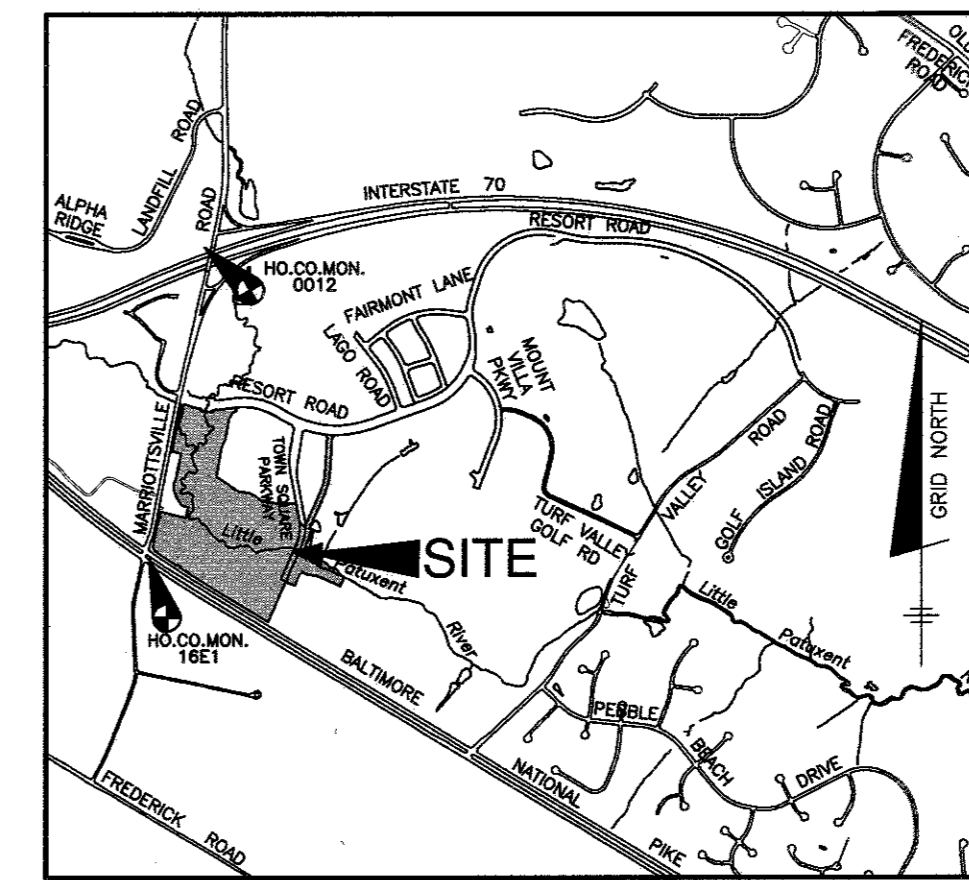


QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUF./SUPPLIER
8" PVC C900 DR-18 WATER FIRE HYDRANTS (INCLUDES 8"x6" TEE & 6" VALVE)	2 EA	2 EA	DIP	MULLER/FERGUSON
8" VALVE	1 EA	1 EA	DIP	MULLER/FERGUSON
8" DIP CLASS 52 SEWER	170 LF	170 LF	DIP	McWANE/FERGUSON
16" DIP CLASS 52 SEWER	130 LF	130 LF	DIP	McWANE/FERGUSON
16" DIP CLASS 54 SEWER	160 LF	160 LF	DIP	McWANE/FERGUSON
36" STEEL CASING PIPE MANHOLES	2 EA	2 EA	STEEL CONCRETE CONTRACTORS PRECAST	OLEFIELD PIPELINES/FERGUSON

NAME OF UTILITY CONTRACTOR: UTILITIES UNLIMITED  
 SURVEY AND DRAFTING DIVISION AS-BUILT DATE: 8-29-16

# TOWN SQUARE PARKWAY CONTRACT NO. 24-4891-D



VICINITY MAP  
SCALE: 1" = 2000'

## 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 JANUARY, 2006 BY WINGS AERIAL MAPPING CO., 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. 0012 AND NO. 16E1.
  - 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.
  - REMOVE 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 MADE 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:  

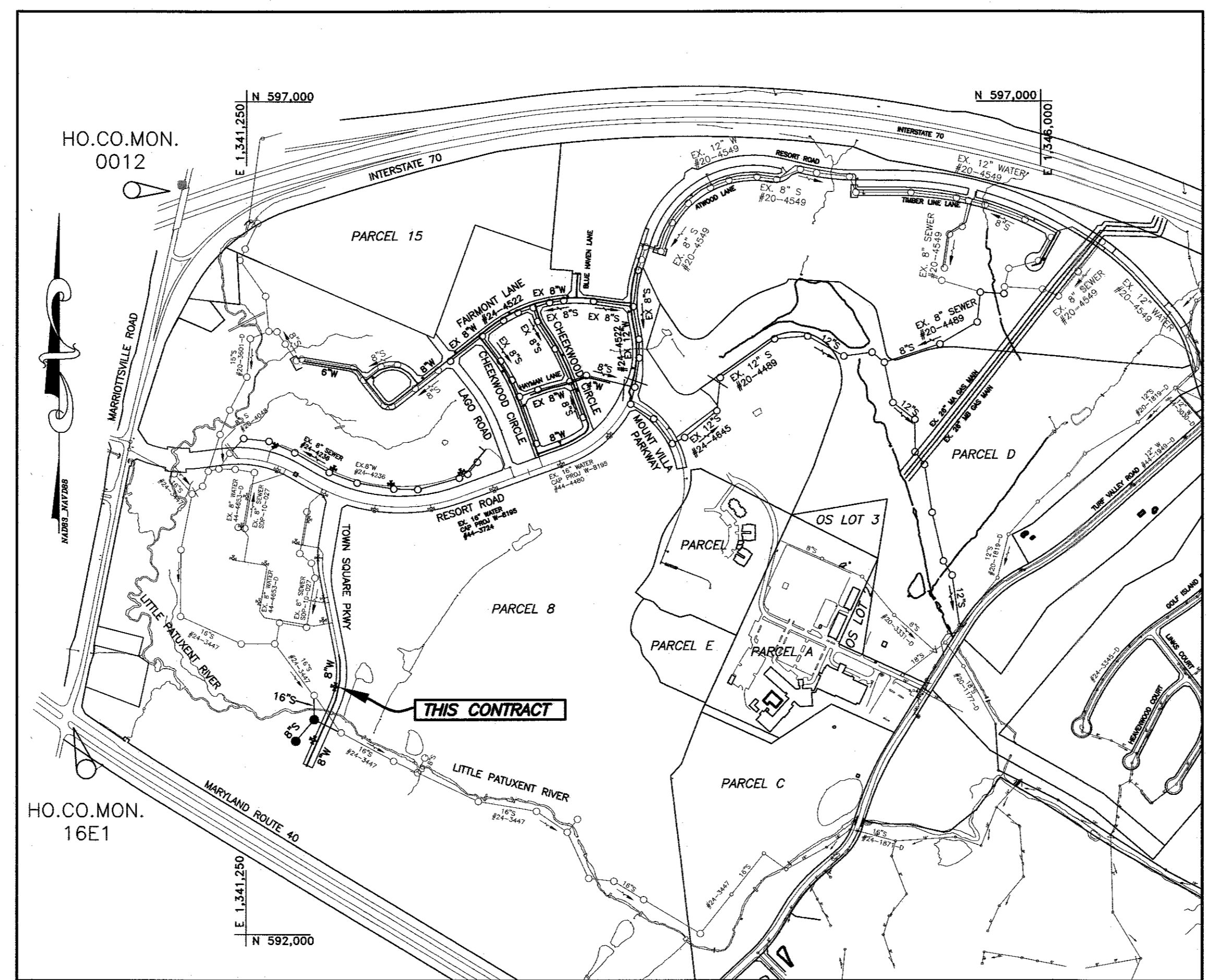
AT&T	1-800-252-1133
BGE (CONTRACTOR SERVICES)	410-637-8713
BGE (EMERGENCY)	410-685-0123
BUREAU OF UTILITIES	410-313-4900
COLONIAL PIPELINE CO.	410-789-1390
MESS UTILITY	410-257-7777
STATE HIGHWAY ADMINISTRATION	410-531-5533
VERIZON	1-800-743-0033
  - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO 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(j) OF THE HOWARD COUNTY CODES.

### LEGEND

	EXIST. WATER MAIN
	EXIST. SEWER MAIN
	EXIST. SEWER MANHOLE
	EXIST. STORM DRAIN
	PROP. WATER MAIN
	PROP. SEWER MAIN
	PROP. STORM DRAIN (BY OTHERS)
	PROP. SEWER MANHOLE
	PROP. TERMINAL MANHOLE
	PROP. FIRE HYDRANT
	PROP. VALVE
	PROP. PLUG & BUTTRESS

### SEQUENCE OF CONSTRUCTION

- NOTIFY SEDIMENT CONTROL DIVISION 48 HOURS PRIOR TO START OF WORK
- Obtain grading permit. (day 1)
  - Hold on-site pre-construction meeting. (day 2)
  - Clear and Grub as necessary to install stabilized construction entrance and perimeter controls as shown under F-15-056. (super silt fence, diversion dikes, etc.) (day 3-6)
  - Upon approval from the Howard County sediment control inspector, begin installation of the new sewer line. Begin by installing SMH 15A and the sewer main from SMH 15A to EX SMH 15. Do NOT remove the existing main at this time. Existing sewer is to remain in place and functional. (day 7-9)
  - Once Step 4 is complete begin to install the sewer from SMH 15A up towards the stream channel and from EX SMH 16 towards the stream channel. Stop the sewer one section short of the top of the stream channel. (day 10-11).
  - Install the temporary stream diversion (Option #1 or Option #2) as shown on sheet 13 of F-15-056. Once installed, begin to install final section(s) of sewer to make the connection. Backfill, and install 12" rip-rap per Detail S-3.12. The temporary stream diversion and construction of final section of sewer shall be accomplished within a 24 hour period. (day 12).
  - Once new sewer line is in place, abandonment of the existing sewer can take place. This shall be accomplished by utilizing a masonry plug (in lieu of a mechanical plug) a minimum of 12" into the abandoned pipe. All space around the pipeline behind the plug shall be filled/consolidated by non-shrink grout or 2,500 psi concrete. (day 13-14).
  - Stabilize any remaining disturbed areas in accordance with the permanent seedbed notes. Note that all perimeter sediment controls shall remain in place until all site construction is complete. See S.O.C. on F-15-056. (day 15)



BENCH MARKS  
HORIZONTAL: MARYLAND NAD83  
VERTICAL: NAVD88

VICINITY MAP  
SCALE: 1" = 600'

HO. CO. #0012	STAMPED DISC SET ON TOP OF 3" DEEP CONCRETE MONUMENT AT NORTHWEST CORNER OF MARRIOTTVILLE ROAD AND I-70 10.6' FROM X-CUT IN TOP OF GUARDRAIL POST.	N 596502.760 E 1340864.370	ELEV. 486.298'
HO. CO. #16E1	STAMPED DISC SET ON TOP OF 3" DEEP CONCRETE MONUMENT AT MIDDLE OF ROUTE 40 AT INTERSECTION WITH MARRIOTTVILLE ROAD 8.6' FROM E/P OF EAST BOUND LANES.	N 593250.980 E 1340192.700	ELEV. 463.981'

TYPE OF BUILDING:	NA
NUMBER OF SHC'S:	0
DRAINAGE AREA:	LITTLE PATUXENT WRP
TREATMENT PLANT:	ROUTE 108 PS
WATER ZONE:	630W
TEST GRADIENT:	780

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

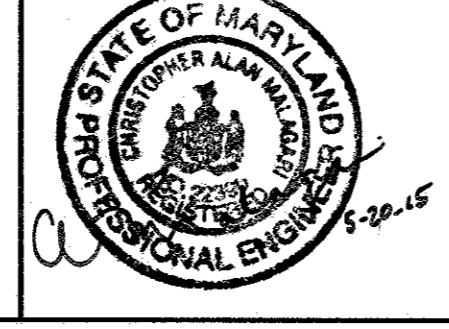
*John K. Robertson* 6/12/15  
HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER F-15-056.

OWNER/DEVELOPER:  
MANGIONE ENTERPRISES OF TURF VALLEY, LP  
1205 YORK ROAD, PENTHOUSE  
LUTHERVILLE, MARYLAND 21093  
410-825-8400

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. 22390. Expiration Date: 6-30-2015.

**BENCHMARK**  
ENGINEERS & LAND SURVEYORS & PLANNERS  
**ENGINEERING, INC.**  
8480 BALTIMORE NATIONAL PIKE & SUITE 315 & BILLCOTT CITY, MARYLAND 21043  
(P) 410-485-6105 (F) 410-485-9644  
WWW.BE-CIVILENGINEERING.COM



DES:	DBT						
DRAFT:	DBT						
CHK:	CAM						
DATE:	4/2015	BY	NO.	REVISIONS	DATE	600 SCALE MAP #16	BLOCK: 11&17

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN AND PROFILE VIEW OF PUBLIC WATER & SEWER MAINS

**AS BUILTS**  
BY: DFI DATE: 8-29-16

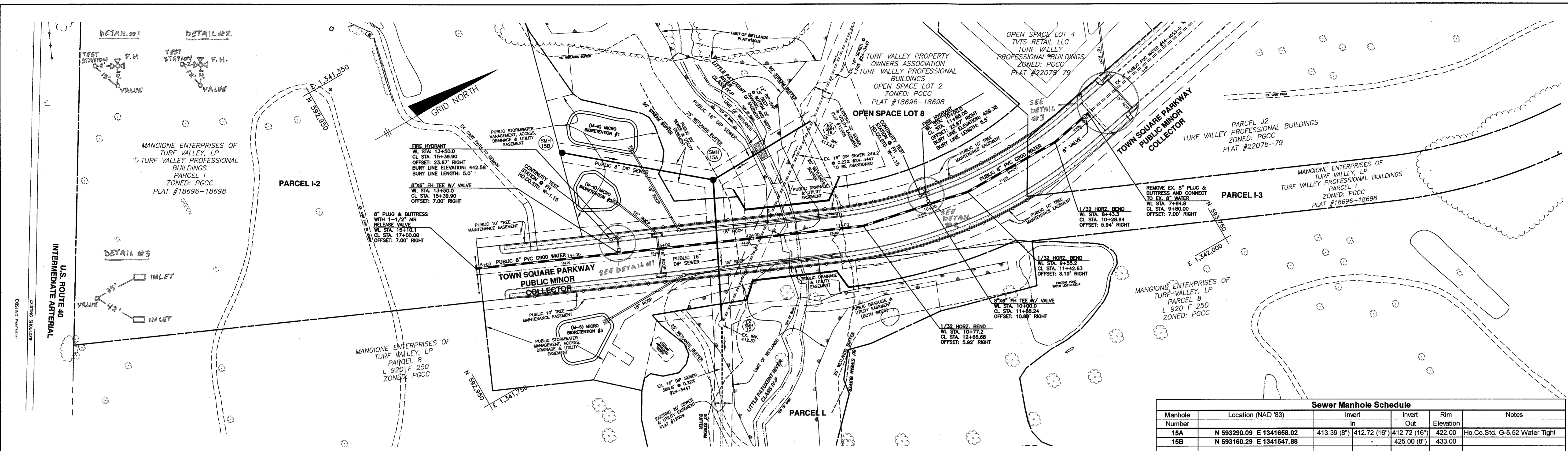
## TITLE SHEET

**TOWN SQUARE PARKWAY**  
PARCELS I-2, I-3, I-4 & K-1 AND OPEN SPACE LOTS 6 THRU 8  
A RESUBDIVISION OF OPEN SPACE LOT 2 AND PARCELS I & K PREVIOUSLY RECORDED AS PLAT 18696-18698 AND OPEN SPACE LOTS 4 & 5 PREVIOUSLY RECORDED AS PLAT 22078-22079

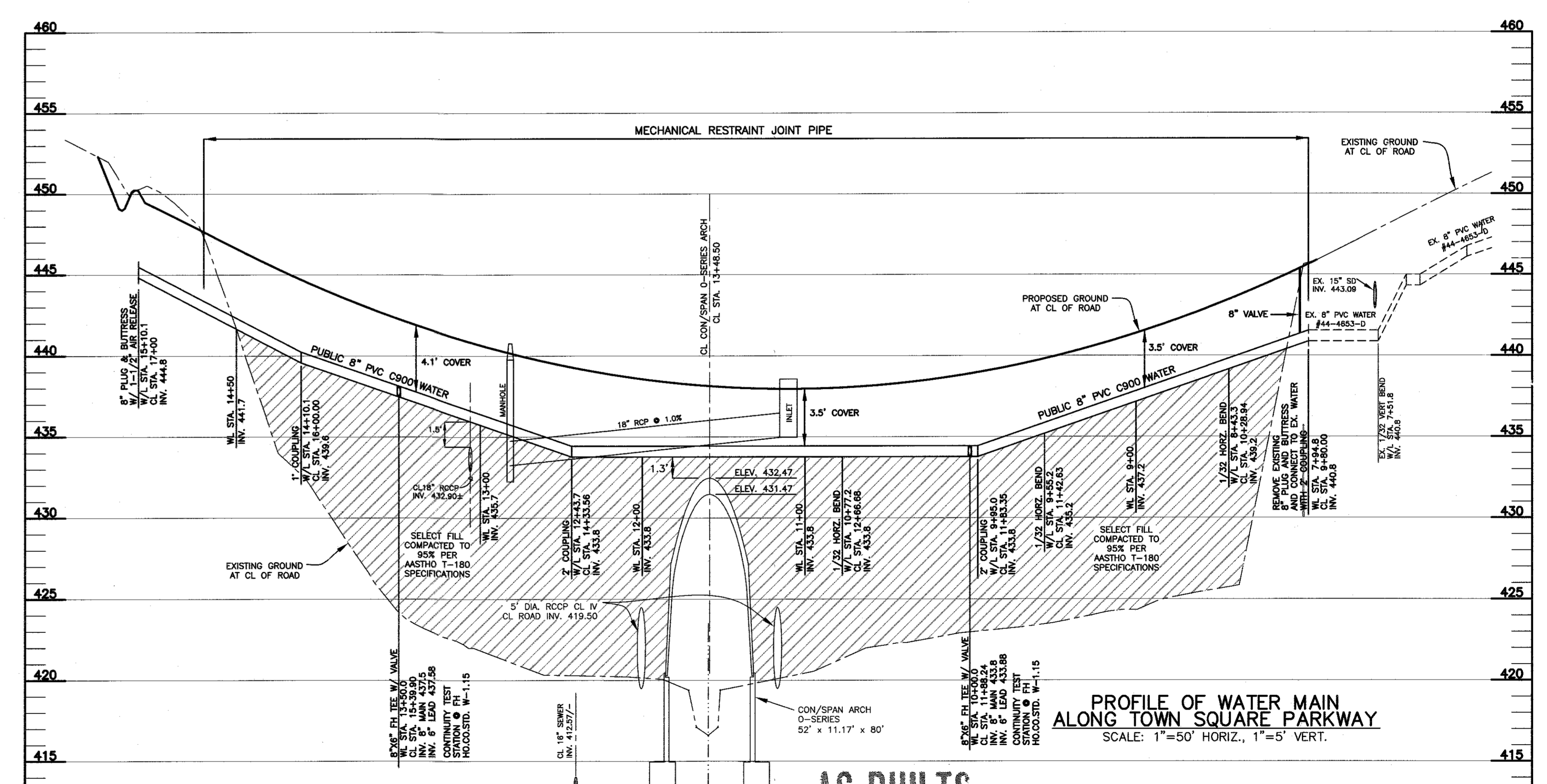
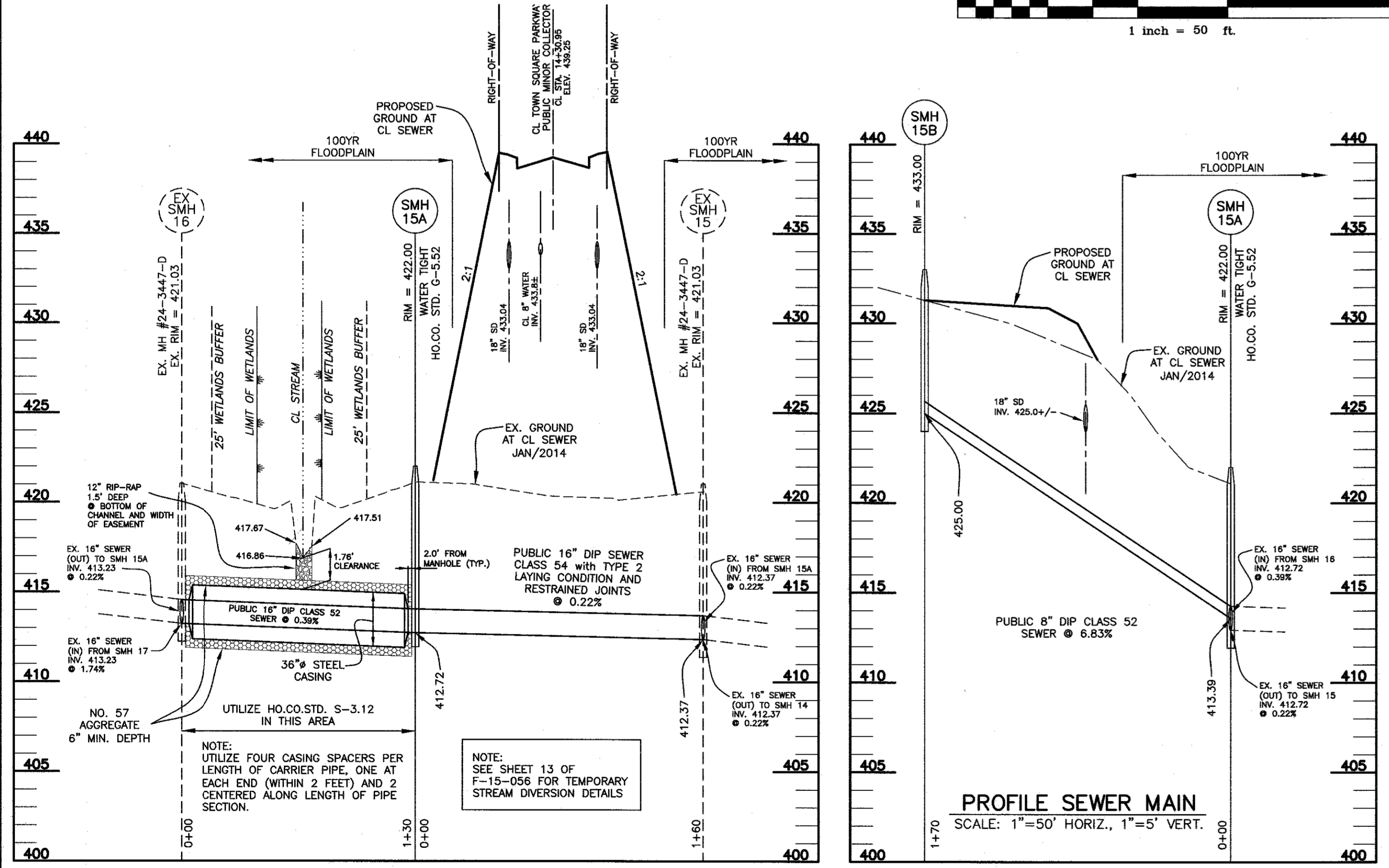
TAX MAP: 16 - BLOCK: 17 - PARCEL: P/O 8 - ZONED: PGCC - ELECTION DISTRICT: 3

**CONTRACT NO. 24-4891-D**

SCALE: AS SHOWN  
SHEET NO. 1 OF 2



Sewer Manhole Schedule					
Manhole Number	Location (NAD '83)	Invert In	Invert Out	Rim Elevation	Notes
15A	N 593290.09 E 1341668.02	413.39 (8")	412.72 (16")	412.00	Ho.Co.Std. G-5.52 Water Tight
15B	N 593160.29 E 1341547.88	-	425.00 (8")	433.00	



**PROFILE OF REALIGNED SEWER MAIN**  
SCALE: 1"=50' HORIZ., 1"=5' VERT.

OWNER/DEVELOPER:  
MANGIONE ENTERPRISES OF TURF VALLEY, LP  
1205 YORK ROAD, PENTHOUSE  
LUTHERVILLE, MARYLAND 21093  
410-825-8400

**PROFILE OF WATER MAIN ALONG TOWN SQUARE PARKWAY**  
SCALE: 1"=50' HORIZ., 1"=5' VERT.

**AS BUILTS**  
BY: DFI DATE: 5-29-16

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES  
DATE: 6-30-15

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 6-30-15

**BENCHMARK**  
ENGINEERS & LAND SURVEYORS & PLANNERS  
**ENGINEERING, INC.**  
9480 BALTIMORE NATIONAL PIKE SUITE 315 ELICOTT CITY, MARYLAND 21043  
(410) 410-6100 (410) 410-465-4644  
WWW.BE-CIVILENGINEERING.COM

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. 22390.

DES: DBT  
DRAFT: DBT  
CHK: CAM  
DATE: 5/2015

NO.	REVISIONS	DATE

**PLAN AND PROFILE OF PUBLIC WATER & SEWER MAIN**

600 SCALE MAP #16  
BLOCK: 11&17

**TOWN SQUARE PARKWAY**  
PARCELS I-2, I-3, K-1, & L AND OPEN SPACE LOTS 6 thru 8  
A RESUBDIVISION OF OPEN SPACE LOT 2 AND PARCELS I & K PREVIOUSLY RECORDED AS PLAT 18696-18698, OPEN SPACE LOTS 4 & 5 PREVIOUSLY RECORDED AS PLAT 22078-79, AND PART OF UNRECORDED PARCEL 4

TAX MAP: 16 - BLOCK: 17 - PARCEL: P/O 8 - ZONED: PGCC - ELECTION DISTRICT: 3

**CONTRACT NO. 24-4891-D**

SCALE:  
AS SHOWN

SHEET NO.  
2 OF 2