

**CITY OF ANN ARBOR
PUBLIC SERVICES DEPARTMENT
STANDARD SPECIFICATIONS**

Division 1 – Section 1S

Staking and Cut Sheet Requirements

Cut sheets shall indicate an on-site benchmark elevation, invert elevations of sewers, top-of-main elevations for water main, stake elevations, cut or fill, offset distance length, all utility crossings, top-of-casting elevations for all structures (for curb inlets top-of-casting shall be at the front of the casting at the edge-of-metal), and hydrant finish grade-ring elevations.

Staking for utilities shall be every half and full station, with the exception of water main to be laid in a horizontal curve which shall be staked every 25 feet or more often if required by the Public Services Director. Every manhole, sewer tee, and water main fitting and appurtenance shall be staked and included on the cut sheet. A minimum of two offset stakes as well as a centerline stake shall be used for all manholes, fire hydrants, and gate valves. For storm sewer structures to be located in the curbline, staking shall be placed establishing the back-of-curb line a minimum of five feet on each side of the storm sewer structure. This curb staking is in addition to, and is to be placed at the same time as, the centerline stake and two offset staked for the structure itself.

Sanitary sewer leads are to be staked with dual offset stakes at the termination point of the lead. Sanitary leads inspected by the Engineering Division are to be included on a cut sheet.

For copper water services, the location of the curb box is to be staked with either straddle of double stakes, marked with finish grade. Ductile iron water services shall be staked as detailed above for water main, and shall be included on the cut sheet.

Staking for curb and gutter shall be every quarter (25 feet), with horizontal and vertical curves staked every 12.5 feet. All low points, high points, PVC's, PVT's, PC's and PT's shall be staked. The maximum allowed offset will be 5 feet.

For sidewalk, bikepath and/or drive approach work, staking shall be provided by the Owner, to the satisfaction of the Public Services Director, that establishes the right-of-way line and all property corners for the limit of the work.

Construction lines and grades shall be transferred and set by the Contractor from the control lines and grades, and the Contractor shall furnish necessary instruments and competent personnel for performing such work, and shall be responsible for the accuracy of the transferred lines and grades. The Engineer and Public Services Director may check the work at intervals as they deem necessary and the Contractor shall make correction of error, if any, at the Contractor's own expense.

PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION
CITY OF ANN ARBOR

UTILITY CUT SHEET

DATE : 6/8/04	CONTRACTOR : HIGGINS
COMP BY : GFD,JFK	DRAWING NO. : 2000058-W
CHECKED BY : IK	THIS SHEET COVERS : 6+00 TO 10+00
SURVEY BOOK : 1082	CUT SHEETS FOR : WATERMAIN
PAGES : 33,34	SHEET : 1 OF 1
PROJECT NAME: JENNINGS NEWPORT HEIGHTS WATER AND SANITARY	

STATION	O/S ELEV	T/P	CUT/FILL	%GRADE	REMARKS	
6+ 00	921.92	917.1	C- 4.82	↑ 400 LF OF 8" CL-50 DIP W/POLY WRAP (TRENCH DETAIL II) ↓	10'E'LY OF 8" WATERMAIN	
6+ 39.4	923.39	917.7	C- 5.69		10' E'LY OF 8"- 45 DEGREE HORIZ. BEND	
6+ 50	922.68	917.6	C- 5.08		10' NE'LY OF 8" WATERMAIN	
6+ 92.2	922.80	918.1	C- 4.70		10' NE'LY OF 8"x 8"x 6" TEE (TO NE)	
AUX 0+00						
6+ 97.2	923.00	918.2	C- 4.80		10' NE'LY OF 8"- GATE VALVE IN BOX	
					T/C=923.5	
7+ 11	923.48	918.4	C- 5.08		10' NE'LY OF 8"- 45 DEGREE HORIZ. BEND	
7+ 25	924.60	918.9	C- 5.70		10' N'LY OF 8" WATERMAIN	
7+ 50	924.91	919.9	C- 5.01		10' N'LY OF 8" WATERMAIN	
7+ 75	926.08	921.7	C- 4.38		10' N'LY OF 8" WATERMAIN	
8+ 00	928.72	923.4	C- 5.32		10' N'LY OF 8" WATERMAIN	
8+ 25	931.38	925.1	C- 6.28		10' N'LY OF 8" WATERMAIN	
8+ 50	931.69	926.7	C- 4.99		10' N'LY OF 8" WATERMAIN	
8+ 75	932.73	928.2	C- 4.53		10' N'LY OF 8" WATERMAIN	
9+ 00	934.87	929.7	C- 5.17		10' N'LY OF 8" WATERMAIN	
9+ 50	937.52	933.0	C- 4.52		10' N'LY OF 8" WATERMAIN	
10+ 00	941.52	936.0	C- 5.52		10' N'LY OF 8" WATERMAIN	
AUX 0+00=	922.80	918.1	C- 4.70	↑ 12.5 LF OF 8" CL-50 DIP W/POLY WRAP ↓	10' NE'LY OF 8"x 8"x 6" TEE (TO NE)	
6+92.2						
AUX 0+12.5	923.92	918.0	C- 5.92		10' SE'LY OF FIRE HYDRANT	
					F/G=923.5	

NOTE: ALL SEWERS ARE MEASURED AT THE INVERT
ALL WATERMAINS ARE MEASURED AT THE TOP OF PIPE

APPROVED BY: _____ DATE: _____