



MEMORANDUM

TO : City of Lawrence
FROM : Paul Werner
RE : North Mass – Shared Parking Analysis
DATE : October 15, 2018

Please review the attached tables providing a parking analysis for the North Mass Development.

We have used percentages provided by Planning Staff for these calculations.

We have provided a parking analysis for each of the seven buildings, as well as combined analysis for Buildings I-V, Buildings I-VI, and Buildings I-VII.

The combined analysis of Buildings I-V take in to consideration Phases I and II of the development, and the analysis shows there is going to be enough parking provided to serve these phases.

When adding Building VI, based on the City's sharing factors, the property starts to show a shortfall of parking. This is clearly driven by the Eating & Drinking Establishment percentages in the calculations. The Preliminary Development Plan shows ample opportunity to build additional parking if deemed necessary.

As with the addition of Building VI, Building VII shows the same shortfall of parking. Depending on how the tenants fill in and their exact uses, the development could be short of parking provided. We feel we will have a much greater understanding of the parking needs by the time construction of Building VII is set to begin.

In addition to parking analysis for all the buildings, we have added an alternative calculation using percentages that we feel are more realistic. Due to the number of variables, we look forward to an ongoing review of the parking provided, and what the parking needs are deemed to be.

Please know that the developers want to ensure there is adequate parking for all residents, tenants, customers, and owners to ensure a successful development.

BUILDING I

Shared Parking Analysis

Parking Calculation - Shared Factor Applied

<u>Required Parking</u>	<u>Use Category</u>	<u>Weekday</u>			<u>Weekend</u>	
		<u>Night</u>	<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>
0	Residential	0	0	0	0	0
0	Office	0	0	0	0	0
0	Retail	0	0	0	0	0
0	Hotel	0	0	0	0	0
41	Eating & Drinking	4	0	29	0	33
41	Total:	4	0	29	0	33

City Shared Parking Table:

	<u>Weekday</u>			<u>Weekend</u>	
	<u>Night</u>	<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>
	2am - 8am	8am - 5pm	5pm - 12am	8am - 5pm	5pm - 2am
Residential	100%	60%	90%	80%	90%
Office	5%	100%	10%	10%	5%
Retail	5%	70%	90%	100%	70%
Hotel	80%	55%	100%	50%	100%
Eating & Drinking Establi	10%	0%	70%	0%	80%

Spaces Provided on Interior of Building:

BUILDING II

Shared Parking Analysis

Parking Calculation - Shared Factor Applied

<u>Required Parking</u>	<u>Use Category</u>	<u>Weekday</u>			<u>Weekend</u>	
		<u>Night</u>	<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>
0	Residential	0	0	0	0	0
0	Office	0	0	0	0	0
0	Retail	0	0	0	0	0
0	Hotel	0	0	0	0	0
9	Eating & Drinking	1	0	6	0	7
9	Total:	1	0	6	0	7

City Shared Parking Table:

	<u>Weekday</u>			<u>Weekend</u>	
	<u>Night</u>	<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>
	2am - 8am	8am - 5pm	5pm - 12am	8am - 5pm	5pm - 2am
Residential	100%	60%	90%	80%	90%
Office	5%	100%	10%	10%	5%
Retail	5%	70%	90%	100%	70%
Hotel	80%	55%	100%	50%	100%
Eating & Drinking Establi	10%	0%	70%	0%	80%

Spaces Provided on Interior of Building:

BUILDING III

Shared Parking Analysis

Parking Calculation - Shared Factor Applied

<u>Required Parking</u>	<u>Use Category</u>	<u>Weekday</u>			<u>Weekend</u>	
		<u>Night</u>	<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>
26	Residential	26	16	23	21	23
6	Office	0	6	1	1	0
10	Retail	1	7	9	10	7
0	Hotel	0	0	0	0	0
0	Eating & Drinking	0	0	0	0	0
42	Total:	27	29	33	31	31

City Shared Parking Table:

	<u>Weekday</u>			<u>Weekend</u>	
	<u>Night</u>	<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>
	2am - 8am	8am - 5pm	5pm - 12am	8am - 5pm	5pm - 2am
Residential	100%	60%	90%	80%	90%
Office	5%	100%	10%	10%	5%
Retail	5%	70%	90%	100%	70%
Hotel	80%	55%	100%	50%	100%
Eating & Drinking Establi	10%	0%	70%	0%	80%

Spaces Provided on Interior of Building:

BUILDING IV

Shared Parking Analysis

Parking Calculation - Shared Factor Applied

<u>Required Parking</u>	<u>Use Category</u>	Weekday			Weekend	
		<u>Night</u>	<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>
152	Residential	152	91	137	122	137
10	Office	1	10	1	1	1
7	Retail	0	5	6	7	5
0	Hotel	0	0	0	0	0
12	Eating & Drinking	1	0	8	0	10
181	Total:	154	106	153	130	152

City Shared Parking Table:

	Weekday			Weekend	
	Night	Day	Evening	Day	Evening
	2am - 8am	8am - 5pm	5pm - 12am	8am - 5pm	5pm - 2am
Residential	100%	60%	90%	80%	90%
Office	5%	100%	10%	10%	5%
Retail	5%	70%	90%	100%	70%
Hotel	80%	55%	100%	50%	100%
Eating & Drinking Establi	10%	0%	70%	0%	80%

Spaces Provided on Interior of Building: 98

BUILDING V

Shared Parking Analysis

Parking Calculation - Shared Factor Applied

<u>Required Parking</u>	<u>Use Category</u>	<u>Weekday</u>			<u>Weekend</u>	
		<u>Night</u>	<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>
63	Residential	63	38	57	50	57
47	Office	2	47	5	5	2
23	Retail	1	16	21	23	16
0	Hotel	0	0	0	0	0
50	Eating & Drinking	5	0	35	0	40
183	Total:	72	101	117	78	115

City Shared Parking Table:

	<u>Weekday</u>			<u>Weekend</u>	
	<u>Night</u>	<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>
	2am - 8am	8am - 5pm	5pm - 12am	8am - 5pm	5pm - 2am
Residential	100%	60%	90%	80%	90%
Office	5%	100%	10%	10%	5%
Retail	5%	70%	90%	100%	70%
Hotel	80%	55%	100%	50%	100%
Eating & Drinking Establi	10%	0%	70%	0%	80%

Spaces Provided on Interior of Building: 32

BUILDING VI

Shared Parking Analysis

Parking Calculation - Shared Factor Applied

<u>Required Parking</u>	<u>Use Category</u>	<u>Night</u>	<u>Weekday</u>			<u>Weekend</u>	
			<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>	
202	Residential	202	121	182	162	182	
10	Office	1	10	1	1	1	
30	Retail	2	21	27	30	21	
0	Hotel	0	0	0	0	0	
50	Eating & Drinking	5	0	35	0	40	
292	Total:	209	152	245	193	243	

City Shared Parking Table:

	<u>Weekday</u>			<u>Weekend</u>	
	<u>Night</u>	<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>
	2am - 8am	8am - 5pm	5pm - 12am	8am - 5pm	5pm - 2am
Residential	100%	60%	90%	80%	90%
Office	5%	100%	10%	10%	5%
Retail	5%	70%	90%	100%	70%
Hotel	80%	55%	100%	50%	100%
Eating & Drinking Establi	10%	0%	70%	0%	80%

Spaces Provided on Interior of Building: 96

BUILDING VII

Shared Parking Analysis

Parking Calculation - Shared Factor Applied

<u>Required Parking</u>	<u>Use Category</u>	<u>Night</u>	<u>Weekday</u>			<u>Weekend</u>	
			<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>	
202	Residential	202	121	182	162	182	
10	Office	1	10	1	1	1	
30	Retail	2	21	27	30	21	
0	Hotel	0	0	0	0	0	
50	Eating & Drinking	5	0	35	0	40	
292	Total:	209	152	245	193	243	

City Shared Parking Table:

	<u>Weekday</u>			<u>Weekend</u>	
	<u>Night</u>	<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>
	2am - 8am	8am - 5pm	5pm - 12am	8am - 5pm	5pm - 2am
Residential	100%	60%	90%	80%	90%
Office	5%	100%	10%	10%	5%
Retail	5%	70%	90%	100%	70%
Hotel	80%	55%	100%	50%	100%
Eating & Drinking Establi	10%	0%	70%	0%	80%

Spaces Provided on Interior of Building: 96

Combined - Buildings I-V

Shared Parking Analysis

Parking Calculation - Shared Factor Applied

<u>Required Parking</u>	<u>Use Category</u>	<u>Night</u>	<u>Weekday</u>			<u>Weekend</u>	
			<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>	
241	Residential	241	145	217	193	217	
63	Office	3	63	6	6	3	
40	Retail	2	28	36	40	28	
0	Hotel	0	0	0	0	0	
112	Eating & Drinking	11	0	78	0	90	
456	Total:	257	236	338	239	338	

City Shared Parking Table:

	<u>Weekday</u>			<u>Weekend</u>	
	<u>Night</u>	<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>
	2am - 8am	8am - 5pm	5pm - 12am	8am - 5pm	5pm - 2am
Residential	100%	60%	90%	80%	90%
Office	5%	100%	10%	10%	5%
Retail	5%	70%	90%	100%	70%
Hotel	80%	55%	100%	50%	100%
Eating & Drinking Establish	10%	0%	70%	0%	80%

Spaces Provided on Interior of Buildings:	130
Spaces Provided on Exterior Parking Lots:	213
Total Parking Provided:	343

Combined - Buildings I-VI

Shared Parking Analysis

Parking Calculation - Shared Factor Applied

<u>Required Parking</u>	<u>Use Category</u>	<u>Night</u>	<u>Weekday</u>		<u>Weekend</u>	
			<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>
443	Residential	443	266	399	354	399
73	Office	4	73	7	7	4
70	Retail	4	49	63	70	49
0	Hotel	0	0	0	0	0
162	Eating & Drinking	16	0	113	0	130
748	Total:	466	388	582	432	581

City Shared Parking Table:

	<u>Weekday</u>			<u>Weekend</u>	
	<u>Night</u>	<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>
	2am - 8am	8am - 5pm	5pm - 12am	8am - 5pm	5pm - 2am
Residential	100%	60%	90%	80%	90%
Office	5%	100%	10%	10%	5%
Retail	5%	70%	90%	100%	70%
Hotel	80%	55%	100%	50%	100%
Eating & Drinking Establish	10%	0%	70%	0%	80%

Spaces Provided on Interior of Buildings:	226
Spaces Provided on Exterior Parking Lots:	262
Total Parking Provided:	488

Combined - Buildings I-VII

Shared Parking Analysis

Parking Calculation - Shared Factor Applied

<u>Required Parking</u>	<u>Use Category</u>	<u>Night</u>	<u>Weekday</u>			<u>Weekend</u>	
			<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>	
645	Residential	645	387	581	516	581	
83	Office	4	83	8	8	4	
100	Retail	5	70	90	100	70	
0	Hotel	0	0	0	0	0	
212	Eating & Drinking	21	0	148	0	170	
1,040	Total:	675	540	827	624	824	

City Shared Parking Table:

	<u>Weekday</u>			<u>Weekend</u>	
	<u>Night</u>	<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>
	2am - 8am	8am - 5pm	5pm - 12am	8am - 5pm	5pm - 2am
Residential	100%	60%	90%	80%	90%
Office	5%	100%	10%	10%	5%
Retail	5%	70%	90%	100%	70%
Hotel	80%	55%	100%	50%	100%
Eating & Drinking Establish	10%	0%	70%	0%	80%

Spaces Provided on Interior of Buildings:	322
Spaces Provided on Exterior Parking Lots:	308
Total Parking Provided:	630
Additional (Dashed) Parking Shown:	95
Total Including Additional Parking:	725

Combined - All Buildings (Alternate Percentages)

Shared Parking Analysis

Parking Calculation - Shared Factor Applied

<u>Required Parking</u>	<u>Use Category</u>	<u>Night</u>	<u>Weekday</u>			<u>Weekend</u>	
			<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>	
645	Residential	645	387	581	516	581	
83	Office	4	83	8	8	4	
100	Retail	5	70	70	100	60	
0	Hotel	0	0	0	0	0	
212	Eating & Drinking	11	11	106	21	148	
1,040	Total:	665	551	765	646	793	

City Shared Parking Table:

	<u>Weekday</u>			<u>Weekend</u>	
	<u>Night</u>	<u>Day</u>	<u>Evening</u>	<u>Day</u>	<u>Evening</u>
	2am - 8am	8am - 5pm	5pm - 12am	8am - 5pm	5pm - 2am
Residential	100%	60%	90%	80%	90%
Office	5%	100%	10%	10%	5%
Retail	5%	70%	70%	100%	60%
Hotel	80%	55%	100%	50%	100%
Eating & Drinking Establish	5%	5%	50%	10%	70%

Spaces Provided on Interior of Buildings:	322
Spaces Provided on Exterior Parking Lots:	308
Total Parking Provided:	630
Additional (Dashed) Parking Shown:	95
Total Including Additional Parking:	725