



Figure 4. Competitive CBDs: Scale of Development

	Downtown Brooklyn	Jersey City	Newark	Stamford	White Plains	Long Island City*
<b>Office Space</b>						
Existing (Mil. SF)	12.5	4.3	10.1	9.8	7.5	1.4
Under Construction (Mil. SF)	2.3	2.4	2.7	0	0	0
Planned (Mil. SF)	3.1	1.6	5.9	0.3	4.9	0
Build-Out Potential (Mil. SF)	21.5	17.5	n/a	14.9	n/a	n/a
Rental Rates	\$22-\$24	\$23-\$24	\$23-\$26	\$24-\$26	\$21-\$23	\$18-\$20
<b>Retail Space</b>						
Existing (Mil. SF)	2.2	1.6	n/a	1.2	3.4	0.05
Constr./Planned (Mil. SF)	0.3	1.1	0.2	0.3	1.0	0
Regional Draw	limited	yes	no	yes	yes	no
<b>Hotel Facilities</b>						
Existing (# rms.)	0	0	425	2,200	850	0
Constr./Planned (# rms.)	350	650	0	0	0	0
<b>Entertainment Facilities</b>						
	yes	yes	yes	yes	yes	no
<b>Working Population</b>						
	65,000	25,000	90,000	35,000	100,000	8,700

\*Existing Conditions./Study Area only

Figure 6. Working and Resident Population Support for Retail in Selected Analog CBDs

	Downtown Brooklyn	Jersey City	Stamford	White Plains
Working Population	65,000	25,000	35,000	100,000
Expenditures	\$1,575	\$1,200	\$2,085	\$2,085
Potential (000's)	\$102,375	\$30,000	\$72,975	\$208,500
Retail Space (000's)	2,200	1,600	1,400	3,400
Sales/SF	\$200	\$250	\$300	\$250
Total Sales (000's)	\$440,000	\$400,000	\$420,000	\$850,000
Workforce Support %	23.3%	7.5%	17.4%	24.5%
Workforce Support SF	512,000	120,000	245,000	834,000
Non-Employee Sales (000's)	\$337,625	\$370,000	\$347,025	\$641,500
Resident Population Expenditures	\$2,700	\$3,300	\$5,000	\$5,000
Resident Population Needed:				
@ 25% share	500,185	448,485	277,620	513,200
@ 30% share	416,821	373,737	231,350	427,667
@ 35% share	357,275	320,346	198,300	366,571
@ 40% share	312,616	280,303	173,513	320,750

However, in all instances the level of support for retail activity attributable to the workforce is relatively small when measured against overall inventory. Each of the analog CBDs is greatly dependent upon a substantial residential base for the bulk of its retail support. Depending upon income levels and probably market share (a function of competitive options), the size of the needed residential base ranges between 170,000 to 513,000 persons. This dependence on residential population also extends to entertainment facilities which are rarely supported by working populations.

Additionally, according to the work done by the International Council of Shopping Centers in its 1988 study, the amount of employee spending is directly related to the amount of retail space available to them. In other words, the greater the variety and amount of retail, the greater the level of per capita spending.

→The implications of this dynamic are critical for LIC. Since it is unlikely (due to competitive factors), or for that matter even desirable (due to environmental concerns), that large-scale retail, such as department stores or shopping malls, will be developed, retail as an amenity in LIC will be more dependent on new office development than in any of the analog CBDs. Therefore, it is important to reach the minimal development thresholds outlined if retail is to be perceived as an amenity. Although it may not be

Figure 7. Long Island City Study Area Block Sizes

Block#	Lot Area (SF)	Block#	Lot Area (SF)	
79 °	95,851	422	59,360	Total Lot Area = 2,107,821 SF (100%)
80 *	37,018	423	50,660	
81 *	24,460	424	49,795	Impacted/Marginal Blocks* =705,863 SF (34%)
82	76,785	425*	42,120	
83	112,306	428*	67,120	Remaining Lot Area =1,401,958 SF (66%)
84	131,680	429*	70,867	
85 *	134,642	430 *	71,282	Assembled/Developed Lot Area * ° ° ° = 525,804 (25%)
263 *	28,456	431 *	41,739	
264 *	79,000	432	106,524	* Impacted/Marginal blocks • Known assemblages ° Citibank Building ° ° Courthouse/Municipal Garage
265	82,456	433	70,958	
266	99,489	434 *	27,095	
267 *	110,300	435	69,546	
268	78,901	436 *	79,220	
420 •	131,150	437 •	79,041	

BASE DATA: NYC DCP, 1992

NOTE: Percentages in ( ) are of total lot area.

finer and more irregular weave offering a pedestrian the potentially richer visual experience because of the diversity of size and orientation, and a greater choice of routes. The entire study area can be easily walked from end-to-end in 10 minutes, the average time people typically will walk during their lunch hour (Figure 3).

### New Development in the Context of Long Island City

Most blocks in the study area are parcelized at a relatively fine grain. Unlike either White Plains and Stamford, where the eminent domain powers of urban renewal were used to assemble land, or Jersey City, where large tracks of land in single ownership were available, LIC is a mostly patchwork of small parcels. This is neither good nor bad, but rather a characteristic of the LIC context which will the assemblage process, the form of the new buildings, and the CBD's sense of place. There will be holdouts, irregular assemblages, varied land uses (many of them predating the CBD), and jumps in scale between existing buildings, new office buildings, and more modest development on some small lots not unlike other areas of the city. Rather than artificially recreating the way the city has developed, as is the case with Battery Park City, with its planned and legislated variety of parcel and block sizes, development of an LIC CBD would be the real thing (absent the use of unassisted urban renewal).

As noted earlier, the study area for statistical analysis is bounded by the elevated

Figure 9. Long Island City Study Area Practical and Hypothetical Build-Outs (FARs)

		Percent Build-Out*			
		40%	50%	60%	100%
	10.0	11.9	9.5	7.9	4.7
New Office Space	12.5	14.8	11.9	9.9	5.9
(Millions of SF)	15.0	17.8	14.2	11.9	7.1
	17.5	20.8	16.6	13.8	8.3
	20.0	23.7	19.0	15.8	9.5

\*40%-60% build-out is the practical potential assemblage excluding impacted/marginal blocks.  
100% build-out is the theoretical potential assemblage for the study area.

and/or urban design concerns, the weighted average of all the zoning district FARs (FAR x % of total lot area) must still reflect the threshold FARs described above if they are to respond to the threshold and build-out development criteria.

#### LIC CBD Demand for Retail and Support Services

Based on the work presented above and the matrix of potential build-out, we have established the amount of retail space that future office development in LIC would support. Additionally, we have calculated the percentage of ground floor space that would be occupied by these retail use under various build-out assumptions. The table (Fig. 10) summarizes this analysis. (Assumptions used in the course of these calculations are presented in the appendix.)

The largest amount of spending is attributed to the eating and drinking category. This includes monies spent on lunch, drinks after work, and dinners. Convenience goods and services are the least supported store types as many of these items are typically purchased closer to home than the workplace. Total potential and warranted store area, while to a large measure a function of the number of employees in the area, will also increase as the quantity and variety of retail increases. Therefore, the level of workforce spending and support can increase by as much as 33% in areas with large amounts of retail in place.

Other factors which affect the level of spending include gender, salary, and occupation characteristics. However, in general between 5 to 7.5 square feet of retail space can be supported per employee, depending on these factors and the degree of retail development.

Figure 10. Employee-Supported Store Area and Resultant Ground Floor Coverage

Office Space (Millions of Square Feet)	10.0	12.5	15.0	17.5	20.0	
Number of Employees	40,000	50,000	60,000	70,000	80,000	
	<b>Per Employee Expenditure</b>		<b>Total Potential (000's)</b>			
Eating and Drinking	\$875	\$35,000	\$43,750	\$52,500	\$61,250	\$70,000
Shoppers Goods	\$550	\$22,000	\$27,500	\$33,000	\$38,500	\$44,000
Convenience Goods	\$130	\$5,200	\$6,500	\$7,800	\$9,100	\$10,400
Services	\$20	\$5,200	\$6,500	\$7,800	\$9,100	\$10,400
<b>TOTAL</b>	<b>\$1,575</b>	<b>\$67,400</b>	<b>\$84,250</b>	<b>\$101,100</b>	<b>\$117,950</b>	<b>\$134,800</b>
	<b>Avg. Operational Level</b>		<b>Warranted Store Area (SF)</b>			
Eating and Drinking	\$400	87,500	109,375	131,250	153,125	175,000
Shoppers Goods	\$300	73,333	91,667	110,000	128,333	146,667
Convenience Goods	\$250	20,800	26,000	31,200	36,400	41,600
Services	\$200	26,000	32,500	39,000	45,500	52,000
<b>TOTAL</b>		<b>207,633</b>	<b>259,542</b>	<b>311,450</b>	<b>363,358</b>	<b>415,267</b>
<b>TOTAL w/Business Services @20%</b>		<b>249,160</b>	<b>311,450</b>	<b>373,740</b>	<b>436,030</b>	<b>498,320</b>
	<b>Percent Build-Out</b>		<b>Percent Ground Floor Coverage*</b>			
	40%	29.6%	36.9%	44.3%	51.7%	59.1%
	50%	23.6%	29.9%	35.5%	41.4%	47.3%
	60%	19.7%	24.6%	29.6%	34.5%	39.6%
	100% **	11.8%	14.8%	17.7%	20.7%	23.6%

\*Assumes each building's ground floor is 100% lot coverage.

\*\*100% build-out assumes every block within the LIC study area is completely built upon.

Based on a projected 10 million to 20 million square feet of office development in LIC, the amount of retail space that could be supported by the workforce would range between 207,000 to 415,000 square feet. Including an additional 20% for banks and business services, this could increase to between 250,000 to 500,000 square feet. This could represent between 100 to 200 individual store units, depending on the type and size of each store.

For the purposes of this analysis, we have assumed that this retail square footage would be developed with the office space and would be located at street level in the new buildings, although common sense says that some of the retail demand would be accommodated in existing buildings and smaller new buildings.

Depending on the percentage of total study area build-out and FAR, this would represent

a maximum potential ground level occupancy rate of between 19.7% to 59.3% (Fig.10) under a realistic build-out of between 40% to 60% of all area lots. This reinforces our contention that the LIC CBD must be compact and easily walkable if the streetscape vitality associated with urban CBDs is to be achieved.

More specifically, assuming the 40% to 50% build-out scenario used to develop the corresponding FARs, 100% lot coverage for the first floor, and the location of all of the new retail support services on the ground floor of the new office buildings, new retail support services will cover a maximum of:

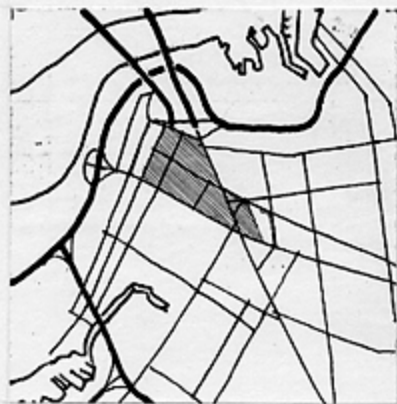
- 23.6% to 29.6% of the ground floor at 10 million SF,
- 29.6% to 26.9% of the ground floor at 12.5 million SF,
- 35.5% to 44.3% of the ground floor at 15.0 million SF,
- 41.4% to 51.7% of the ground floor at 17.5 million SF, and
- 47.3% to 59.1% of the ground floor at 20.0 million SF.

Since we expect that many of new buildings would have lobby, service, and mechanical areas that could occupy as much as 50% to 60% of the ground floor area, there would only be 40% to 50% of the grade level space available for retail or other uses. Therefore, if development reaches 17.5 million square feet with between 40% to 50% total area lot coverage, virtually all of the available space in the newly developed buildings would be utilized. At a scale of development that is less than or greater than 17.5 million square feet of office space, either vacancy the new space, under-utilization of the new space, or revitalization of existing older ground floor space to accommodate the overflow would occur. It is impossible to conceptualize the placement of the new buildings, their street orientation, and their intended use, as that would be determined by a plan for the LIC CBD. However, as can be seen in the table, only 23% to 29% of the ground floor area could be supported at the minimum threshold of 10 million square feet, and this would not provide for either full occupancy or a complete range of store types typical of an urban streetscape.

## SUMMARY AND CONCLUSION

This study began with the question— *“What would constitute a viable and competitive CBD in the context of the region?”* In other words, the study's method has been inductive and speculative—asking, *“If we think like this, where do we come out, and, assuming agreement on the goals and thresholds, what would it take to achieve?”*—rather than the deductive method which sets goals and thresholds for an LIC CBD based on existing environmental and infrastructure limitations. The thresholds and capacities derived from the analysis of the

competing “edge city” CBDs in the New York metropolitan area, as well as LIC's locational and access advantages, represent the baseline development criteria that ought



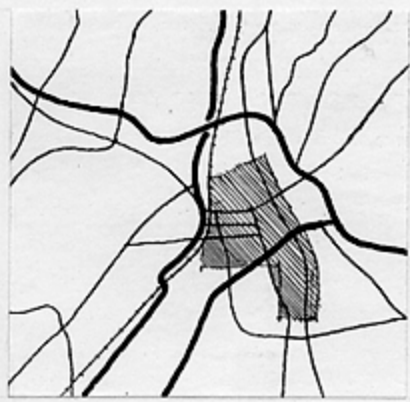
Downtown Brooklyn



Long Island City, N.Y.



Newark, N.J.



White Plains, N.Y.



Jersey City, N.J.



Stamford, Connecticut

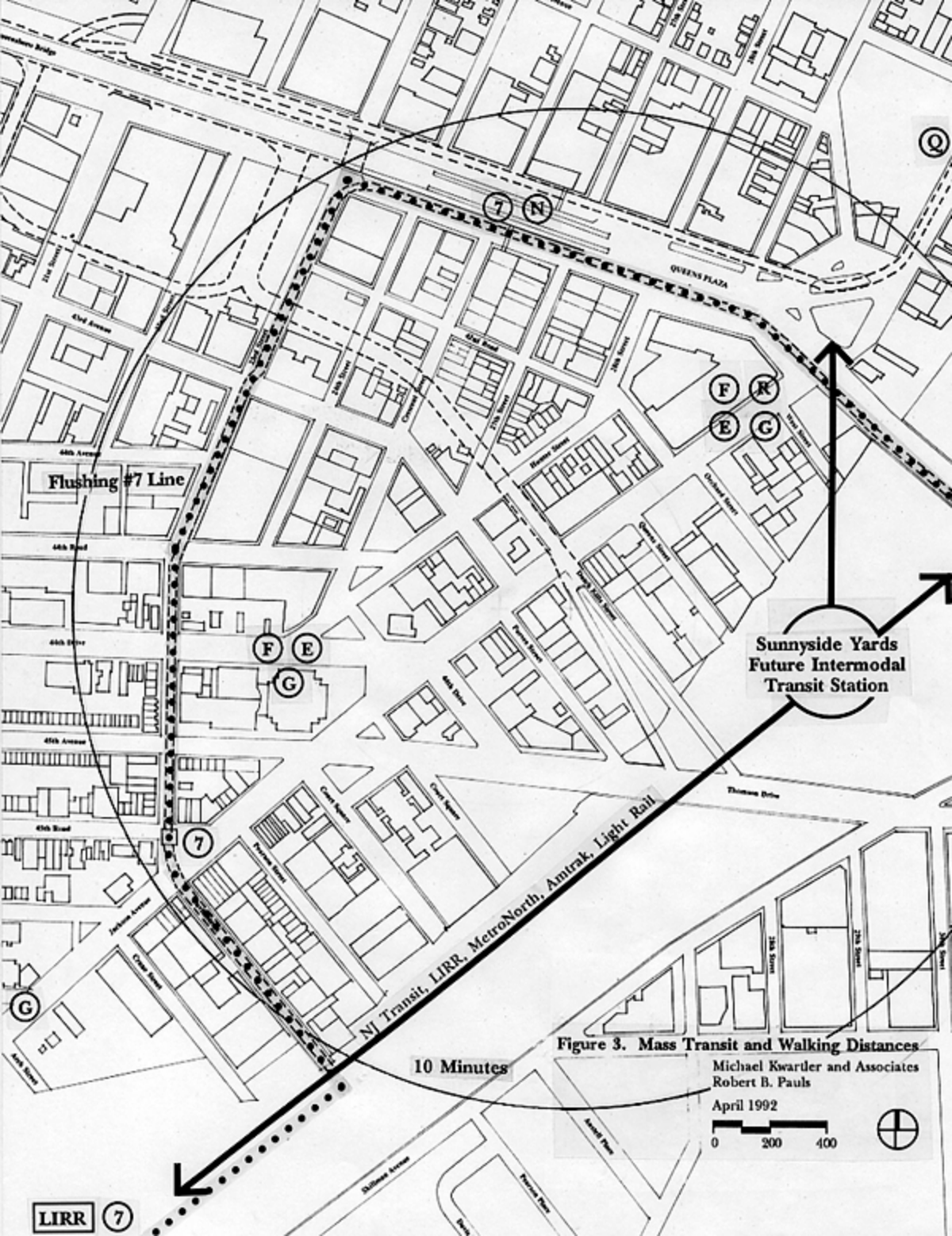
Figure 5. Analog CBDs at Same Scale

Michael Kwartler and Associates  
Robert B. Pauls

April 1992







Flushing #7 Line

Sunnyside Yards  
Future Intermodal  
Transit Station

NJ Transit, LIRR, MetroNorth, Amtrak, Light Rail

10 Minutes

Figure 3. Mass Transit and Walking Distances

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Robert B. Pauls

April 1992

0 200 400



LIRR 7

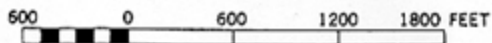
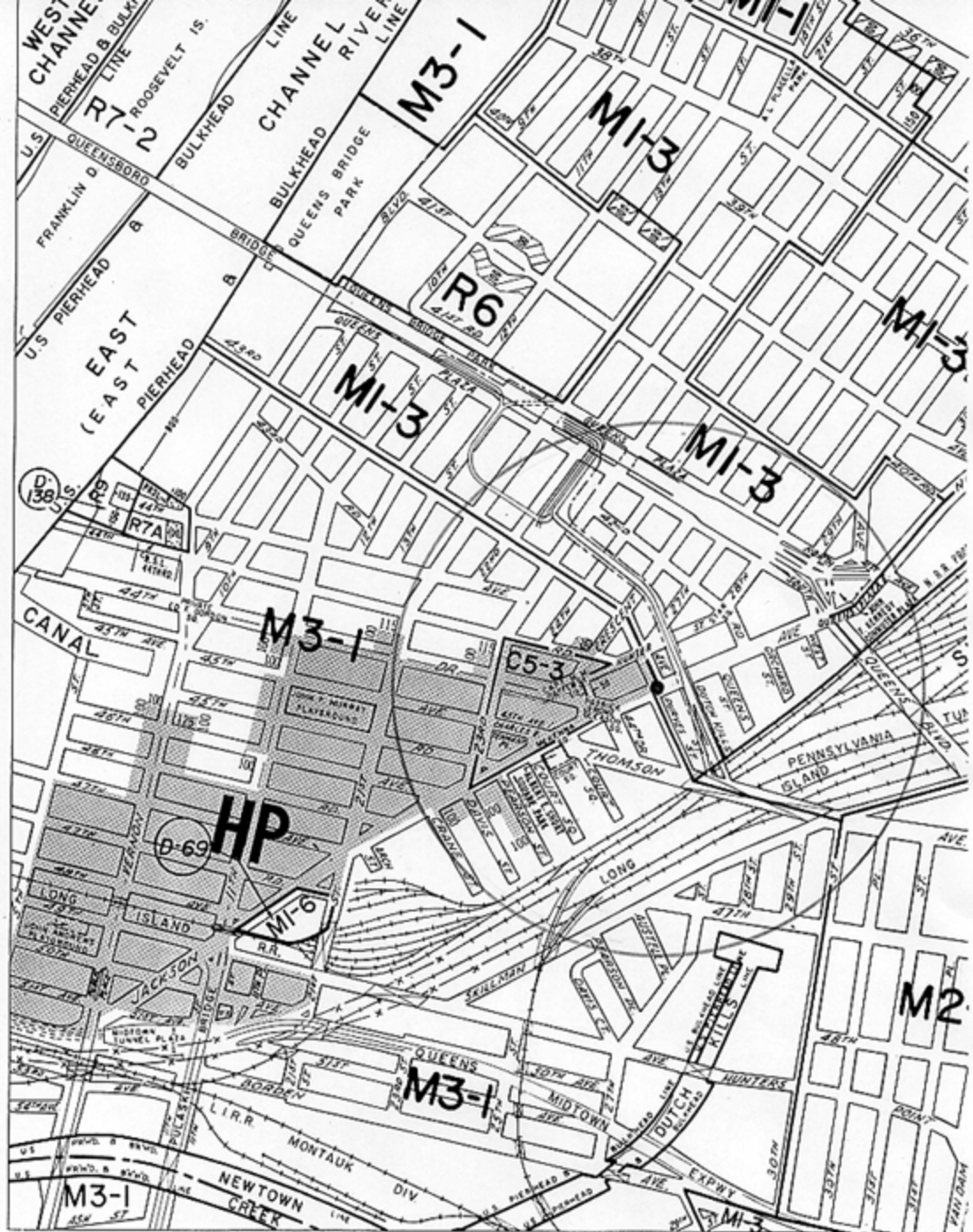


Figure 1 A. Long Island City Context

Michael Kwartler and Associates  
Robert B. Pauls

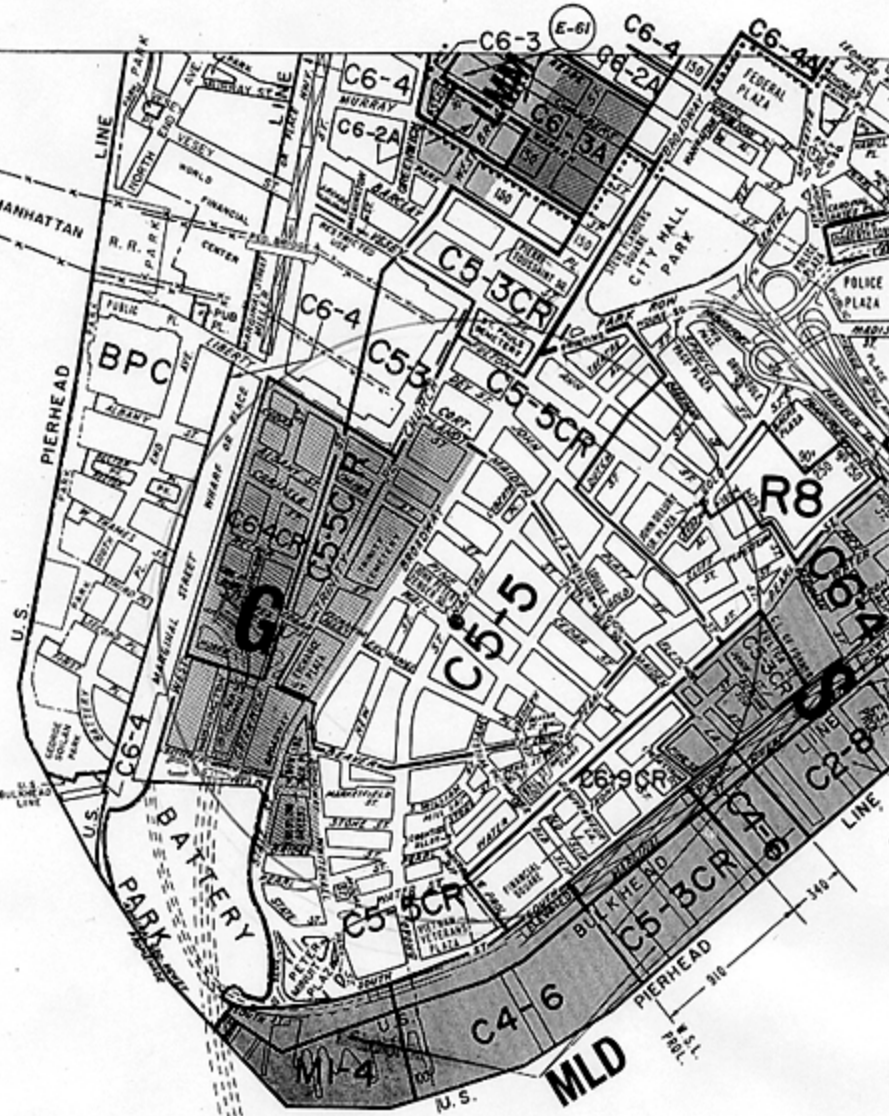
November, 1992





RIVER

HUDSON & MANHATTAN



R

BAY

PIERHEAD  
R-1  
SV-T  
LINE



Major Density Concentration  
at Court Square Transit Stop

Jackson Avenue redeveloped as Jackson  
Boulevard, connecting nodal concentrations  
at Court Square and Queens Plaza

Major Density Concentration  
at Queens Plaza Transit Stop

Mass Transit Corridor  
at Queens Plaza Transit Stop

Long Island  
Central  
Express