

November 9, 2009

Shelley Shupp

City of Lawrence Utilities Department – Project Engineer

720 W. 3<sup>rd</sup> Street

Lawrence, KS 66044

RE: Park Place Apartments water meter variance request

Dear Shelley,

The purpose of this letter is to request a variance from city code 19-302(1)(B) on behalf of Boardwalk Apartments LC, for the installation of single meters for the 12-plexes in the above referenced project. City code 19-302(1)(B) states that apartment houses having twelve living units or less shall have a water meter for each living unit, unless the installation of a single meter for all units is applied for by the owner and approved by the City Commission.

The large buildings on this site will be served by a single water meter with the utility paid by the owner of the development.

There are 84 water supply fixture units proposed for each of the 12-plex buildings. Based on the fixture unit count, the attached sheets from the 2006 IPC, and the static pressure of 61 psi as provided by the City Utilities Department, the water meter sizes for all the 12-plexes may be 1" with a 1-1/2" distribution pipe. The determining factor for meter and distribution pipe size on the included 2006 IPC chart is the maximum development length. The longest maximum development length we are proposing is 150 feet to serve building C (see attached figure) as determined from the site plan. According to the chart there is no change in fixture number serviceability for any maximum development length less than 150 feet so this water service configuration applies to all the proposed 12-plexes in the development. We are requesting this variance for buildings A, C, J, G, K, and H, as labeled on the included reference figure.

Please let me know if you require any additional information in order to process this variance request.

Sincerely,



Brian Kemp

TABLE E201.1  
MINIMUM SIZE OF WATER METERS, MAINS AND DISTRIBUTION PIPING  
BASED ON WATER SUPPLY FIXTURE UNIT VALUES (w.s.f.u.)

METER AND SERVICE PIPE (Inches)	DISTRIBUTION PIPE (Inches)	MAXIMUM DEVELOPMENT LENGTH (feet)									
		40	60	80	100	150	200	250	300	400	500
Pressure Range 30 to 39 psi											
3/4	1/2	2.5	2	1.5	1.5	1	1	0.5	0.5	0	0
3/4	3/4	9.5	7.5	6	5.5	4	3.5	3	2.5	2	1.5
3/4	1	32	25	20	16.5	11	9	7.8	6.5	5.5	4.5
1	1	32	32	27	21	13.5	10	8	7	5.5	5
3/4	1 1/4	32	32	32	32	30	24	20	17	13	10.5
1	1 1/4	80	80	70	61	45	34	27	22	16	12
1 1/2	1 1/4	80	80	80	75	54	40	31	25	17.5	13
1	1 1/2	87	87	87	87	84	73	64	55	45	36
1 1/2	1 1/2	151	151	151	151	117	92	79	69	54	43
2	1 1/2	151	151	151	151	128	99	83	72	56	45
1	2	87	87	87	87	87	87	87	87	87	86
1 1/2	2	275	275	275	275	258	223	196	174	144	122
2	2	365	365	365	365	318	266	229	201	160	134
2	2 1/2	533	533	533	533	533	495	448	409	353	311

METER AND SERVICE PIPE (Inches)	DISTRIBUTION PIPE (Inches)	MAXIMUM DEVELOPMENT LENGTH (feet)									
Pressure Range 40 to 49 psi		40	60	80	100	150	200	250	300	400	500
3/4	1/2	3	2.5	2	1.5	1.5	1	1	0.5	0.5	0.5
3/4	3/4	9.5	9.5	8.5	7	5.5	4.5	3.5	3	2.5	2
3/4	1	32	32	32	26	18	13.5	10.5	9	7.5	6
1	1	32	32	32	32	21	15	11.5	9.5	7.5	6.5
3/4	1 1/4	32	32	32	32	32	32	32	27	21	16.5
1	1 1/4	80	80	80	80	65	52	42	35	26	20
1 1/2	1 1/4	80	80	80	80	75	59	48	39	28	21
1	1 1/2	87	87	87	87	87	87	87	78	65	55
1 1/2	1 1/2	151	151	151	151	151	130	109	93	75	63
2	1 1/2	151	151	151	151	151	139	115	98	77	64
1	2	87	87	87	87	87	87	87	87	87	87
1 1/2	2	275	275	275	275	275	275	264	238	198	169
2	2	365	365	365	365	365	349	304	270	220	185
2	2 1/2	533	533	533	533	533	533	533	528	456	403

(continued)