

68 SEAVIEW AVENUE

PARKING STUDY

Prepared for: Eagle Ventures

Client Ref: 141.20495.00001

December 2022



December 28, 2022

Mr. Peter Cabrera
Eagle Ventures
36 Sherwood Place (Suite LL)
Greenwich, CT 06830

**Re: Parking Study
 Mixed-Use Redevelopment
 68 Seaview Avenue
 Stamford, Connecticut
 SLR #141.20495.00001**

Dear Mr. Cabrera,

At your request, SLR International Corporation (SLR) has undertaken this study to evaluate the parking-related implications associated with the proposed mixed-use redevelopment located at 68 Seaview Avenue in Stamford, Connecticut. The site currently has a seven-story office building and a 57-slip boat marina. The proposed project plans to retrofit the existing office building with 52 residential units and approximately 6,800 square feet (SF) of office space. The existing marina will remain. The proposed development plans to provide a total of 173 onsite parking spaces.

ESTIMATED PEAK PARKING DEMAND

A comparison was conducted to review the estimated peak parking demands that are expected to be generated by the individual land uses of the proposed redevelopment using the Stamford Zoning Regulations, the Institute of Transportation Engineers' (ITE) *Parking Generation Manual*, and parking data conducted by SLR locally.

ITE's *Parking Generation Manual 5th Edition* is an industry standard resource that uses national statistical data to forecast parking demands for specific land uses. To supplement the national parking data, in the past decade, SLR has collected and assembled peak parking use data at many multi-family residential developments in Stamford. SLR also collected parking occupancy counts at the 68 Seaview Avenue Marina as well as two other nearby marinas (the Halloween Yacht Club and the Czescik Marina) during Memorial Day weekend and Fourth of July weekend. The empirical data on overnight parking use at the Stamford multi-family residential developments is shown in the Appendix.

Residential

As stated previously, the proposed redevelopment will include 52 residential dwelling units (13 one-

bedroom units, 35 two-bedroom units, and 4 three-bedroom units). Of the data that SLR has collected over the years, multifamily residential developments in Stamford were found to have parking use ratios (total number of parked cars at each site/number of occupied residential units) that range from around 0.65 to 1.42 spaces per unit. It has been found that the residential parking use in Stamford is well correlated with both site-specific and neighborhood-specific variables. For example, it has been found that residential buildings with high percentages of single-bedroom units or studio units use less parking than those with high percentages of two- and three-bedroom units. Additionally, it has been found that the closer a residential multi-family building is to the Stamford Train Station, the lower their parking use is. SLR has developed a multi-variable regression model, using both the percentage of single-bedroom units within the development and the distance of the development to the train station to predict residential parking use at the proposed redevelopment. The multi-variable regression statistics can be found in the Appendix. Using the localized multiple-variable regression model from our files, it is predicted that the overnight residential parking use on a per-unit basis at the proposed redevelopment will be approximately 1.25 parked vehicles per unit. Review of industry data published by ITE finds a similar rate of 1.31 parked vehicles per unit.

Table 1 summarizes the peak parking demand estimates associated for the residential component of the proposed redevelopment based on the various data sources.

Table 1 Residential Parking Demand Summary

Data Source	Land Use	Units	Peak	
			Parking Rate	Parking Demand
Zoning Regulations ¹	1-bedroom apartment	13 DU	1.5/DU	20
	2-bedroom apartment	35 DU	1.75/DU	61
	3+-bedroom apartment	4 DU	2/DU	8
	<i>Total</i>	<i>52 DU</i>		89
ITE ²	Multifamily Housing (Mid-Rise)	52 DU	1.31/DU	68
SLR ³	Multifamily Housing	52 DU	1.25/DU	65
Midpoint	1-bedroom apartment	13 DU	1.25/DU	16
	2-bedroom apartment	35 DU	1.5/DU	53
	3+-bedroom apartment	4 DU	2/DU	8
	<i>Total</i>	<i>52 DU</i>		77

Notes: DU = Dwelling Unit

1. Based on Table 12.7 in the Stamford Zoning Regulations.
2. Based on weekday average rates from ITE Parking Generation Manual, 5th Edition.
3. Based on parking data from over 15 multifamily developments in Stamford. The multi regression statistics used can be found in the Appendix. Assumed 41% single bedroom units and 1.1 miles from the Stamford Train Station (as the crow flies).

As shown in the table, the Stamford Zoning Regulations residential parking rates are likely high considering the multifamily residential parking data collected throughout Stamford and the ITE rates. Nonetheless, based on the comparison conducted and for the purpose of this study, the residential component of the proposed redevelopment is estimated to demand between 65 and 89 parking spaces. This includes residents and visitors. Upon review of the zoning regulations, industry standard data, and local parking data, it can be assumed that the proposed development will generate a peak residential parking demand of approximately 77 parked vehicles. Note that residential parking typically peaks overnight.

Office

As stated previously, the proposed redevelopment will include approximately 6,800 SF of office space. **Table 2** summarizes the peak parking demand estimates associated with the office component of the proposed redevelopment based on the various data sources for both weekdays and weekends.

Table 2 Office Parking Demand Summary

Data Source	Land Use	Units	Weekday Peak	
			Parking Rate	Parking Demand
Zoning Regulations ¹	Offices	6.8 KSF	1.2/1 KSF	8
ITE ²	General Office		2.39/1 KSF	16
Midpoint	Office	6.8 KSF	1.76/KSF	12

Notes: KSF = Thousand Square Feet (Gross Floor Area)

1. Based on Section 12.D.6 in the Stamford Zoning Regulations

2. Based on weekday average rates from ITE Parking Generation Manual, 5th Edition

As shown in the table, the peak office parking rates vary considerably between the zoning regulations and industry standard data. Based on the comparison conducted, the office component of the proposed redevelopment is estimated to demand between 8 and 16 parking spaces. Upon review of the zoning regulations and industry standard data, it can be assumed that the proposed development will generate a peak office parking demand of approximately 12 parked vehicles. This includes employees and visitors. Note office parking typically peaks during the daytime on weekdays.

Marina

As stated previously, the proposed redevelopment will maintain the existing 57-slip marina. The Stamford Zoning Regulations have a parking rate of 1.5 parking spaces per boat slip, which is believed to be considerably high. For comparison, the Norwalk Building Zone Regulations have a parking rate of 1 parking space per dock space and the Greenwich Building Zone Regulations and Westbrook Zoning and Subdivision Regulations both have a parking rate of 0.5 spaces per slip. Additionally, ITE has a parking rate of 0.59 parking spaces per berth.

To supplement the local zoning regulations and limited national parking data, SLR collected parking occupancy counts at the 68 Seaview Avenue Marina as well as two other nearby marinas (the Halloween Yacht Club and the Czescik Marina) during Memorial Day weekend and Fourth of July weekend. Parking observations were conducted Saturday, May 28, 2022, to Monday, May 30, 2022, and Saturday, July 2, 2022, to Monday, July 4, 2022, from 11:00 a.m. to 1:00 p.m. when marina activity was estimated to be the busiest. **Table 3** summarizes the summer holiday weekend peak parking observations for the three marina sites.

Table 3 Memorial Day & Fourth of July Marina Parking Observations

Starting Time	Seaview Marina 68 Seaview Avenue	Halloween Yacht Club 10 Seaview Avenue	Czescik Marina 18 Harbor Drive
<i>Estimated Number of Slips/Berths</i>	57	134	180
<i>Estimated Total Parking Spaces</i>	45	30	42
Memorial Day Weekend Parking Observations			
May 28, 2022 - Saturday			
11:00 a.m.	11	8	10
12:00 noon	16	8	8
1:00 p.m.	17	8	11
<i>Observed Max Parking Ratio</i>	<i>0.3 space/slip</i>	<i>0.1 space/slip</i>	<i>0.1 space/slip</i>
May 29, 2022 - Sunday			
11:00 a.m.	18	17	27
12:00 noon	20	13	26
1:00 p.m.	28	19	32
<i>Observed Max Parking Ratio</i>	<i>0.5 space/slip</i>	<i>0.1 space/slip</i>	<i>0.2 space/slip</i>
May 30, 2022 - Monday			
11:00 a.m.	23	19	23
12:00 noon	29	23	25
1:00 p.m.	43	28	25
<i>Observed Max Parking Ratio</i>	<i>0.8 space/slip</i>	<i>0.2 space/slip</i>	<i>0.1 space/slip</i>
Fourth of July Weekend Parking Observations			
July 2, 2022 - Saturday			
11:00 a.m.	15	8	10
12:00 noon	19	11	12
1:00 p.m.	26	8	15
<i>Observed Max Parking Ratio</i>	<i>0.5 space/slip</i>	<i>0.1 space/slip</i>	<i>0.1 space/slip</i>
July 3, 2022 - Sunday			
11:00 a.m.	6	31	21
12:00 noon	10	34	20
1:00 p.m.	50	22	23
<i>Observed Max Parking Ratio</i>	<i>0.9 space/slip</i>	<i>0.3 space/slip</i>	<i>0.1 space/slip</i>
July 4, 2022 - Monday			
11:00 a.m.	33	15	25
12:00 noon	34	25	25
1:00 p.m.	46	35	26
<i>Observed Max Parking Ratio</i>	<i>0.8 space/slip</i>	<i>0.3 space/slip</i>	<i>0.1 space/slip</i>

As shown in the table, all three marina sites currently have significantly less parking than what is required based on the Stamford Zoning Regulations. The maximum parking ratio (0.9 spaces per slip) was observed on Sunday, July 3, 2022, at 1:00 p.m. at the 68 Seaview Avenue Marina. The two other marinas had maximum parking ratios of 0.3 spaces per slip or less. These observations are further indication that the parking rate for marinas in the Stamford Zoning Regulations is very high and a peak parking rate of 1 space per slip or even less would be more suitable for the proposed redevelopment.

Table 4 summarizes the peak parking demand estimates associated with the marina component of the proposed redevelopment based on the various data sources.

Table 4 Marina Parking Demand Summary

Data Source		Land Use	Units	Peak	
				Parking Rate	Parking Demand
Zoning Regulations	Stamford ¹	Marina	57 slips	1.5/Slip	86
	Norwalk ²			1/Dock Space	57
	Greenwich ³ and Westbrook ⁴			0.5/Slip	29
	ITE ⁵			0.59/Berth	34
	SLR ⁶			0.9/Slip	52
Recommended		Marina	57 slips	1/Slip	57

1. Based on Section 12.D.17 in the Stamford Zoning Regulations
2. Based on Article 120 Section 118-1220 in the Norwalk Building Zone Regulations
3. Based on Division 15 Section 6-158 in the Greenwich Building Zone Regulations
4. Based on Section 34-5 in the Westbrook Zoning and Subdivision Regulations
5. Based on average Sunday rate from ITE *Parking Generation Manual, 5th Edition*
6. Based on the maximum rate observed at the existing 68 Seaview Avenue Marina on Sunday, July 3, 2022, at 1:00 p.m.

As shown in the table, the peak marina parking rates vary considerably, and the Stamford Zoning Regulations marina parking rates are very high. Based on the comparison conducted, the marina component of the proposed redevelopment is estimated to demand between 29 and 86 parking spaces. Upon review of the zoning regulations, industry standard data, and local parking data, it is recommended to use a rate of 1 space per slip for the marina component. As such, it is recommended that the proposed development assumes a peak parking demand of approximately 57 spaces for the marina component.

Total Redevelopment

Table 5 summarizes the estimated peak parking demand for the entire redevelopment using the recommended parking rates.

**Table 5 Separate Peak Parking Demand Estimates
68 Seaview Avenue Redevelopment**

Land Use	Units	Parking Rate ¹	Estimated Peak Parking Demand
Apartments	52 DU	± 1.5/DU	77
Office	6.8 KSF	± 1.75/1 KSF	12
Marina	57 slips	1/Slip	57
Unshared Total			146

Notes: DU = Dwelling Unit, KSF (GFA) = Thousand Square Feet (Gross Floor Area)

1. Rates based on review of the zoning regulations, industry standard data, and local parking data

The proposed development plans to provide a total of 173 parking spaces (31 spaces on the first floor, 60 spaces on the second floor, and 82 spaces on the third floor). As shown in Table 5, the proposed redevelopment is expected to provide more than enough parking for what is estimated to be demanded based on the proposed land uses.

It is important to note that the total estimated peak parking demand assumes that each land use is mutually exclusive and does not account for shared parking. Because of this, the total estimated peak parking demand is a conservatively high estimation.

SHARED PARKING ANALYSIS

Under the City of Stamford Zoning Regulations, the shared use of parking may be permitted by administrative approval of the Zoning Board, where a finding is made by the Zoning Board that individual uses such as residential, office, and retail experience peak parking demands at different times or would reduce the number of curb cuts. Shared parking is the use of parking spaces to serve two or more individual land uses without conflict or encroachment. The ability to share parking spaces is the result of two conditions:

- Variations in the accumulation of vehicles by hour, by day, or by season at the individual land uses
- Relationship among the land uses that results in visiting multiple land uses on the same automobile trip

With the three land uses on one site, marina, residential, and office, the proposed redevelopment has both of these conditions and is a good candidate for shared parking. Moreover, the marina will not be used in the winter months and will be most heavily used during weekends and holidays when the office use is little to none. Additionally, residents and office users may also use the marina, further reducing the amount of parking needed.

To understand how the separate land use parking demands will fluctuate throughout the course of a 24-

hour period, a shared parking analysis was conducted for the mixed-use redevelopment. Peak parking demand percentages from ITE's *Parking Generation Manual 5th Edition* were applied to the estimated peak parking demand totals shown in Table 5 to determine the hourly parking variations for the proposed redevelopment. It is important to note that ITE does not include peak parking demand percentages for the Marina land use. To provide a conservative analysis yet still illustrate the shared parking characteristics in total, 100 percent was assumed for the marina at all times.

Table 6 summarizes the resulting weekday hourly parking demand fluctuations for the proposed redevelopment. **Table 7** summarizes the resulting Saturday hourly parking demand fluctuations for the proposed redevelopment. As shown in the tables, considering the shared parking characteristics of the proposed redevelopment, the proposed redevelopment is expected to provide more than enough parking.

Table 6 Weekday Shared Profile

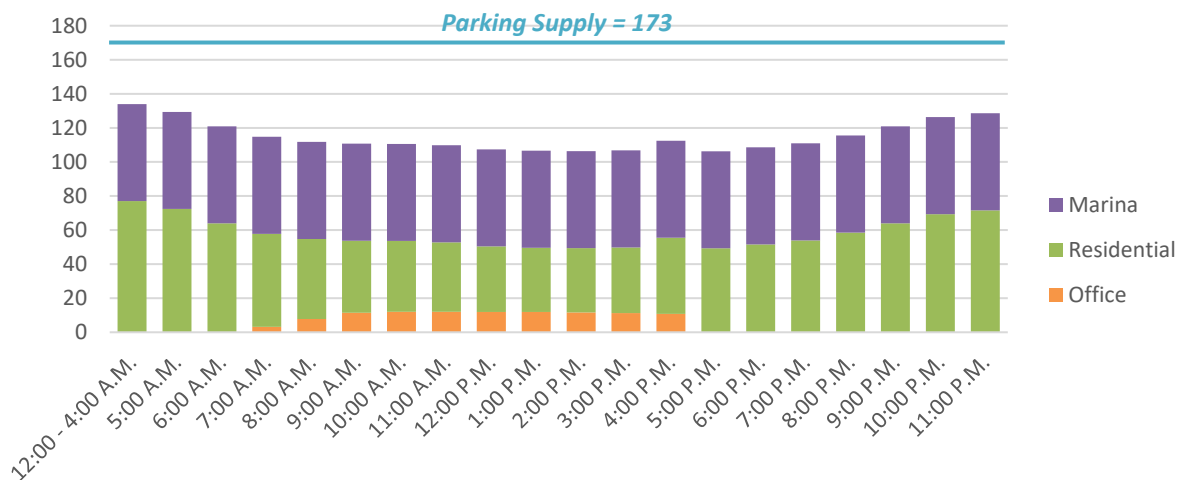
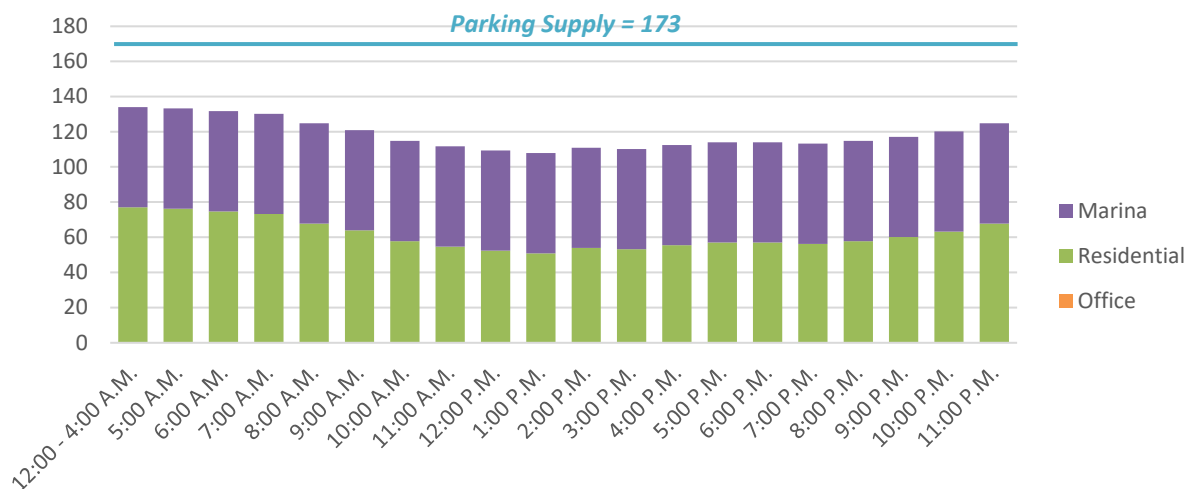


Table 7 Saturday Shared Profile



CONCLUSIONS

The proposed redevelopment will have approximately 52 residential units, 6,800 SF of office space, a 57-slip marina, and a total of 173 on-site parking spaces. SLR reviewed the Stamford Zoning Regulations, industry standard data, and local residential and marina parking data to develop suitable peak parking demand rates for the three proposed land uses. Using the recommended parking rates and assuming that each land use is mutually exclusive, the proposed development would have an unshared peak parking demand of around 146 spaces. It is important to note, however, that this is likely a high estimate because the proposed redevelopment is a good candidate for shared parking. In reality, when accounting for time-of-use variations in the parking demands of the three different land uses on site, the total shared parking demand is more likely to peak around 130 parked vehicles on a typical basis.

Based on our evaluations, the proposed parking supply of 173 spaces is expected to be more than sufficient to accommodate the parking demands that will be generated by the proposed redevelopment. We hope this report is useful to you and the City of Stamford. If you have any questions or need anything further, please do not hesitate to contact either of the undersigned.

Sincerely,

SLR International Corporation



Emily A. Foster, PE
Senior Transportation Engineer



Neil C. Olinski, MS, PTP
Principal Transportation Planner

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Appendix

- Empirical Data Collected on Overnight Parking Use at Multifamily Residential Developments in Downtown Stamford
- Multi-variable Regression Statistics

APPENDIX

OVERNIGHT RESIDENTIAL PARKING USE DATA - STAMFORD CENTER

	Date	Approx. Number of <u>Occupied</u> Residential Units	Number of Parked Cars	Approx. Number of Parking Spaces	Parking Space Utilization	Parking Demand Ratio (parked cars per occupied unit)	Approximate % of Single Bedroom Units	Distance to Train Station (in miles)	Distance to Downtown: Main & Atlantic (in miles)	Is the First Parking Space included in the Rent (1 for yes and 0 for no)?
Park Square West - Phase I (2)	7/12/06	143	122	165	74%	0.85	53%	0.46	0.07	0
	7/13/06	143	123	165	75%	0.86	53%	0.46	0.07	0
	11/19/09	138	121	165	73%	0.88	53%	0.46	0.07	0
	12/3/09	138	110	165	67%	0.80	53%	0.46	0.07	0
Park Square West - Phase I (1)	6/21/11	136	118	165	72%	0.87	53%	0.46	0.07	0
	10/6/11	136	112	165	68%	0.82	53%	0.46	0.07	0
	10/7/11	136	101	165	61%	0.74	53%	0.46	0.07	0
	10/8/11	136	104	165	63%	0.76	53%	0.46	0.07	0
	5/4/14	135	133	165	81%	0.99	53%	0.46	0.07	0
	5/6/14	135	134	165	81%	0.99	53%	0.46	0.07	0
Canterbury Green (2)	11/19/09	104	93	400	23%	0.89	88%	0.62	0.25	0
	12/2/09	104	90	400	23%	0.87	88%	0.62	0.25	0
BLVD (1)	6/21/11	75	70	119	59%	0.93	44%	0.65	0.27	0
	3/6/14	90	84	119	71%	0.93	44%	0.65	0.27	0
	3/7/14	90	75	119	63%	0.83	44%	0.65	0.27	0
	5/4/14	90	84	119	71%	0.93	44%	0.65	0.27	0
	5/6/14	90	80	119	67%	0.89	44%	0.65	0.27	0
Biltmore (2)	11/19/09	161	161	450	36%	1.00	55%	0.58	0.20	0
	12/3/09	161	155	450	34%	0.96	55%	0.58	0.20	0
Parallel 41 (1)	3/6/14	118	147	170	86%	1.25	49%	0.73	0.37	0
	3/7/14	118	118	170	69%	1.00	49%	0.73	0.37	0
	4/24/14	118	132	170	78%	1.12	49%	0.73	0.37	0
	4/25/14	118	126	170	74%	1.07	49%	0.73	0.37	0
	5/4/14	118	140	170	82%	1.19	49%	0.73	0.37	0
The Fairfield Apartments (1)	5/6/14	118	119	170	70%	1.01	49%	0.73	0.37	0
	4/24/14	256	287	413	69%	1.12	53%	1.12	0.68	1
	4/25/14	256	257	413	62%	1.01	53%	1.12	0.68	1
	5/4/14	256	257	413	62%	1.01	53%	1.12	0.68	1
	5/6/14	256	252	413	61%	0.99	53%	1.12	0.68	1
Newbury Commons (2)	11/19/09	242	244	350	70%	1.01	58%	0.82	0.46	1
	12/3/09	242	237	350	68%	0.98	58%	0.85	0.46	1
100 Prospect (1)	9/2/14	82	75	187	40%	0.91	100%	0.85	0.42	1
	9/4/14	82	74	187	40%	0.90	100%	0.85	0.42	1
	9/7/14	82	75	187	40%	0.91	100%	0.85	0.42	1
Avalon Greyrock (2)	7/12/06	302	246	460	53%	0.81	34%	0.74	0.32	1
	7/13/06	302	247	460	54%	0.82	34%	0.74	0.32	1
	11/19/09	306	309	460	67%	1.01	34%	0.74	0.32	1
	12/2/09	306	309	460	67%	1.01	34%	0.74	0.32	1
Avalon Greyrock (1)	6/21/11	295	326	460	71%	1.11	34%	0.74	0.32	1
	7/9/11	295	327	460	71%	1.11	34%	0.74	0.32	1
	7/10/11	295	345	460	75%	1.17	34%	0.74	0.32	1
	7/12/11	295	343	460	75%	1.16	34%	0.74	0.32	1
Eastside Commons (1)	7/12/11	108	150	240	63%	1.39	5%	0.97	0.66	1
Glenview House Apartments (1)	7/12/11	135	180	300	60%	1.33	11%	0.87	0.54	1
	6/12/12	135	188	300	63%	1.39	11%	0.87	0.54	1
	7/11/12	135	179	300	60%	1.32	11%	0.87	0.54	1
	7/12/12	135	184	300	61%	1.36	11%	0.87	0.54	1
	8/23/12	135	187	300	62%	1.38	11%	0.87	0.54	1
	8/29/12	135	192	300	64%	1.42	11%	0.87	0.54	1
	9/6/12	135	167	300	56%	1.24	11%	0.87	0.54	1
	9/7/12	135	174	300	58%	1.29	11%	0.87	0.54	1

(1) Milone and MacBroom Data

(2) Tighe & Bond Data

MULTIPLE REGRESSION SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.864631582
R Square	0.747587773
Adjusted R Square	0.737070597
Standard Error	0.095087198
Observations	51

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	1.285396579	0.642698289	71.08255713	4.47352E-15
Residual	48	0.433995612	0.009041575		
Total	50	1.719392191			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	0.980128777	0.04025478	24.34813396	1.15664E-28	0.899191117	1.061066437
Log Transformation of % 1BR	-0.173998224	0.02122201	-8.19895114	1.10391E-10	-0.216667936	-0.131328513
Log Transformation of Dist in mi to Main & Atlantic	0.090736579	0.019460205	4.662673226	2.51671E-05	0.051609213	0.129863944