

QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUF./SUPPLIER
8" PVC C900 DR-18 WATER	1429 LF	1429 L.F.	PVC	JM EAGLE / BRS
FIRE HYDRANTS (INCLUDES 8" x 8" TEE & 6" VALVE)	3 EA	3 EA	DIP	MUELLER / BRS
8" x 8" TEE	2 EA	2 EA	DIP	STAR PIPE / BRS
8" VALVE	5 EA	5 EA	DIP	MUELLER / BRS
1" METER VAULT	18 EA	18 EA	CONCRETE	HOANE CONCRETE
1-1/2" WHC	460 LF	460 L.F.	COPPER	CAMBRIDGE / BRS
8" PVC SDR-35 SEWER	1395 LF	1395 L.F.	PVC	JM EAGLE / BRS
8" DIP CLASS 52 SEWER	140 LF	140 L.F.	DIP	US PIPE / BRS
36" STEEL CASING MANHOLES	13 EA	13 EA	STEEL	TITAN/ISO'S PIPE AND STEEL CONTRACTORS PRECAST
4" SHC	832 LF	832 L.F.	PVC	DIAMOND / BRS

NAME OF UTILITY CONTRACTOR: CCS, INC.
SURVEY AND DRAFTING DIVISION AS-BUILT DATE: 6-24-16

VILLAGES AT TURF VALLEY

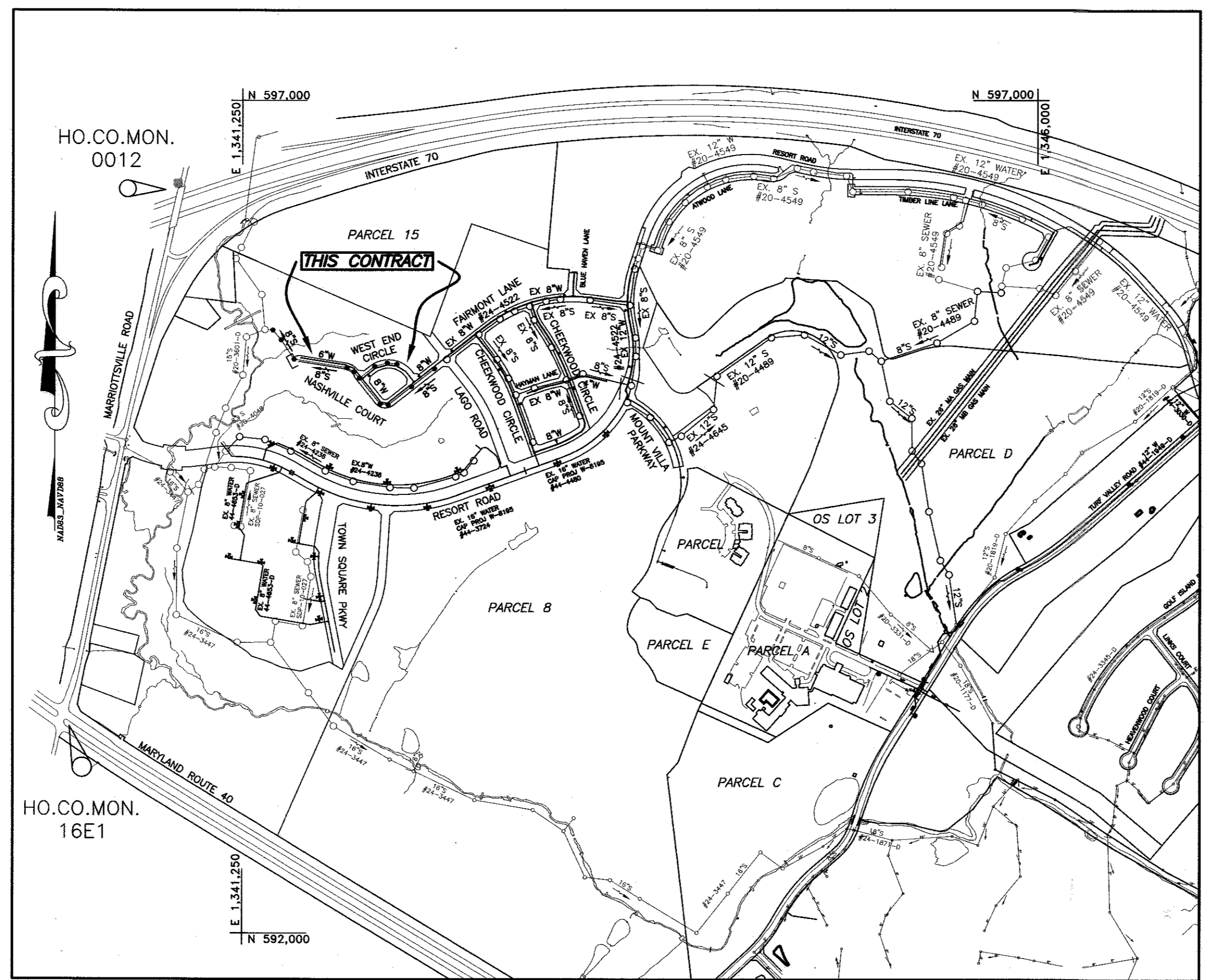
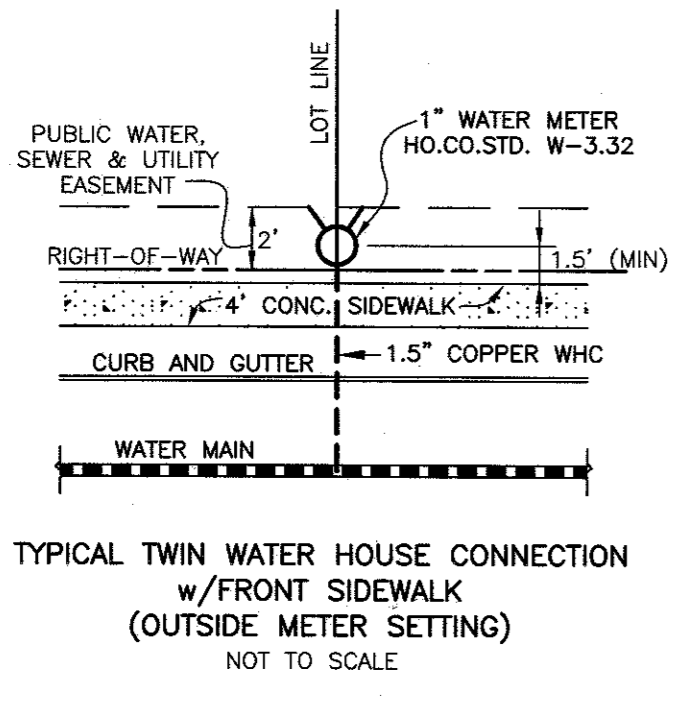
PHASE 5

CONTRACT NO. 24-4887-D

- ### 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.
 - 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 BUILT 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
BOE (CONTRACTOR SERVICES).....410-637-8713
BOE (EMERGENCY).....410-685-0123
BUREAU OF UTILITIES.....410-313-4600
COLONIAL PIPELINE CO.....410-795-1390
MISS 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(g) OF THE HOWARD COUNTY CODE.

Lot Frontage Chart

Lot Number	Distance (feet)
261	40.00
262	30.00
263	30.00
264	40.00
265	40.00
266	30.00
267	30.00
268	40.00
269	40.00
270	30.00
271	30.10
272	28.15
273	40.03
274	30.00
275	30.00
276	40.00
277	40.03
278	30.00
279	30.00
280	40.00
281	40.00
282	30.00
283	30.00
284	40.00
285	52.45
286	23.05
287	30.91
288	40.11
289	40.88
290	32.71
291	18.58
292	20.85
293	25.00
294	30.00
295	30.00
296	40.00



BENCH MARKS
HORIZONTAL: MARYLAND NAD83
VERTICAL: NAVD88

HO. CO. #0012
STAMPED DISC SET ON TOP OF 3\"/>

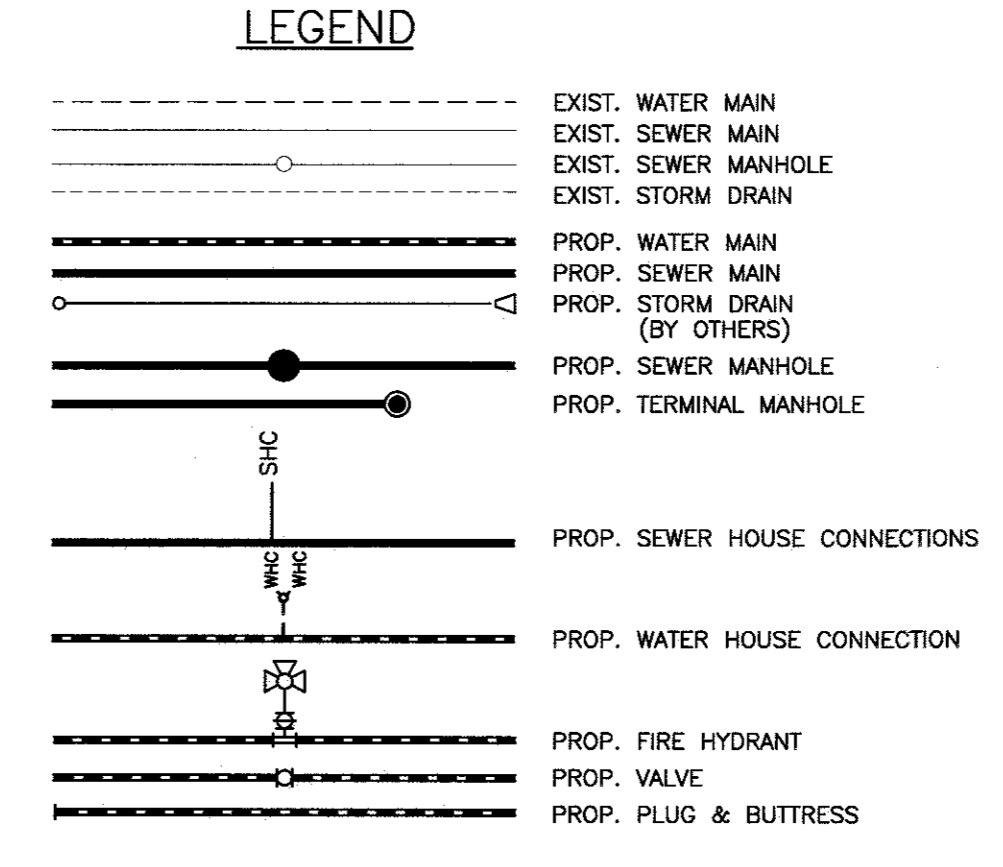
HO. CO. #16E1
STAMPED DISC SET ON TOP OF 3\"/>

TYPE OF BUILDING:	SINGLE FAMILY ATTACHED
NO. OF TWIN WATER HOUSE CONNECTIONS:	18
NO. OF SEWER HOUSE CONNECTIONS:	36
DRAINAGE AREA:	LITTLE PATUXENT WRP
TREATMENT PLANT:	ROUTE 108 PS
WATER ZONE:	630W
TEST GRADIENT:	780

NOTE:
SEE HO. CO. STD. DETAIL W-3.32 FOR TWIN OUTSIDE METER SETTING.

NOTE:
ALL WATER HOUSE CONNECTIONS SHALL BE 1.5\"/>

ALL SEWER HOUSE CONNECTIONS SHALL BE 4\"/>



- #### PART II WATER
- ALL WATER MAINS TO BE D.I.P. CLASS 54 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 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 THE 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.
 - TRACER WIRE AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL DIP AND PVC WATER MAINS IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL.
 - FOR PVC WATER MAINS, ALL RECORDS FOR THE QUALITY CONTROL AND QUALIFICATION TEST REQUIREMENTS NOTED IN SECTION 5.1 OF THE AWWA STANDARD C900 FOR PVC PRESSURE PIPE SHALL BE SUBMITTED WITH THE PIPE MATERIAL CERTIFICATIONS OR SHOP DRAWINGS PRIOR TO APPROVAL OF THE MATERIAL FOR USE. THE TEST RECORDS SHALL BE FOR THE PIPE TO BE INSTALLED UNDER THIS CONTRACT. ALL PVC PIPE SHALL CONTAIN MARKINGS TO ALLOW CROSS REFERENCING OF THE PIPE SUPPLIED TO THE TEST RECORDS RECEIVED.
 - UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS SACRIFICIAL ANODES SHALL BE INSTALLED ON ALL VALVES AND METALLIC FITTINGS USED WITH PVC WATER MAINS IN ACCORDANCE WITH VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, SEVENTEEN (17) POUND MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSSES. TWELVE (12) POUND ZINC ANODES SHALL BE INSTALLED ON ALL STAINLESS STEEL FITTINGS AND SADDLES USED WITH PVC MAINS. ALL "TEES" USED WITH PVC MAINS SHALL BE DUCTILE IRON.
 - PROPER ASSEMBLY OF GASKETED PVC PIPE JOINTS: THE MANUFACTURER'S INSERTION LINE OF GASKETED PVC PIPE JOINTS INDICATES THE MAXIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. AFTER ASSEMBLY OF THE JOINT, THE INSERTION LINE SHALL REMAIN VISIBLE. SHALL INSERTION LINES ON GASKETED PVC PIPE INDICATE THE MAXIMUM AND MINIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. THE CONTRACTOR SHALL NOT OVER INSERT OR OVER HOME THE SPIGOT INTO THE BELL OF PVC PIPE.
 - ALL CHANGES IN HORIZONTAL AND VERTICAL DIRECTION OF PVC WATER PIPE SHALL BE MADE WITH STANDARD BENDS. 5-DEGREE SWEEPS OR HIGH DEFLECTION (HD) COUPLINGS. NO BENDING OF THE PIPE OR DEFLECTING OF PVC PIPE JOINTS IS PERMITTED. WHERE HIGH DEFLECTION COUPLINGS OR 5-DEGREE SWEEPS ARE PERMITTED, THE CONTRACTOR SHALL PROVIDE ONE FULL PIPE LENGTH (20-FOOT LONG) ON EITHER SIDE OF THE HIGH DEFLECTION COUPLING OR 5-DEGREE SWEEP. THE CONTRACTOR SHALL USE A VIBRATORY PLATE COMPACTOR OR OTHER APPROVED MEANS TO THOROUGHLY COMPACT THE #57 STONE ON BOTH SIDES OF THE HIGH DEFLECTION COUPLING OR 5-DEGREE SWEEP, TAKING CARE NOT TO USE COMPACTION EQUIPMENT DIRECTLY OVER THE FITTING.
 - PVC HIGH DEFLECTION COUPLINGS SHALL BE LIMITED TO A TOTAL DEFLECTION OF 3-DEGREES (1 1/2 DEGREE ON EITHER END OF THE COUPLING). SHALL BE RATED FOR A MINIMUM 200 PSI MEETING THE REQUIREMENTS OF AWWA C900. SHALL HAVE A MINIMUM LAY LENGTH OF 8-INCHES AND SHALL HAVE CENTER STOPS. PVC HIGH DEFLECTION COUPLINGS SHALL BE CERTAINEED PVC HIGH DEFLECTION (HD) STOP COUPLINGS OR EQUAL.
 - 5-DEGREE SWEEPS SHALL BE BELL BY SPIGOT, RATED FOR A MINIMUM 225 PSI, DR18 MEETING THE REQUIREMENTS OF AWWA C900 AND SHALL BE MULTI FITTINGS (IPEX) BLUE BRUTE DR18 OR EQUAL.
 - WHEN PVC HIGH DEFLECTION COUPLINGS OR PVC 5-DEGREE SWEEPS ARE USED TO FACILITATE CHANGES IN HORIZONTAL OR VERTICAL ALIGNMENTS OF AWWA C-800 PVC PIPELINES, THE CONTRACTOR SHALL INSTALL DEPRESSOR FOR THE PREVENTION OF OVER-INSERTION OF THE PVC PIPE SPIGOTS OR PLAIN ENDS INTO THE PUSH ON BELL JOINT ON BOTH SIDES OF THE HIGH DEFLECTION COUPLINGS AND 5 DEGREE SWEEPS. BELL STOPS SHALL BE PLACED AT THE PROPER INSERTION LINE FOR THE FITTING. THE BELL STOP SHALL BE MANUFACTURED OF DUCTILE IRON AND INCORPORATE AN EXPANSION RETENTION SPRING TO ALLOW FOR PIPE EXPANSION AND CONTRACTION. THE BELL STOPS SHALL BE SERIES 5000 MEGA-STOP, AS MANUFACTURED BY EBH IRON, INC. OR APPROVED EQUAL.
- #### PART III SEWER
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
 - ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
 - FORCE MAINS SHALL BE D.I.P. ONLY.
 - MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
 - MANHOLES DESIGNATED M.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER. STANDARD DETAIL GS-52, WHERE WATERTIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

SHEET INDEX

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

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

John R. Robertson
HOWARD SOIL CONSERVATION DISTRICT

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 30B OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER F-15-079.

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: 6-30-2017.

AS BUILT
DATE: 6-24-16

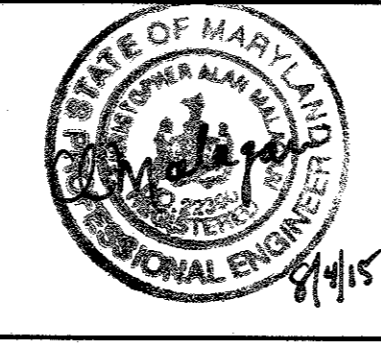
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

John K. Kelly
DATE: 9/1/15

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

John Kelly
DATE: 9-25-15

BENCHMARK ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE SUITE 315 ELLICOTT CITY, MARYLAND 21043
(P) 410-485-8105 (F) 410-485-6644
WWW.BE-CVLENGINEERING.COM



DES:	DBT				
DRAFT:	DBT				
CHK:	CAM				
DATE:	8/2015	BY	NO.	REVISIONS	DATE

TITLE SHEET

600 SCALE MAP #16

BLOCK: 11&17

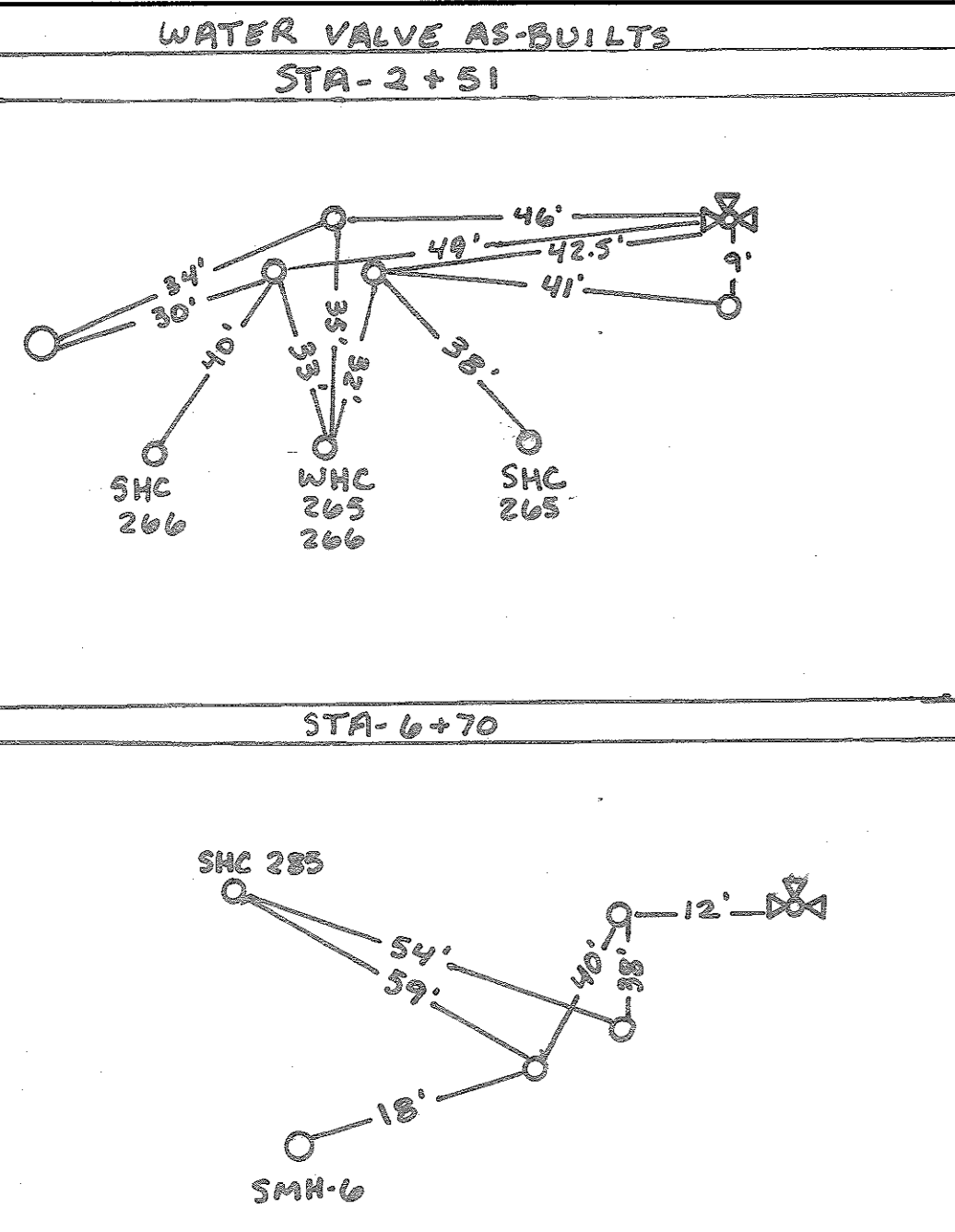
VILLAGES AT TURF VALLEY
PHASE 5
LOTS 261 thru 296; OPEN SPACE LOTS 297 thru 299; BULK PARCEL GG

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

CONTRACT NO. 24-4887-D

SCALE:
AS SHOWN

SHEET NO.
1 OF 4



LOT	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
261	NASHVILLE COURT	WMC TO SHC 261-8'	WMC TO SHC 262-28'
262	NASHVILLE COURT	WMC TO SHC 262-10'	WMC TO SHC 263-30'
263	NASHVILLE COURT	WMC TO SHC 263-9'	WMC TO SHC 264-29'
264	NASHVILLE COURT	WMC TO SHC 264-9'	WMC TO SHC 265-29'
265	NASHVILLE COURT	WMC TO SHC 265-9'	WMC TO SHC 266-29'
266	NASHVILLE COURT	WMC TO SHC 266-9'	WMC TO SHC 267-29'
267	NASHVILLE COURT	WMC TO SHC 267-9'	WMC TO SHC 268-29'
268	NASHVILLE COURT	WMC TO SHC 268-9'	WMC TO SHC 269-29'
269	NASHVILLE COURT	WMC TO SHC 269-9'	WMC TO SHC 270-29'
270	NASHVILLE COURT	WMC TO SHC 270-9'	WMC TO SHC 271-29'
271	NASHVILLE COURT	WMC TO SHC 271-9'	WMC TO SHC 272-29'
272	NASHVILLE COURT	WMC TO SHC 272-9'	WMC TO SHC 273-29'
273	NASHVILLE COURT	WMC TO SHC 273-9'	WMC TO SHC 274-29'
274	NASHVILLE COURT	WMC TO SHC 274-9'	WMC TO SHC 275-29'
275	NASHVILLE COURT	WMC TO SHC 275-9'	WMC TO SHC 276-29'
276	NASHVILLE COURT	WMC TO SHC 276-9'	WMC TO SHC 277-29'
277	NASHVILLE COURT	WMC TO SHC 277-9'	WMC TO SHC 278-29'
278	NASHVILLE COURT	WMC TO SHC 278-9'	WMC TO SHC 279-29'
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280	NASHVILLE COURT	WMC TO SHC 280-9'	WMC TO SHC 281-29'
281	NASHVILLE COURT	WMC TO SHC 281-9'	WMC TO SHC 282-29'
282	NASHVILLE COURT	WMC TO SHC 282-9'	WMC TO SHC 283-29'
283	NASHVILLE COURT	WMC TO SHC 283-9'	WMC TO SHC 284-29'
284	NASHVILLE COURT	WMC TO SHC 284-9'	WMC TO SHC 285-29'
285	WEST END CIRCLE	WMC TO SHC 285-9'	WMC TO SMH-11-43'
286	WEST END CIRCLE	WMC TO SHC 286-9'	WMC TO SMH-11-23'
287	WEST END CIRCLE	WMC TO SHC 287-9'	WMC TO SMH-12-20'
288	WEST END CIRCLE	WMC TO SHC 288-9'	WMC TO SMH-13-22'
289	WEST END CIRCLE	WMC TO SHC 289-9'	WMC TO SHC 290-35'
290	WEST END CIRCLE	WMC TO SHC 290-9'	WMC TO SMH-10-31'
291	WEST END CIRCLE	WMC TO SHC 291-9'	WMC TO SMH-10-31'
292	WEST END CIRCLE	WMC TO SHC 292-9'	WMC TO SMH-10-31'
293	WEST END CIRCLE	WMC TO SHC 293-9'	WMC TO SMH-10-31'
294	WEST END CIRCLE	WMC TO SHC 294-9'	WMC TO SMH-10-31'
295	WEST END CIRCLE	WMC TO SHC 295-9'	WMC TO SMH-10-31'
296	WEST END CIRCLE	WMC TO SHC 296-9'	WMC TO SMH-10-31'

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291	WEST END CIRCLE	SHC TO WMC 292-9'	SHC TO WMC 292-29'
292	WEST END CIRCLE	SHC TO WMC 293-9'	SHC TO WMC 293-29'
293	WEST END CIRCLE	SHC TO WMC 294-9'	SHC TO WMC 294-29'
294	WEST END CIRCLE	SHC TO WMC 295-9'	SHC TO WMC 295-29'
295	WEST END CIRCLE	SHC TO WMC 296-9'	SHC TO WMC 296-29'
296	WEST END CIRCLE	SHC TO WMC 297-9'	SHC TO WMC 297-29'

No.	Aperture	WL Station	Location (NAD '83)
WL A	1/8 Horizontal Bend	4+50.5	CL Sta. 4+45.18; Offset 4.92' Right; Nashville Court
WL B	1/8 Horizontal Bend	4+92.2	CL Sta. 4+93.28; Offset 4.92' Right; Nashville Court
WL C	1/16 Horizontal Bend	7+35.5	CL Sta. 7+37.37; Offset 7.86' Right; Nashville Court
WL D	1/16 Horizontal Bend	7+88.1	CL Sta. 7+86.55; Offset 7.86' Right; Nashville Court
WL E	1/16 Horizontal Bend	0+82.3	CL Sta. 0+89.87; Offset 3.71' Left; West End Circle
WL F	1/16 Horizontal Bend	1+43.9	CL Sta. 1+53.85; Offset 5.44' Left; West End Circle
WL G	1/16 Horizontal Bend	1+99.6	CL Sta. 2+12.24; Offset 6.46' Left; West End Circle
WL H	1/16 Horizontal Bend	2+72.3	CL Sta. 2+88.35; Offset 4.07' Left; West End Circle
WL I	8"x6" FH Tee	2+06.9	CL Sta. 1+99.88; Offset 7.00' Right; Nashville Court
WL J	8"x6" FH Tee	3+30.8	CL Sta. 3+47.27; Offset 5.00' Left; West End Circle
WL K	8"x6" FH Tee	10+50	CL Sta. 10+47.54; Offset 7.00' Right; Nashville Court
WL L	8" Plug and Butress	10+55	CL Sta. 10+52.54; Offset 7.00' Right; Nashville Court

Manhole Number	Location (NAD '83)	Invert		Rim Elevation	Howard County Standard Detail
		In	Out		
1	N 595620.31 E 1341432.04	430.95	430.85	443.50	G-5.11, G-5.12, G-5.41, G-5.52
2	N 595562.08 E 1341481.38	432.57	432.47	443.00	G-5.11, G-5.12, G-5.41, G-5.52
3	CL Sta. 11+09.94; Offset 4.01' Right; Nashville Court	435.47	435.37	446.80	G-5.11 & G-5.12
4	CL Sta. 7+87.46; Offset 6.35' Left; Nashville Court	451.38	445.10	459.87	Drop Type 'B'-1.32
5	CL Sta. 7+36.47; Offset 6.35' Left; Nashville Court	452.42	452.32	462.88	G-5.11 & G-5.12
6	CL Sta. 6+85.55; Offset 7.00' Left; Nashville Court	453.56	453.46	465.73	G-5.11 & G-5.12
7	CL Sta. 4+92.17; Offset 10.20' Left; Nashville Court	462.39	462.29	474.51	G-5.11 & G-5.12
8	CL Sta. 4+46.28; Offset 10.20' Left; Nashville Court	464.88	464.78	475.94	G-5.11 & G-5.12
9	CL Sta. 2+75.04; Offset 7.00' Left; Nashville Court	470.20	470.10	481.70	G-5.11 & G-5.12
10	CL Sta. 1+00.00; Offset 7.00' Left; Nashville Court	NA	474.58	487.38	G-5.11 & G-5.12
11	CL Sta. 2+87.35; Offset 8.13' Right; West End Circle	458.30	458.20	469.97	G-5.11 & G-5.12
12	CL Sta. 2+12.51; Offset 5.78' Right; West End Circle	461.91	461.81	473.47	G-5.11 & G-5.12
13	CL Sta. 1+56.28; Offset 6.31' Right; West End Circle	NA	463.65	475.94	G-5.11 & G-5.12

Note: Location for manholes is at the center of the manhole lid.

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: 6-30-2017.

BENCHMARK ENGINEERING, INC.
 ENGINEERS • LAND SURVEYORS • PLANNERS
 8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043
 (P) 410-465-8100 (F) 410-465-8644
 WWW.BC-ENR.COM

DESIGN: DBT
 DRAFT: DBT
 CHK: CAM
 DATE: 8/2015
 BY: NO.
 REVISIONS
 DATE: 600 SCALE MAP NO. 16
 BLOCK: 11

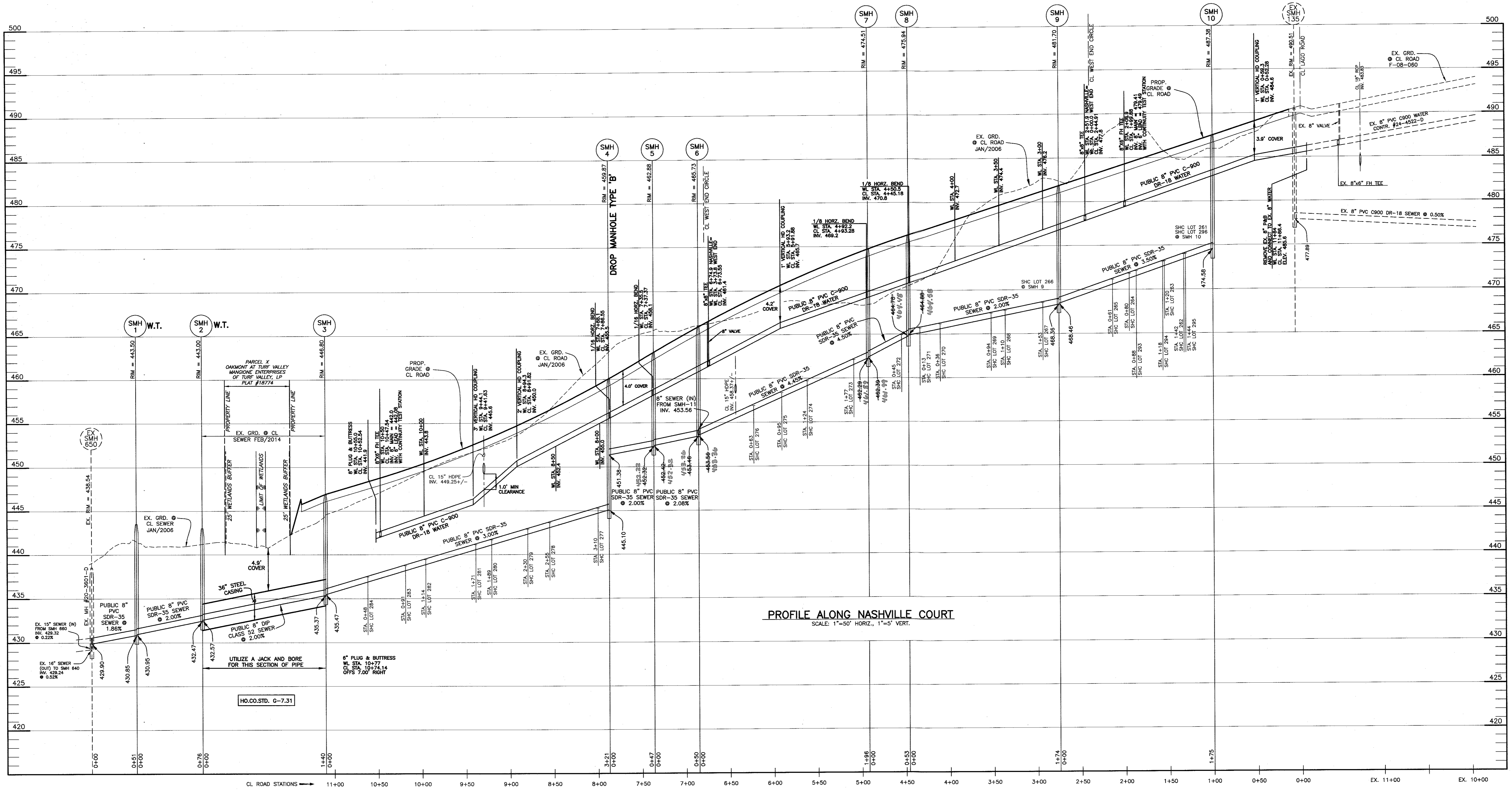
AS BUILTS
 DATE: 6-24-16
 OWNER/DEVELOPER:
 MANGIONE ENTERPRISES OF TURF VALLEY, LP
 1205 YORK ROAD, PENTHOUSE
 LUTHERVILLE, MARYLAND 21093
 410-825-8400

Lot Number	Invert @ main	Invert @ RWV or esmt line	Minimum Cellar Elevation	Basement Floor
261	474.91	475.31	479.65	481.32
262	473.60	474.00	478.34	480.65
263	472.83	473.23	477.57	479.98
264	471.43	471.83	476.17	479.31
265	470.77	471.17	475.51	478.65
266	468.69	469.09	473.43	475.98
267	468.11	468.51	472.85	475.31
268	467.25	467.65	471.99	474.64
269	466.93	467.33	471.67	474.42
270	465.77	466.17	470.51	471.75
271	465.31	465.71	470.05	471.08
272	464.69	465.01	469.35	470.41
273	461.61	462.01	466.31	467.00
274	459.22	459.62	463.92	464.33
275	457.91	458.31	462.61	464.99
276	456.48	456.88	461.18	464.32
277	444.94	445.34	449.48	452.22
278	443.29	443.69	447.83	450.98
279	442.54	442.94	447.08	449.54
280	441.31	441.71	445.85	448.20
281	440.77	441.17	445.31	448.69
282	439.06	439.46	443.80	444.35
283	438.37	438.77	442.91	443.68
284	437.08	437.48	441.62	442.34
285	435.49	435.89	440.99	443.40
286	435.61	436.01	442.71	446.07
287	434.93	435.33	442.99	446.51
288	430.27	430.67	445.31	446.41
289	431.13	431.53	446.15	446.17
290	432.32	432.72	447.78	448.24
291	433.13	433.53	448.63	449.51
292	433.98	434.38	449.80	450.18
293	434.71	435.11	450.78	451.57
294	435.59	435.99	451.75	452.24
295	437.67	438.07	453.83	454.91
296	437.91	438.31	454.27	455.18

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 DATE: 9/4/15

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
 DATE: 9-25-15

VILLAGES AT TURF VALLEY PHASE 5
 LOTS 261 thru 296; OPEN SPACE LOTS 297 thru 299; BULK PARCEL GG
 TAX MAP: 16 - BLOCK: 17 - PARCEL: P/O 8 - ZONED: PCCC - ELECTION DISTRICT: 3
CONTRACT NO. 24-4887-D
 SCALE: AS SHOWN
 SHEET NO. 2 OF 4



PROFILE ALONG NASHVILLE COURT
SCALE: 1"=50' HORIZ., 1"=5' VERT.

AS BUILT
DATE 6-24-16

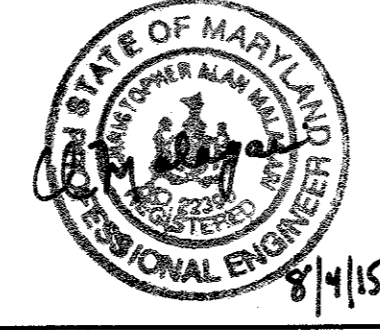
OWNER/DEVELOPER:
MANGIONE ENTERPRISES OF TURF VALLEY, LP
1205 YORK ROAD, PENTHOUSE
LUTHERVILLE, MARYLAND 21093
410-825-8400

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: 6-30-2017.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
J. Kelly 9/4/15
BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
Ch. E. ... 9-25-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

BENCHMARK
ENGINEERS • LAND SURVEYORS • PLANNERS
ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE & SUITE 418 & ELLOTT CITY, MARYLAND 21043
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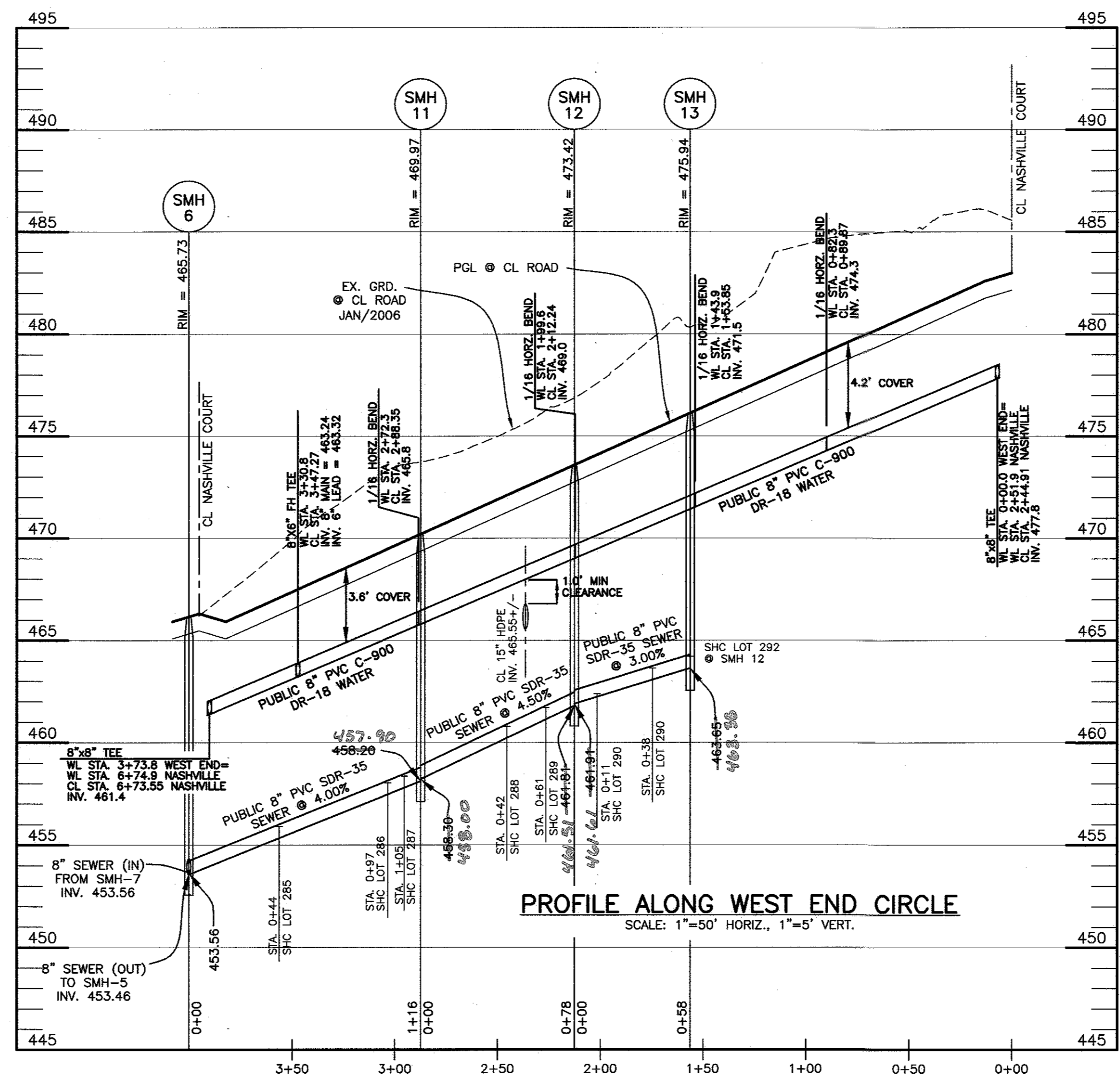


DESIGN:	DBT	DATE:	8/2015
DRAFT:	DBT	BY:	NO.
CHK:	CAM	REVISIONS:	
DATE:	8/2015	DATE:	

PROFILE VIEW
PUBLIC WATER & SEWER MAINS
600 SCALE MAP NO. 16
BLOCK: 11

VILLAGES AT TURF VALLEY
PHASE 5
LOTS 261 thru 296; OPEN SPACE LOTS 297 thru 299; BULK PARCEL GG
TAX MAP: 16 - BLOCK: 17 - PARCEL: P/O B - ZONED: PGCC - ELECTION DISTRICT: 3
CONTRACT NO. 24-4887-D

SCALE:
AS SHOWN
SHEET NO.
3 OF 4



AS BUILT
DATE: 6-24-16

OWNER/DEVELOPER:
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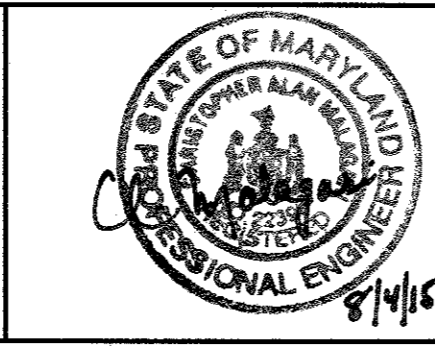
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Mark Weedy 9/4/15
BUREAU UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

John E. ... 9-25-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

BENCHMARK
ENGINEERS & LAND SURVEYORS & PLANNERS
ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE & SUITE 418A ELICOTT CITY, MARYLAND 21043
(P) 410-465-8105 (F) 410-465-6644
WWW.BC-CIVILENGINEERING.COM



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DATE:	8/2015	BY	NO.	REVISIONS	DATE

PROFILE VIEW
PUBLIC WATER & SEWER MAINS

600 SCALE MAP NO. 16 BLOCK: 11

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SCALE:
AS SHOWN

SHEET NO.
4 OF 4