

WORTHINGTON AREA DRAINAGE IMPROVEMENTS

HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS CAPITAL PROJECT NO. D-1131

INDEX OF DRAWINGS

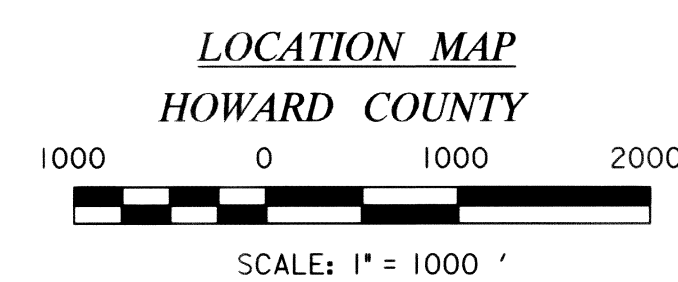
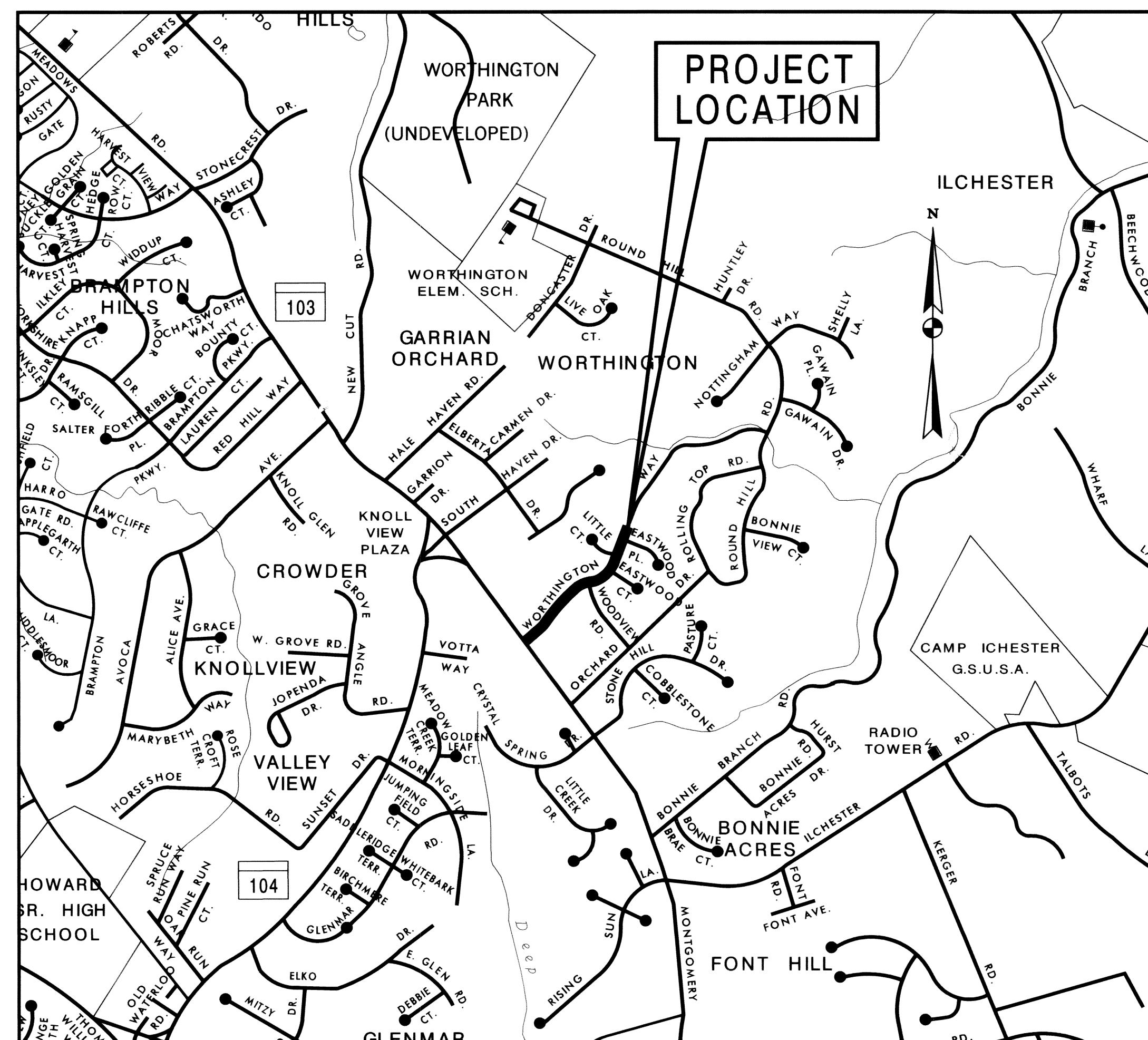
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2. TYPICAL SECTION AND CURB DETAILS
- 3.-4 WORTHINGTON WAY PLAN SHEETS
5. STORMDRAIN PROFILES

GENERAL NOTES

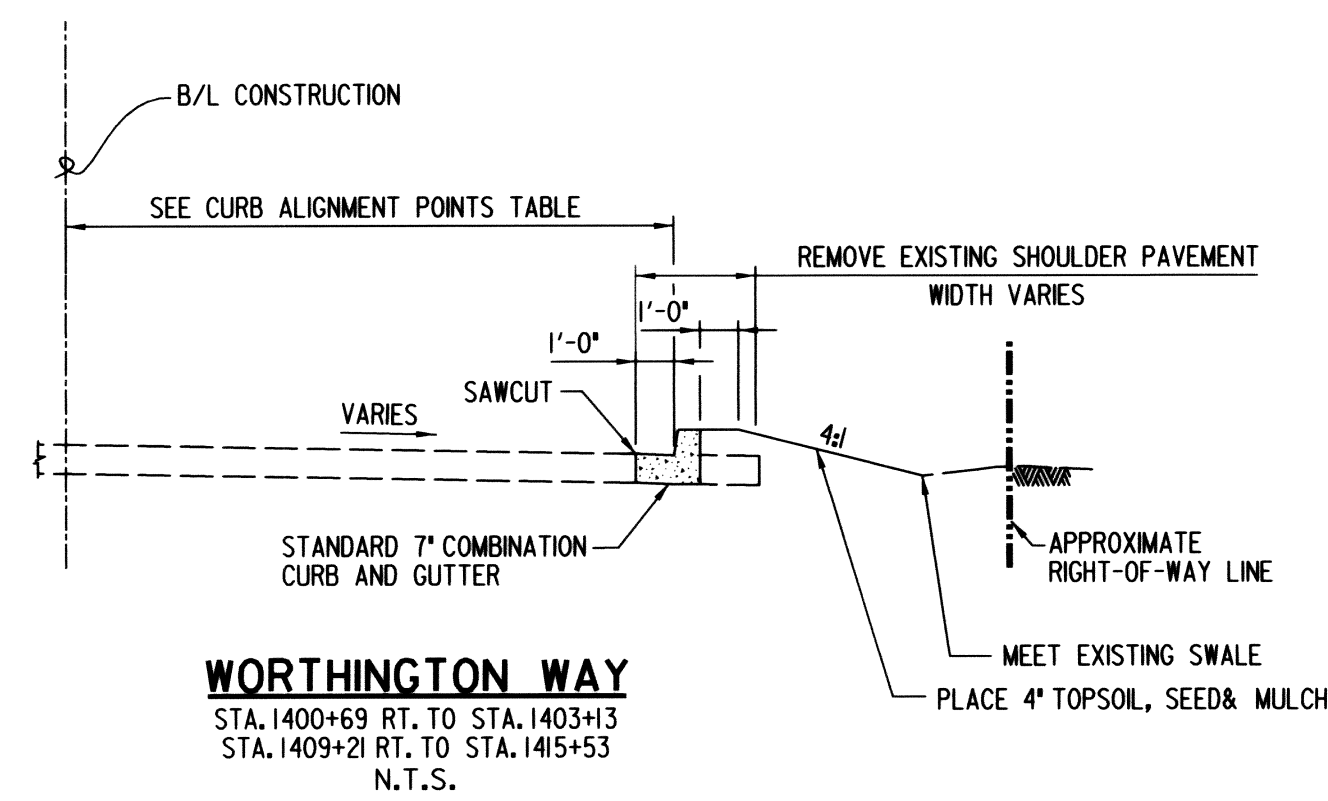
1. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AND MISS UTILITY AT 1-800-257-7777 AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK.
2. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLAN COORDINATE SYSTEM, THE HOWARD COUNTY CONTROL STATIONS USED FOR THIS PROJECT ARE 31 D4 AND 31 A3.
 31 D4 : N 571,700.681
 E 1,369,606.396
 ELEV. 495.181

 31 A3 : N 573,217.884
 E 1,368,237.766
 ELEV. 487.642
3. ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
4. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.
5. THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH 1 FOOT CONTOUR INTERVALS PREPARED BY DEWBERRY & DAVIS DATED 7/12/99 AND URS CORPORATION DATED JANUARY 2003.
6. ALL WORK SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, ISSUED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT AND THE NATURAL RESOURCES CONSERVATION SERVICE.
7. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND THE FIELD CONDITIONS, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
8. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHOD, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
9. APPROXIMATE UTILITIES ARE SHOWN FROM AVAILABLE RECORDS. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.

 UTILITY CONTACTS:
 BGE: (410)-597-7920 (ELECTRIC)
 BGE: (410)-291-4844 (GAS)
 VERIZON: (410)-224-9285
 WORLDCOMM(C): (301)-630-7094
10. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
11. REFER TO CAPITAL PROJECT J-4158-13 PREPARED BY DEWBERRY & DAVIS FOR WORTHINGTON AREA VEHICULAR ACCESS - PHASE II FOR BENCHMARK & GEOMETRIC DATA.
12. SINCE THE DISTURBANCE IS LESS THAN 5000 SF, SEDIMENT AND EROSION CONTROL WILL BE PROVIDED PER HOWARD COUNTY INSPECTORS.

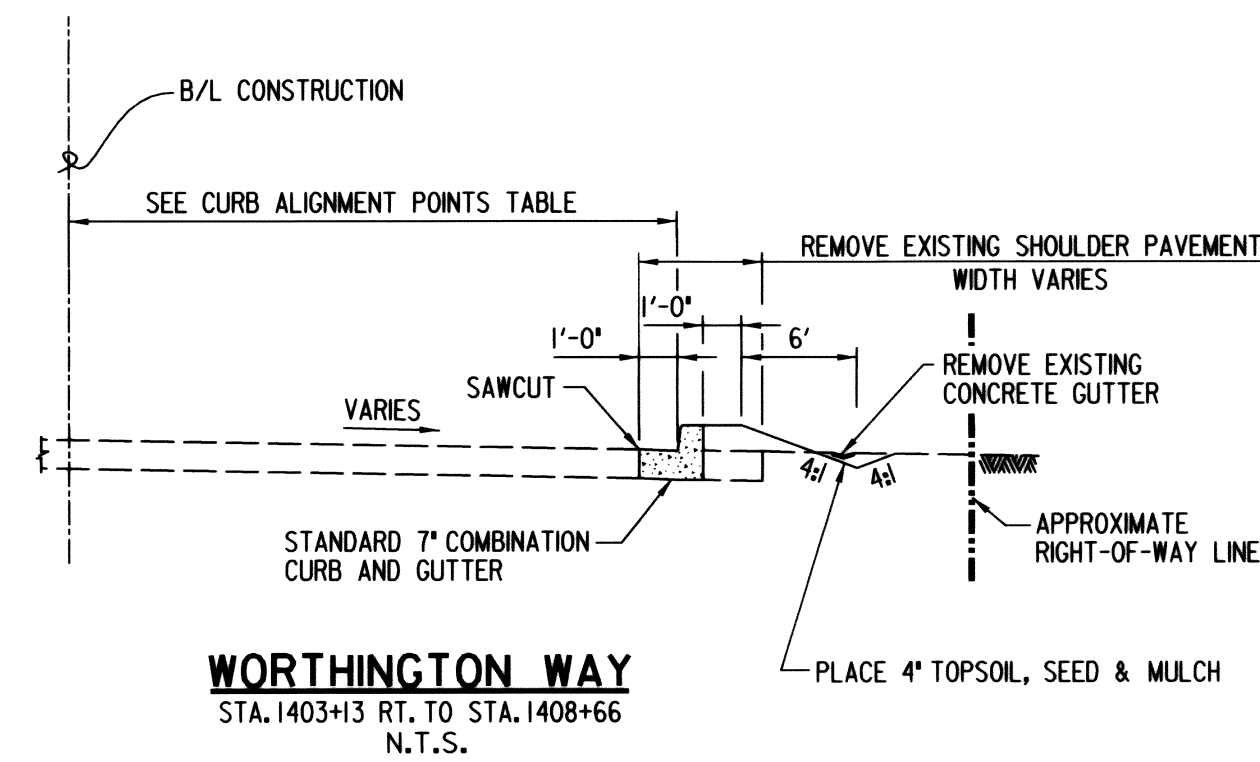


<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>Ray K.</i> 5/31/07 DIRECTOR OF PUBLIC WORKS DATE</p> <p><i>Steve Shavano</i> 5/30/07 CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE</p>	<p>PREPARED BY URS 4 NORTH PARK DRIVE HUNT VALLEY, MARYLAND TEL: (410) 785-7220</p>		<p>DES: DTM</p> <p>DRN: EGB</p> <p>CHK: DTM</p> <p>DATE: 6/05</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>BY</th> <th>NO.</th> <th>REVISION</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	BY	NO.	REVISION	DATE					<p>TITLE SHEET</p>	<p>WORTHINGTON AREA DRAINAGE IMPROVEMENTS CAPITAL PROJECT NO. D-1131</p> <p>2ND ELECTION DISTRICT - HOWARD COUNTY, MARYLAND</p>	<p>SCALE AS SHOWN</p> <p>SHEET 1 OF 5</p>
BY	NO.	REVISION	DATE												

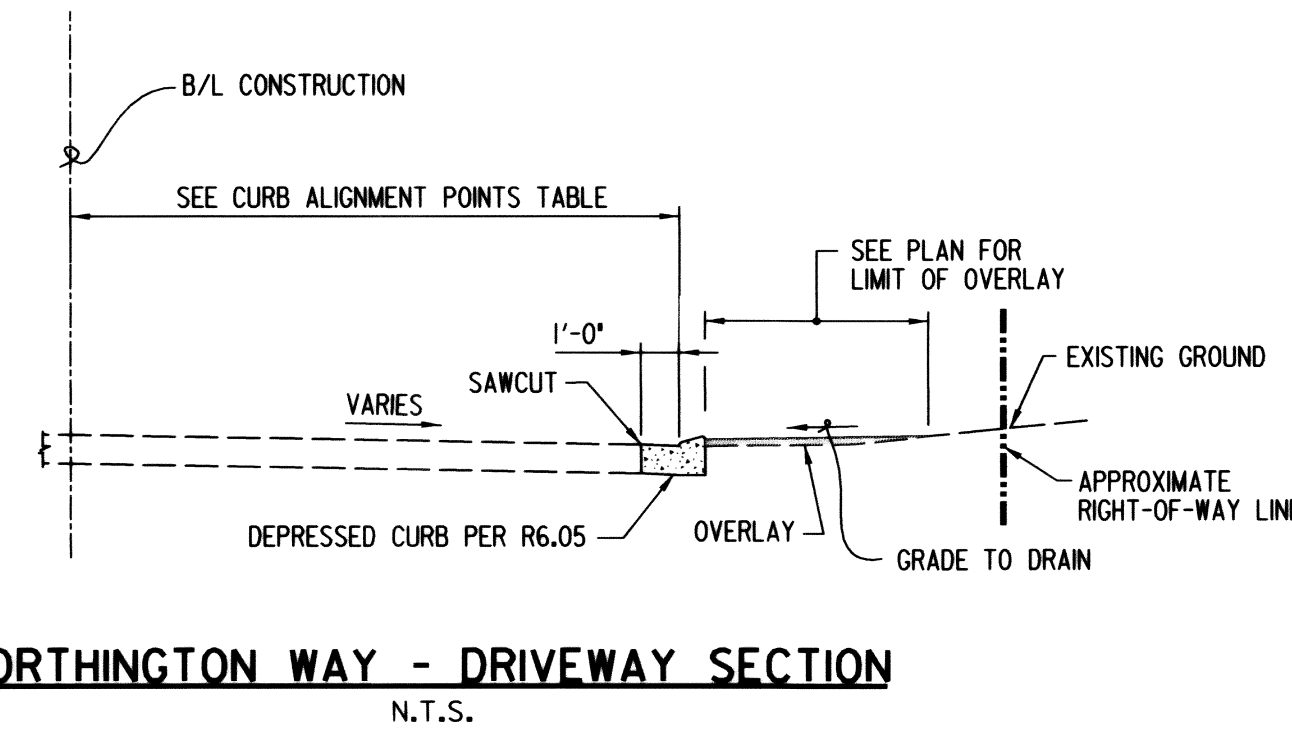


WORTHINGTON WAY
STA. 1400+69 RT. TO STA. 1403+13
STA. 1409+21 RT. TO STA. 1415+53
N.T.S.

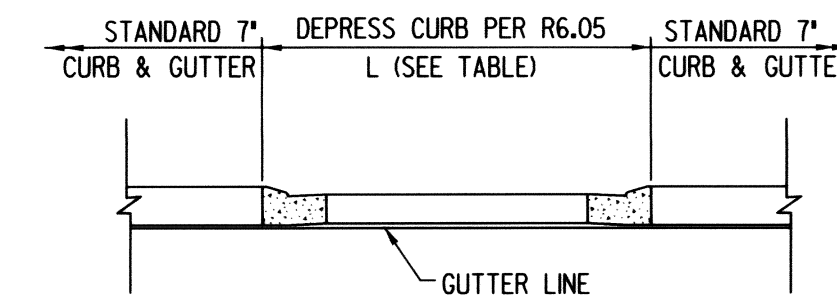
- NOTES:**
1. NO PROVISION FOR FUTURE SIDEWALK
 2. HOLD EXISTING EDGE OF ROAD, MAINTAIN SHOULDER AREA.



WORTHINGTON WAY
STA. 1403+13 RT. TO STA. 1408+66
N.T.S.

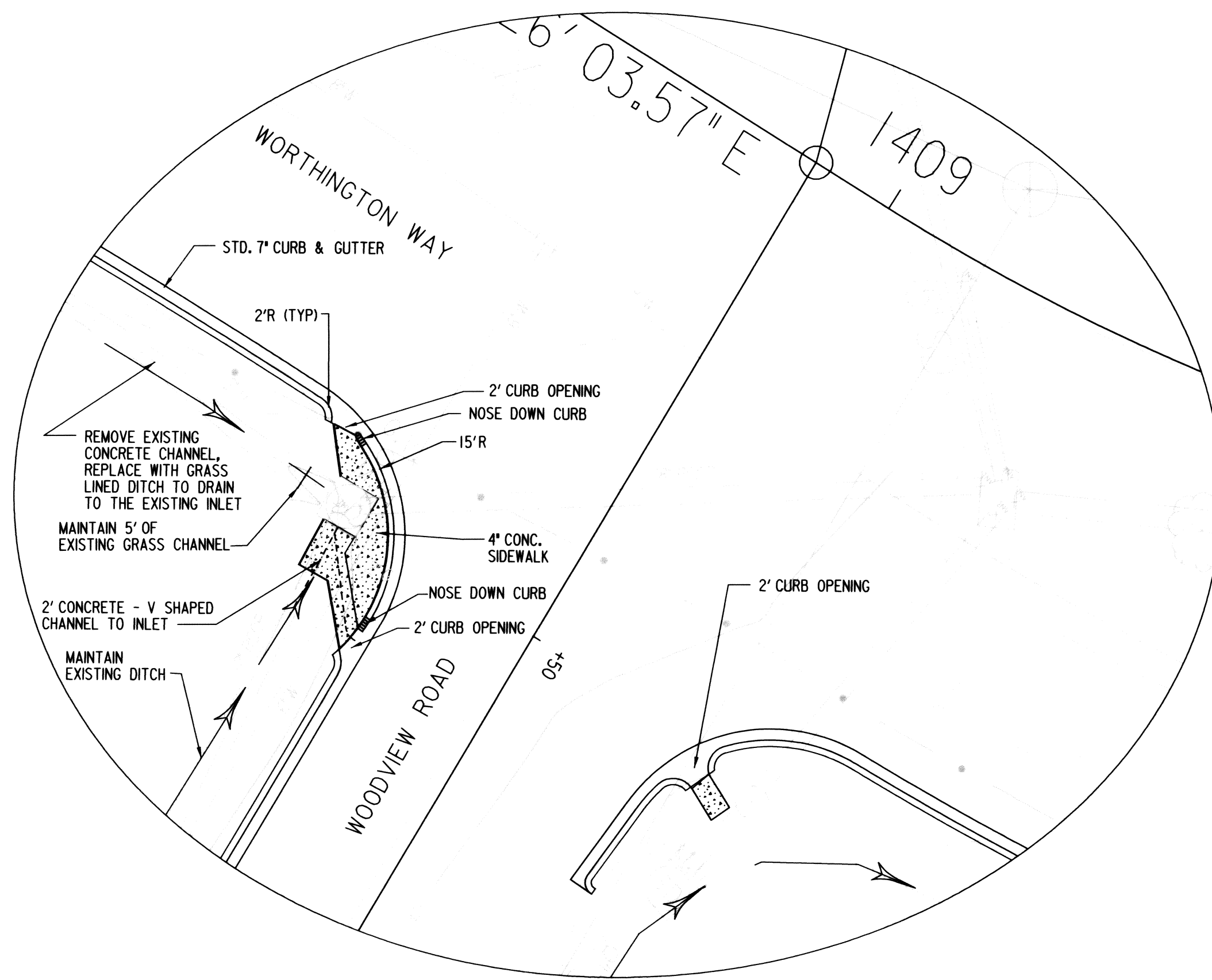


WORTHINGTON WAY - DRIVEWAY SECTION
N.T.S.

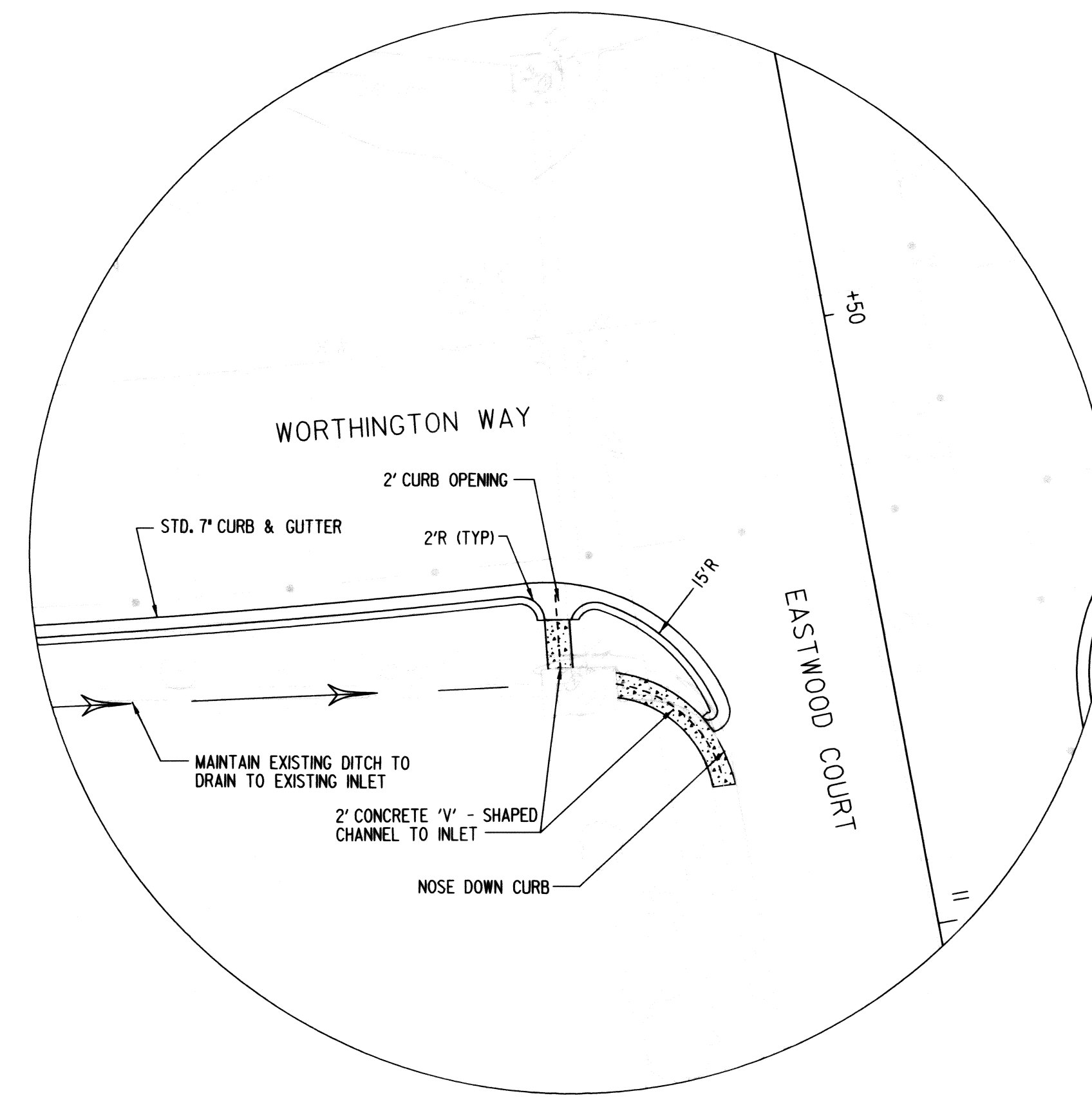


CURB ELEVATION AT DRIVEWAY
N.T.S.

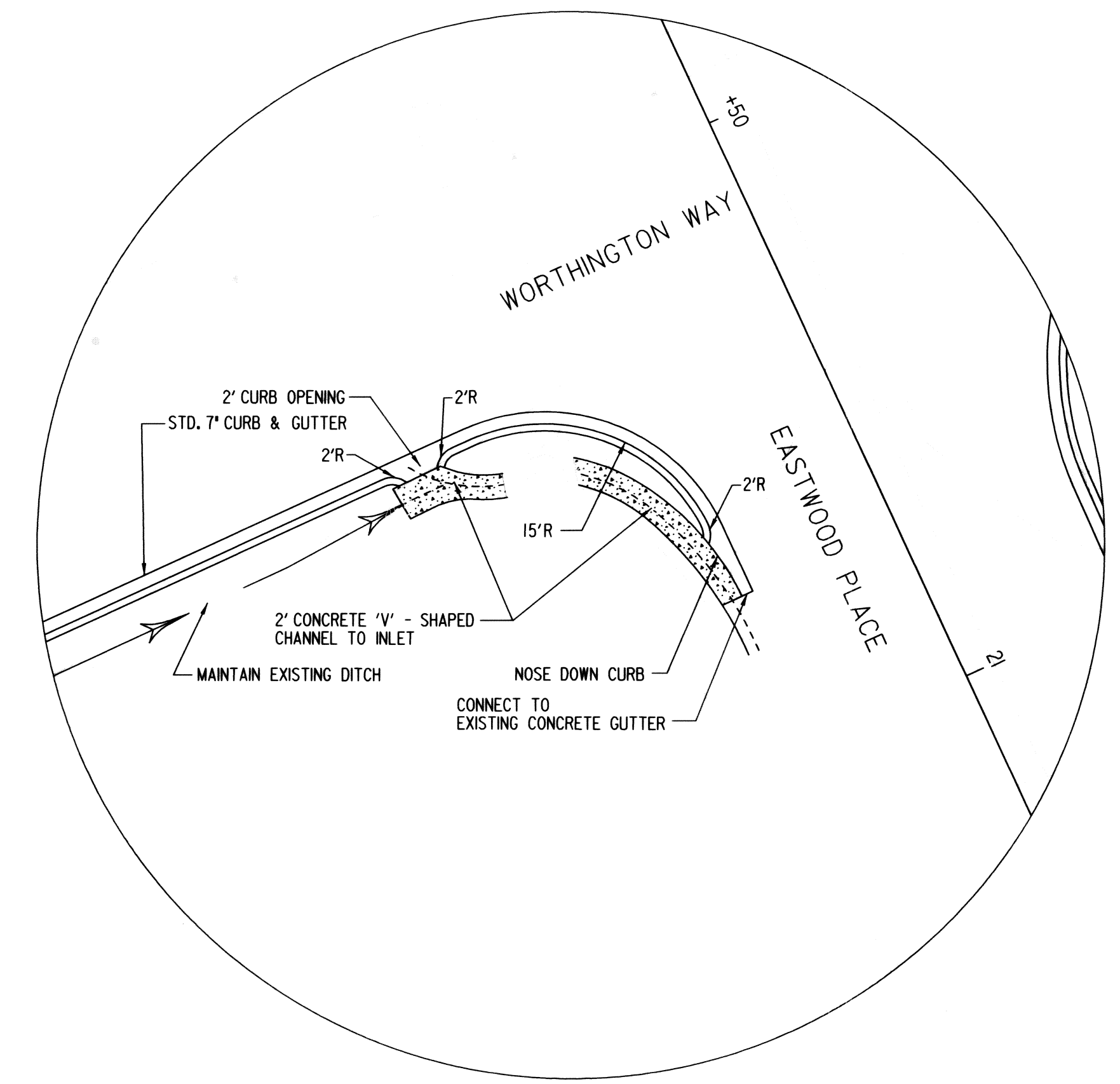
STATION	LENGTH (L)
1401+25	19'
1401+63	10.5'
1402+02	13'
1403+03	18'
1404+18	18'
1405+45	11'
1407+04	21'
1410+18	12.5'
1412+36	11.6'



DETAIL 'A'
STA. 1408+74, RT. WORTHINGTON WAY
SCALE: 1" = 10'



DETAIL 'B'
STA. 1411+17, RT. WORTHINGTON WAY
SCALE: 1" = 10'

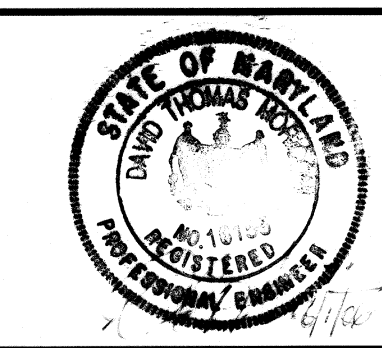


DETAIL 'C'
STA. 1414+48, RT. WORTHINGTON WAY
SCALE: 1" = 10'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *Steve Sharav* DATE: 5/30/07
 Chief, Bureau of Engineering: *Paul J. Sagan* DATE: 5/30/07
 Chief, Transportation and Special Projects Division: *Steve Sharav* DATE: 5/31/07
 Chief, Bureau of Highways: *William Z. Wall* DATE: 5/31/07

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220



DES:	DTM				
DRN:	EGB				
CHK:	DTM				
DATE:	6/05	BY:	NO.	REVISION	DATE

TYPICAL SECTION & CURB DETAILS

SCALE MAP NO. _____ BLOCK NO. _____

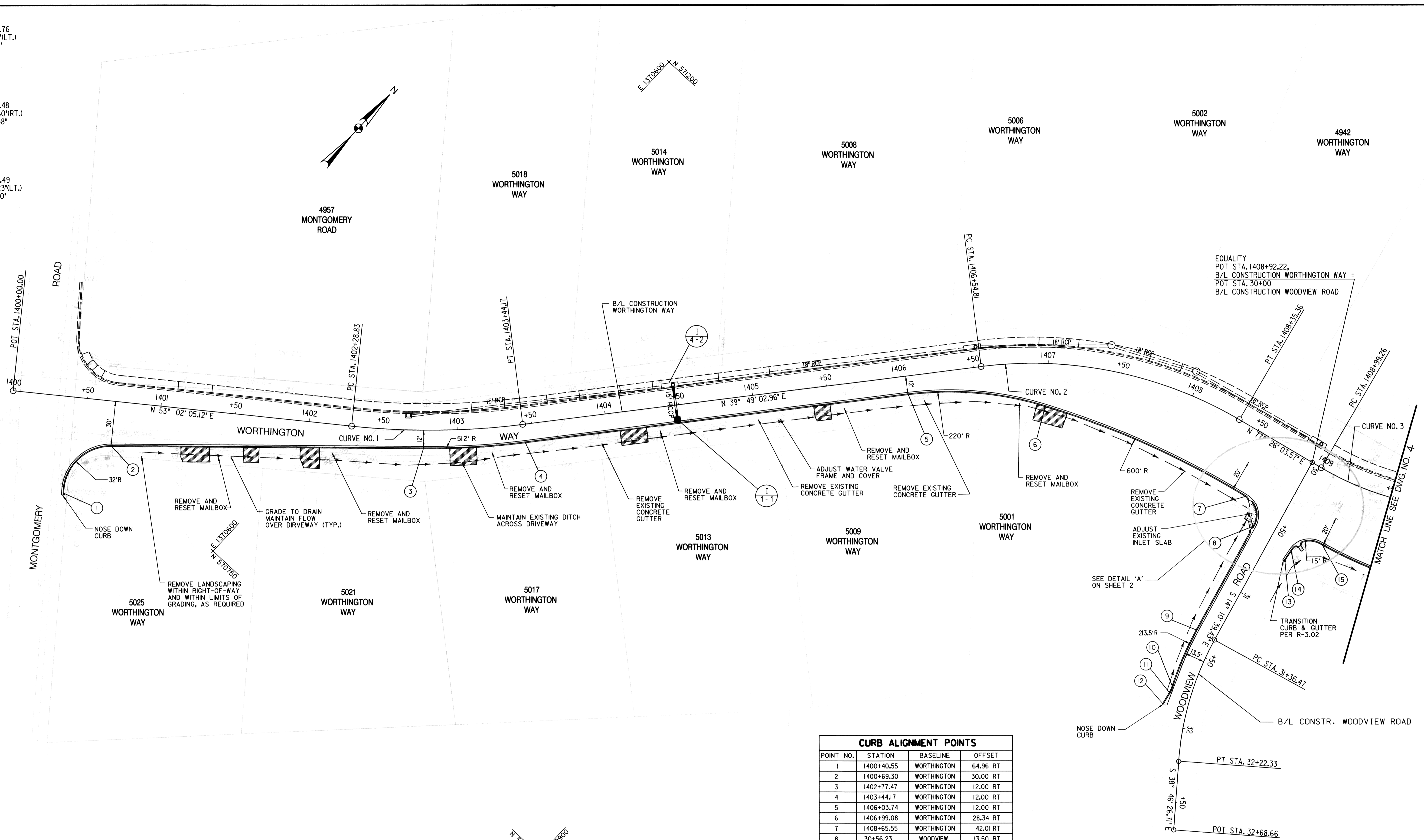
WORTHINGTON AREA DRAINAGE IMPROVEMENTS
CAPITAL PROJECT NO. D-1131

2ND ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

CURVE NO. 1
 P.I. STA. 1402+86.76
 $\Delta = 13^\circ 13' 02.16''$ (L.T.)
 $D_c = 11^\circ 27' 32.96''$
 $R = 500.00'$
 $T = 57.93'$
 $L = 115.34'$
 $E = 3.34'$

CURVE NO. 2
 P.I. STA. 1407+48.48
 $\Delta = 37^\circ 37' 00.60''$ (RT.)
 $D_c = 20^\circ 50' 05.38''$
 $R = 275.00'$
 $T = 93.66'$
 $L = 180.55'$
 $E = 15.51'$

CURVE NO. 3
 P.I. STA. 1409+60.49
 $\Delta = 34^\circ 02' 40.23''$ (L.T.)
 $D_c = 28^\circ 38' 52.40''$
 $R = 200.00'$
 $T = 61.23'$
 $L = 118.84'$
 $E = 9.16'$



EQUALITY
 POT STA. 1408+92.22,
 B/L CONSTRUCTION WORTHINGTON WAY =
 POT STA. 30+00
 B/L CONSTRUCTION WOODVIEW ROAD

CURB ALIGNMENT POINTS			
POINT NO.	STATION	BASELINE	OFFSET
1	1400+40.55	WORTHINGTON	64.96 RT
2	1400+69.30	WORTHINGTON	30.00 RT
3	1402+77.47	WORTHINGTON	12.00 RT
4	1403+44.17	WORTHINGTON	12.00 RT
5	1406+03.74	WORTHINGTON	12.00 RT
6	1406+99.08	WORTHINGTON	28.34 RT
7	1408+65.55	WORTHINGTON	42.01 RT
8	30+56.23	WOODVIEW	13.50 RT
9	31+36.47	WOODVIEW	13.50 RT
10	31+75.43	WOODVIEW	13.50 RT
11	31+79.67	WOODVIEW	14.07 RT
12	31+87.49	WOODVIEW	16.40 RT
13	30+66.14	WOODVIEW	15.24 LT
14	30+58.65	WOODVIEW	15.93 LT
15	1409+20.62	WORTHINGTON	45.50 RT

- NOTES:**
- RESIDENTIAL DRIVEWAYS TO BE CONSTRUCTED PER DRIVEWAY TYPICAL SECTION
 - DRAINAGE PIPES TO BE INSTALLED PER MD SHA SPECIFICATIONS SECTION 303.
 - ALL ROADWAY SIGNS WITHIN LIMIT OF GRADING SHALL BE RESET AS REQUIRED TO MAINTAIN PROPER ROADSIDE CLEARANCES.

LEGEND
 WEDGE/LEVEL ASPHALT

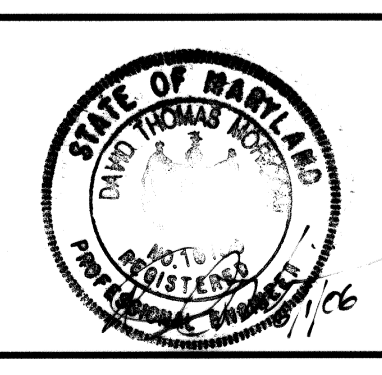
STANDARD 7" COMBINATION CURB AND GUTTER (STD. NO. R-3.01)		
STATION	L.F.	REMARKS
1400+40.55 RT. TO 1408+87.34 RT.	991	WORTHINGTON
1409+08.35 RT. TO 1409+50.00 RT.	57	WORTHINGTON

STRUCTURE SCHEDULE							
STRUCTURE DESIGNATION	REFERENCE B/L	WORK POINT		STRUCTURE TYPE	TOP OF STRUCTURE	INVERT IN	INVERT OUT
		STATION	OFFSET				
I-1-I	WORTHINGTON WAY	1404+47.80	12.10' RT	WR INLET	495.40	---	492.16

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Director of Public Works: *Steve Sharan* 5/30/07
 Chief, Bureau of Engineering: *Paul D. DeLeon* 5/30/07
 Chief, Transportation and Special Projects Division: *Steve Sharan* 5/30/07
 Chief, Bureau of Highways: *William J. Abell* 5-31-07

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DES: DTM			
DRN: EGB			
CHK: DTM			
DATE: 6/05	BY	NO.	REVISION

ROADWAY PLAN

SCALE MAP NO. _____ BLOCK NO. _____

WORTHINGTON AREA DRAINAGE IMPROVEMENTS
 CAPITAL PROJECT NO. D-1131

2ND ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

SCALE 1" = 30'
 SHEET 3 OF 5

CURVE NO. 3
 P.I. STA. 1409+60.49
 $\Delta = 34^{\circ}02'40.23''$ (L.T.)
 $D_c = 28^{\circ}38'52.40''$
 $R = 200.00'$
 $T = 61.23'$
 $L = 118.84'$
 $E = 9.16'$

CURVE NO. 4
 P.I. STA. 1410+89.71
 $\Delta = 11^{\circ}06'34.73''$ (L.T.)
 $D_c = 11^{\circ}27'32.96''$
 $R = 500.00'$
 $T = 48.63'$
 $L = 96.35'$
 $E = 2.36'$

CURVE NO. 5
 P.I. STA. 1412+78.2
 $\Delta = 10^{\circ}10'59.18''$ (L.T.)
 $D_c = 05^{\circ}43'46.48''$
 $R = 1000.00'$
 $T = 89.10'$
 $L = 177.73'$
 $E = 3.96'$

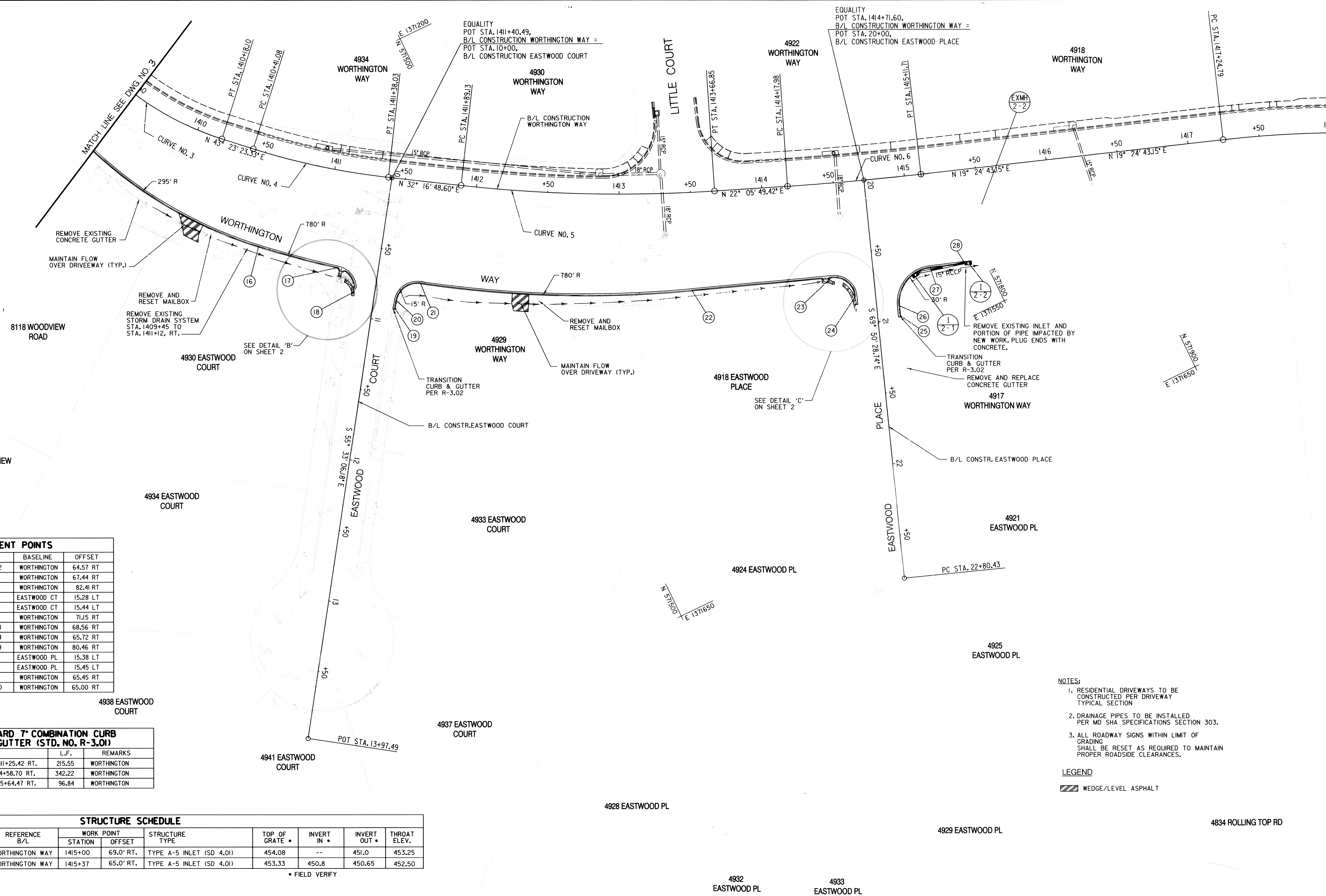
CURVE NO. 6
 P.I. STA. 1414+64.85
 $\Delta = 02^{\circ}41'06.27''$ (L.T.)
 $D_c = 02^{\circ}51'53.24''$
 $R = 2000.00'$
 $T = 46.87'$
 $L = 93.73'$
 $E = 0.55'$

POINT NO.	STATION	BASELINE	OFFSET
16	1410+62.42	WORTHINGTON	64.57 RT
17	1411+33.38	WORTHINGTON	67.44 RT
18	1411+25.44	WORTHINGTON	82.41 RT
19	10+90.00	EASTWOOD CT	15.28 LT
20	10+84.59	EASTWOOD CT	15.44 LT
21	1411+68.26	WORTHINGTON	71.5 RT
22	1413+47.58	WORTHINGTON	68.56 RT
23	1414+44.04	WORTHINGTON	65.72 RT
24	1414+58.69	WORTHINGTON	80.46 RT
25	20+96.91	EASTWOOD PL	15.38 LT
26	20+90.06	EASTWOOD PL	15.45 LT
27	1415+10.67	WORTHINGTON	65.45 RT
28	1415+35.00	WORTHINGTON	65.00 RT

STATION	L.F.	REMARKS
1409+50.00 RT. TO 1411+25.42 RT.	215.55	WORTHINGTON
1411+50.96 RT TO 1414+58.70 RT.	342.22	WORTHINGTON
1414+84.36 RT. TO 1415+64.47 RT.	96.84	WORTHINGTON

STRUCTURE DESIGNATION	REFERENCE B/L	WORK POINT		STRUCTURE TYPE	TOP OF GRATE *	INVERT IN *	INVERT OUT *	THROAT ELEV.
		STATION	OFFSET					
I-2-1	WORTHINGTON WAY	1415+00	69.0' RT.	TYPE A-5 INLET (SD 4.0I)	454.08	--	451.0	453.25
I-2-2	WORTHINGTON WAY	1415+37	65.0' RT.	TYPE A-5 INLET (SD 4.0I)	453.33	450.8	450.65	452.50

* FIELD VERIFY

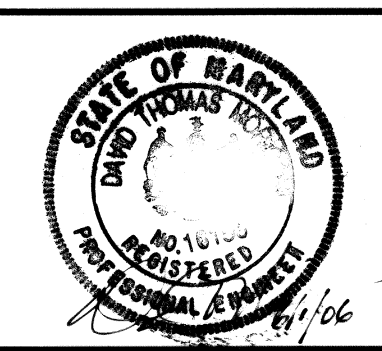


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LEGEND
 WEDGE/LEVEL ASPHALT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director: *Steve Sharan* 5/30/07
 Chief, Transportation and Special Projects Division

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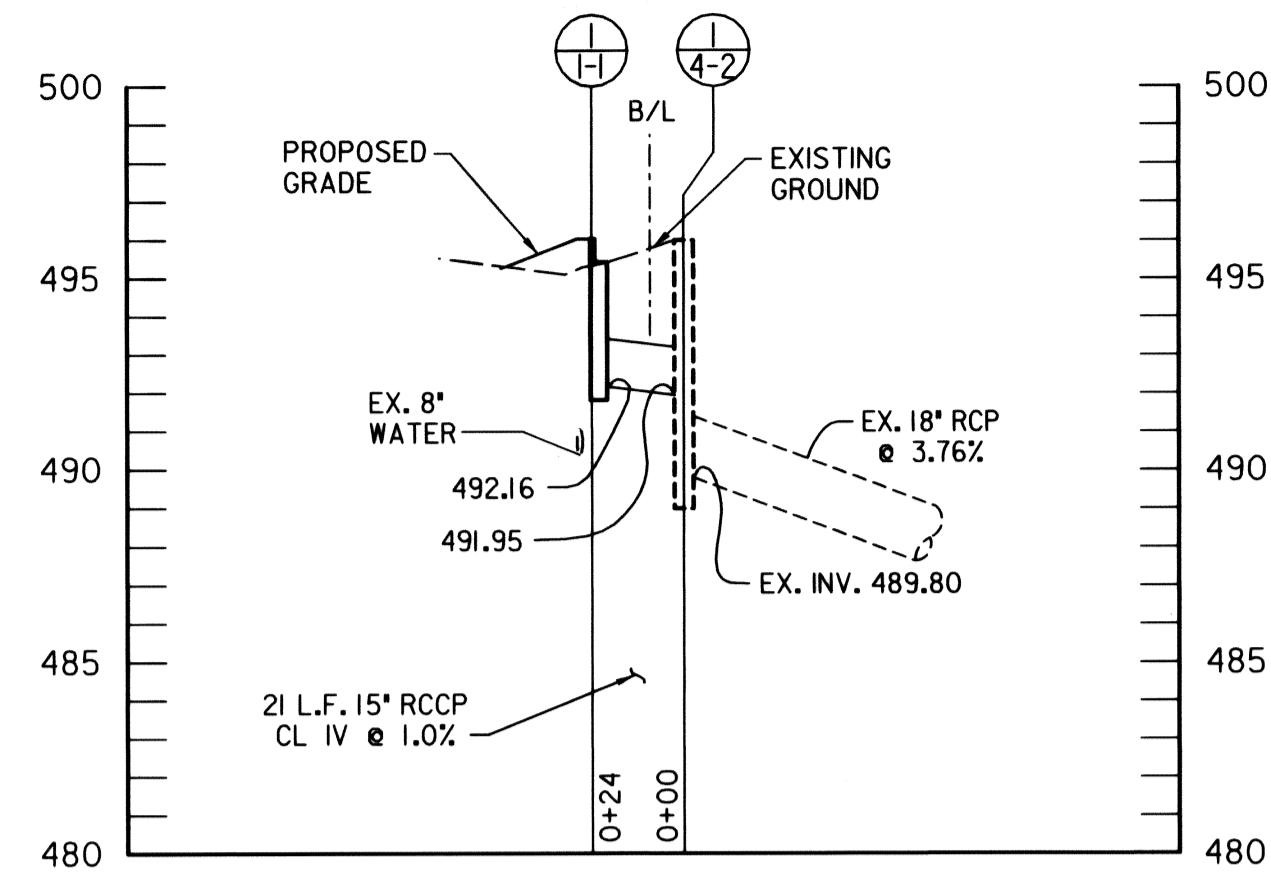
ROADWAY PLAN

SCALE MAP NO. _____ BLOCK NO. _____

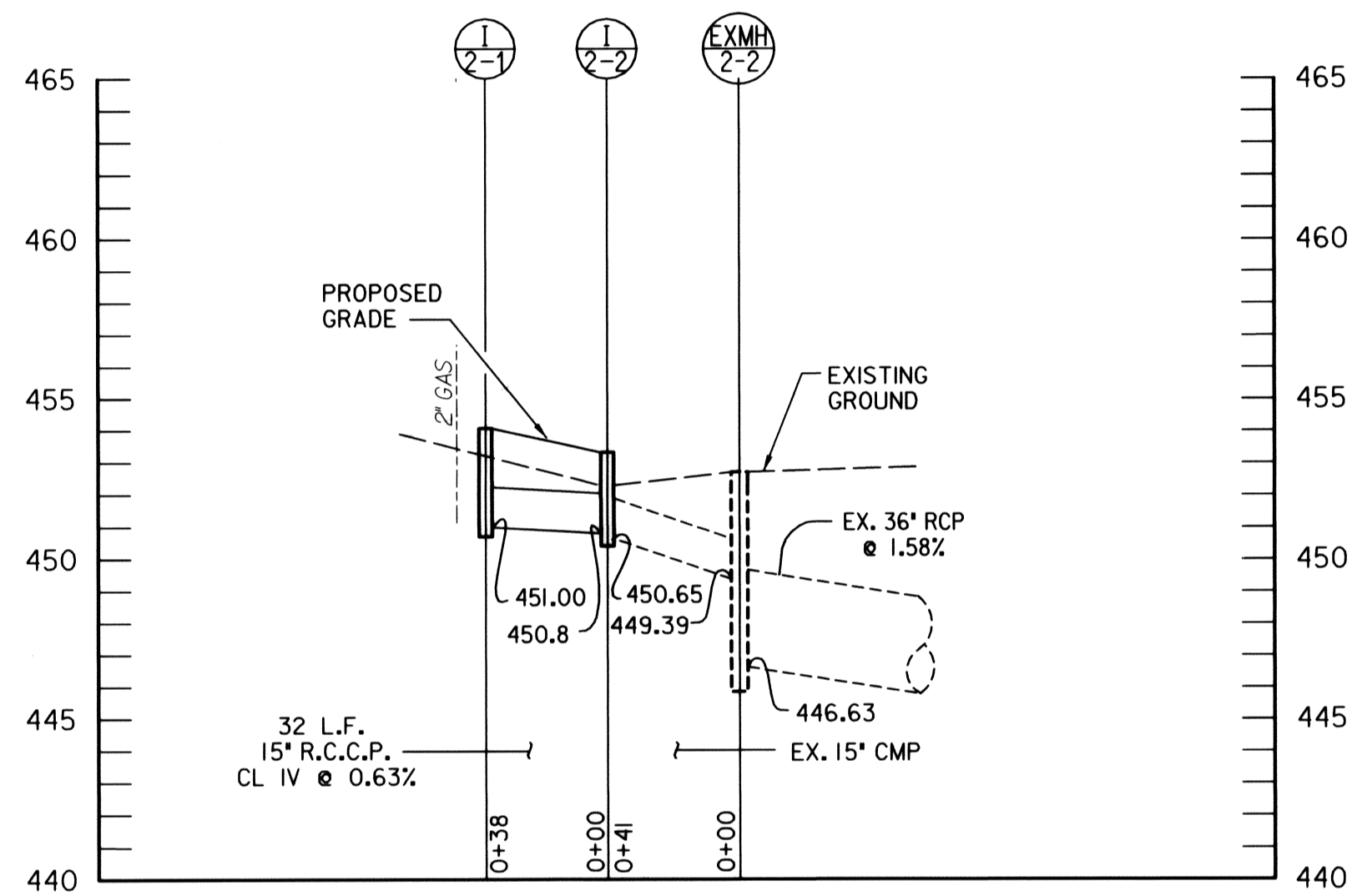
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2ND ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

SCALE 1" = 30'
 SHEET 4 OF 5



I-1-1 TO EX-4-2
STA 1404+47 WORTHINGTON WAY



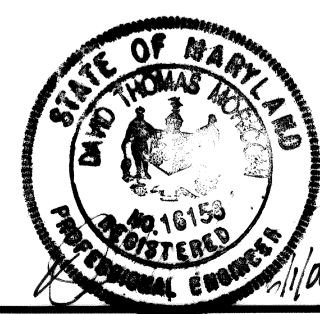
I-2-1 TO EX MH 2-2

SCALE: HORIZONTAL 1" = 50'
VERTICAL 1" = 5'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *Steve Sharav* 5/30/07
 Chief, Bureau of Engineering: *William J. Gullis* 5/30/07
 Chief, Transportation and Special Projects Division: *Steve Sharav* 5/30/07
 Chief, Bureau of Highways: *William J. Gullis* 5-31-07

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STORMDRAIN PROFILES

WORTHINGTON AREA DRAINAGE
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SCALE
SHEET 5 OF 5

2ND ELECTION DISTRICT - HOWARD COUNTY, MARYLAND