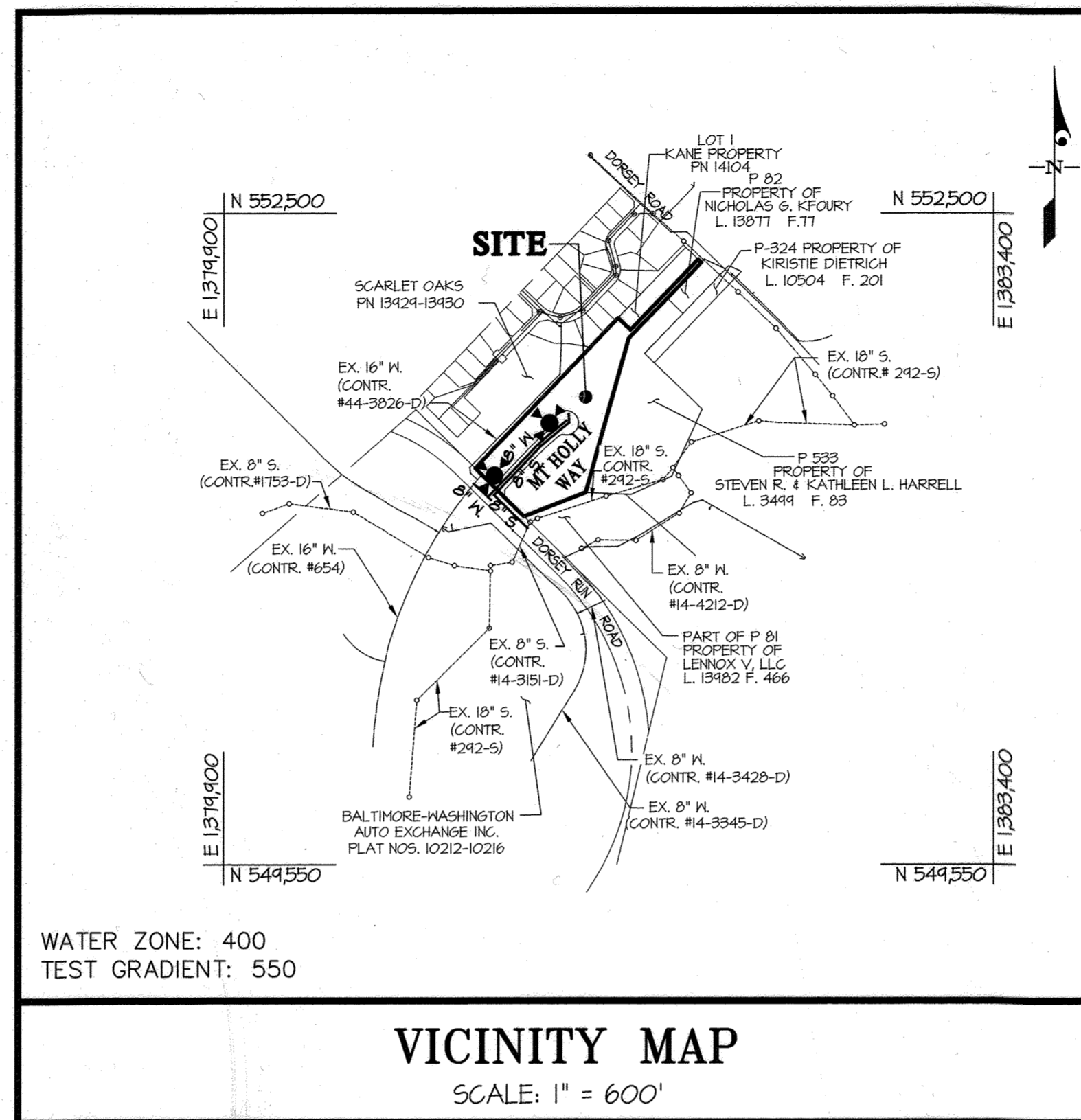


ITEMS	QUANTITIES ESTIMATED	QUANTITIES		MANUFACTURER/SUPPLIER
		AS-BUILT	TYPE	
8" WATER MAIN (C400 PVC DR 10)	606 LF.	606 LF.	DR-18	JM EAGLE / BRS
1 1/2" HMC	501 LF	501 LF.	COPPER	MUELLER CO. / BRS
16" x 8" T.S.V.	1 EA.	1 EA.	M.TAPPING	MUELLER CO. / BRS
8" x 8" T.	1 EA.	1 EA.	BRONZ M/T	JCM / BRS
8" x 6" F.H.T.	2 EA.	2 EA.	BRONZ M/T	STAR PIPE / BRS
8" VALVE	2 EA.	2 EA.	M/J GATE	MUELLER CO. / BRS
6" VALVE	2 EA.	2 EA.	M/J GATE	MUELLER CO. / BRS
FIRE HYDRANT	2 EA.	2 EA.	5.5" / 6"	MUELLER CO. / BRS
8" 5" SWEEP	3 EA.	3 EA.	HIGH DEFLECTION	NORTH AMERICAN SPECIALTY / BRS
8" 1/2" V.B.	2 EA.	2 EA.	BRONZ M/T	STAR PIPE / BRS
8" 1/2" V.B.	2 EA.	2 EA.	BRONZ M/T	STAR PIPE / BRS
8" 1" HDC	1 EA.	1 EA.	HDC	NORTH AMERICAN SPECIALTY / BRS
8" CAP	2 EA.	2 EA.	BRONZ CAP	STAR PIPE / BRS
CONTINUITY TEST STATION	2 EA.	2 EA.	84A-7 STRAND	KRIS TECH / BRS
4" SHC (DIP)		275 LF.	CL 52	US PIPE / BRS
8" SEWER MAIN (DIP)		203 LF.	CL 52	US PIPE / BRS
8" SEWER MAIN (PVC)	864 LF.	653 LF.	SDR-35	JM EAGLE / BRS
4" SHC (PVC)	454 LF.	184 LF.	SDR-35	JM EAGLE / BRS
4" MANHOLE	7 EA.	7 EA.	4' CMH	BACK RIVER PRECAST

NAME OF UTILITY CONTRACTOR: HTI CONTRACTORS

SURVEY AND DRAFTING DIV.	CHECKBOX: AS-BUILT DATE:
--------------------------	--------------------------

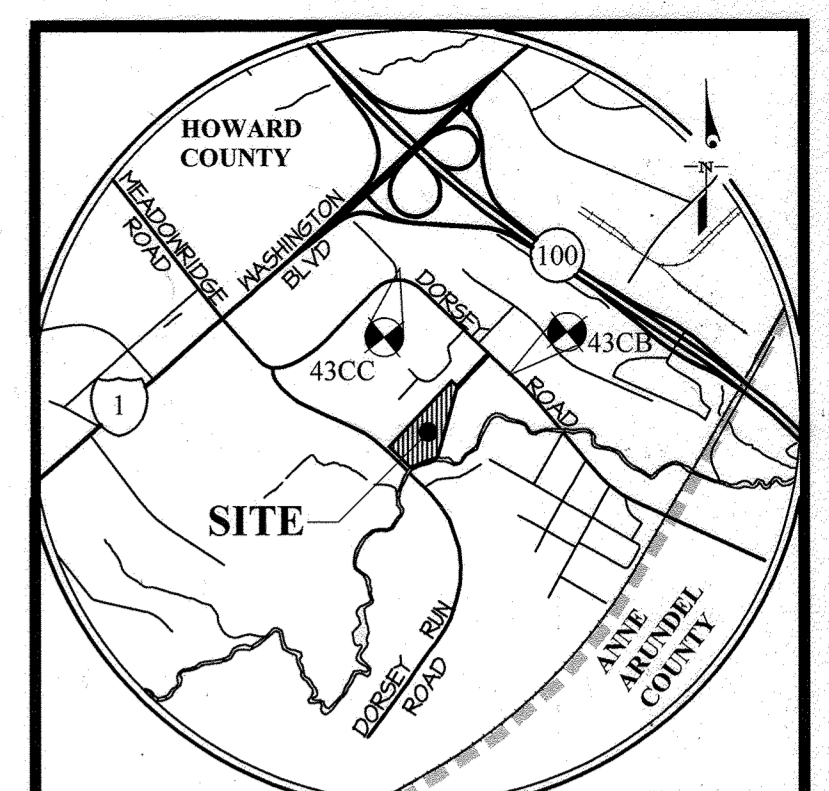


WATER ZONE: 400  
TEST GRADIENT: 550

**CONTRACT No. 14-4867-D  
DORSEY GLEN  
LOTS 1 THRU 15 AND OPEN SPACE LOTS 16-20,  
& NON BUILDABLE BULK PARCEL A  
A RESUBDIVISION OF KANE PROPERTY LOT 2  
PN: 14104**

**HOWARD COUNTY, MARYLAND  
DEPARTMENT OF PUBLIC WORKS**

TYPE OF BUILDING	RESIDENTIAL
NUMBER OF UNITS	15
NUMBER OF S.H.C.'s	15
NUMBER OF W.H.C.'s	9 SINGLES 3 TWINS
AREA OF COMMERCIAL LOT/PARCEL	6.35 ACRES
SEWER SHED	PATAPSCO
PUMPING STATION	PATAPSCO



**LOCATION MAP**  
SCALE: 1" = 2,000'

BENCHMARKS			
43CB	ELEV. 144.401	N = 552,084.2458	E = 1382,282.410
43CC	ELEV. = 163.666	N = 555,201.4676	E = 1381,521.223

ADC MAP: 35 GRID: A6

**GENERAL NOTES**  
Revised - October 2013

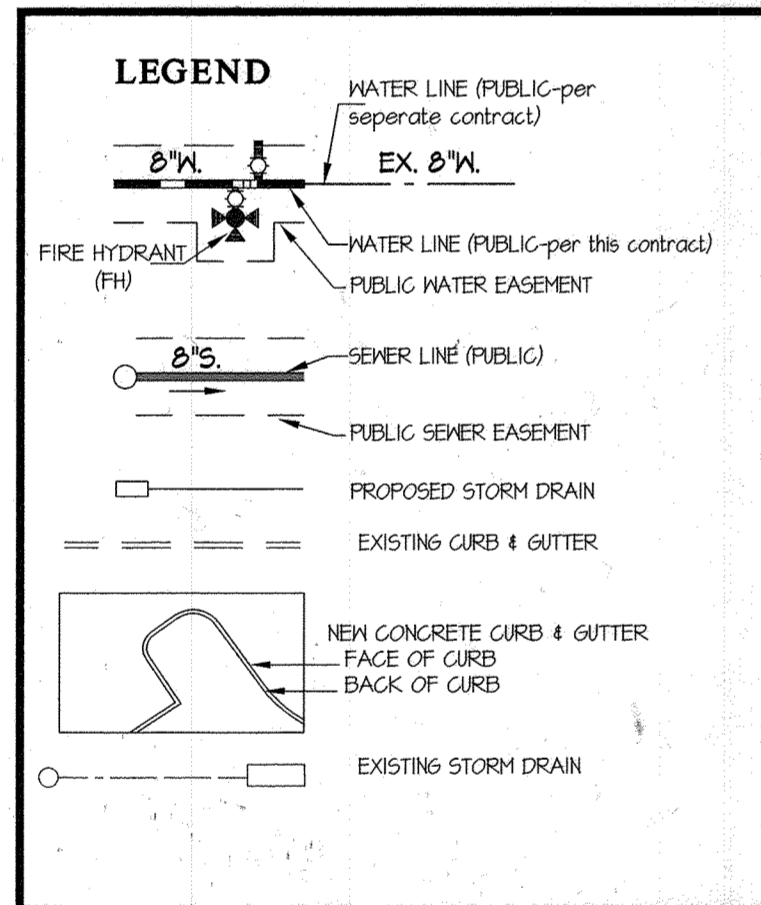
- Part I**
- Approximate locations of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted service. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the contractor's expense.
  - Topographic AIR surveys were performed on DECEMBER, 2008 by MCKENZIE SNYDER.
  - Horizontal and Vertical Survey Controls:  
The coordinates shown on the drawings are based on Maryland State Reference System NAD '83/94 as projected by Howard County Geodetic Control Stations No. 4TDC, and No. 4TEB.  
All vertical controls are based on NAVD '88. Vertical controls provided on the drawings are STANDARD DISCS ON CONCRETE MONUMENTS.
  - 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 dug 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 (Construction Services).....410-637-8713  
BGE (Emergency).....410-685-0123  
Bureau of Utilities.....410-313-4400  
Colonial Pipeline Co.....410-745-1340  
Miss Utility.....1-800-251-7771  
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 the 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 DPM requirements per Section 1B.14(a) of the Howard County Code.

**Part II WATER**

- All water mains shall be ANMA C-400 PVC.
  - Sprinkler systems for residential dwelling units shall have water house connections and water meters that are sized in accordance with the design of sprinkler systems. Sprinkler systems for single residential dwellings shall have a minimum of 1/2" main service connection with a 1" outside meter setting.
  - 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 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 wires 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 ANMA Standard C400 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 harnesses. 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. Dual 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 or 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 ANMA C400, shall have a minimum lay length of 4-inches and shall have center stops. PVC High deflection couplings shall be Certified PVC High Deflection (HD) Stop Couplings or equal. Five degree sweeps shall be bell by spigot, rated for a minimum 225 psi, DR18 meeting the requirements of ANMA C400 and shall be Multi Fittings (pex) 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 ANMA C-400 PVC pipelines, the contractor shall install devices 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 EBAA 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 65.52. Where watertight manhole frames and covers are used, set top of frame 1'-0" above finished grade unless otherwise noted on the drawings.
- House(s) with the symbol "C.N.S." indicates that the cellar cannot be served.



**SHEET INDEX**

- COVER SHEET
- WATER & SEWER PLAN
- WATER & SEWER PROFILES

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND F-16-027.

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

APPROVED: *John R. Roberts* 6/23/16  
Date  
HOWARD S.C.D.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Stu Coen* 6/14/16  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*David Blanton* 6-29-16  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONVILLE OFFICE PARK  
BURTONVILLE, MARYLAND 20886  
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE MAY, 2016

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE PLANS 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. 12975  
EXP. DATE: MAY 26, 2018

G.L.W. No. 12064

5/23/16

RV	2	REVISED PROPOSED SEWER LINE	9/7/17
KG	1	REVISED SEWER MANHOLE LOCATION	09/29/17
BY	NO	REVISION	DATE

COVER SHEET

60' SCALE MAP NO. 24 BLOCK NO. 11

**DORSEY GLEN**  
CONTRACT No. 14-4867-D  
LOTS 1-15, OPEN SPACE LOTS 16-20, & NON-BUILDABLE BULK PARCEL A  
A RESUBDIVISION OF KANE PROPERTY LOT 2  
PN: 14104  
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT No. 2

SCALE AS SHOWN

SHEET 1 OF 3

PREPARED FOR:  
ROBERTS REAL ESTATE DEVELOPMENT, LLLP  
2124 PRIEST BRIDGE DRIVE  
SUITE ONE  
CROFTON, MD 21114  
ATTN: BRIAN ROBERTS  
240-461-9172

L:\CADD\DRAWINGS\2016\PLANS BY GUYHART-SEINFELT\2016-MS-C-04.dwg 5/23/2016 11:42:35 AM dms



Lot	From	To	Feet	From	To	Feet
1	WHC	SMH-3	225	WHC	FH-A sta. 0493	18.3
2	WHC	SMH-3	170	WHC	FH-A sta. 0493	73.5
3	WHC	SMH-3	110	WHC	FH-A sta. 0493	135
4	WHC	SMH-3	50.5	WHC	FH-B sta. 4427	145.9
5	WHC	SMH-3	58.3	WHC	FH-B sta. 4427	44
6	WHC	SMH-4	64	WHC	FH-B sta. 4427	24.8
7/8	TWMC	SMH-5	18	TWMC	FH-B sta. 4427	9.6
9/10	TWMC	SMH-5	14	TWMC	FH-B sta. 4427	107
11/12	TWMC	SMH-4	38	TWMC	FH-B sta. 4427	103
13	WHC	SMH-3	83	WHC	FH-B sta. 4427	43.1
14	WHC	SMH-3	28.7	WHC	FH-B sta. 4427	83.1
15	WHC	SMH-3	61	WHC	FH-B sta. 4427	155

From	To	Feet	From	To	Feet
* FHV Sta. 0493	FH-A	7.5	FHV Sta. 0493	SMH-2	68.5
* FHV Sta. 4427	FH-B	7	FHV Sta. 4427	SMH-4	76.3
Ex. 16" Stub	FH-A	82.1	Ex. 16" Stub	16" ML Valve	38.3

Lot	From	To	Feet	From	To	Feet
1	SHC	SMH-3	235	SHC	FH-A sta. 0493	11.5
2	SHC	SMH-3	180	SHC	FH-A sta. 0493	63.4
3	SHC	SMH-3	120	SHC	FH-A sta. 0493	125
4	SHC	SMH-3	60.5	SHC	FH-B sta. 4427	139
5	SHC	SMH-3	50.7	SHC	FH-B sta. 4427	54
6	SHC	SMH-5	86.3	SHC	FH-B sta. 4427	14.5
7	SHC	SMH-5	37.4	SHC	FH-B sta. 4427	87.9
8	SHC	SMH-5	28.3	SHC	FH-B sta. 4427	105
9	SHC	SMH-5	18	SHC	FH-B sta. 4427	110
10	SHC	SMH-4	48	SHC	FH-B sta. 4427	119
11	SHC	SMH-4	45.3	SHC	FH-B sta. 4427	117
12	SHC	SMH-4	57.4	SHC	FH-B sta. 4427	84.9

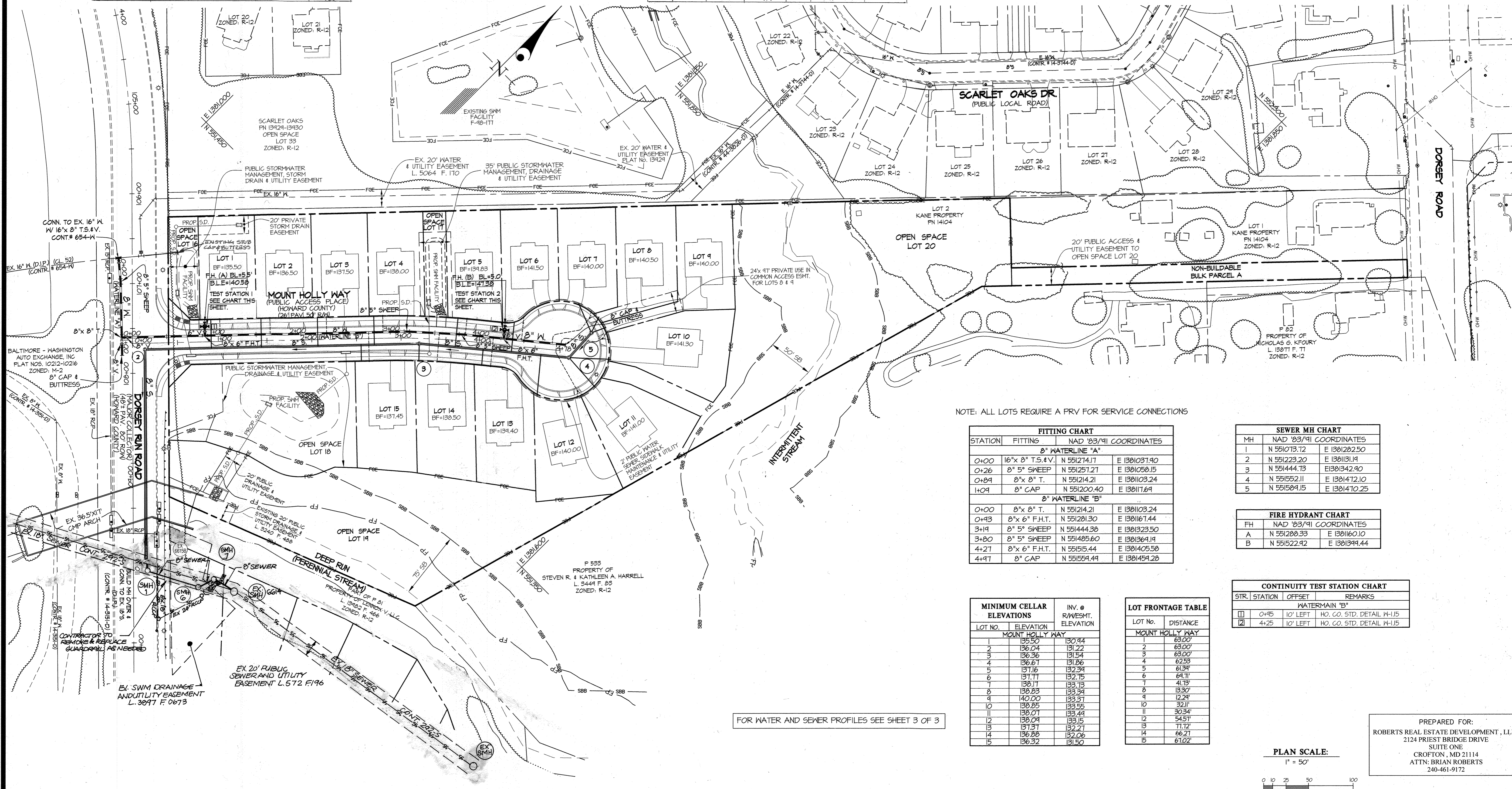
Lot	From	To	Feet	From	To	Feet
13	SHC	SMH-3	73.5	SHC	FH-B sta. 4427	47
14	SHC	SMH-3	22.7	SHC	FH-B sta. 4427	161
15	SHC	SMH-3	69.5	SHC	FH-B sta. 4427	165

WATERLINE A	FROM	TO	FEET	TO	FEET
	TSV Sta. 0400	SMH-2	100.2	FH-A	120.0
	8" V Sta. 0+43	SMH-2	26.7	FH-A	97.2
	8" End Cap	SMH-2	26.6	FH-A	93.8

WATERLINE B	FROM	TO	FEET	TO	FEET
	8" V Sta. 0+02	SMH-2	24.9	FH-A	89.0
	8" End Cap Sta. 4427	SMH-4	15.0	SMH-5	30.0

\* WATERLINE B



NOTE: ALL LOTS REQUIRE A PRIV FOR SERVICE CONNECTIONS

FITTING CHART			
STATION	FITTING	NAD '83/'91 COORDINATES	
8" WATERLINE "A"			
0+00	16" x 8" T.S.&V.	N 551274.17	E 1301037.90
0+26	8" 5" SNEEP	N 551251.27	E 1301050.15
0+84	8" x 8" T.	N 551214.21	E 1301103.24
1+04	8" CAP	N 551200.40	E 130111.64
8" WATERLINE "B"			
0+00	8" x 8" T.	N 551214.21	E 1301103.24
0+43	8" x 6" F.H.T.	N 551201.30	E 1301167.44
3+19	8" 5" SNEEP	N 551444.30	E 1301323.50
3+80	8" 5" SNEEP	N 551405.60	E 1301364.14
4+27	8" x 6" F.H.T.	N 551515.44	E 1301405.50
4+47	8" CAP	N 551554.44	E 1301454.28

SEWER MH CHART		
MH	NAD '83/'91 COORDINATES	
1	N 551073.72	E 1301282.50
2	N 551223.20	E 130131.14
3	N 551444.73	E 1301342.90
4	N 551552.11	E 1301472.10
5	N 551584.15	E 1301470.25

FIRE HYDRANT CHART		
FH	NAD '83/'91 COORDINATES	
A	N 551288.33	E 1301160.10
B	N 551522.42	E 1301344.44

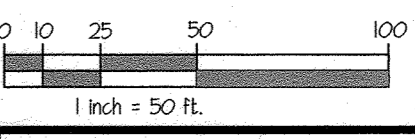
CONTINUITY TEST STATION CHART			
STR.	STATION	OFFSET	REMARKS
	0+45	10' LEFT	HO. CO. STD. DETAIL W-15
	4+25	10' LEFT	HO. CO. STD. DETAIL W-15

MINIMUM CELLAR ELEVATIONS		
LOT NO.	ELEVATION	INV. # R/WESMT. ELEVATION
MOUNT HOLLY WAY		
1	35.50	130.84
2	36.04	131.22
3	36.36	131.54
4	36.67	131.86
5	37.16	132.34
6	37.77	132.75
7	38.17	133.13
8	38.83	133.94
9	40.00	135.51
10	38.85	133.55
11	38.07	133.44
12	38.04	133.15
13	37.37	132.27
14	36.88	132.06
15	36.32	131.50

LOT FRONTAGE TABLE		
LOT No.	DISTANCE	
MOUNT HOLLY WAY		
1	63.00'	
2	63.00'	
3	63.00'	
4	62.53'	
5	61.34'	
6	64.71'	
7	47.75'	
8	13.30'	
9	12.24'	
10	32.11'	
11	30.34'	
12	54.57'	
13	71.72'	
14	66.27'	
15	61.02'	

FOR WATER AND SEWER PROFILES SEE SHEET 3 OF 3

PLAN SCALE:  
1" = 50'



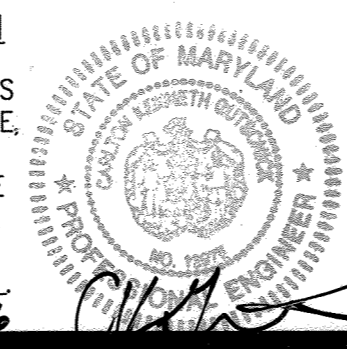
PREPARED FOR:  
ROBERTS REAL ESTATE DEVELOPMENT, LLLP  
2124 PRIEST BRIDGE DRIVE  
SUITE ONE  
CROFTON, MD 21114  
ATTN: BRIAN ROBERTS  
240-461-9172

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Steve C. Crenn  
CHIEF, BUREAU OF UTILITIES  
DATE: 6/14/16

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND  
Old Clinton  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 6-29-16

GLWGUTSCHICK LITTLE & WEBER, P.A.  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20886  
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE MAY, 2016  
PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE PLANS 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. 12975  
EXP. DATE: MAY 25, 2018  
G.L.W. No. 12064  
DES. WSJ DRN. WSJ CHK. DDS

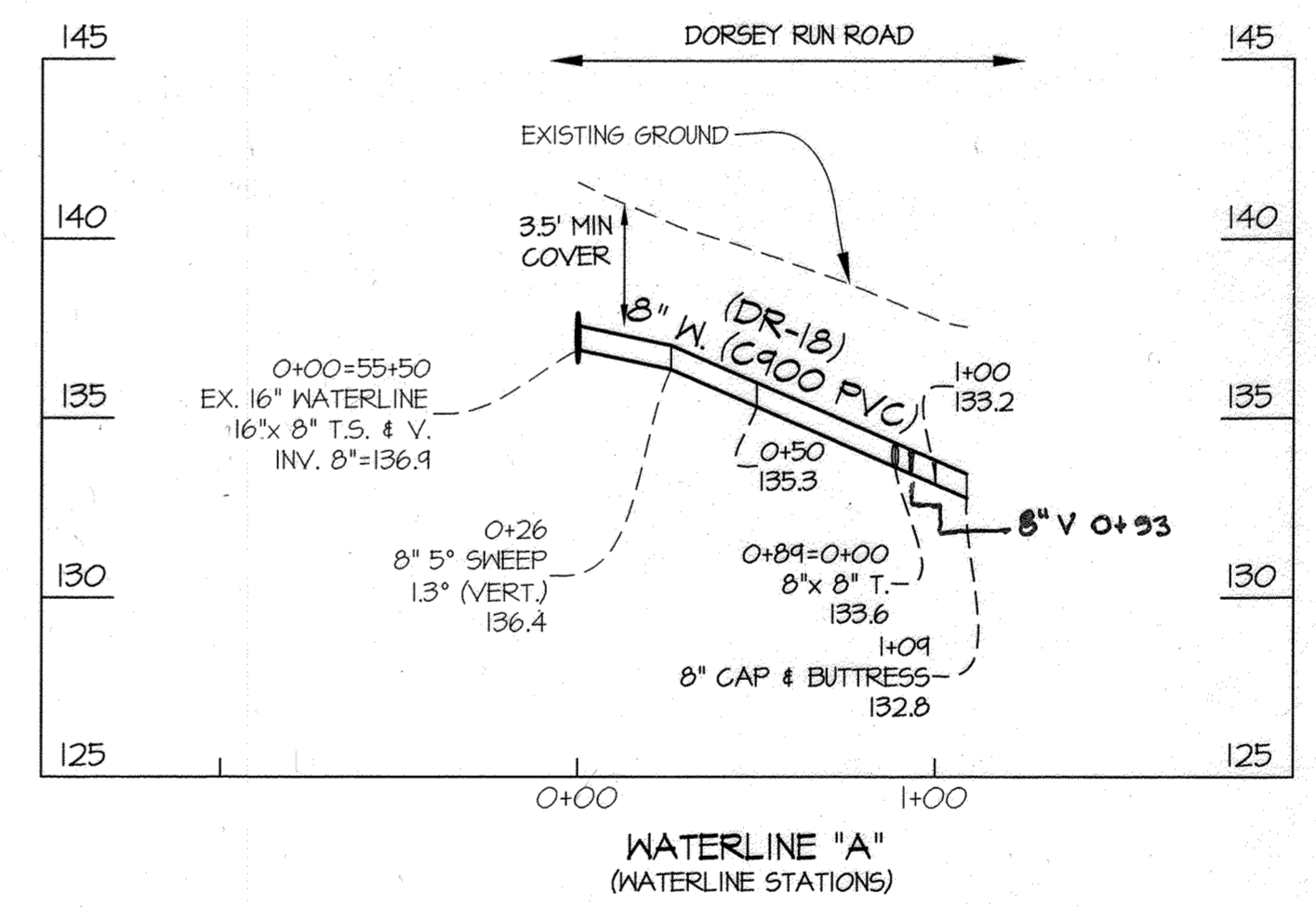
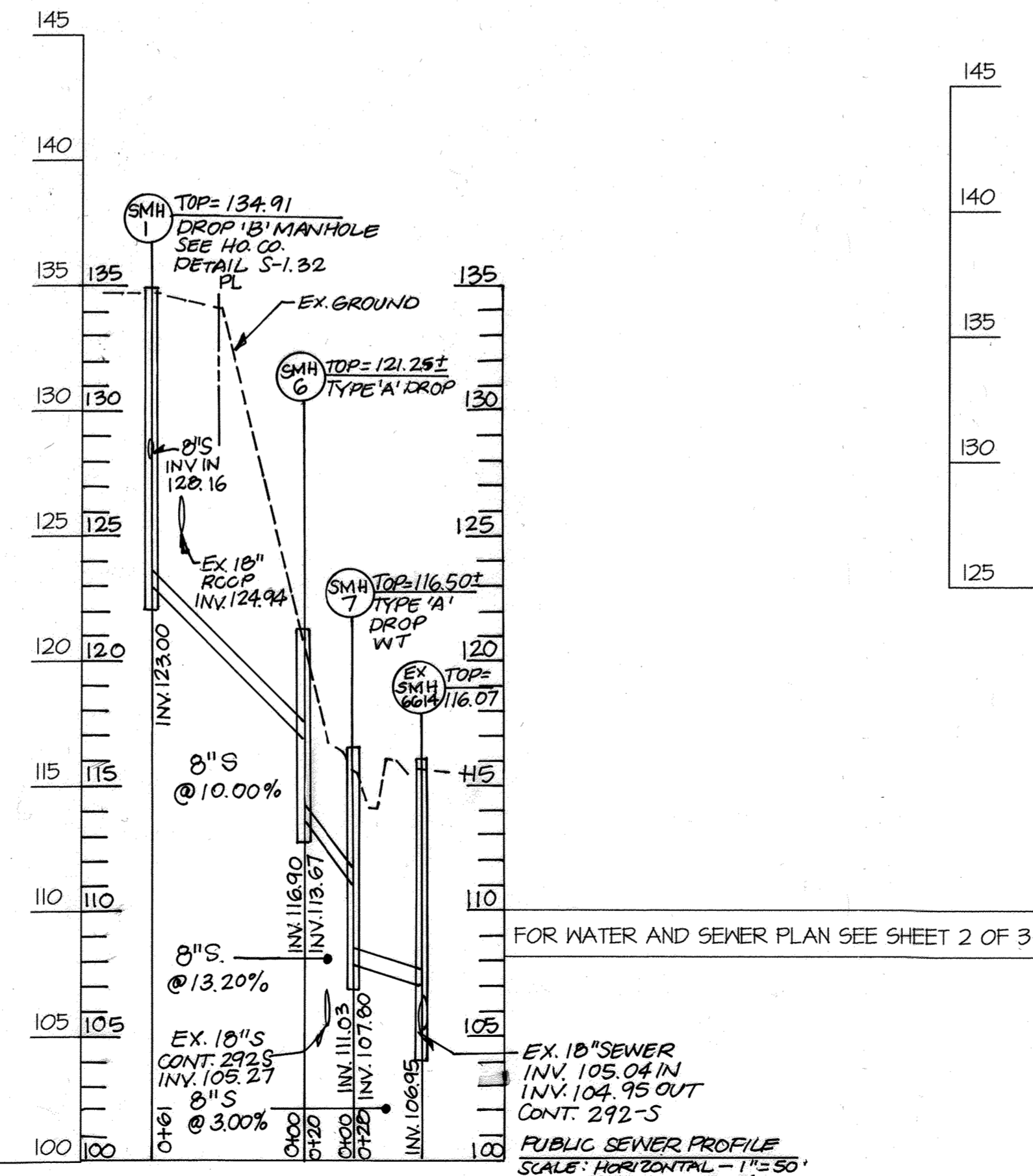
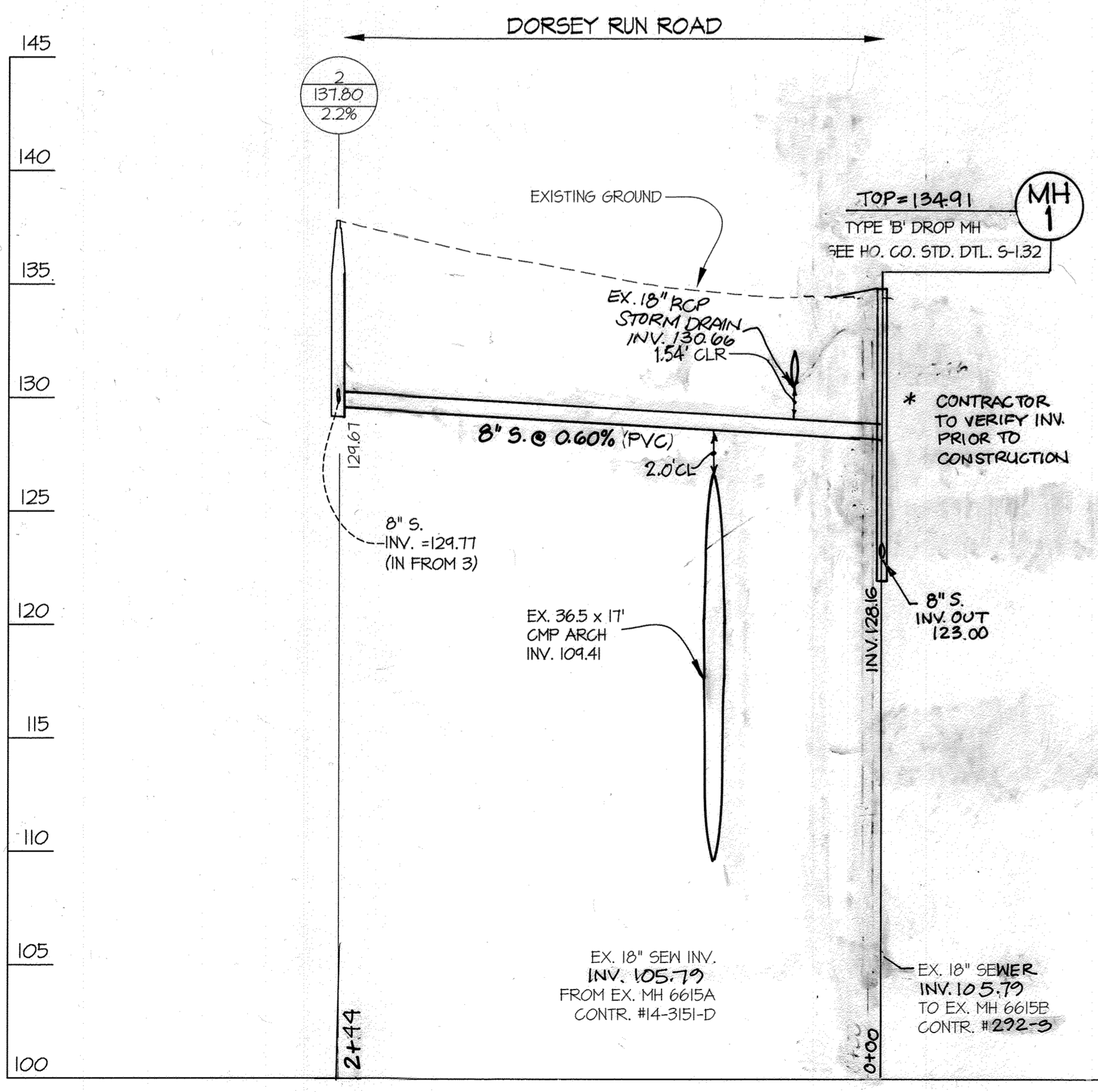
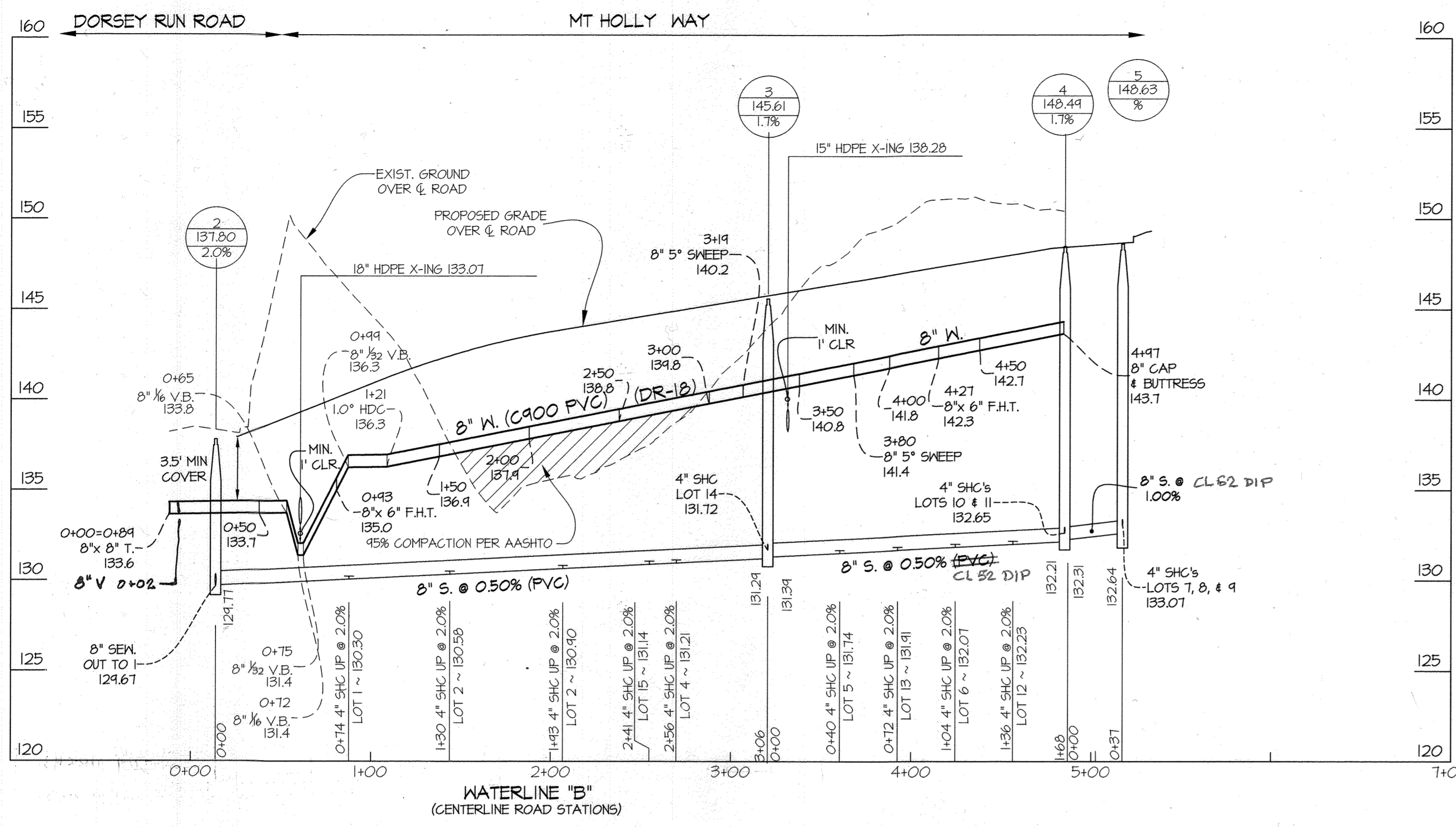


BY	NO.	REVISION	DATE
RV	2	REVISE PROPOSED SEWER LINE	9/8/17
KG	1	REVISED SEWER MANHOLE LOCATION	03/29/17

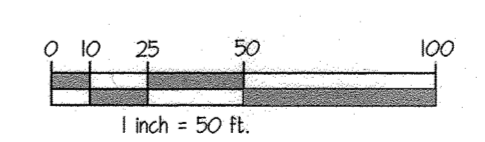
WATER & SEWER EXTENSION PLAN  
600' SCALE MAP NO. 24 BLOCK NO. 11

DORSEY GLEN  
CONTRACT No. 14-4867-D  
LOTS 1-15, OPEN SPACE LOTS 16-20, & NON-BUILDABLE BULK PARCEL A  
A RESUBDIVISION OF KANE PROPERTY LOT 2  
PN: 14104  
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT No. 2  
SCALE 1" = 50'  
SHEET 2 OF 3





PROFILE SCALES:  
 1" = 5' VERT.  
 1" = 50' HORIZ.



PREPARED FOR:  
 ROBERTS REAL ESTATE DEVELOPMENT, LLLP  
 2124 PRIEST BRIDGE DRIVE  
 SUITE ONE  
 CROFTON, MD 21114  
 ATTN: BRIAN ROBERTS  
 240-461-9172

L:\CAD\DRAWINGS\2064\PLANS BY GJM\WAT-SEW\FINAL\2064-W5-3.dwg, PLOTTED: 5/23/2016 11:47 AM, LAST SAVED: 5/23/2016 11:38 AM, PLOTTED BY: Don Swenney

DEPARTMENT OF  
 PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Chief, Bureau of Utilities

DEPARTMENT OF  
 PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND  
 Chief, Development Engineering Division

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20886  
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE  
 MAY, 2016  
 G.L.W. No.  
 12064

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12975  
 EXP. DATE: MAY 25, 2019



REV	NO	REVISION	DATE
2	1	REVISE PROPOSED SEWER LINE	9/18/17
1	1	REVISE SEWER MANHOLE LOCATION	03/27/17

WATER and SEWER PROFILES  
 600' SCALE MAP NO. 24 BLOCK NO. 11

**DORSEY GLEN**  
 CONTRACT No. 14-4867-D  
 LOTS 1-15, OPEN SPACE LOTS 16-20,  
 & NON-BUILDABLE BULK PARCEL A  
 A RESUBDIVISION OF KANE PROPERTY LOT 2  
 PN: 14104  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 2

SCALE  
 AS SHOWN  
 SHEET  
 3 OF 3