FINAL WATER & SEWER CONSTRUCTION PLAN
COLEMAN FIAT
HOLWECK SUBDIVISION PARCEL 'K-4'
12520 NEW CAR DRIVE
PARCEL 365 (L. 08594 / F. 00473)
PLAT NO. 16013
CONTRACT 24-4886-D
HOWARD COUNTY, MARYLAND

GENERAL NOTES

PART I

1. APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
2. TOPOGRAPHY FIELD SURVEYS WERE PRERFORMED ON MARCH 1998 BY POTOMAC AERIAL SURVEYS.
3. HORIZONTAL AND VERTICAL SURVEY CONTROLS:
   THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD '83/'91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 4382 AND 4386.
   ALL VERTICAL CONTROLS ARE BASED ON NAVD' 88. VERTICAL CONTROLS PROVIDED ON DRAWINGS ARE:
   GEODETIC SURVEY CONTROL 34C2 (N 562321.798 / E 1329750.722) BRASS DISC SET ON TOP OF A CONCRETE MONUMENT.
   GEODETIC SURVEY CONTROL 0044 (N 562,176.47 / E 1,329,641.87) BRASS DISC SET ON TOP OF A CONCRETE MONUMENT.
4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
5. CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR 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.
6. 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.
7. WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL (T) 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 OPERATION AT HIS OWN EXPENSE.
8. 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 (CONTRUCTION SERVICES)	410-637-8713
BGE (EMERGENCY)	410-685-0123
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

9. 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.
10. 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 THE CONSTRUCTION OF THE MAIN.
11. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-7450 AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.

PART II - WATER

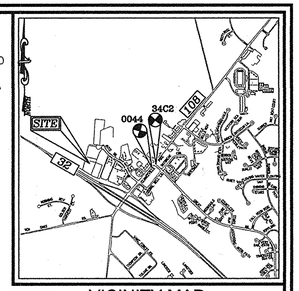
1. ALL WATER MAINS SHALL BE DIP CLASS 54 UNLESS OTHERWISE NOTED.
2. TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
3. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
4. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
5. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
6. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
7. TRACER WIRE AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL DIP AND PVC WATER MAINS IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL.

PART III - SEWER

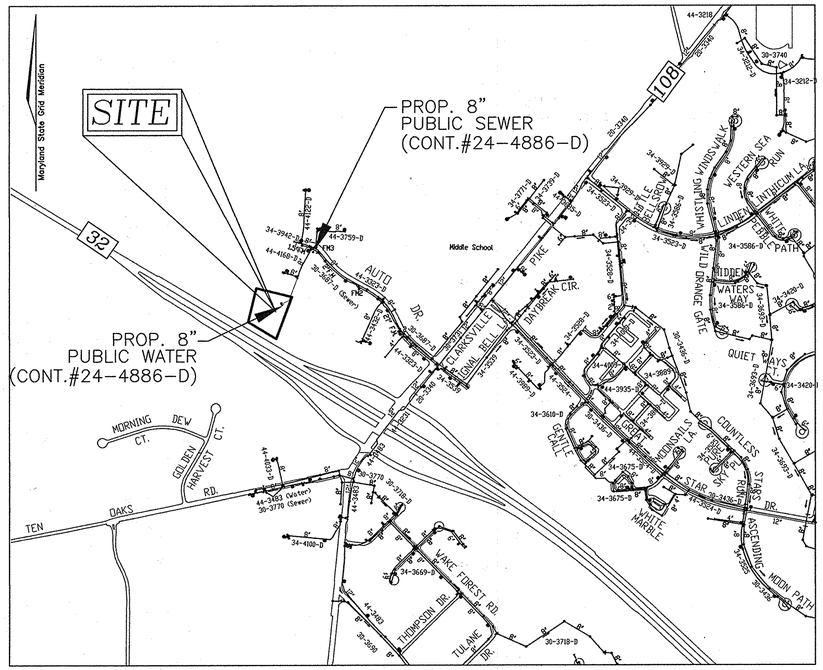
1. ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C UNLESS OTHERWISE NOTED.
2. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
3. LOW PRESSURE SEWER SHALL BE SDR-21 PVC OR HDPE DR11 ONLY.
4. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
5. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G5.52. WHERE WATERTIGHT FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
6. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THE CELLAR CANNOT BE SERVED.

BENCHMARKS

HOWARD COUNTY BENCHMARK 34C2
N 562321.798 E 1329750.722 ELEV. 487.90
HOWARD COUNTY BENCHMARK 0044
N 562,176.47 E 1,329,641.87 ELEV. 485.25



VICINITY MAP
SCALE: 1"=2,000'
ADC MAP COORDINATE: PG. 4933 / K-7



VICINITY MAP
SCALE: 1"=600'

WATER ZONE:	630W
TEST GRADIENT:	780

TYPE OF BUILDING :	AUTOMOBILE SALES AND SERVICE
NO. OF BUILDING :	1
NO. OF SINGLE WATER HOUSE CONNECTIONS:	1
NO. OF SINGLE SEWER HOUSE CONNECTIONS:	1
SEWER SHED :	MIDDLE PATUXENT RIVER
TREATMENT PLANT :	MIDDLE PATUXENT RIVER WATER TREATMENT PLANT

LEGEND

EXISTING TREELINE
PROPOSED TREELINE
EXISTING WATER MAIN — W —
PROPOSED WATER MAIN
FIRE HYDRANT
PROPOSED VALVE
PROPOSED TEE
PROPOSED STORM DRAIN
EXISTING STORM DRAIN — SD —
EXISTING SEWER — SS —
SEWER MANHOLE
PRIVATE WATER HOUSE CONNECTION
PRIVATE SEWER
PROPOSED SIGN
PROPOSED LIGHT

QUANTITIES

NAME OF UTILITY CONTRACTOR :
SURVEY AND DRAFTING DIVISION AS-BUILT DATE :

ITEMS	QUANTITIES ESTIMATED	AS-BUILT QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
		WATER		
8" WATER DIP CLASS 54	285 LF			
6" WATER DIP CLASS 54	15 LF			
4" WATER DIP CLASS 54	10 LF			
8" - 1/8 BEND	2 EA			
5-1/4" FIRE HYDRANT	1 EA			
8" CAP	1 EA			
4" VALVE	1 EA			
6" VALVE	1 EA			
8" VALVE	1 EA			
8"x4" TEE	1 EA			
8"x6" TEE	1 EA			
		SEWER		
1-1/2" PRESSURE SEWER SDR-21 PVC	16 LF			

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND WITH SITE DEVELOPMENT PLAN SDP-15-004.

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

SOIL CONSERVATION DISTRICT — DATE 7/22/15

OWNER/DEVELOPER
1318 COMPANY LLC
10400 AUTO PARK AVE
BETHESDA, MD 20817-1006
C/O: JIM COLEMAN
301-469-6600

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF, BUREAU OF UTILITIES — DATE 7/14/15

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 7-27-15

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

STATE OF MARYLAND — ROBERT HARRIS VOGEL — No. 16193 — REGISTERED PROFESSIONAL ENGINEER — 6/22/15
ROBERT H. VOGEL, PE No. 16193

PROFESSIONAL CERTIFICATE
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. 16193 EXPIRATION DATE: 09-27-2016

DRN: KG DES: DZE
CHK: RHV
DATE: JUNE 2015

BY	NO.	REVISION	DATE

FINAL WATER & SEWER CONSTRUCTION PLAN
CONTRACT 24_4886_D

600' SCALE MAP NO. 50 BLOCK NO. 6

COLEMAN FIAT
HOLWECK SUBDIVISION PARCEL 'K-4'
12520 NEW CAR DRIVE
PARCEL 365 (L 08594 / F. 00473)
PLAT NO. 16013

TAX MAP 34 BLOCK 06
2ND ELECTION DISTRICT
ZONED: B-2
LOT: PARCEL K-4
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 1 OF 2

SDP-15-004

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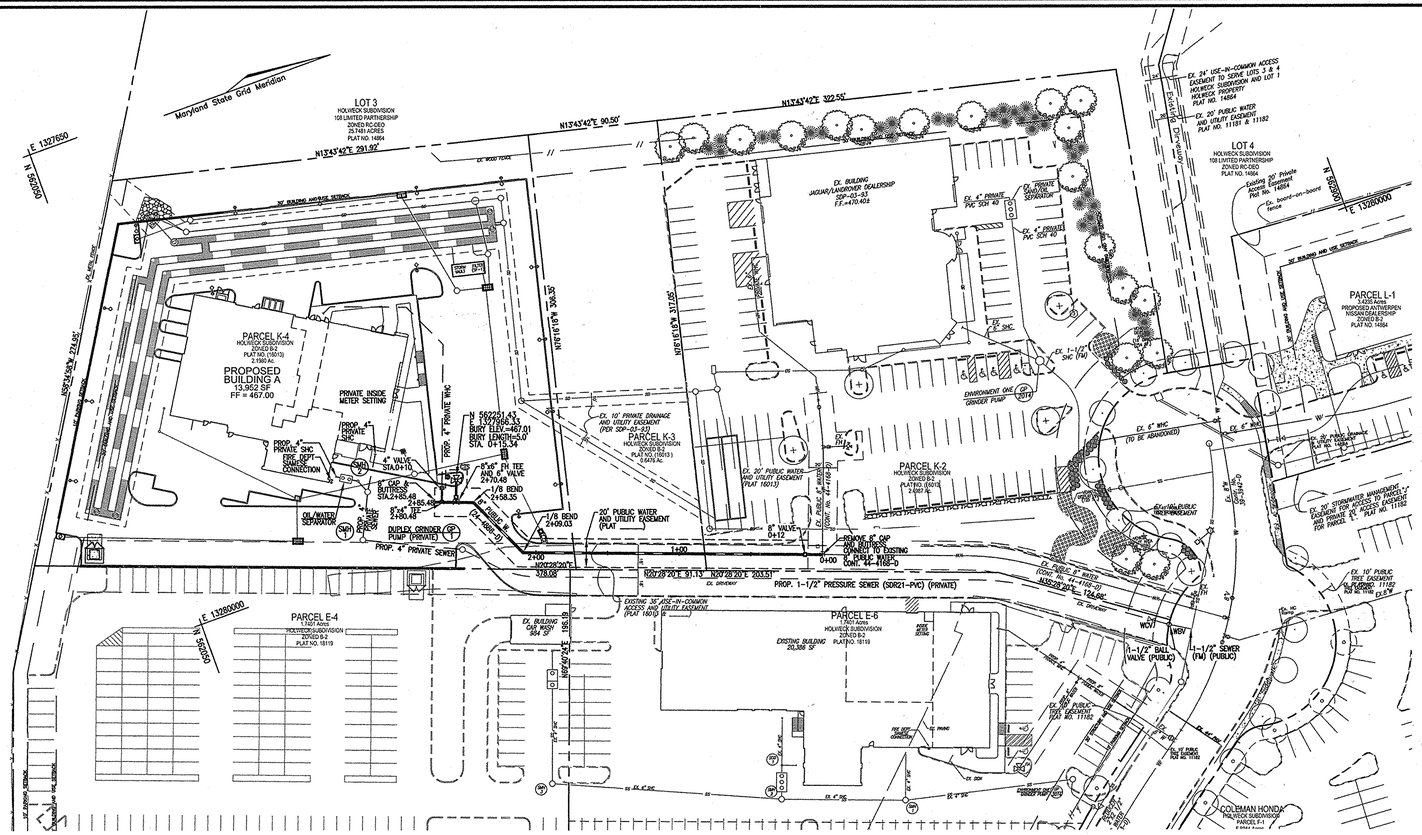


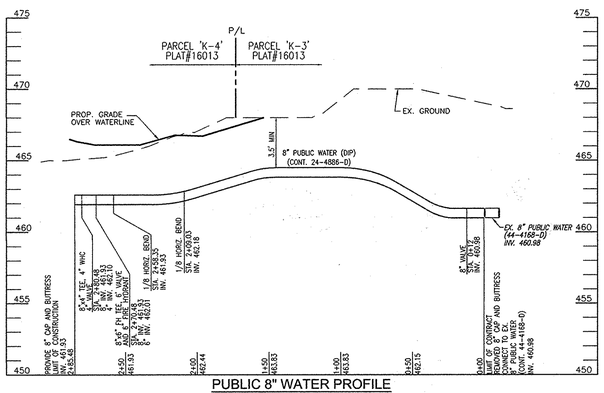
LAYOUT PLAN

SCALE: 1"=50'

WATER MAIN LOCATION CHART			
WL STA.	APPURTENANCE	NORTHING	EASTING
WL STA. 0+00	CONNECT TO EX. 8" PUBLIC WATER	562473.73	1328102.92
WL STA. 0+12	8" VALVE	562462.48	1328096.72
WL STA. 2+09.09	8" - 1/8 HOR. BEND	562277.90	1328029.81
WL STA. 2+58.41	8" - 1/8 HOR. BEND	562257.43	1327984.94
WL STA. 2+74.24	8"X6" TEE, 6" VALVE, 6" FH	562251.43	1327966.33
WL STA. 2+84.24	8"X4" TEE	562236.69	1327977.20
WL STA. 2+89.24	8" CAP AND BUTTRESS	562232.01	1327975.45

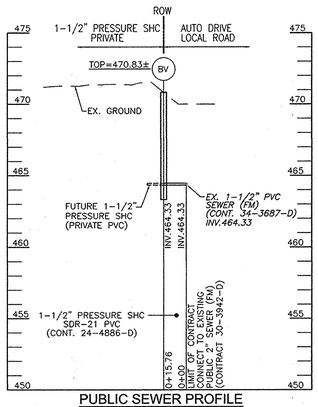
LEGEND:

- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING LIGHT POLE WITH CONCRETE BASE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- SS — EXISTING SANITARY LINE
- CO — EXISTING CLEANOUT
- FH — EXISTING FIRE HYDRANT
- W — EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- X — EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE



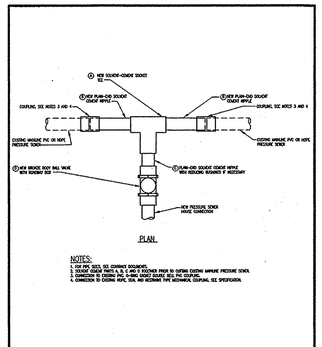
PUBLIC 8" WATER PROFILE

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



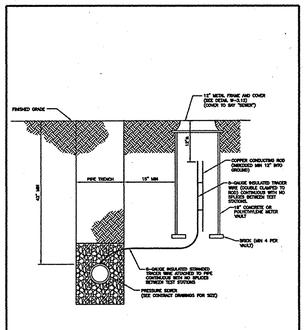
PUBLIC SEWER PROFILE

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



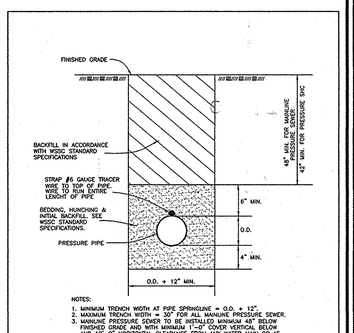
NOTES:
1. SEE DETAILS FOR ADDITIONAL INFORMATION.
2. CONTRACTOR TO VERIFY ALL LENGTHS AND FITTINGS PRIOR TO CUTTING EXISTING WATERLINE PRESSURE SEWER.
3. CONNECTION TO EXISTING PVC, 6-INCH CAST/DUCTILE IRON SEE PVC COUPLING.
4. CONNECTION TO EXISTING PVC, SEE AND DETERMINE TYPE MECHANICAL COUPLING, SEE SPECIFICATION.

Howard County, Maryland Department of Public Works	PRESSURE SEWER Connection to Main	Detail S-4.16



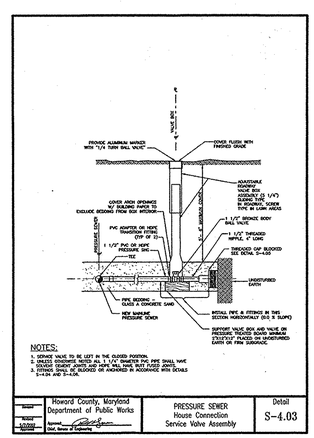
NOTES:
1. FOR LOCATIONS ALONG PRESSURE SEWER ALIGNMENT, SEE S-4.21.
2. SEE S-4.21 FOR OTHER CONTRACT TEST SECTION INFORMATION.
3. NO SPLICES BETWEEN TEST SECTIONS UNLESS APPROVED BY HOWARD COUNTY. LOCATION SPLICES APPROVED BY THE COUNTY SHALL CONSIST OF A BRASS COUPLING WITH THREADED PLUGS, ADAPTERS, AND VALVE BOXES. THE COUPLING SHALL BE CENTER OF-SIZE BRASS IN WHICH TO ATTACH THE CONTRACTOR'S TEST EQUIPMENT.

Howard County, Maryland Department of Public Works	PRESSURE SEWER Tracer Wire, Conducting Rod & Vault	Detail S-4.18



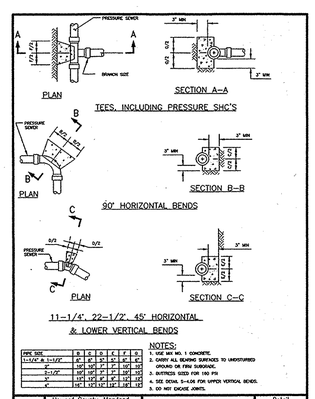
NOTES:
1. MINIMUM TRENCH WIDTH AT PIPE SPRINGLINE = O.D. + 12".
2. MAXIMUM TRENCH WIDTH = 30" FOR ALL MAINLINE PRESSURE SEWER.
3. MAINLINE PRESSURE SEWER TO BE INSTALLED MINIMUM 48" BELOW FINISHED GRADE AND WITH MINIMUM 1'-0" COVER VERTICAL BELOW ANY TRENCH OR GRADE DISTURBANCE, 10'-0" HORIZONTAL FROM WATER MAIN OR AS INDICATED IN THE DRAWINGS, SEE PS/1.61 FOR PRESSURE SEWER HOUSE CONNECTION DEPTH AND CLEARANCES.
4. MAINLINE PRESSURE SEWER SHALL HAVE MINIMUM CLEARANCE OF 1'-0" BELOW MAIN AT CROSSINGS.
5. WHEN CLEARANCES REQUIRED IN NOTES 3 & 4 CANNOT BE MET, ENCASE ALL PRESSURE JOINTS WITHIN 10' OF WATER MAIN WITH CONCRETE, MIN. 4" THICK AND AT LEAST 18" EACH SIDE OF JOINT.

WASHINGTON SUBURBAN SANITARY COMMISSION	STANDARD DETAIL PRESSURE SEWER, HOUSE CONNECTION TRENCH & BEDDING DETAIL	PS 1.0



NOTES:
1. DEBONDED VALVE TO BE LEFT IN THE CLOSED POSITION.
2. UNLESS OTHERWISE NOTED, ALL 1-1/4" SHRINKTUBE PVC PIPE SHALL HAVE 1-1/2" SCHEDULE 40 PVC FITTINGS AND 1-1/2" BRONZE BODY BALL VALVES.
3. FITTINGS SHALL NOT BE BLOCKED OR UNDERMINED IN ACCORDANCE WITH DETAILS S-4.04 AND S-4.05.

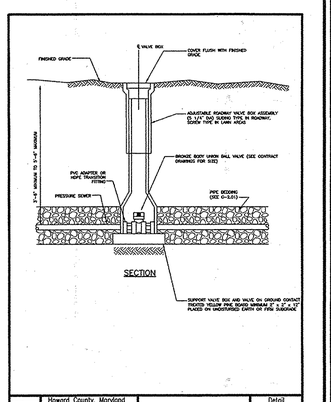
Howard County, Maryland Department of Public Works	PRESSURE SEWER House Connection Service Valve Assembly	Detail S-4.03



PIPE SIZE	B	C	D	E	F	G
11-1/4° & 22-1/2°	4"	8"	3"	5"	12"	18"
4"	10"	10"	7"	7"	18"	18"
6"	12"	12"	8"	8"	18"	18"
8"	14"	14"	9"	9"	18"	18"
10"	16"	16"	10"	10"	18"	18"
12"	18"	18"	12"	12"	18"	18"

NOTES:
1. USE 3000 PSI, 1 CONCRETE.
2. CARRY ALL BEARING SURFACES TO UNDISTURBED GROUND OR FIRM SUBGRADE.
3. BUTTRESS SIZES FOR 150 PSI.
4. SEE DETAIL S-4.06 FOR UPPER VERTICAL BENDS.
5. DO NOT ENCASE JOINTS.

Howard County, Maryland Department of Public Works	PRESSURE SEWER Blocking	Detail S-4.04



Howard County, Maryland Department of Public Works	PRESSURE SEWER In-Line Valve Installation	Detail S-4.11

OWNER/DEVELOPER

1318 COMPANY LLC
10400 AUTO PARK AVE
BETHESDA, MD 20817-1006
C/O: JIM COLEMAN
301-469-6600

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

7/16/15
CHIEF, BUREAU OF UTILITIES — DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

7-23-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

STATE OF MARYLAND — ROBERT HARRIS VOGEL — No. 16193 — REGISTERED PROFESSIONAL ENGINEER
ROBERT H. VOGEL, PE. No. 16193

PROFESSIONAL CERTIFICATE
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. 16193
EXPIRATION DATE: 09-27-2016

DRN: KG | DES: DZE
CHK: RHV
DATE: JUNE 2015

BY	NO.	REVISION	DATE

FINAL WATER & SEWER CONSTRUCTION PLAN CONTRACT 24_4886_D

600' SCALE MAP NO. 50 — BLOCK NO. 6

COLEMAN FIAT

HOLWECK SUBDIVISION PARCEL 'K-4'
12520 NEW CAR DRIVE
PARCEL 365 (L. 08594 / F. 00473)
PLAT NO. 16013

TAX MAP 34 BLOCK 06
2ND ELECTION DISTRICT

ZONED: B-2
LOT: PARCEL K-4
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 2 OF 2

SDP-15-004

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