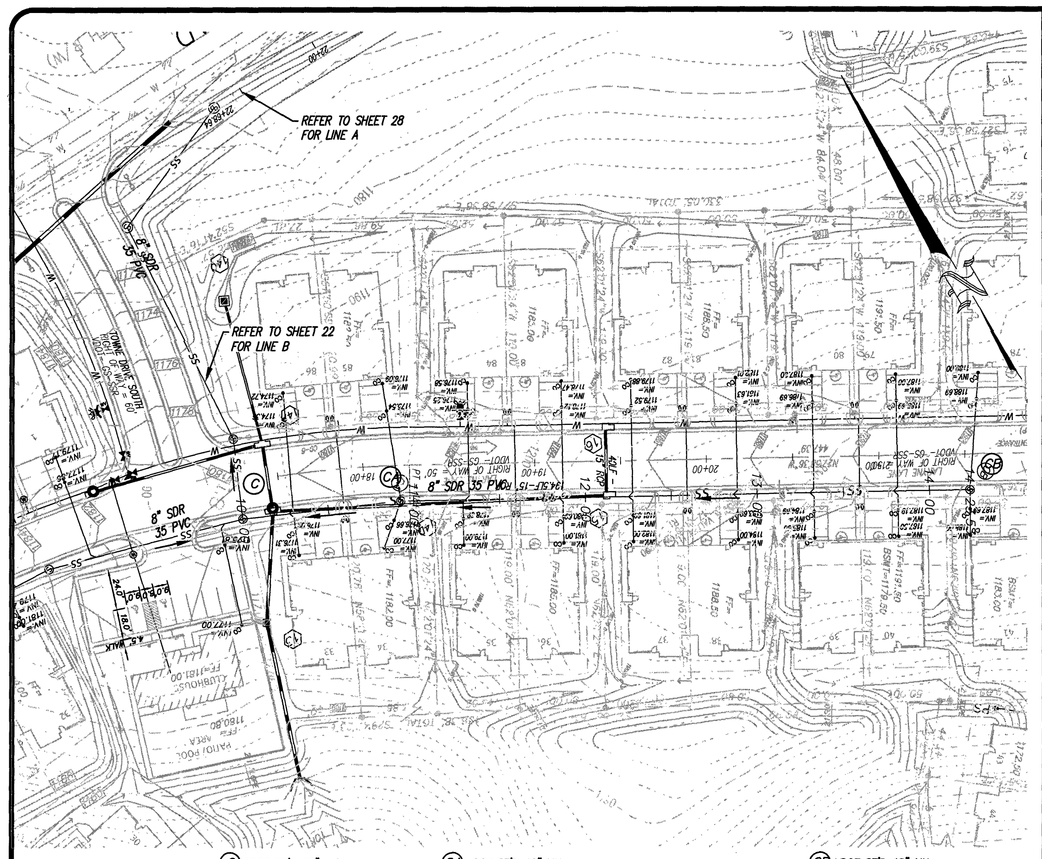
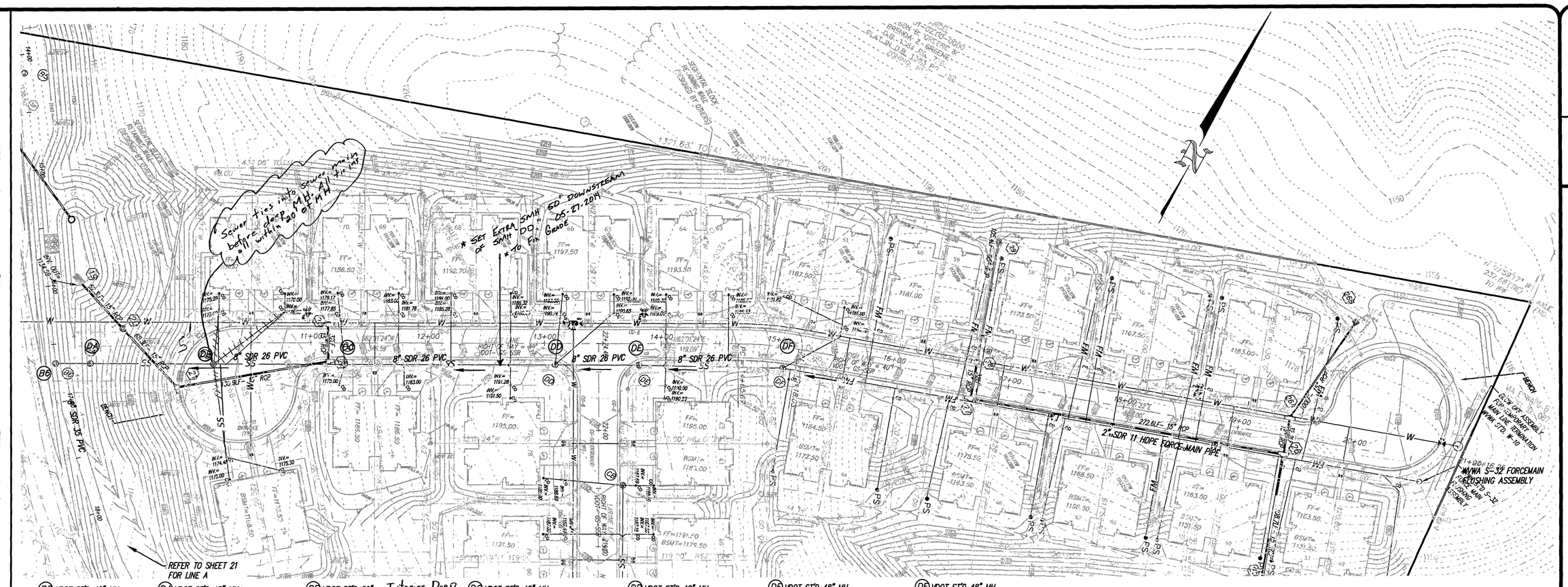




(C) VDOT STD 48" MH
STA.: 10+00.00 LINE D=
STA.: 12+70.95 LINE B
Δ= 00° 00'00" LINE D=
Δ= 19° 45' 20" LINE B
N: 3618089.04
E: 11033852.49

(CA) VDOT STD 48" MH
STA.: 10+92.55 LINE D
Δ= 89° 33' 28" LT LINE D
N: 3618146.36
E: 11033801.64

(CB) VDOT STD 48" MH
STA.: 14+23.53 LINE D
Δ= 05° 19' 44" RT LINE D
N: 3618438.59
E: 11033646.23

SMH "CB" VAC. TESTED
03-20-2014 DEPTH 7.80'

(BB) VDOT STD 48" MH
STA.: 10+00.00 LINE E=
STA.: 16+66.00 LINE A
Δ= 00° 00'00" LINE A
N: 3618302.45
E: 11033168.95

(DA) VDOT STD 48" MH
STA.: 10+30.00 LINE E
Δ= 83° 42'51" LT LINE E
N: 3618418.06
E: 11033387.06

SMH "DA" NOT INSTALLED.

(DB) VDOT STD 60" ~~EXTERIOR DROP~~ Interior Drop MH
STA.: 11+05.67 LINE E
Δ= 00° 00'00" LINE E
N: 3618502.52
E: 11033546.46

(DC) VDOT STD 48" MH
STA.: 12+47.00 LINE E
Δ= 00° 00'00" LINE E
N: 3618530.56
E: 11033599.25

(DD) VDOT STD 48" MH
STA.: 14+27.28 LINE E
Δ= 01° 02'10" RT LINE E
N: 3618591.67
E: 11033719.40

(DE) VDOT STD 48" MH
STA.: 14+87.05 LINE E
Δ= 01° 02'10" RT LINE E
N: 3618591.67
E: 11033719.40

(DF) VDOT STD 48" MH
STA.: 16+21.85 LINE E
Δ= 01° 02'10" RT LINE E
N: 3618591.67
E: 11033719.40

* LINE FROM SMH "BB" TO "DB" PRESSURE TESTED 07-09-14.
134.92' 8" SDR 26 PVC.
STATION 10+00.00 TO 11+05.67'.

* LINE FROM SMH "DB" TO "DC" PRESSURE TESTED 07-09-14
112.08' 8" SDR 35 PVC.
STATION 11+05.67 TO 12+47.00.

* LINE FROM SMH "DC" TO "EXTRA" SMH PRESSURE TESTED 07-10-14
130.28' 8" SDR 26 PVC
STATION 12+47.00 TO 13+77.00

* LINE FROM SMH "EXTRA" TO SMH "DD" PRESSURE TESTED 07-10-14
50.00' 8" SDR 26 PVC
STATION 13+77.00 TO 14+27.28

* LINE FROM SMH "DD" TO "DE" PRESSURE TESTED 07-10-14
71.77' 8" SDR 26 PVC
STATION 14+27.28 TO 14+87.05

* LINE FROM SMH "DE" TO "DF" PRESSURE TESTED 07-10-14
122.80' 8" SDR 26 PVC
STATION 14+87.05 TO 16+21.85

* SMH "CB" BUILT ONE INSIDE DROP. 06-30-14
TIED IN LATERALS FROM LOTS 72, 71, AND COMBINED LATERAL FROM LOTS 73 & 74 INTO MAIN LINE JUST UPSTREAM OF SMH "DB"

* SET NEW SMH 50' DOWNSTREAM FROM SMH "DD" TO FIX ISSUE WITH WRONG GRADE.

SMH VAC. TESTING

* "DB" 07-10-14
~~11+05.67~~ 20.41' DEEP

* "DC" 07-10-14
12+47.00 9.08' DEEP

* "EXTRA SMH" 07-10-14
13+77.00 14.00' DEED

* "DD" 07-10-14
14+27.28 14.23' DEEP

* "DE" 07-10-14
14+87.05 13.52' DEEP

* "DF" 03-26-15
16+21.85 4.76' DEEP

FORCE MAIN LEAKAGE TEST

03-30-15 (STATION 16+21.85 - 22+00.00) 578.15'
LINE PASSED

MATERIALS FOR SANITARY SEWER

- GRAVITY MAIN: NATIONAL 8" SDR 26 & SDR 35 (ESSMT "DB" TO "DC" ONLY) PVC
- FORCE MAIN: FLYING W 2" C900 DR11 HDPE
- FORCE MAIN LATERALS: FLYING W 1.25" C900 DR11 HDPE
- GRAVITY LATERALS: NATIONAL 6" SDR 26 PVC
- MANHOLES: C31 PRECAST
- FRAMES & COVERS: U.S. FOUNDRY STANDARD WATERTIGHT.
- The Sanitary Sewer Force Main was installed 12/11/2015 with this project. The Townes at Hidden Valley - Phase 2 - complete

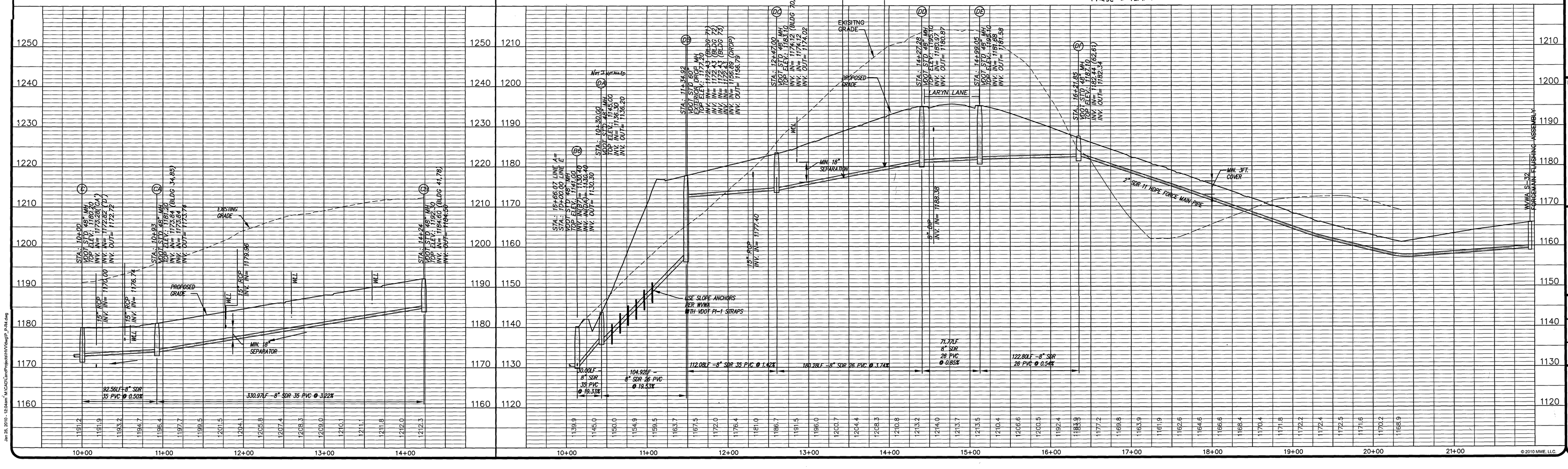
NOTES:
1. ALL CONSTRUCTION METHODS, DETAILS, AND SPECIFICATIONS ARE TO BE PER THE LATEST EDITION OF THE WESTERN VIRGINIA WATER AUTHORITY (WVWA) MASTER SPECIFICATIONS. A COPY OF THESE SPECIFICATIONS MUST BE KEPT ON SITE AT ALL TIMES DURING THE CONSTRUCTION OF THE SANITARY SEWER LINE.
2. MAINTAIN 18" OF VERTICAL SEPARATION BETWEEN STORM SEWER LINES, WATER LINES AND THE SANITARY SEWER LINES.
3. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN PLANS AND ACTUAL FIELD ELEVATIONS.
4. MAINTAIN 3' OF COVER AS A MINIMUM.
5. ALL SEWER SERVICE LATERALS TO BE 6" MINIMUM. ALL FORCEMAIN LATERALS SHALL BE 1-25" SDR 11 HDPE.
6. SANITARY SEWER TO BE A MINIMUM OF 3' BEHIND BACK OF CURB.
7. 8" MAIN UNDER PAVEMENT TO BE BEDDED AND BACKFILLED WITH COMPACTED STONE TO 1FT. OVER PIPE.
8. ALL SEWER MAINS 10FT. DEEP OR SHALLOWER SHALL BE SDR 35 PVC. ALL SEWER MAINS DEEPER THAN 10FT. SHALL BE SDR 26 PVC.
9. BUILDINGS 22 THRU 28 AND BUILDINGS 43 THRU 60 FORCE MAIN LATERALS SHALL BE CONSTRUCTED TO WVWA SANITARY SEWER PRESSURE LATERALSTANDARD REFER TO DETAIL S-29.

HORIZ. SCALE 1" = 50'
50 25 0 50 100
10 05 0 10 20
VERT. SCALE 1" = 10'

SANITARY SEWER LINE 'D' - Installed 03/11/2015 under Project: The Townes at Hidden Valley Phase 2 - Partial

* LINE FROM SMH "CA" TO "CB" PRESSURE TESTED 02-11-2014.
330.97' 8" SDR 35 PVC
STATION 10+99.00 TO 14+27.00.

SANITARY SEWER LINE 'E' - Installed 03/11/2015 under Project: The Townes at Hidden Valley Phase 2 - Partial



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SITE DEVELOPMENT PLAN FOR THE TOWNES AT HIDDEN VALLEY WINDSOR HILLS DISTRICT, ROANOKE COUNTY, VIRGINIA

☑ APPROVED

REVISION
1 - PER COUNTY COMMENTS
2- 10/03/07- PER VDOT AND PER COUNTY COMMENTS
3- 11/06/07- PER COUNTY COMMENTS
4- 12/11/07- PER VDOT COMMENTS
6- 11/20/09- ADDED PHASE 1 AND PHASE 2 LINES TO PLAN

COMMONWEALTH OF VIRGINIA
MICHAEL D. MORGAN
Lic. No. 041247
01/20/10
PROFESSIONAL ENGINEER

MME PROJECT NUMBER 2006-125	
DRAWN BY: DLC	CHECK BY: MDM
DATE 03/21/07	ISSUE 01/20/10

SHEET TITLE
SANITARY SEWER D AND E PLAN AND PROFILE SHEET

SHEET NO.
32 OF 44

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