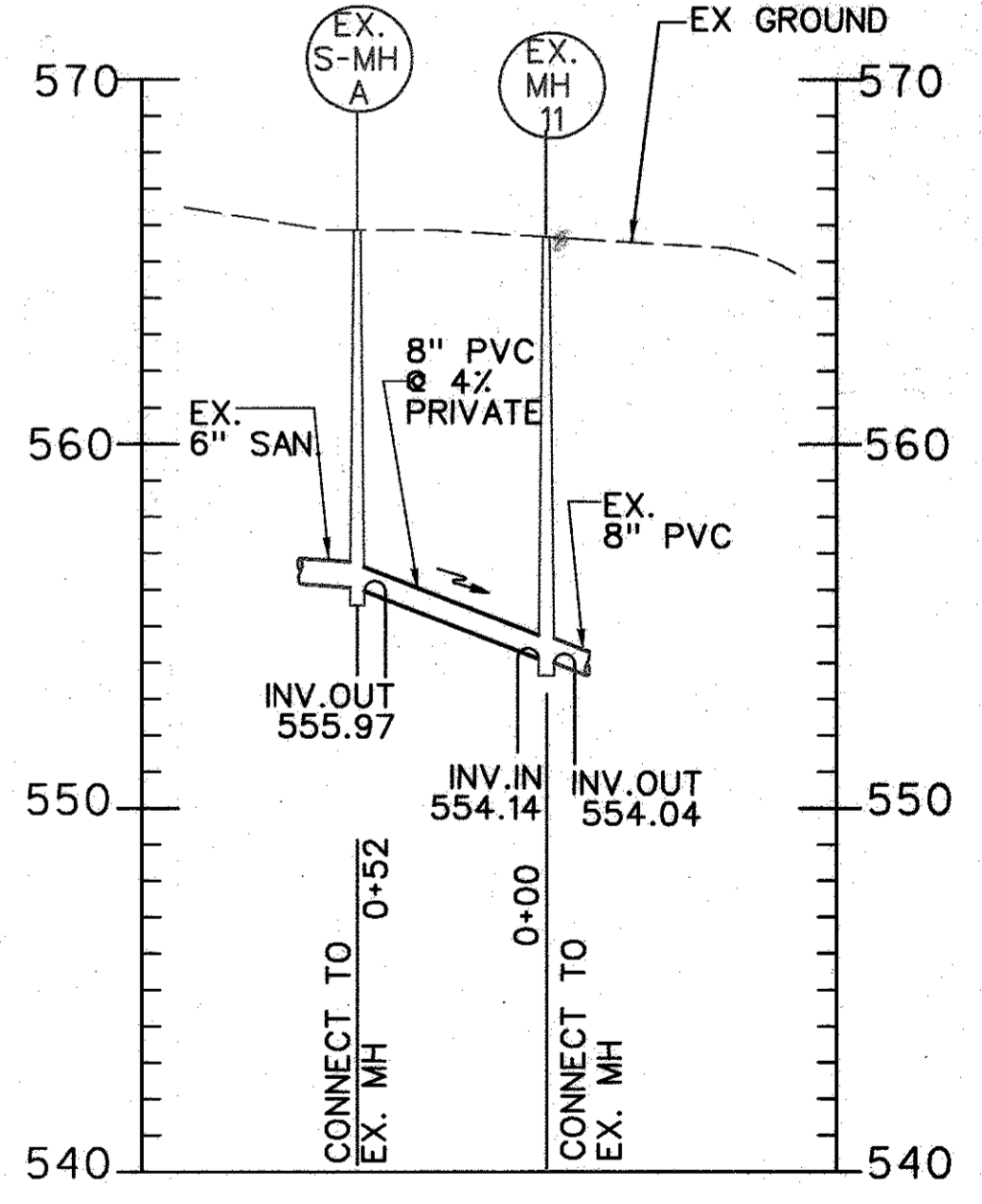
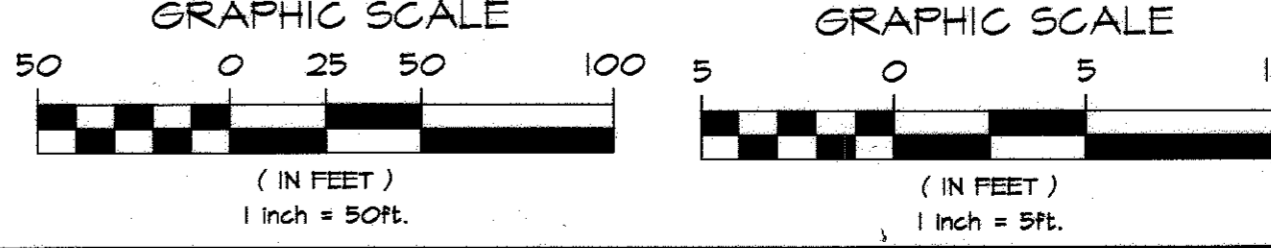
- EX. STORAGE TANK AREA CONNECTION**
(SEE SHEET 1, LOCATION MAP FOR RELATIVE LOCATION)
1. CONSTRUCT 8" PVC SEWER FROM EXISTING S-MH A TO EXISTING MH 11.
 2. ABANDON EXISTING CONNECTIONS FROM EXISTING S-MH A TO SEWAGE TANKS AND EXISTING 1-1/4" FORCE MAIN PER HOWARD COUNTY STD. DETAIL E-3.02
 3. MODIFY EXISTING S-MHA CONNECTION AND FLOW CHANNEL TO MATCH INCOMING 8" PVC.(SEE HOWARD COUNTY STD. DETAIL G-5.32 TYPE "E") AND CONNECT PROPOSED 8" SEWER TO EXISTING S-MH A.
 4. ABANDON EXISTING SEWAGE STORAGE TANKS IN PLACE. REMOVE SEWAGE FROM TANKS. PUNCH HOLES IN BOTTOM OF TANK. FILL TANKS WITH INERT MATERIAL PER HOWARD COUNTY APPROVAL. REMOVE SURFACE APPURTENANCES (ENTRANCE MANHOLE AND STAND PIPES) TO 2' BELOW GRADE AND FILL TO GRADE WITH SELECT BACKFILL MATERIAL.
 4. EXISTING 15,000 GAL FIBER GLASS TANK SHALL BE ABANDONED IN PLACE. SEWAGE SHALL BE REMOVED FROM TANKS PRIOR TO ABANDONMENT AFTER WHICH EACH TANK SHALL BE FILLED, COMPLETELY, WITH FLOWABLE FILL. (ABANDONMENT WITH ALTERNATE INERT MATERIAL (EG. SAND OR SOILS) SHALL REQUIRE THAT THE BOTTOM OF EACH TANK BE RANDOMLY PENETRATED WITH 1" DIAMETER HOLES PRIOR TO FILLING.) SURFACE APPURTENANCES (ENTRANCE MANHOLE AND STAND PIPES) SHALL BE REMOVED TO 2' BELOW GRADE AND ANY VOID FILLED TO GRADE WITH SELECTED BACKFILL MATERIAL.



SITE PLAN
SCALE: 1"=30'



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



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

AS-BUILT
DATE: 09.15.10

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO.: 28911 EXPIRATION DATE: 1/11/10

DES: CLO					
DRN: CK					
CHK: TW					
DATE: DEC. 2008	LFN	AS BUILT MARKUPS	9/10		
BY: NO.		REVISION			

8" SANITARY SEWER PLAN AND PROFILE
600' SCALE MAP NO. 16 BLOCK NO. 9 & 10

ROBEY PUBLIC SAFETY TRAINING CENTER SEWER EXTENSION
CAPITAL PROJECTS No. S-6261
CONTRACT NO. 14-4577
ELECTION DISTRICT NO.3 HOWARD COUNTY, MARYLAND

PLOTED: 03:58 PM on Tuesday, March 10, 2009
BY: Chandler, Kenta Division: 0102 Environmental Engineering
FILE: M:\2004\0102\3464\23\Drawings\02-04-04-23.dwg

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Mark D. ... 5/15/09
DIRECTOR OF PUBLIC WORKS

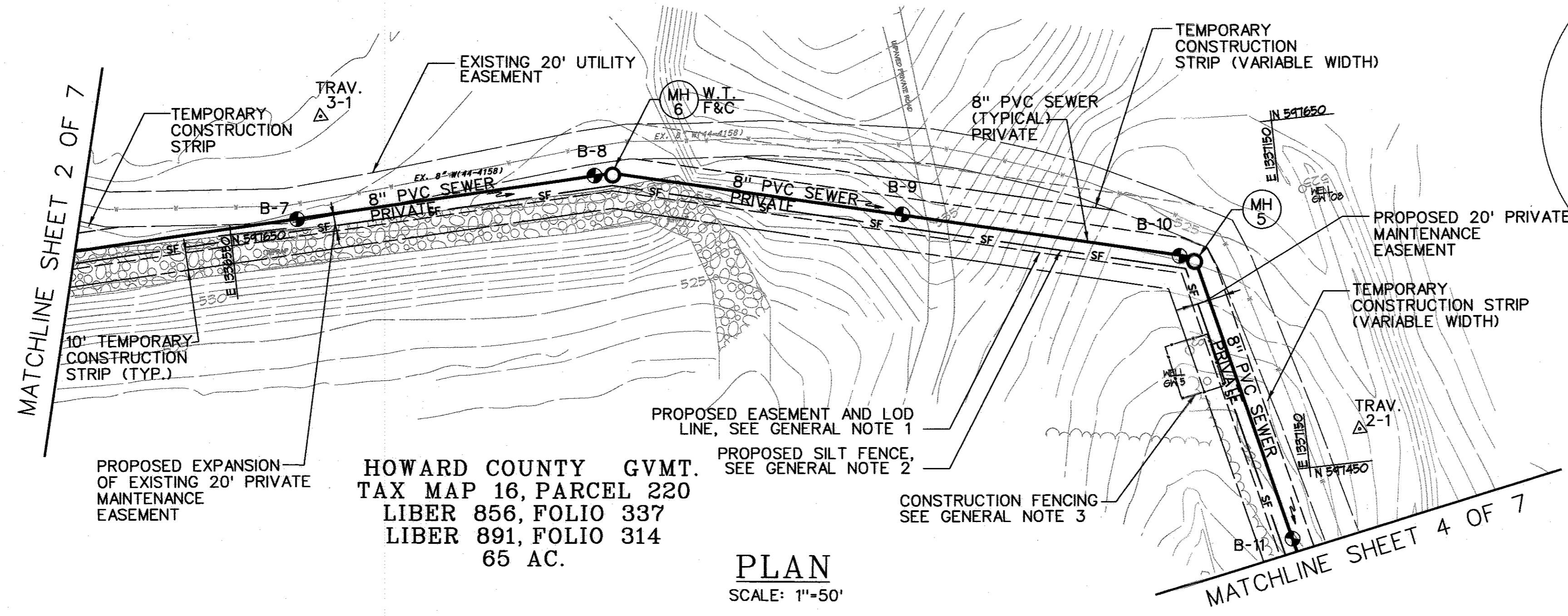
John C. ... 5/15/09
CHIEF, BUREAU OF UTILITIES

Paul S. ... 5/15/09
CHIEF, UTILITY DESIGN DIVISION

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

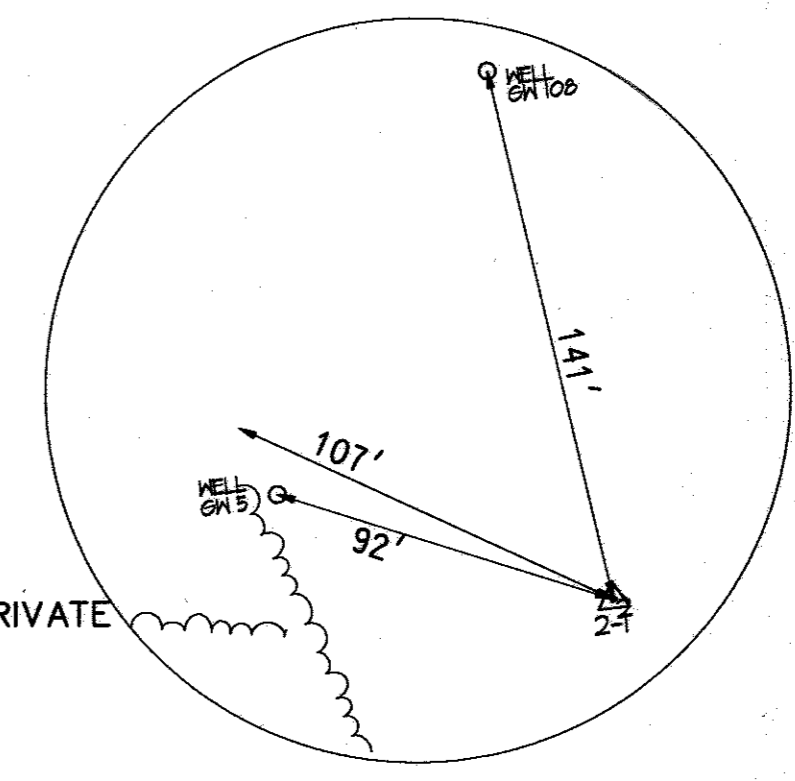


SCALE AS SHOWN
SHEET 2 OF 7

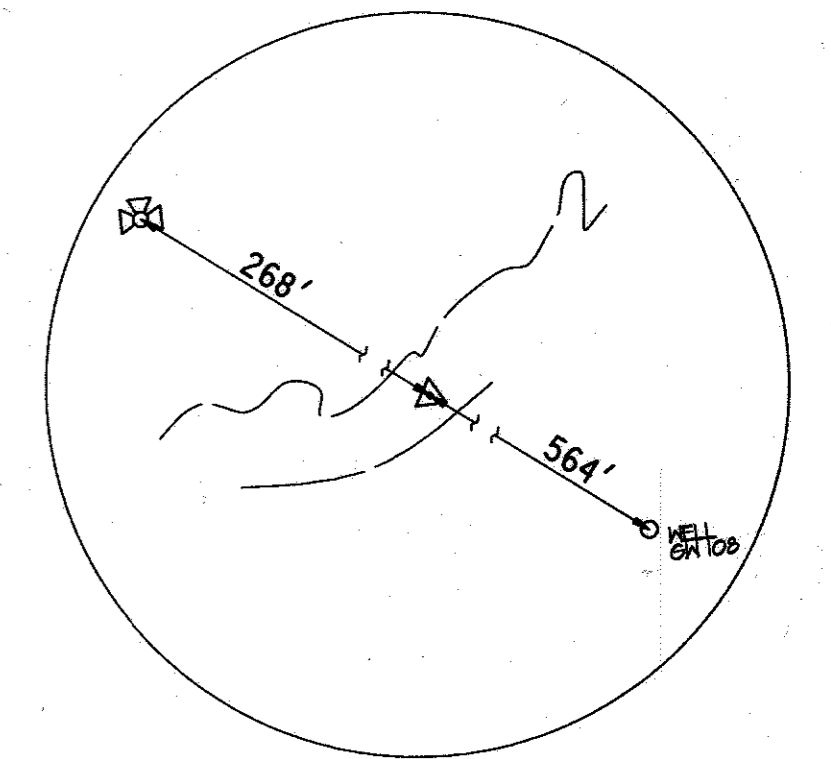


HOWARD COUNTY G.V.M.T.
 TAX MAP 16, PARCEL 220
 LIBER 856, FOLIO 337
 LIBER 891, FOLIO 314
 65 AC.

PLAN
 SCALE: 1"=50'



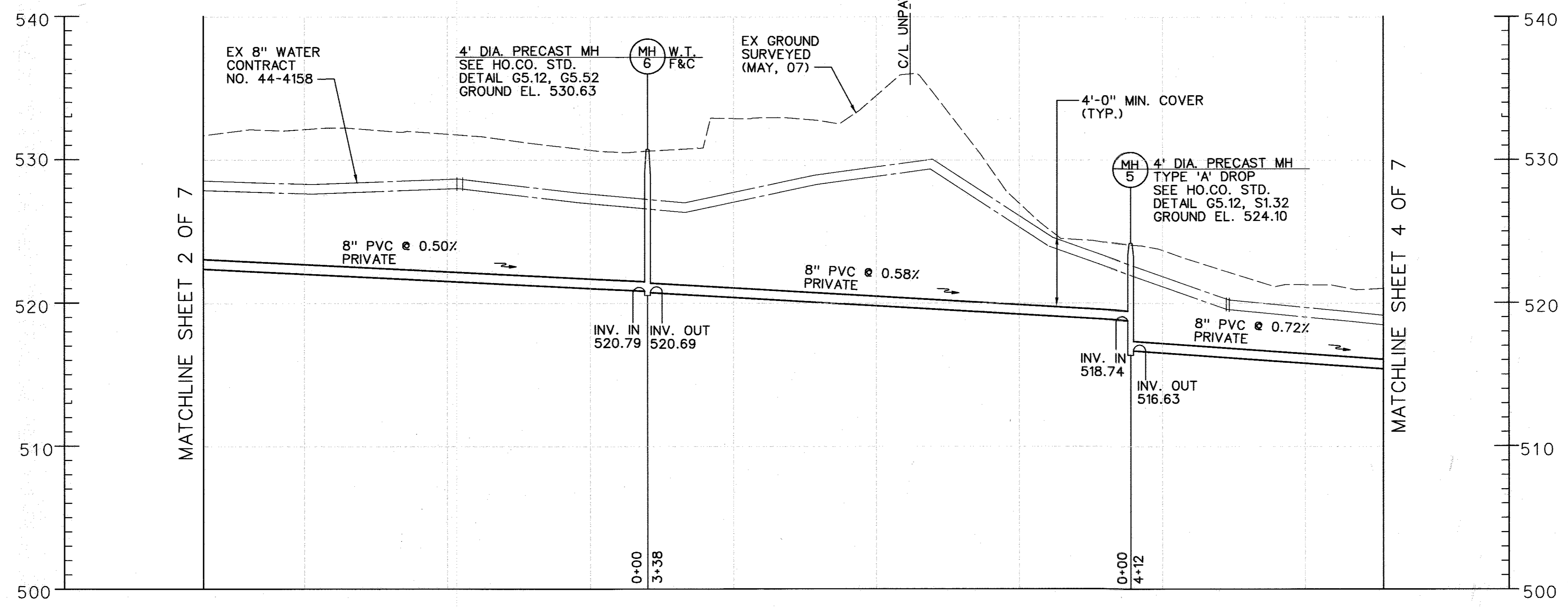
TRAV. #2-1
 SCALE=N.T.S



TRAV. #3-1
 SCALE=N.T.S

TRAVERSE COORDINATE SCHEDULE			
NUMBER	NORTHING	EASTING	ELEVATION
TRAV.#2-1	597468.91	1337180.96	525.23
TRAV.#3-1	597711.67	1336608.52	533.32

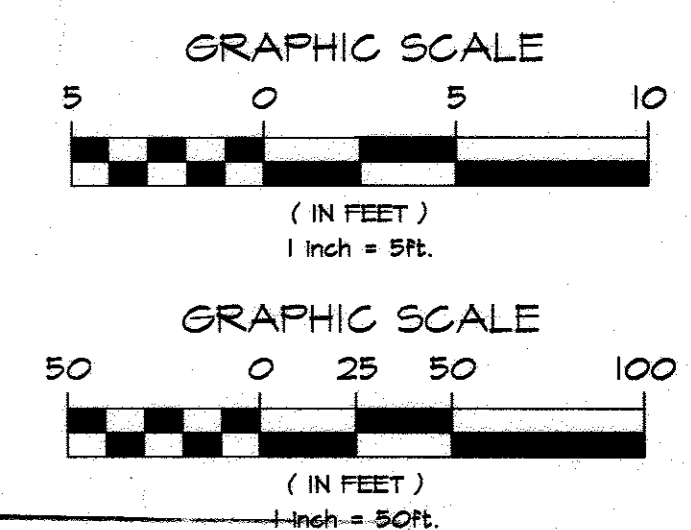
SANITARY SEWER STAKEOUT COORDINATES SCHEDULE		
NUMBER	NORTHING	EASTING
SMH 5	597574.38	1337097.40
SMH 6	597659.88	1336771.30



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

GENERAL NOTES

1. THE LIMIT OF DISTURBANCE IS 10' FROM THE CENTER OF, AND ON BOTH SIDES OF, THE PROPOSED SEWER. THIS LINE IS GENERALLY COINCIDENT WITH THE PROPOSED EASEMENT AND IS NOT SHOWN FOR CLARITY. IN ADDITION, A 10' WIDE TEMPORARY CONSTRUCTION STRIP IS PROVIDED ON EACH SIDE OF THE EASEMENT FOR USE DURING CONSTRUCTION. BETWEEN THE PROPOSED EASEMENT AND EXISTING EASEMENT A VARIABLE WIDTH CONSTRUCTION STRIP IS INDICATED AS NECESSARY.
2. SILT FENCE IS SHOWN DIAGRAMMATICALLY. THE CONTRACTOR SHALL PLACE THE SILT FENCE GENERALLY COINCIDENT WITH THE PROPOSED EASEMENT (WHERE APPLICABLE) AND THE LIMITS OF DISTURBANCE (SEE NOTE 1, ABOVE.)
3. CONTRACTOR SHALL PLACE HIGH-VISIBILITY CONSTRUCTION FENCING AROUND EACH MONITORING WELL INDICATED, AND SHALL TAKE PRECAUTIONS TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL REPLACE, AT NO COST TO THE COUNTY, ANY MONITORING WELL DAMAGED BY THE CONSTRUCTION OPERATION.



AS-BUILT
 DATE 09.15.10

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO.: 28911 EXPIRATION DATE: 1/11/10

PLOTTED: 04:00 PM on Tuesday, March 10, 2009
 BY: Chandler Kanta Division: 0102 Environmental Engineering
 FILE: M:\2008\01031464_25\Drawings\C-03-043464-25.dgn

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Michael Stasior
 DIRECTOR OF PUBLIC WORKS DATE 5/5/09

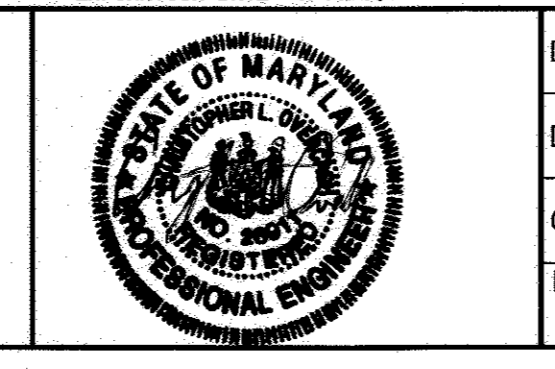
John C. Ben
 CHIEF, BUREAU OF UTILITIES DATE 5/5/09

John C. Ben
 CHIEF, UTILITY DESIGN DIVISION DATE 5/5/09

KCI TECHNOLOGIES

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: CLO			
DRN: CK			
CHK: TWW			
DATE: DEC. 2008	LFN	AS BUILT MARKUPS	9/10
BY NO.		REVISION	DATE

**8" SANITARY SEWER
 PLAN AND PROFILE**

600' SCALE MAP NO. 16 BLOCK NO. 9 & 10

**ROBEY PUBLIC SAFETY
 TRAINING CENTER
 SEWER EXTENSION**

CAPITAL PROJECTS No. S-6261
 CONTRACT NO. 14-4577

ELECTION DISTRICT NO.3 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN SHEET 3 OF 7

HOWARD COUNTY GVMT.
TAX MAP 16, PARCEL 220
LIBER 856, FOLIO 337
LIBER 891, FOLIO 314
65 AC.

HOWARD COUNTY GVMT.
TAX MAP 16, PARCEL 253
LIBER 856, FOLIO 337
LIBER 891, FOLIO 314
38 AC.

STATION	FITTING	NORTHING	EASTING
0+00	GPS	597114.72	1337981.05
0+09	90° V.B. (2)	597115.42	1337989.69
2+45	45° & 11-1/2° H.B.	597127.03	1338226.15

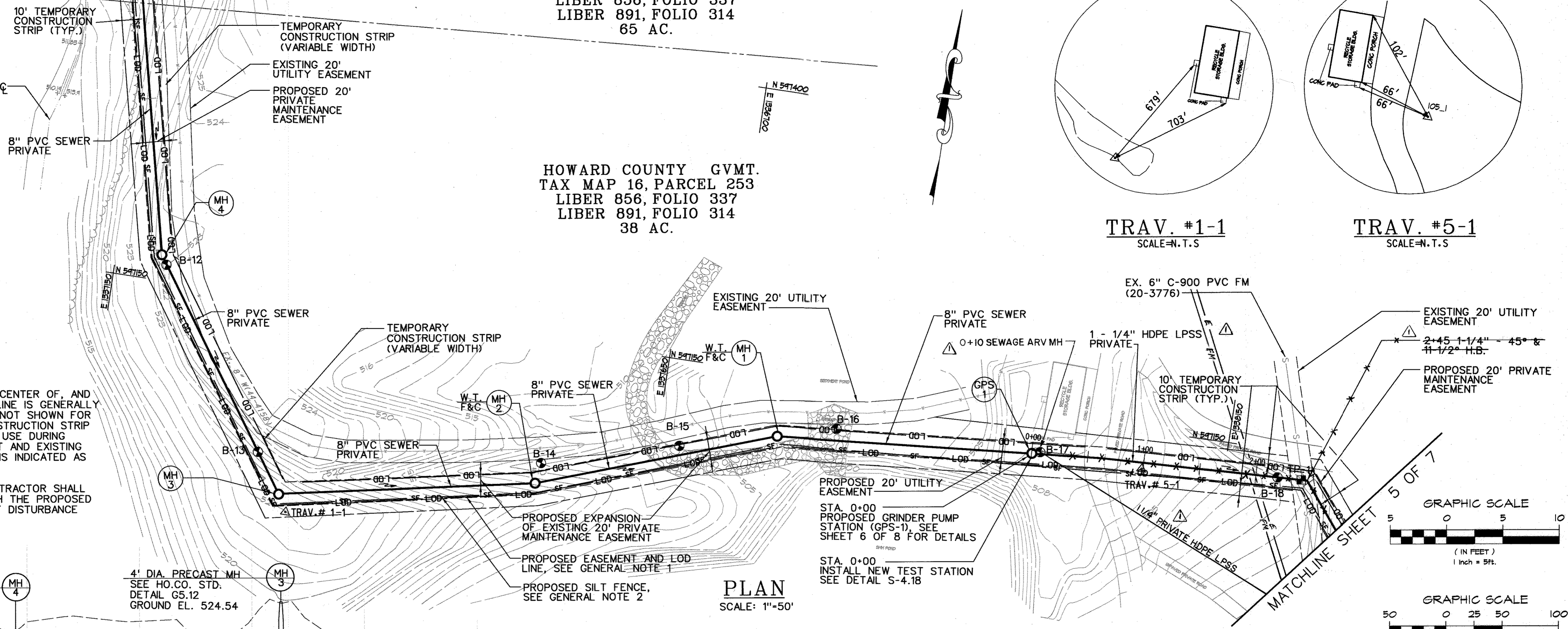
NUMBER	NORTHING	EASTING
GRINDER PUMP STATION	597114.72	1337981.05
SMH 1	597095.44	1337755.16
SMH 2	597021.96	1337548.48
SMH 3	596978.28	1337324.78
SMH 4	597172.56	1337190.50

NUMBER	NORTHING	EASTING	ELEVATION
TRAV.# 1-1	596963.51	1337333.11	525.89
TRAV.# 5-1	597115.65	1338079.28	507.20

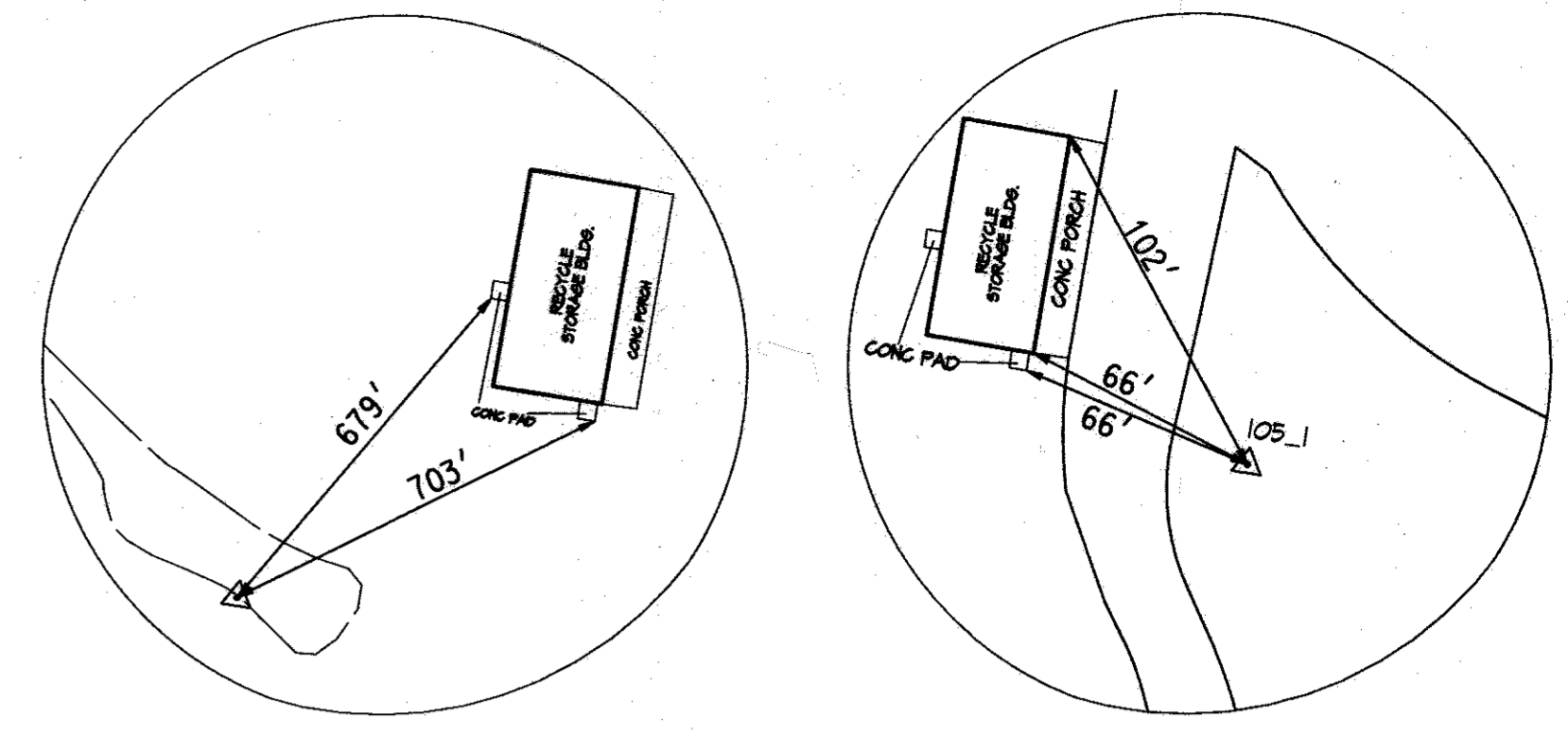
GENERAL NOTES

1. THE LIMIT OF DISTURBANCE (LOD) IS 10' FROM THE CENTER OF, AND ON BOTH SIDES OF, THE PROPOSED SEWER. THIS LINE IS GENERALLY COINCIDENT WITH THE PROPOSED EASEMENT AND IS NOT SHOWN FOR CLARITY. IN ADDITION, A 10' WIDE TEMPORARY CONSTRUCTION STRIP IS PROVIDED ON EACH SIDE OF THE EASEMENT FOR USE DURING CONSTRUCTION. BETWEEN THE PROPOSED EASEMENT AND EXISTING EASEMENT A VARIABLE WIDTH CONSTRUCTION STRIP IS INDICATED AS NECESSARY.
2. SILT FENCE IS SHOWN DIAGRAMMATICALLY. THE CONTRACTOR SHALL PLACE THE SILT FENCE GENERALLY COINCIDENT WITH THE PROPOSED EASEMENT (WHERE APPLICABLE) AND THE LIMITS OF DISTURBANCE (SEE NOTE 1, ABOVE.)

MATCHLINE SHEET 3 OF 7

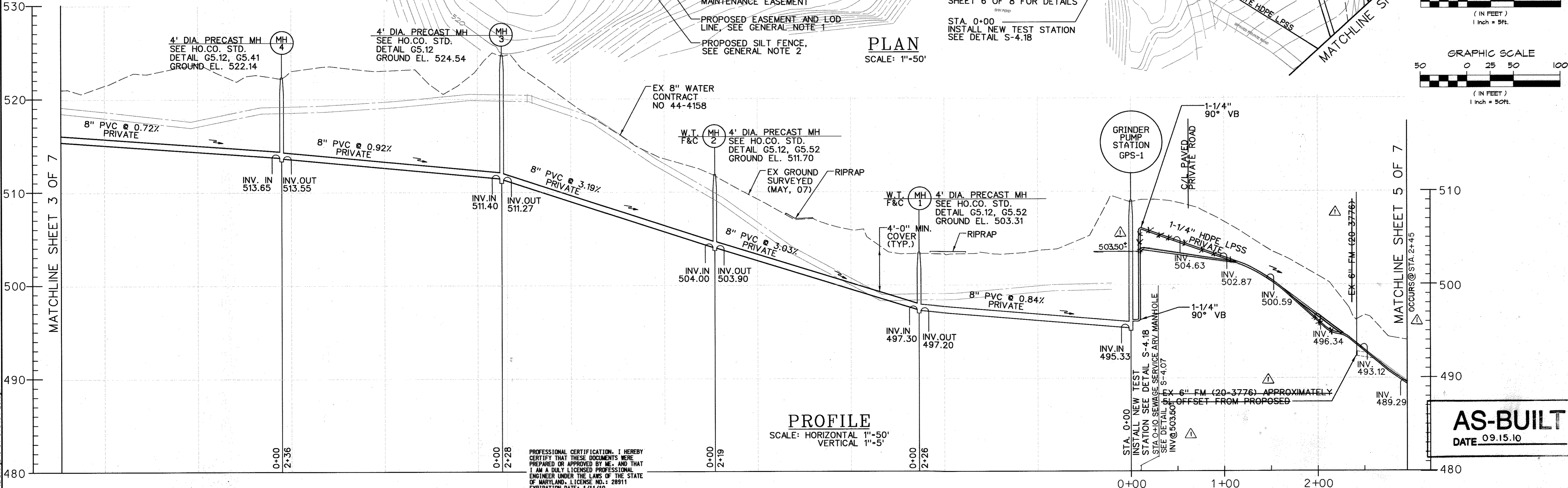
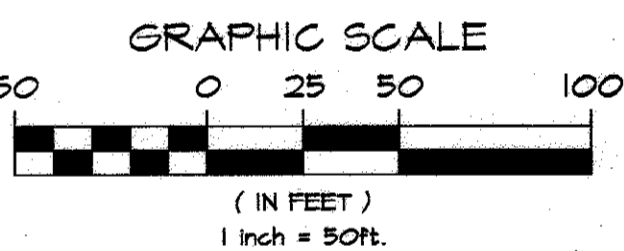
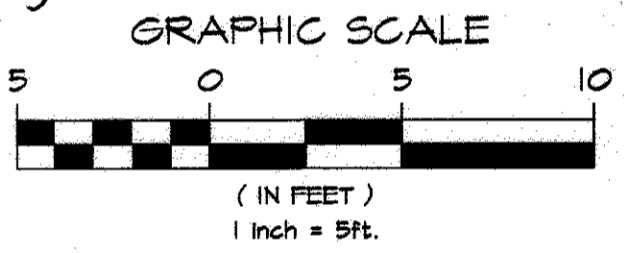


PLAN
SCALE: 1"=50'



TRAV. #1-1
SCALE=N.T.S

TRAV. #5-1
SCALE=N.T.S



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

AS-BUILT
DATE 09.15.10

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO.: 28911 EXPIRATION DATE: 1/11/10

PLOTTED: 04/10/10 PM, on: Tuesday, March 10, 2009
 BY: Chandler, Kaitie Division: 002, Environmental/Engineering
 FILE: M:\2004\0043464_25 Drawings\04-043464-25.dgn

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS
 DATE 5/21/09

CHIEF, BUREAU OF ENGINEERING
 DATE 5/5/09

CHIEF, BUREAU OF UTILITIES
 DATE 5/15/09

CHIEF, UTILITY DESIGN DIVISION
 DATE 5/15/09

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



DES:	CLO				
DRN:	CK				
CHK:	TWW				
DATE:	DEC, 2008	BY:	NO.	AS BUILT MARKUPS	9/10
				REVISION	DATE

8" & 1-1/4" SANITARY SEWER
PLAN AND PROFILE

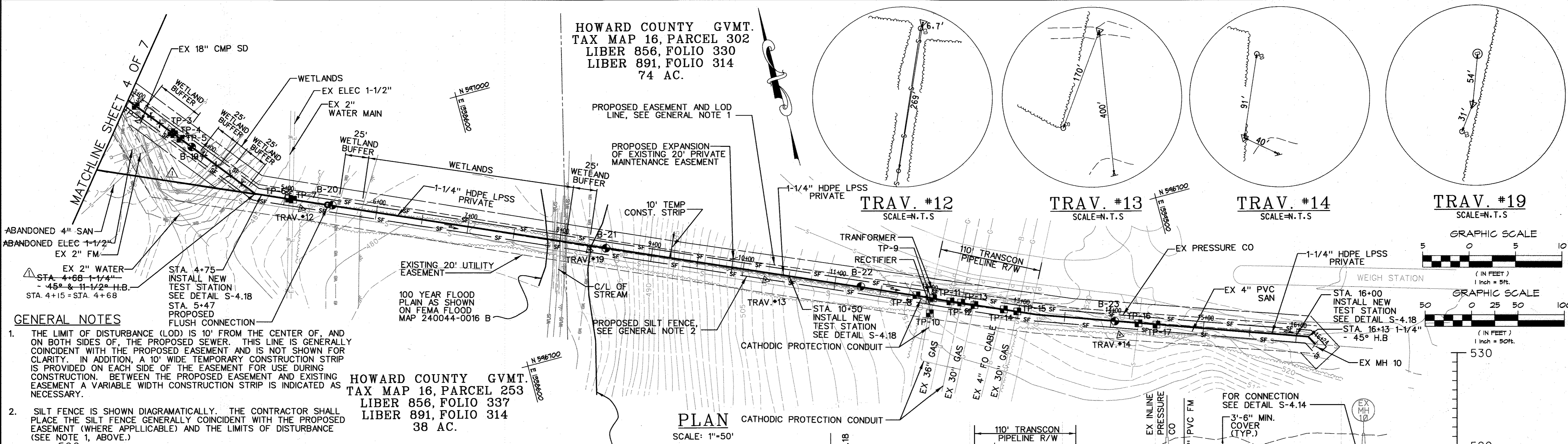
600' SCALE MAP NO. 16 BLOCK NO. 9 & 10

ROBEY PUBLIC SAFETY
TRAINING CENTER
SEWER EXTENSION
CAPITAL PROJECTS No. S-6261
CONTRACT NO. 14-4577
ELECTION DISTRICT NO.3 HOWARD COUNTY, MARYLAND

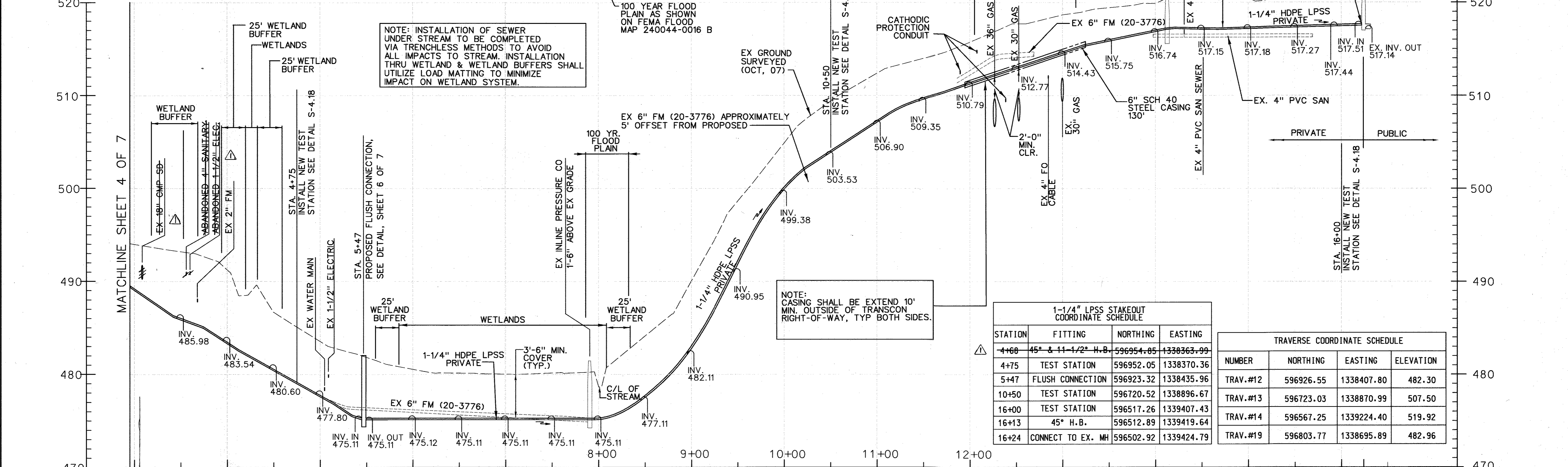
SCALE AS SHOWN
SHEET 4 OF 7

HOWARD COUNTY GVMT.
TAX MAP 16, PARCEL 302
LIBER 856, FOLIO 330
LIBER 891, FOLIO 314
74 AC.

HOWARD COUNTY GVMT.
TAX MAP 16, PARCEL 253
LIBER 856, FOLIO 337
LIBER 891, FOLIO 314
38 AC.



- GENERAL NOTES**
1. THE LIMIT OF DISTURBANCE (LOD) IS 10' FROM THE CENTER OF, AND ON BOTH SIDES OF, THE PROPOSED SEWER. THIS LINE IS GENERALLY COINCIDENT WITH THE PROPOSED EASEMENT AND IS NOT SHOWN FOR CLARITY. IN ADDITION, A 10' WIDE TEMPORARY CONSTRUCTION STRIP IS PROVIDED ON EACH SIDE OF THE EASEMENT FOR USE DURING CONSTRUCTION. BETWEEN THE PROPOSED EASEMENT AND EXISTING EASEMENT A VARIABLE WIDTH CONSTRUCTION STRIP IS INDICATED AS NECESSARY.
 2. SILT FENCE IS SHOWN DIAGRAMMATICALLY. THE CONTRACTOR SHALL PLACE THE SILT FENCE GENERALLY COINCIDENT WITH THE PROPOSED EASEMENT (WHERE APPLICABLE) AND THE LIMITS OF DISTURBANCE (SEE NOTE 1, ABOVE.)



1-1/4" LPSS STAKEOUT COORDINATE SCHEDULE

STATION	FITTING	NORTHING	EASTING
4+60	45° & 11-1/2° H.B.	596954.85	1338363.99
4+75	TEST STATION	596952.05	1338370.36
5+47	FLUSH CONNECTION	596923.32	1338435.96
10+50	TEST STATION	596720.52	1338896.67
16+00	TEST STATION	596517.26	1339407.43
16+13	45° H.B.	596512.89	1339419.64
16+24	CONNECT TO EX. MH	596502.92	1339424.79

TRAVERSE COORDINATE SCHEDULE

NUMBER	NORTHING	EASTING	ELEVATION
TRAV.#12	596926.55	1338407.80	482.30
TRAV.#13	596723.03	1338870.99	507.50
TRAV.#14	596567.25	1339224.40	519.92
TRAV.#19	596803.77	1338695.89	482.96

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

AS-BUILT
DATE 09.15.10

PLOTTED: 04:03 PM on Tuesday, March 10, 2009
BY: Chander, Kanta Division: 0102 Environmental Engineering
FILE: M:\2004\0103464\25\Drawings\C-05-043464-25.dgn

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

William J. Stalos
DIRECTOR OF PUBLIC WORKS
DATE 5/5/09

David J. Seaman
CHIEF, BUREAU OF ENGINEERING
DATE 5/5/09

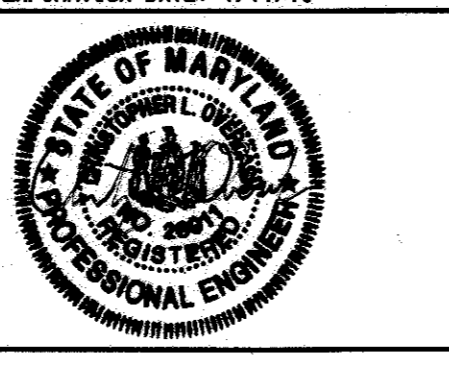
Steve A. Gann
CHIEF, BUREAU OF UTILITIES
DATE 5/5/09

David J. Seaman
CHIEF, UTILITY DESIGN DIVISION
DATE 5/5/09

KCI TECHNOLOGIES

ENGINEERS
PLANNERS
SCIENTISTS
CONSTRUCTION MANAGERS

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



DES: CLO			
DRN: CK			
CHK: TW			
DATE: DEC. 2008	BY: LFN	AS BUILT MARKUPS	9/10
	NO.	REVISION	DATE

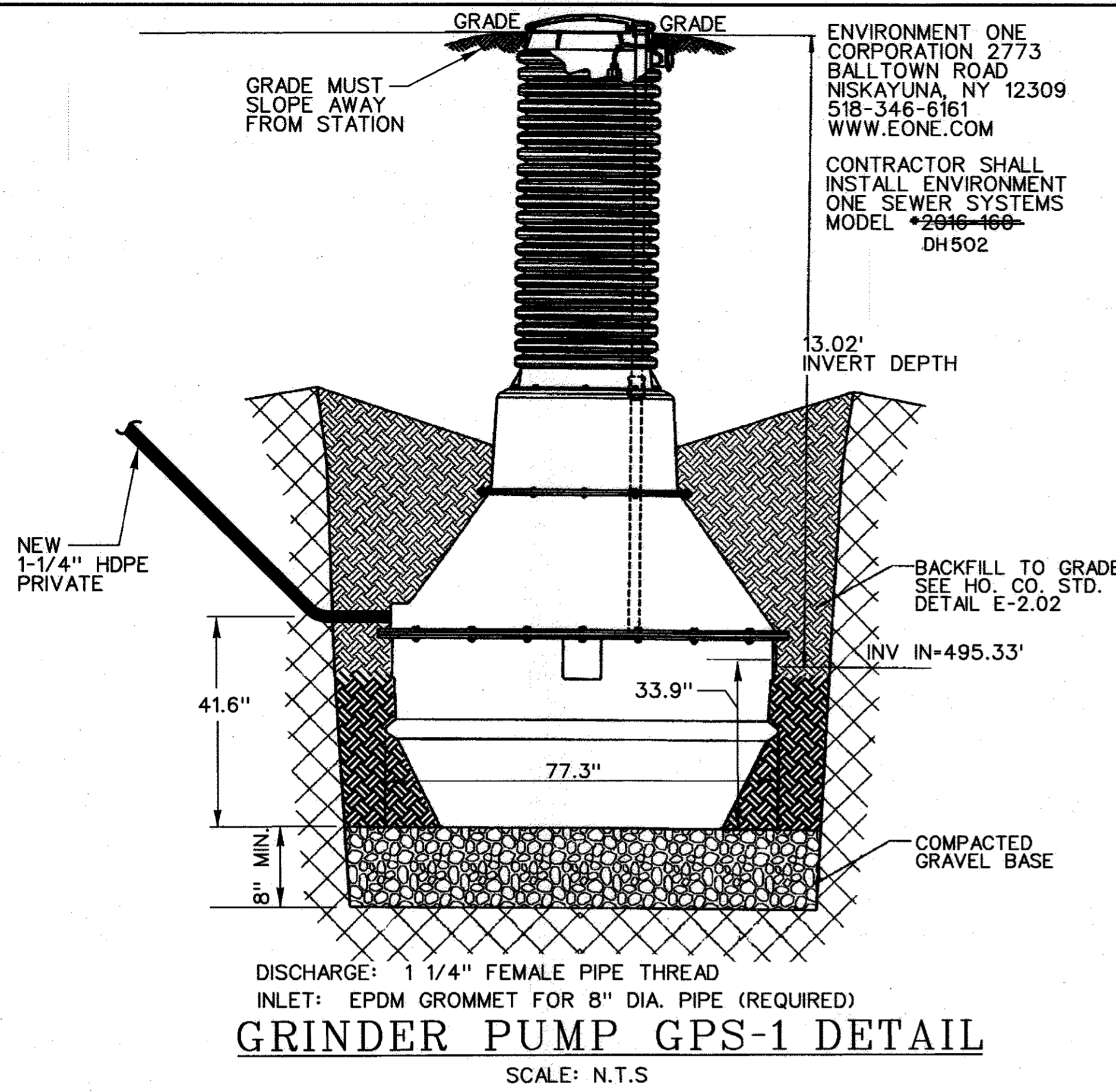
1-1/4" SANITARY SEWER FORCE MAIN PLAN AND PROFILE

600' SCALE MAP NO. 16 BLOCK NO. 9 & 10

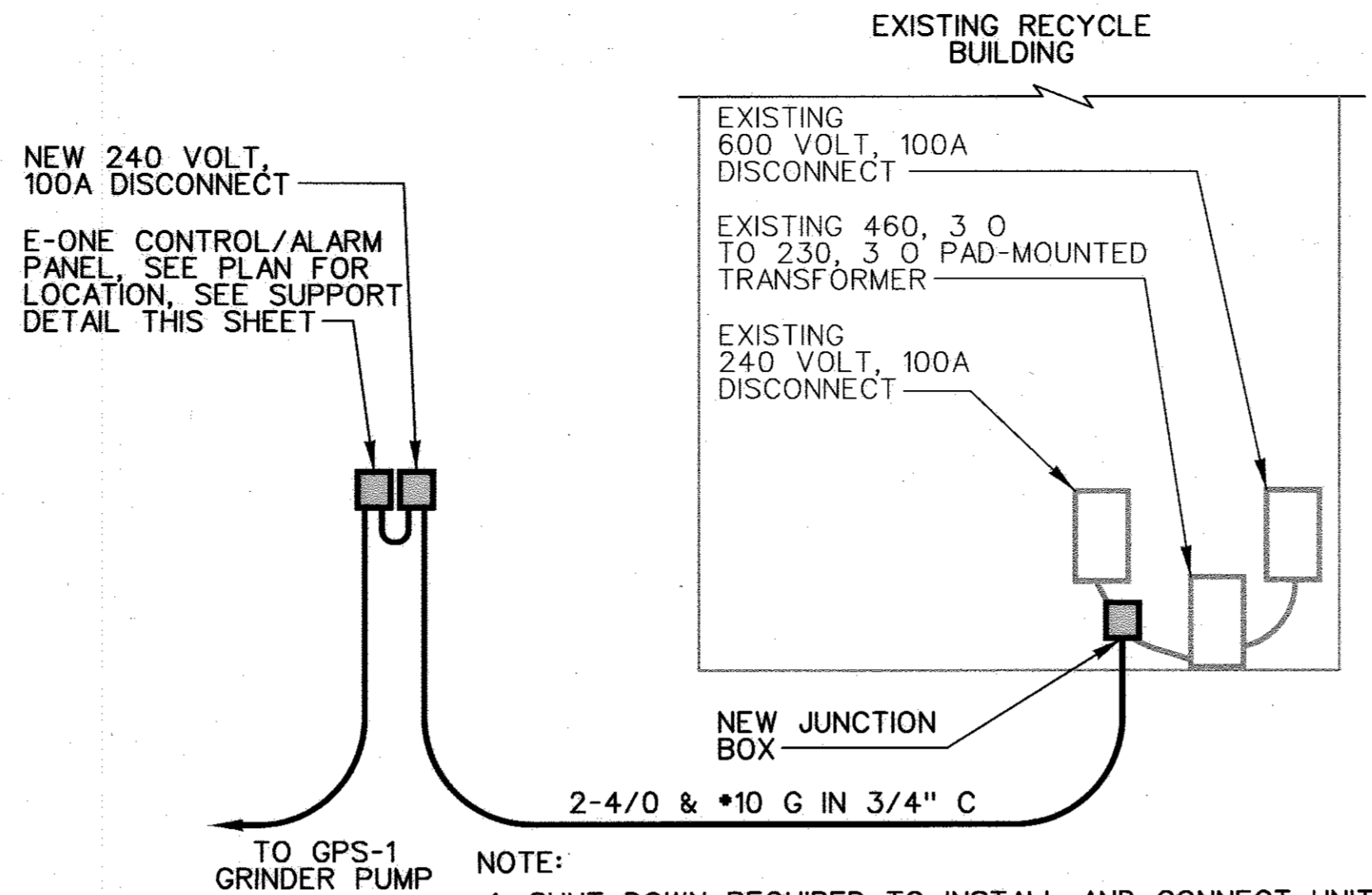
ROBEY PUBLIC SAFETY TRAINING CENTER SEWER EXTENSION
CAPITAL PROJECTS No. S-6281
CONTRACT NO. 14-4577

ELECTION DISTRICT NO.3 HOWARD COUNTY, MARYLAND

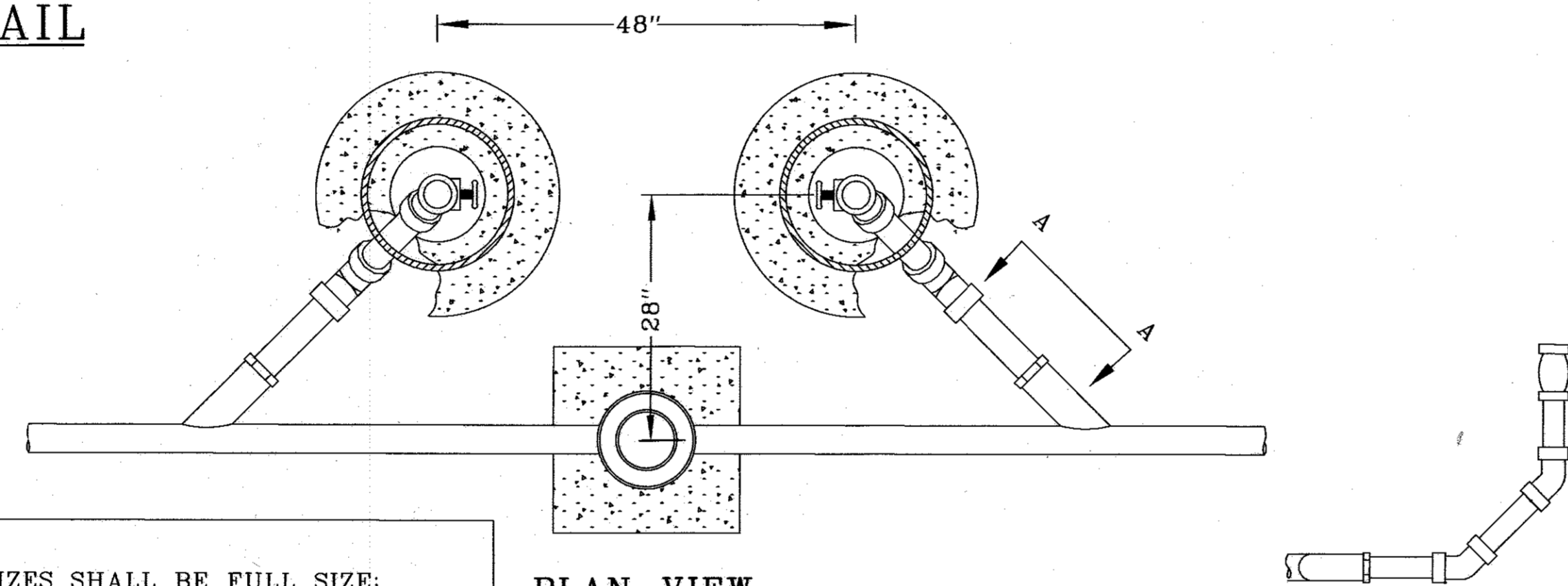
SCALE AS SHOWN
SHEET 5 OF 7



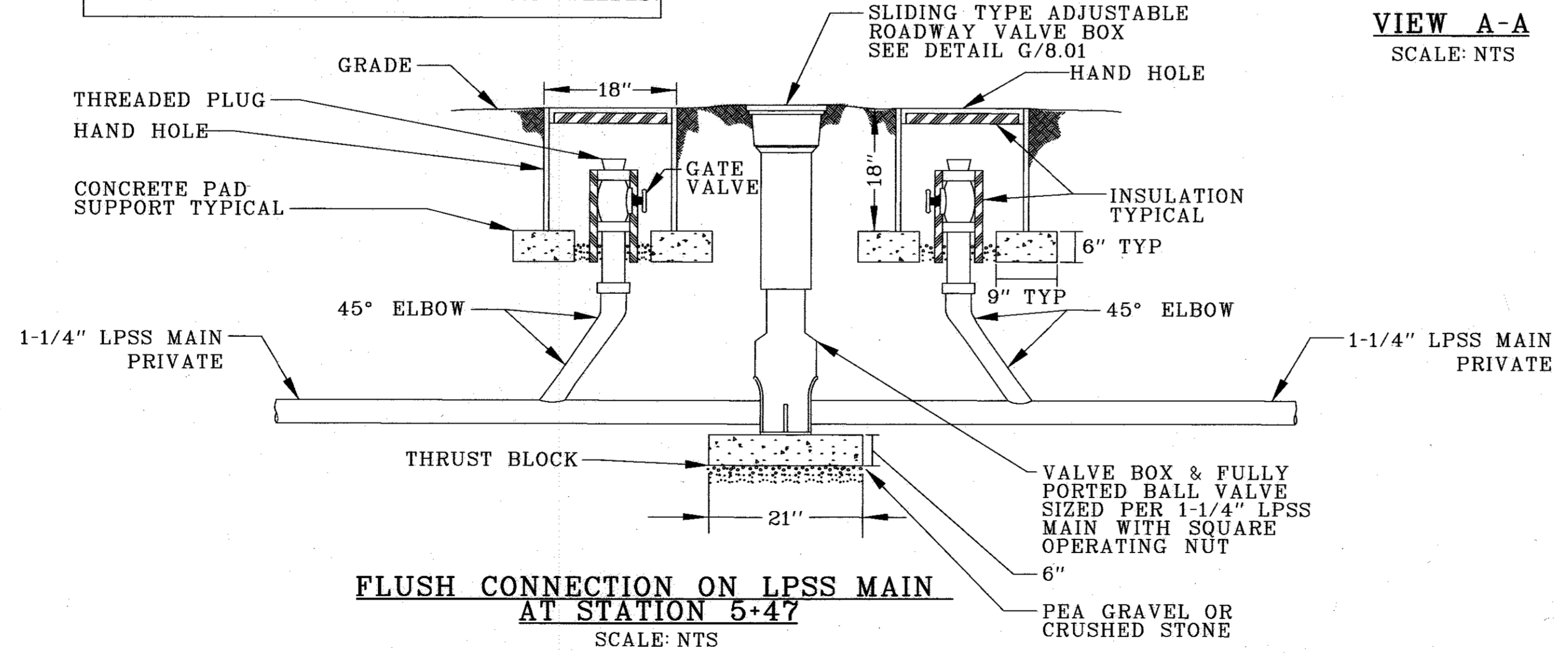
- NOTES:
1. NO FIELD JOINTS ARE ALLOWED.
 2. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.



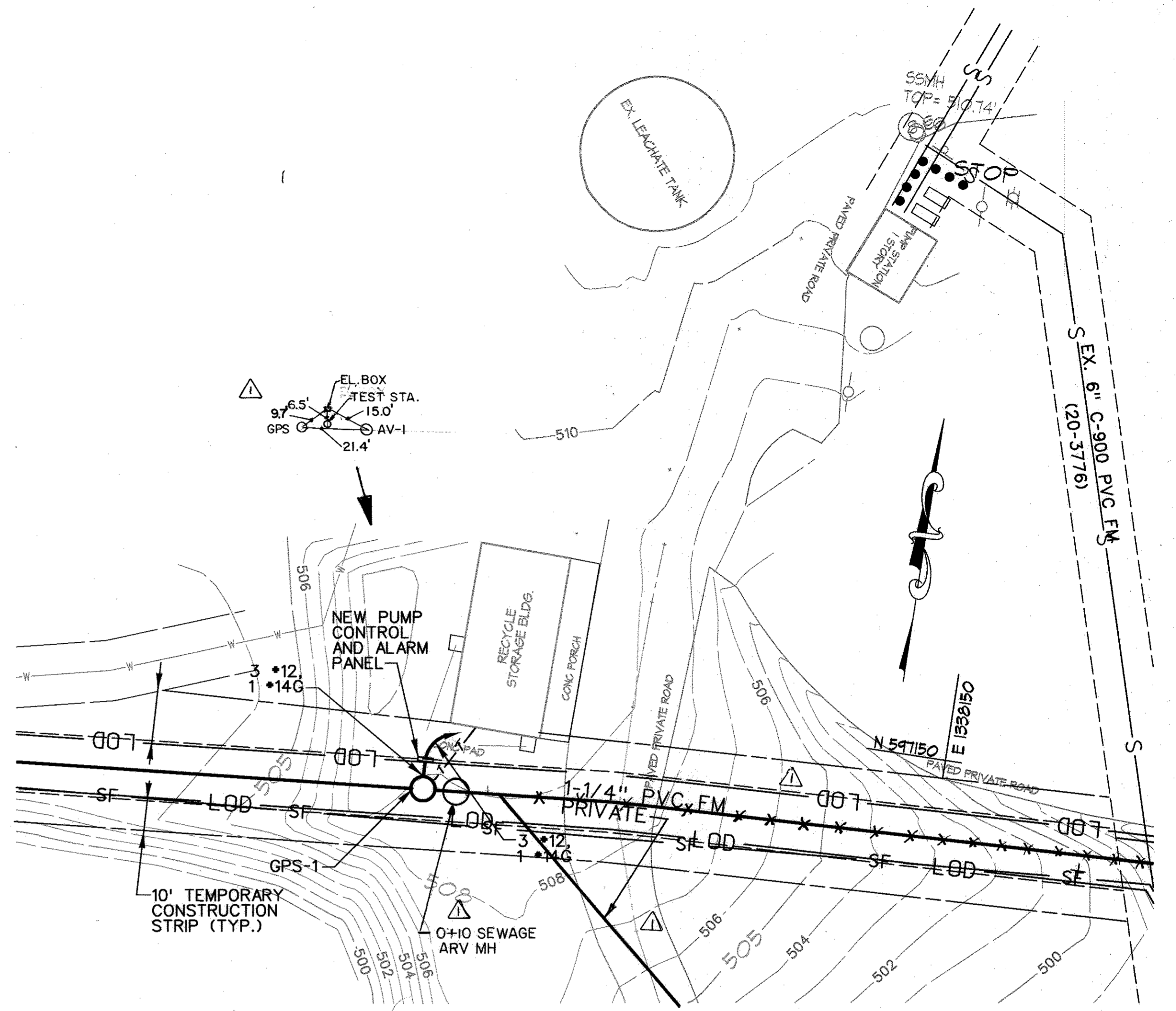
ELECTRICAL CONNECTIONS
 SCALE: N.T.S.



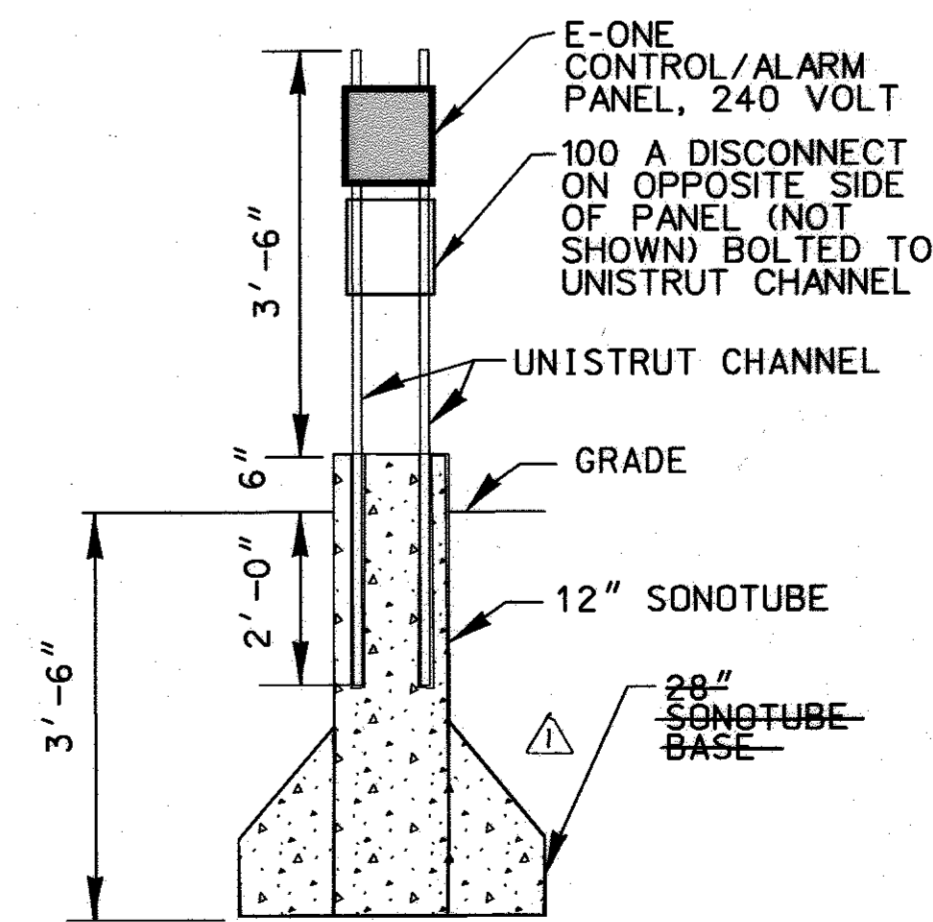
- NOTES:
1. ALL PIPE SIZES SHALL BE FULL SIZE.
 2. ALL JOINTS SHALL BE BUTT FUSION WELDED.



PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO.: 28911 EXPIRATION DATE: 1/11/10



PARTIAL SITE PLAN
 SCALE: 1"=30'



- CONTROL PANEL NOTES:
1. CONTROL PANEL SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND THE NATIONAL ELECTRIC CODE.
 3. ALL POWER AND CONTROL WIRES SHALL BE IN CONDUIT.
 2. THE CONTRACTOR SHALL PROVIDE SLEEVES FOR POWER AND CONTROL CONDUIT THAT PASS THROUGH THE CONCRETE CONTROL PANEL SUPPORT BASE.
 3. THE CONTROL PANEL AND ALL APPURTENANCES SHALL BE SECURELY MOUNTED TO THE SUPPORT.
 4. ALL FASTENERS SHALL BE STAINLESS STEEL.

CONTROL PANEL SUPPORT
 SCALE: N.T.S.

AS-BUILT
 DATE 09.15.10

PLOTTED: 04:08 PM on Tuesday, March 10, 2009
 BY: Chandler Kenton, Division 0102, Environmental Engineering
 FILE: M:\2004\0303\3164\23\Grinders\08-04-04-14-23.dwg

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

John C. ... 5/5/09
 DIRECTOR OF PUBLIC WORKS DATE

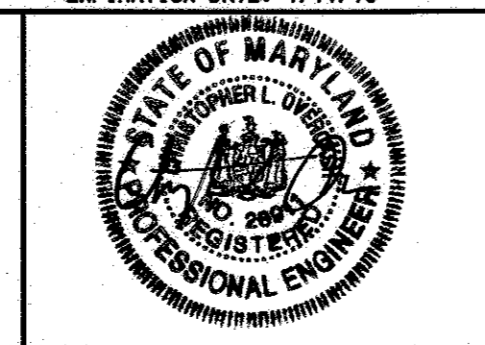
... 5/5/09
 CHIEF, BUREAU OF UTILITIES DATE

... 5/5/09
 CHIEF, UTILITY DESIGN DIVISION DATE

ENGINEERS
 PLANNERS
 SCIENTISTS
 CONSTRUCTION MANAGERS

KCI TECHNOLOGIES

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



DES:	CLO				
DRN:	CK				
CHK:	TWW				
DATE:	DEC. 2008	LFN	AS BUILT MARKUPS	9/10	
BY:	NO.	REVISION			

GRINDER PUMP STATION
 PLAN AND DETAILS

600' SCALE MAP NO. 16 BLOCK NO. 9 & 10

ROBEY PUBLIC SAFETY
 TRAINING CENTER
 SEWER EXTENSION
 CAPITAL PROJECTS No. S-6261
 CONTRACT NO. 14-4577
 ELECTION DISTRICT NO. 3 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 6 OF 7

