

# KNOX LANDING II LOTS 1-5 AND OPEN SPACE LOTS 6-7 CONTRACT NO. 24-4896-D

QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUF./SUPPLIER
6" PVC C900 DR-18 WATER	303 LF	303	C900 PVC	North American Pipe
6"x6" TS&V	1 EA	1	M.J.	Mueller
1.5" WHC	70 LF	70	Copper	Mueller
1" METER VAULT	5 EA	5	Concrete	Horne
FIRE HYDRANT WITH VALVE	1 EA	1	6" Bury	Mueller
8" PVC SDR-35 SEWER	301 LF	301	SDR 35 PVC	North American Pipe
MANHOLES	3 EA	3	Concrete	Cast. Precast Corp
4" SHC	50 LF	48.6	4" SDR 26 PVC	North American Pipe

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

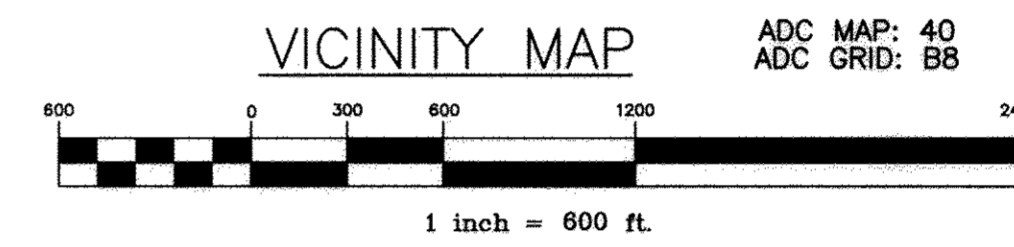
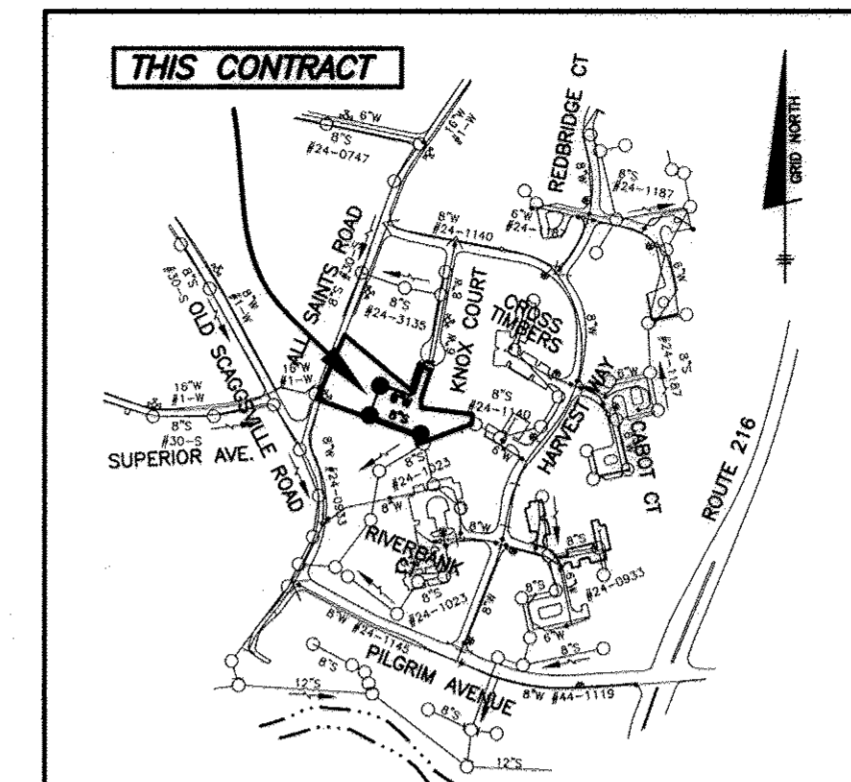
Sewer Manhole Schedule				
Manhole Number	Location (NAD 83)	Invert		Rim Elevation
		In	Out	
1	N 526833.56 E 1353296.96	215.25	215.15	222.00
2	N 526891.97 E 1353137.84	217.05	216.95	230.00
3	N 526983.59 E 1353171.47	-	218.03	230.70

Water Appurtenance Schedule				
No.	Appurtenance	WL Station	Location (NAD '83)	
A	6"x6" TAPPING SLEEVE & VALVE	3+73 (EX) = 0+00	N 527074.98	E 1353337.05
B	1/8" HORIZONTAL BEND	0+16.5	N 527078.10	E 1353320.81
C	1/8" HORIZONTAL BEND (ROTATE 2°)	0+23.6	N 527073.91	E 1353314.82
D	1/32" HORIZONTAL BEND	0+41.0	N 527057.02	E 1353311.67
E	1/8" HORIZONTAL BEND (ROTATE 2°)	1+42.8	N 526981.33	E 1353277.48
F	1/8" HORIZONTAL BEND	1+58.9	N 526954.30	E 1353252.88
G	1/8" HORIZONTAL BEND	2+39.8	N 526882.18	E 1353186.93
H	1/8" HORIZONTAL BEND	2+46.8	N 526879.20	E 1353180.51
I	6" PLUG AND BUTTRISS	3+03.4	N 526926.09	E 1353161.02
J	6"x6" FITTEE & VALVE	1+47.6	N 526951.17	E 1353272.79

BENCH MARKS (NAD83)	
HO. CO. No. 47GD	ELEV. 312.32'
NEAR 9028 OLD SCAGGSVILLE ROAD	6 FEET FROM FIRE HYDRANT
33.9 FEET FROM BGE 315258	
N 530494.447	E 1350872.301
HO. CO. No. 47GE	ELEV. 335.756'
BY 9160 OLD SCAGGSVILLE ROAD	19.8 FEET FROM WATER METER
76.5 FEET FROM BGE 31000	
N 528044.964	E 1350854.953

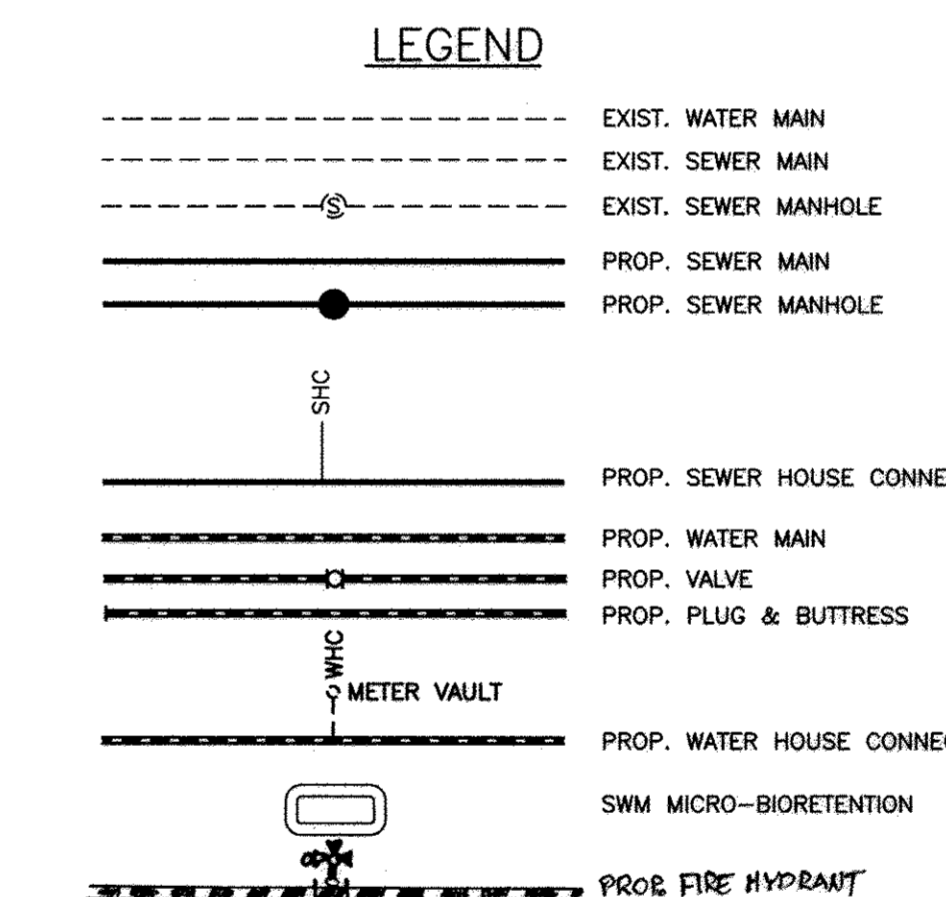
## GENERAL NOTES

- ### 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.
  - TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED IN DECEMBER, 2013 BY BENCHMARK ENGINEERING, INC.
  - HORIZONTAL AND VERTICAL SURVEY CONTROLS:
    - THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD 83/91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 47GD AND NO. 47GE.
    - ALL VERTICAL CONTROLS ARE BASED ON NAVD 88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE 0012 AND 16E1.
  - 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 THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
  - FOR DETAILS NOT SHOWN ON THE DRAWING, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
  - WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL AT THE LOCATIONS OF THE TEST PITS. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN 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).....410-637-8713
    - BGE (EMERGENCY).....410-685-9123
    - BUREAU OF UTILITIES.....410-313-4900
    - COLONIAL PIPELINE CO.....410-795-1390
    - MASS UTILITY.....1-800-257-7777
    - STATE HIGHWAY ADMINISTRATION.....410-531-5533
    - VERIZON.....1-800-743-0033
  - 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 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(c) OF THE HOWARD COUNTY CODE.

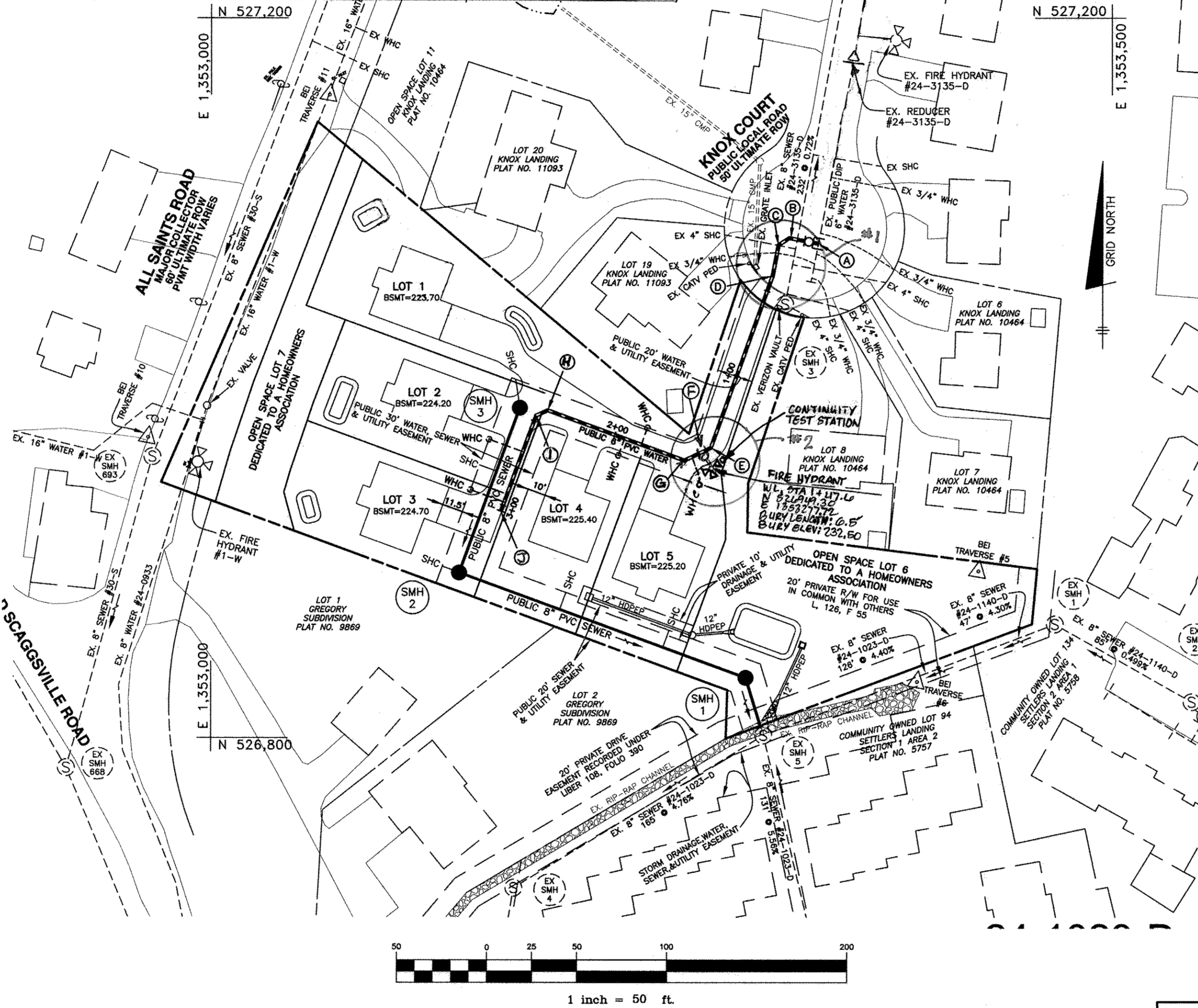
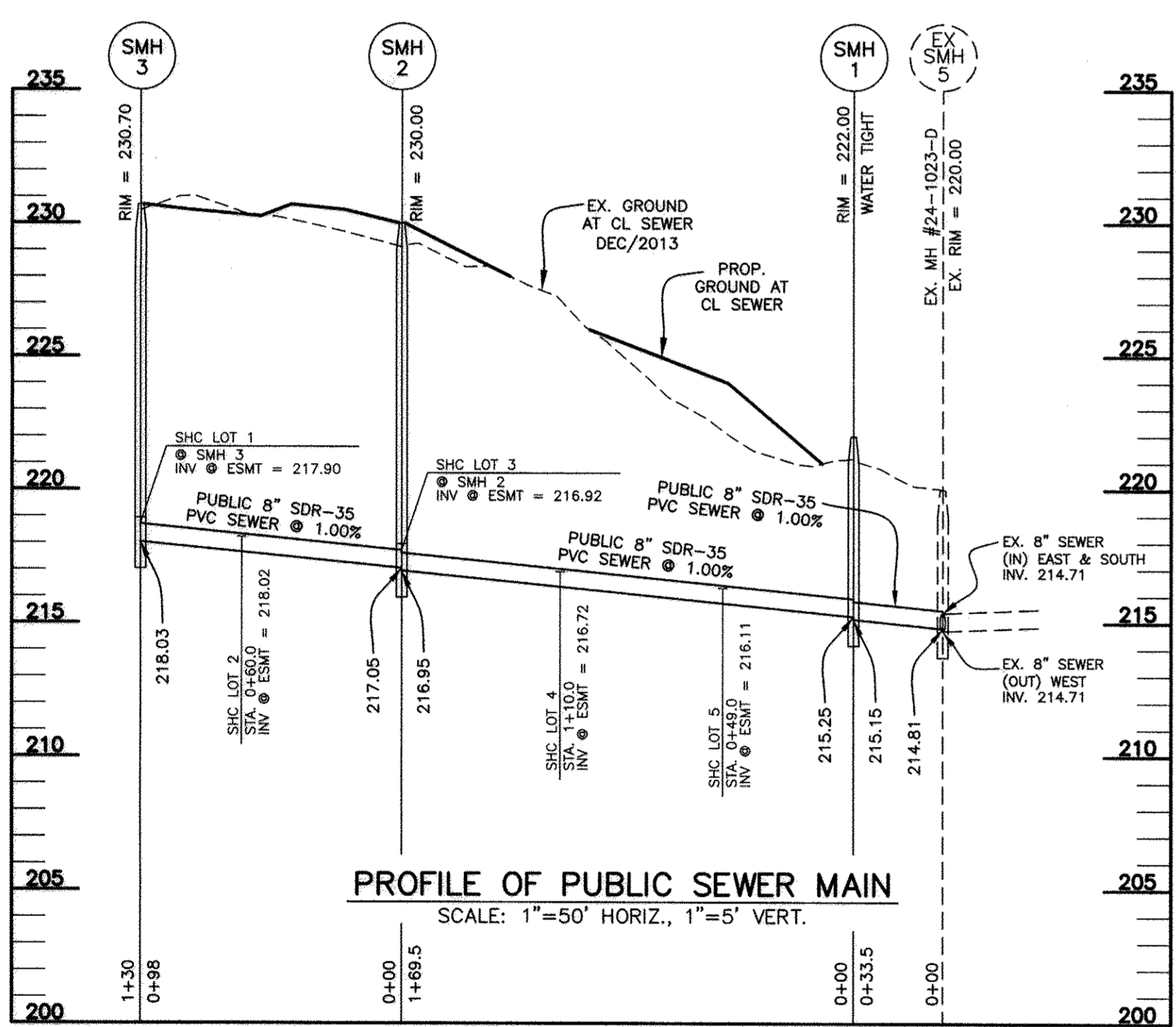
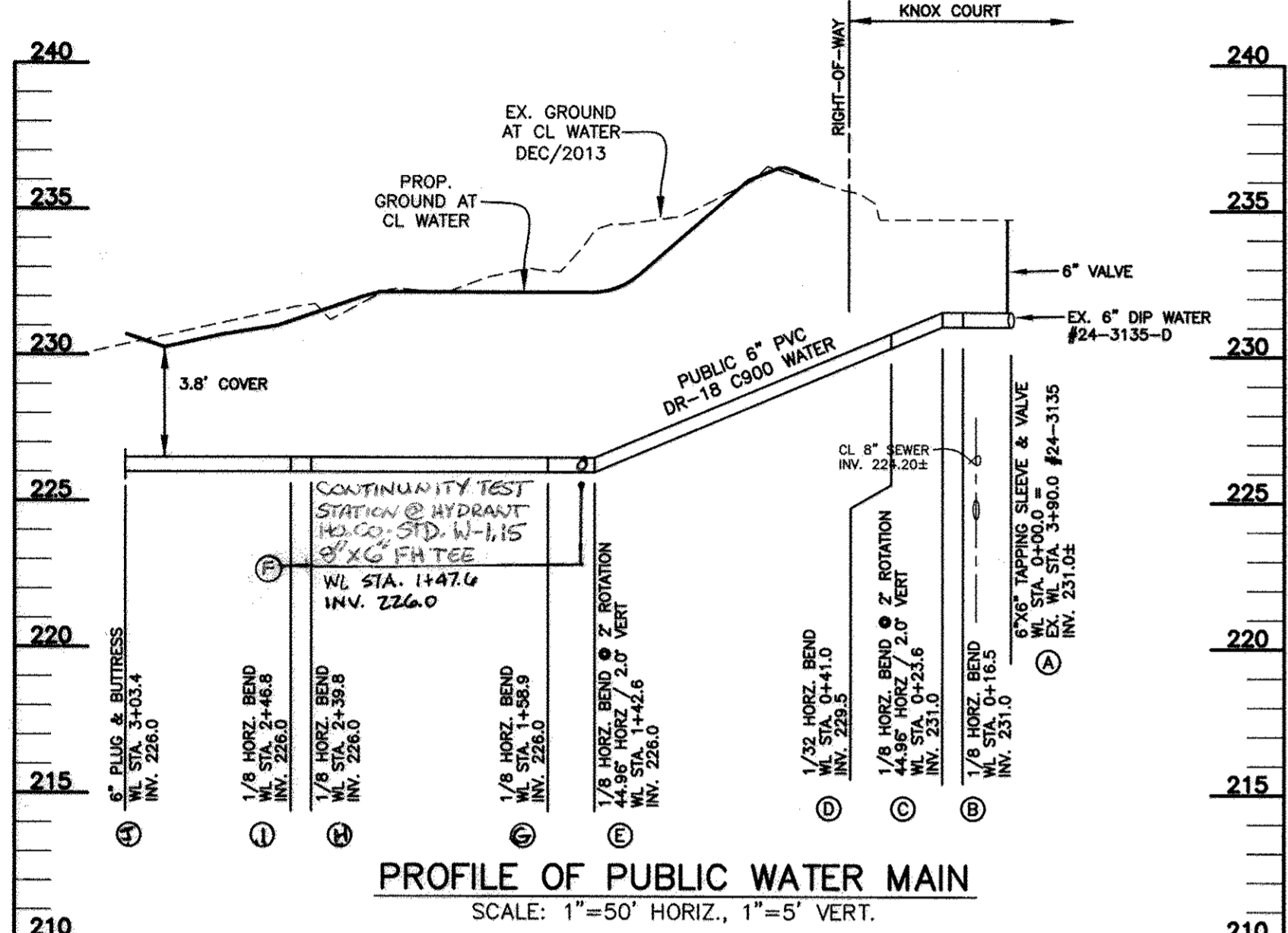
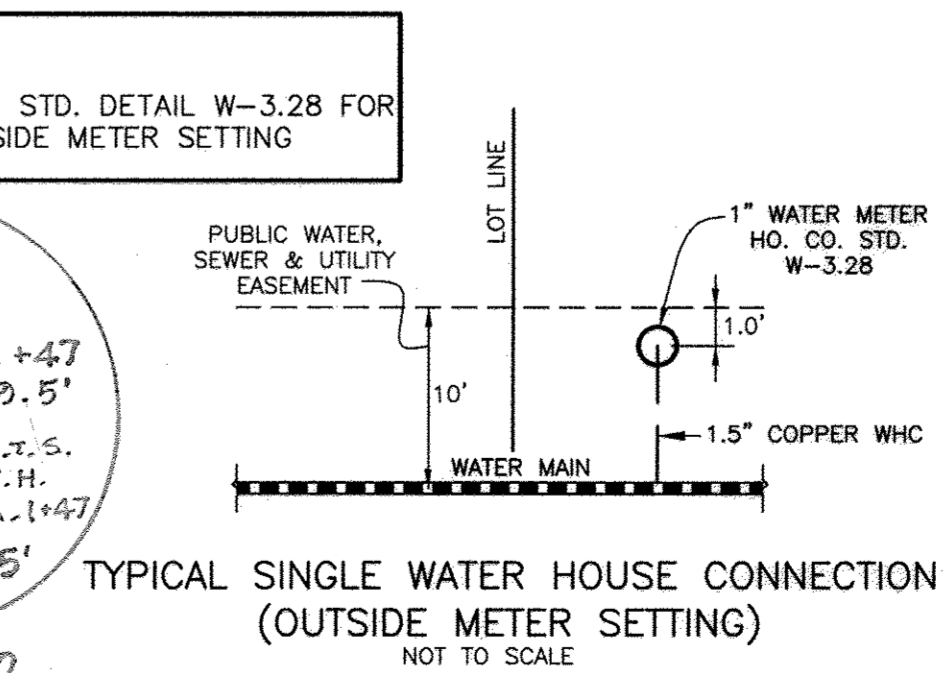


TYPE OF BUILDING:	SFD
NUMBER OF WHC'S:	5
NUMBER OF SHC'S:	5
DRAINAGE AREA:	LITTLE PATUXENT
TREATMENT PLANT:	LITTLE PATUXENT WRP
WATER ZONE:	400
TEST GRADIENT:	550

FILE REFERENCES: ECP-14-054, WP-14-123, F-15-049



**NOTE:**  
ALL WATER HOUSE CONNECTIONS ARE TO BE 1.5" WITH A 1" METER (OUTSIDE SETTING).  
ALL SEWER HOUSE CONNECTIONS SHALL BE 4" PVC.



SHC CHART			
Lot Number	Invert @ main	Invert @ RWV or esmt line	Minimum Cellar Elevation
1	217.70	217.90	222.28
2	217.82	218.02	221.88
3	216.72	216.92	220.78
4	216.52	216.72	220.38
5	216.91	216.11	219.89

LOT FRONT DIMENSION CHART	
LOT DIMENSION	FEET
1	5.74'
2	5.38'
3	5.14'
4	4.97'
5	4.87'

WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE			
LOT	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
1	KNOX COURT	2.0' TO LOT 4 WHC	4.0' TO LOT 5 WHC
2	KNOX COURT	2.9' TO SMH-3	14.5' TO LOT 2 SHC
3	KNOX COURT	14.9' TO LOT 2 SHC	14.5' TO SMH-2
4	KNOX COURT	4.3' TO LOT 5 WHC	2.0' TO LOT 1 WHC
5	KNOX COURT	10' TO F.H. @ STA. 1+47	17' TO 6" VALVE @ STA. 1+47

SEWER HOUSE CONNECTION AS-BUILT LOCATION TABLE			
LOT	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
1	KNOX COURT	27' TO LOT 2 WHC	14' TO SMH-2
2	KNOX COURT	14.5' TO LOT 2 WHC	14.5' TO LOT 3 WHC
3	KNOX COURT	12' TO SMH-2	4.5' TO LOT 3 WHC
4	KNOX COURT	64' TO SMH-2	74' TO LOT 3 SHC
5	KNOX COURT	60' TO SMH-1	12' TO LOT 1 (STORM DRAIN)

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

HOWARD SOIL CONSERVATION DISTRICT \_\_\_\_\_ DATE \_\_\_\_\_

## AS-BUILT

By *[Signature]* Date *7/27/14*

OWNER/DEVELOPER:  
CORNERSTONE HOLDINGS, L.L.C.  
11807 WOLLINGFORD COURT  
CLARKSVILLE, MARYLAND 21029  
410-792-2565

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. 23390. Expiration Date: 6-30-2017.

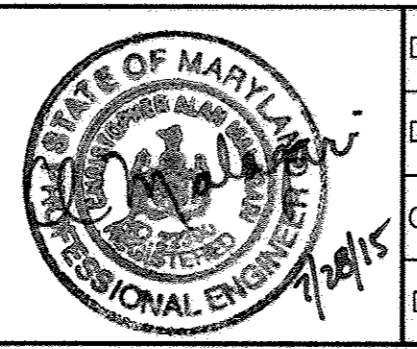
DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*[Signature]*  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*[Signature]*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**BENCHMARK**  
ENGINEERS & LAND SURVEYORS & PLANNERS  
**ENGINEERING, INC.**  
8480 BALTIC NATIONAL PIKE SUITE 318 A BELLOTT CITY, MARYLAND 21043  
(410) 465-5500 (410) 465-8844  
WWW.BE-CIVILENGINEERING.COM



DES:	DBT		
DRAFT:	DBT		
CHK:	CAM		
DATE:	8/2015		

PUBLIC WATER AND SEWER PLAN,  
PROFILES, NOTES AND DETAILS

600 SCALE MAP # \_\_\_\_\_

**KNOX LANDING II**  
LOTS 1-5 AND OPEN SPACE LOTS 6-7

TAX MAP: 50 - BLOCK: 2 - PARCEL: 75 AND 258 - ZONED: R-SC - ELECTION DISTRICT: 6

**CONTRACT NO. 24-4896-D**

SCALE: AS SHOWN  
SHEET NO. 1 OF 1