

December 6, 2013

Susan Redmond, Assistant Planner  
**CITY OF AUGUSTA**  
16 Cony Street  
Augusta, Maine 04330-5298

RE: 375200 – Joint Forces Headquarters  
Additional Buffer Information

Dear Susan:

Attached is additional information for the proposed buffer area between the Joint Forces Headquarters project and the adjacent residential district along Civic Center Drive. On December 3, 2013, we obtained existing tree count data on 15' x 15' quadrats behind each residential parcel (see Table 1 and sheet SK101 – Planting Buffer Plan). Due to the time of year and snow cover, it was difficult to obtain counts on deciduous and evergreen shrubs. We then extrapolated tree counts from each quadrat to estimate overall tree counts per buffer area. Because the proposed buffer width exceeds the required 25' for a Bufferyard "C" buffer, the required number of plantings per 100 LF can be reduced by 10% for each additional 5' width per section 5.1.1. Therefore, we calculated the mean buffer width for each buffer segment and the corresponding number of required plantings (see Table 1 & 2).

We hope that this additional information, including the images in sheet SK101, will be beneficial in determining that the proposed buffer is consistent with the City of Augusta's Code of Ordinances. Please contact me if you have any questions. Thank you.

Sincerely,

WBRC Architects / Engineers



John Kenney, PE LEED<sup>AP</sup>  
Civil Engineer

Cc: Norm Michaud, Andrew Flint, MLW, ARB

Enclosures: as noted

[www.wbrcae.com](http://www.wbrcae.com)

**BANGOR**

44 Central Street

Bangor, Maine 04401-5116

207.947.4511 voice 207.947.4628 fax

**PORTLAND**

141 Preble Street

Portland, Maine 04101

207.828.4511 voice 207.828.4515 fax

**SARASOTA**

8130 Lakewood Main Street, Suite 210

Lakewood Ranch, Florida 34202

941.556.0757 voice 941.556.0759 fax

FL COA#AA260001395 & 27389

Table 1. Required and provided buffer vegetation information for buffer areas between the Joint Forces Headquarters project and the adjacent residential district. See sheet SK101 - Planting Buffer Plan for Buffer A through F locations and images.

	Buffer											
	A		B		C		D		E		F	
Length (ft)	150		150		200		200		150		300	
Mean Width (ft)	146		105		57		114		178		205	
Area (SF)	21,900		15,750		11,400		22,800		26,700		61,500	
<b>Existing Plantings (15' x 15' plot)*</b>	<u>No.</u>	<u>dbh</u>										
Deciduous	16	1"-4"	8	2"-12"	13	1"-18"	6	1"-8"	2	6"-8"	8	8"-10"
Evergreen	3	1"-24"	1	6"	0		3	1/2"-1"	8	6"-8"	1	10"
Area (SF)	225		225		225		225		225		225	
<b>Existing Plantings (extrapolated)</b>	<u>No.</u>	<u>dbh</u>										
Deciduous	1557	1"-4"	560	2"-12"	659	1"-18"	608	1"-8"	237	6"-8"	2187	8"-10"
Evergreen	292	1"-24"	70	6"	0		304	1/2"-1"	949	6"-8"	273	10"
<b>Additional Plantings</b>	<u>No.</u>											
Canopy & evergreen trees	0		0		0		0		0		17	
Understory trees	0		0		21		24		0		6	
Deciduous Shrubs	0		0		0		0		0		18	
Evergreen shrubs	0		0		0		0		0		6	
<b>Required Plantings</b>	<u>No.</u>											
Canopy & evergreen trees	1		2		6		2		1		1	
Understory trees	1		2		5		2		1		1	
Deciduous Shrubs	2		5		16		5		1		1	
Evergreen shrubs	1		2		7		2		1		1	

\*Surveyed by Ray Bolduc PE, 12/3/13

Table 2. Bufferyard "C" planting reduction table per 100 LF for buffers >25' in width.

Buffer Width (ft)	Required number of plantings Per			100
	Canopy & evergreen trees	Understory trees	Deciduous Shrubs	Evergreen shrubs
25	5.0	4.0	15.0	6.0
30	4.5	3.6	13.5	5.4
35	4.1	3.2	12.2	4.9
40	3.6	2.9	10.9	4.4
45	3.3	2.6	9.8	3.9
50	3.0	2.4	8.9	3.5
55	2.7	2.1	8.0	3.2
60	2.4	1.9	7.2	2.9
65	2.2	1.7	6.5	2.6
70	1.9	1.5	5.8	2.3
75	1.7	1.4	5.2	2.1
80	1.6	1.3	4.7	1.9
85	1.4	1.1	4.2	1.7
90	1.3	1.0	3.8	1.5
95	1.1	0.9	3.4	1.4
100	1.0	0.8	3.1	1.2
105	0.9	0.7	2.8	1.1
110	0.8	0.7	2.5	1.0
115	0.8	0.6	2.3	0.9
120	0.7	0.5	2.0	0.8
125	0.6	0.5	1.8	0.7
130	0.5	0.4	1.6	0.7
135	0.5	0.4	1.5	0.6
140	0.4	0.4	1.3	0.5
145	0.4	0.3	1.2	0.5
150	0.4	0.3	1.1	0.4
155	0.3	0.3	1.0	0.4
160	0.3	0.2	0.9	0.3
165	0.3	0.2	0.8	0.3
170	0.2	0.2	0.7	0.3
175	0.2	0.2	0.6	0.3
180	0.2	0.2	0.6	0.2
185	0.2	0.1	0.5	0.2
190	0.2	0.1	0.5	0.2
195	0.1	0.1	0.4	0.2
200	0.1	0.1	0.4	0.2
205	0.1	0.1	0.3	0.1