Windows in NYC

Infrastructure: Offices, independent houses, apartments, schools, hospitals, institutions, halls, metro, car, bus, tram, monuments, etc

	Infrastructure (Land area: 783.8 sq km ~ 784 sq km)								
Residential (65%* 784 = 509.6)	**Commercial (20% * 784 = 156.8)**							**Non-residential/Transport**	
Independent House (20% * 509.6 = 101.92) / Apartment (80% * 509.6 = 407.68)	Metric	Offices (30%)	Hospitals (3%)	Educational Institutions (5%)	Historic Monuments/ Museums (1%)	Shops/Departmental Stores (10%)	Skyscrapers (3%)	Private vehicle	Public Transport(bus, subway, metro)
About 5 per house / About 3 per Flat/ About 100 per Apertment	Window (Assume)	About 50-100	About 50-100	About 50-100	About 50-100	About 10	About 100 - 200	About 6 / About 50	
20% of the population lives in independent houses: 20% * 3 = 0.6 M / 80% of the population lives in apartment: 80% * 3 = 2.4 M	Land area	30% * 156.8 = 47.04	3% * 156.8 = 4.704	5% * 156.8 = 7.84	1% * 156.8 = 1.568	10% * 156.8 = 15.68	3% * 156.8 = 4.704	About 70% of families own a private vehicle: 70% * 3 = 2.1 M	Assume 1 Public transport for 500-1000 people: Number of vehicles = population/ number of people Number of Bus = 8.5 / 200 = 0.0425 Number of Subway = 8.5/ 1000 = 0.0085 Number of metro = 8.5/1000 = 0.0085
Total windows: 5 * 0.6 = 3.0 M / Total windows: 3 * 2.4 = 7.2 M	Number of Buildings (Assume 1000 buildings per sq km) (Reason: 1 sq km ~ 250 acres, and no. Of buildings in 1 acres = 5 approx)	47.04 * 1000 = 47040 buildings	4.704 * 1000 = 4704 hospitals	7.84 * 1000 = 7840	1.568 * 1000 = 1568	15.6 * 1000 = 15600	4.704 * 1000 = 4704		
Population: 8.5M (approx) Family: 3 (parents + 1 child) Household: 8.5 / 3 = 2.8333 ~ 3M	Windows (Assume 80 windows)	47040* 80 = 3763200	4704 * 80 = 376320	7840 * 80 = 627200	1568 * 80 = 125440	15600 * 5 = 78000	4704 * 150 = 705600	2.1 * 6 = 12.6	Windows in Bus: 0.0425 * 50 = 2.125 Windows in Subway: 0.0085* 100 = 0.85 Windows in metro: 0.85
	(Here, the ratios are with respect to building spaces only. Commercial land can be other use as well)							12.6	2.125 + 0.85 + 0.85 = 3.825 M
Total: 3 + 7.2 = 10.2 M	**3763200 + 376320 + 376320 + 627200 + 125440 + 78000 + 705600 = 60,52,080 ~ 6M**							**12.6 + 3.825 = 16.425 M**	
TOTAL	**10.2 + 6 + 16.425 = 32.625 ~ 33M**								

TOTAL WINDOWS: 33M (approx)