

Lowell, MA

Jackson / Appleton / Middlesex (JAM) Urban Revitalization and Development Project

11.301 Introduction to Urban Design

Lowell's "JAM" Urban Renewal Plan

General Background and Plan Overview¹

Lowell, Ma is a classic in urban design. The success story of its famous 1972 plan to revitalize the historic downtown has been studied not only in 11.301 Introduction to Urban Design but also in other planning classes during this semester.

This paper analyzes the Lowell, MA Jackson/Appleton/Middlesex (JAM) Urban Renewal Plan, a somewhat newer plan from year 2000 created by the Division of Planning and Development of the City Hall.

The central objective of the plan is to recover a depressed industrial district of Lowell and to help revitalize it by means of injecting public funds needed to upgrade the infrastructure and physical form in order to attract private investment and development.

[Image removed for copyright purposes]

The plan focuses on a small portion of the district, heavily influenced by its industrial-oriented old buildings, the opportunity to recover two canals once used to generate hydropower in the manufacturing process, and by the characteristic huge sized mills that dominates grand portion of the area.

The decline of Lowell as a central manufacturing and industrial site is a deep-rooted problem dating decades old. For long, the City had entered in a series of plans to cope with the decrepit shape of its infrastructure and buildings, the stagnant economies of its businesses, and the high unemployment and crime rate.

- Area

The plan focuses on a 50 acres site known as The Canals Industrial District located next to the downtown National Historical Park District. The area is divided from West to East by the two historical canals of Pawtucket and Hamilton built in 1825 to benefit from the 13 feet drop of the ancient Pawtucket Falls.

[Image removed for copyright purposes]

We have chosen a series of criteria to analyze the righteousness and achievements of the Plan. The rest of the paper will review each of those criteria, describing how the Plan tackle such parameter, and analyzing the appropriateness and fitness of it.

¹ All graphs and tables are taken from the JAM Urban Revitalization and Development Project

Plan Defines and Solve Problems, states Objectives

JAM Plan is an Urban Revitalization Plan that needs to become a full Economic Recovery Plan. The Plan “hopes to invigorate a part of the City currently underutilized but one with tremendous potential”. The minds behind the Division of Planning and Development (DPD) recognize the market failure to invest in the area and thus to benefit the City with the full potential of the site. But in my opinion the DPD fails to address the issue of what is the underlying real cause of the decay, and what to do to stop or revert it. The urban decay is only the consequence of a deeper and more complex economical cause.

Lowell is not an exception in the economic principle of relocation of manufacturing activities. Economic growth is not possible with the deployed production assets unless the City, not to mention the State or the whole Country, finds a way to compete in productivity and manufacturing costs. It is obvious that the source of employment and growth will have to come from other sources. The JAM Plan fails to analyze the roots of the problem and obviously doesn’t provide with a sound economic formula for success. Rebuilding urban form might not be sufficient to do the job.

The planners together with the Citizens Advisory Committee came up with 17 different objectives for the JAM Plan that in my opinion could be better described in a condensed and grouped manner as follows:

1. To expand the tax base and create new jobs by providing sites for commercial and industrial development.	Promote Economic Growth and Urban Renewal
2. To attract new businesses to the area by creating accessible development sites.	
3. To provide incentives for existing businesses to grow.	
9. To enhance the marketability and promote the development of under-utilized land in the area by assembly, reparcelizing and subdivision of land.	
11. To provide sites of sufficient size and with appropriate access and improvements, so that new construction is encouraged and sound redevelopment is facilitated.	
4. To create new and efficient access alternatives to the area and enhance the transportation system, including pedestrian systems.	Enhance Accessibility to site
5. To develop adequate parking for existing and proposed development.	
15. To recognize and define major pedestrian access points to the Area and to	

provide safe connections to adjacent facilities and land uses.	
7. To preserve the historic integrity of the area.	Continue with Historical Preservation of industrial buildings
6. To create a safe, accessible, and aesthetically positive environment.	Create Sense of Place
8. To remove obsolete, substandard and deteriorated buildings and other environmental conditions which are factors in spreading blight and deterioration within the area and to adjacent areas.	
10. To improve public utilities by constructing or reconstructing sidewalks, street lighting, water, sewer and drainage systems and installing electrical and telephone lines underground where appropriate.	Create Sense of Place
12. To increase public safety by providing improved pedestrian access and by reducing vehicular and pedestrian interaction throughout the project area.	
13. To promote sound site planning and building arrangement in the development of individual parcels by private redevelopers in order to achieve coordinated and harmonious urban design.	
14. To provide for changes in land use to create a compatible mixture and clear pattern of mixed use commercial, residential, and industrial.	
16. To encourage the highest quality design for structures to be built, and for supporting elements such as lighting and planting.	
17. To reflect in architecture and site planning the uniqueness of the area in terms of location, access, visibility and historic character.	

To respond to such a challenging list of objectives, the foresee outcome of the JAM Plan could be summarized in:

- a. Invigorate underutilized part of Lowell
 - i. Creation of 533 new jobs
 - ii. Build +900 parking spaces
- b. Increase Real Estate value to promote redevelopment: demolish useless structures and upgrade infrastructure, specially accessibility to site (new streets, widen sections, pedestrian safety and new sidewalks).
- c. Develop or rehab 300,000 sq ft of retail, office and industrial space.

- d. Convert old mills space into 80 market-rate dwelling units

[Image removed for copyright purposes]

The objectives of the Plan are heavily influenced by the precedent 1972 Land Use Plan for Lowell that created the National Historic Park around the downtown industrial mill complex. Thus, Lowell’s new bet is that the JAM Plan would do the revitalization trick once again in a more modest district scale.

I believe that applying the same urban renewal model now might not work as well as before. Firstly, part of the success in the original Plan was its novelty and the creation from scratch of a “Thematic Mill City”, now the effect of adding extra 50 acres of mills will be marginal for the monothematic site. Secondly, all of Lowell’s brokers interviewed by this author agree that the city suffers from an overbuild stock of space, specially in the form of rehab footage. Absorbtion rates are decaying and the market might not be strong enough to absorb such a strong pipe line of new square footage.

- Group problems into +/- six items
- Effectiveness of the Plan: long term changes in the district
- How well did the plan anticipate and affect the future?

Plan is Durable but still Adaptable

As we have mentioned above, The JAM Plan is a revisit of a previous comprehensive Plan for the whole City of Lowell, the 1972 Land Use Plan. Years later such comprehensive plan was further re-evaluated in several occasions an finally in 1987 some actions for the site were formalized in the form of The Appleton/ Middlesex Plan. Unfortunately its implementation was never completed.

I think that now the new 2000 plan does an excellent job in recognizing the potential of this site, located inmediately adjacent to the downtown and its National Historical Park, and across the Gallahger Rail & Bus Terminal.

[Image removed for copyright purposes]

It is remarkable to highlight that 3 decades after the original Plan was crafted, its guidelines and vision are still in full conformance with the JAM Plan now presented.

The only arena where the JAM Plan might fall short is in seizing the opportunity to provide for more open space and green areas. Most of the 18.2 acres te be acquired by the

Table 1: Potential Future Land Use

Land Use	Acres	Percent of Total
Industrial	20	44%
Residential	5.5	12%
Commercial	13	28%
Institutional	2.75	6%
Parking (designated as off street)	3.6	8%
Park (Open Space)	1	2%

City will be used for rehab or redevelopment, on a context of demand uncertainty. The proposed 4.36 acres clearance area is mainly dedicated to develop

better access and for parking facilities. Green areas are neglected. Currently there is no park land or open space in the area despite the fact that 21% of the total space is comprised by vacant lots.

Since the economic feasibility of the site is less rigorous than desired, more flexibility in Zoning requirements could be beneficial. Furthermore, the success of the plan relies on the private sector following suit to the public sector intervention. But little has been provided in terms of adapting the plan to shifting market conditions. Such rigidity might be fatal for the long prospect of the Plan.

Plan is Comprehensive

The JAM Plan is comprised of most of the criteria parameters that were discussed in 11.301 class. We must also take into account that this Plan is the last one so far of a series of more comprehensive district, neighborhood, and City Plans that have been created through the years with a more comprehensive Master Plan in mind.

The JAM Plan conveys an area of +50 acres, in The Canals Industrial District. The fact that the essence of the Plan is economic renewal and that it encompasses the acquisition by eminent domain of 18.26 acres of private property, has probably helped DPD to craft a rather sound and comprehensive Plan.

The biggest missing item and in my opinion a striking failure is the inclusion of a sound assessment of market demand for all the space that will be created, and an analysis of how that increase in supply might affect real estate values across the city. The Plan propose to build 75,000 sq ft of retail, 100,000 sq ft of office space and other 1000,000 sq ft of industrial space. It is becoming increasingly risky to become a spec. developer.

Finally, the plan doesn't mention the problem of Gentrification. In my opinion the Plan will create the optimal conditions for gentrification:

- The site has 92% of the residents under lease contract.
- Median gross rents in JAM are almost a half of normal rent levels in Lowell, and therefore a major increase on rents could be expected as the Plan takes place .
- Median household income in the area is only 30% of the household income in Lowell, evidencing that the current residents are among the poorest of the City.
- More than 30% of the residents are between 20 and 29 years old, and 1/3 are immigrants.

Plan fits appropriately within the context

The re-edition, now in a more focused and detailed form, of the original Land Use Plan of Lowell is in itself a quite impressive event that shows that time is of the essence when it comes to planning.

The original plan's visionary nature that created the National Historical Park back in the 70's has now a pivotal presence when it comes to analyze the contextual fit of the modern

JAM Plan. Lowell has become the reference for Historical Urban Preservation in the US, thanks to its industrial heritage icons: the Efficient City model built around mills, industrial canals, along the Merrimack river. Lowell's vision builds around the industrial theme by preserving its iconic mill buildings and by celebrating throughout its urban design its rich past. That powerful vision needs to be carry out in a monothematic way across all parts of the industrial town in order to maintain the thematic character of Lowell.

However, the Plan recognizes the current needs of a place where accessibility and transportation are pivotal. The JAM Plan also adapts the uses and even the urban form of buildings to make the existing massive structures fit modern requirements. New streets are opened on the site, and existing ones are widen to provide enhanced accessibility. A Public Parking Garage with +900 spaces will alleviate the parking constrain. The Plan vision is in my opinion to replicate again the Efficiency City model of Lowell and to link and incorporate the district to Lowell's vibrant Historic downtown.

Is it the right time for the JAM Plan? One can argue that the need to revitalize the site has long overdue for many decades. Bot other priorities has kept the City from implementing a model that has been so successful in the past. It is too early to say weather it has indeed been the right timing for the 50 acres redevelopment. In my opinion it will be the Market Demand for the newly created space the best parameter to measure the timeliness of the Plan. So far over a 1,000 newly rehab dwelling units are waiting downtown to be sold or rented. With that perspective in sight is daughtfull to assume that the private sector will invest in the short run.

Plan Process is supported by constituencies

The JAM Plan was created under the vision and leadership of the Division of Planning and Development DPD of Lowell. The site was already targeted for renewal back in 1072 and again in subsequent plans in 1986 and 1987's "Appleton / Middlesex Plan". The previous Plans where mainly focused on alleviating the lack of parking in the area as the means to propitiate the revitalization of the JAM site.

The Plan claims in its page 93 "according to Mass Law the Plan fullowed a process of "extensive public participation". A key component of the process was the active participation of a Citicens Advisory Committee. The 25 members CAC started meeting on a monthly basis on April 1999, that is one year prior Council approval of the final Plan. CAC was comprised by business and property owners, residents, non for profits, and other community leaders. The City also held two public meetings, a televised City Council, special meetings with Business owners, and the Lowell Planning Board. Also the City conducted a charrette on brownfield development specially geared towards the abandon mills.

For the implementation DPD hired dedicated staff (4 people) located on a storefront implementation Office. The Plan states that such staff "on-site personnel should be able

to supply property owners and potential developers with” all the needed help. Interestingly enough, residents are not cited in the text as beneficiaries of the City help.

City of Lowell and its DPD.- It comes to no surprise the strong leading role of the City, and its full commitment to finally tackle the redevelopment of the Canals Industrial District. The Plan states that the City will take “aggressive actions” as needed to make the Plan work.

Business Owners.- Business owners have been proactively involved in the process, by means of surveys and interviews with DPD. The plan addresses their concerns and offers relief compensation for their relocation.

Property Owners.- Extremely atomized in small parcels, except for a single big industrial owner that holds 44% of all properties on the site. The City contents that the owner “has no interest” which is hard to believe taking into account the large acreage held by the Trust. In my opinion the City got finally tired of negotiating with the owner, who was probably asking either for a big price to sell the property or for high subsidies to lessen the risk of investing capital in redevelop the site at current market condition. Some 20% of the land is vacant, and the majority of the land owners are absent of the management of their properties and the JAM planning process.

Developers.- No significant building activity in the Canals Industrial District had taken place for decades. All attention was diverted until now to the downtown Historical District.

Residents.- In my opinion the residents where not very active or participative during the planning process, as it can be inferred from the Plan itself, the minutes appendix of CAC meetings, and the lack of solutions or proposals that the Plan dedicates to the current residents of the place. Of all the stakeholders, the group who has more to loose are the Residents. In a first glance one might think that the JAM Plan will transform the district into a better place, providing with a much needed influx of capital to upgrade the infrastructures and to invigorate the activity in the area. But a careful review of the demographics suggests that Gentrification will soon start taken its toll into the population forcing them to move to other places. As discussed previously, the demographics are set up for a classic example of gentrification, this time promoted by the JAM Plan:

- The site has 92% of the residents under lease contract.
- Median gross rents in JAM are almost a half of normal rent levels in Lowell, and therefore a major increase on rents could be expected as the Plan takes place .
- Median household income in the area is only 30% of the household income in Lowell, evidencing that the current residents are among the poorest of the City.
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Plan is economically viable

All the solid framework and bold structure of JAM Plan appears to banish when it reaches the point of evaluating its economic feasibility, or quantifying its expected impact in the City.

The over 100 pages JAM Plan results very brief in its economic assessment, dedicating only one single table (reproduced below) to lay out the assumptions and outcomes desired from the Plan.

1	Acquisition		
	Land Acquisition	\$	7,280,100.00
	Appraisals (67)	\$	225,000.00
	Legal	\$	200,000.00
	Sub-Total		\$ 7,705,100.00
2	Relocation		
	Relocation Consultant	\$	100,000.00
	Relocation Payments	\$	1,952,000.00
	Sub-Total		\$ 2,052,000.00
3	Site Improvements		
	3a. Building Demolition	\$	5,900,000.00
	3b. Infrastructure Improvements		
	Street & Intersection Improvements	\$	6,000,000.00
	Cleaning Existing Sewer Pipes	\$	4,500.00
	Sewer Separation	\$	3,500,000.00
	Site Grading/Improvements	\$	1,000,000.00
	Parks	\$	350,000.00
	Canalway Improvements	\$	1,800,000.00
	3c. New Parking Garage	\$	12,000,000.00
	Sub-Total		\$30,554,500.00
4	Environmental Cleanup		
	Sub-Total		\$ 1,000,000.00
5	Administrative		
	Employee (4 Staff/4 Years)	\$	600,000.00
	Sub-Total		\$ 600,000.00
6	Consultants		
	Urban Renewal	\$	80,000.00
	Project Management	\$	120,000.00
	Site Engineering	\$	1,000,000.00
	Legal	\$	400,000.00
	Survey	\$	100,000.00
	Urban Design	\$	100,000.00
	Sub-Total		\$ 1,800,000.00
7	Fees		
	Bond Fees	\$	100,000.00
	Misc. Fees	\$	100,000.00
	Sub-Total		\$ 200,000.00
8	Contingency		
	Real Estate Reserve (20%)	\$	1,500,000.00
	Construction Contingency	\$	3,000,000.00
	Sub-Total		\$ 4,500,000.00
	Gross Project Cost		\$48,411,600.00
	Income From Sale Or Lease	\$	(4,500,000.00)
	Net Project Cost		\$43,911,600.00
	City Share 50% (URDG funds other ½)	\$	21,955,800.00

In my opinion the Plan’s grand fiasco is that fails to successfully demonstrate the economic virtues of its sound revitalization program. And it does so in an almost unprofessional way, by plainly neglecting to discuss in detail the full costs and benefits of the interventions, and who is to benefit and who is to loose.

Although the plan is based in an extensive survey done on site, all the speculative development programmed lacks the backing of a rigorous Market Research. If a private developer was to risk its own money into such a big development, a major market research would be conducted to assess the demand for the proposed new development. Without an appropriate market assessment of the demand for new space, the evaluation of prices, or an idea of absorption rates, would be impossible to grasp an idea of the economics of the Plan and the risk of failure that it might entitle.

Furthermore, the Plan claims shamelessly in its page 67 that it will generate some 533 new jobs, just by virtue of building an speculative stock of new space that could potentially host all those “new jobs”. The World is full of speculative empty buildings, and maybe that is the reason why no private developer has put its money to risk to date.

Table 10: Job Creation (estimates)

Bldg. Use	Sq. Feet	Jobs/SF	Jobs Created
Retail	75,000	1/500	150
Office	100,000	1/300	300
Industrial	100,000	1/1200	83
TOTAL			533

The fair question to raise is weather the public investment in access and infrastructure will be enough of an incentive to shift the current market perception of the site, and thus act as a catalyst for further private investment. The use of econometrics or parametric analysis of similar cases could help in providing a plausible answer.

So, is this a Successful Plan?

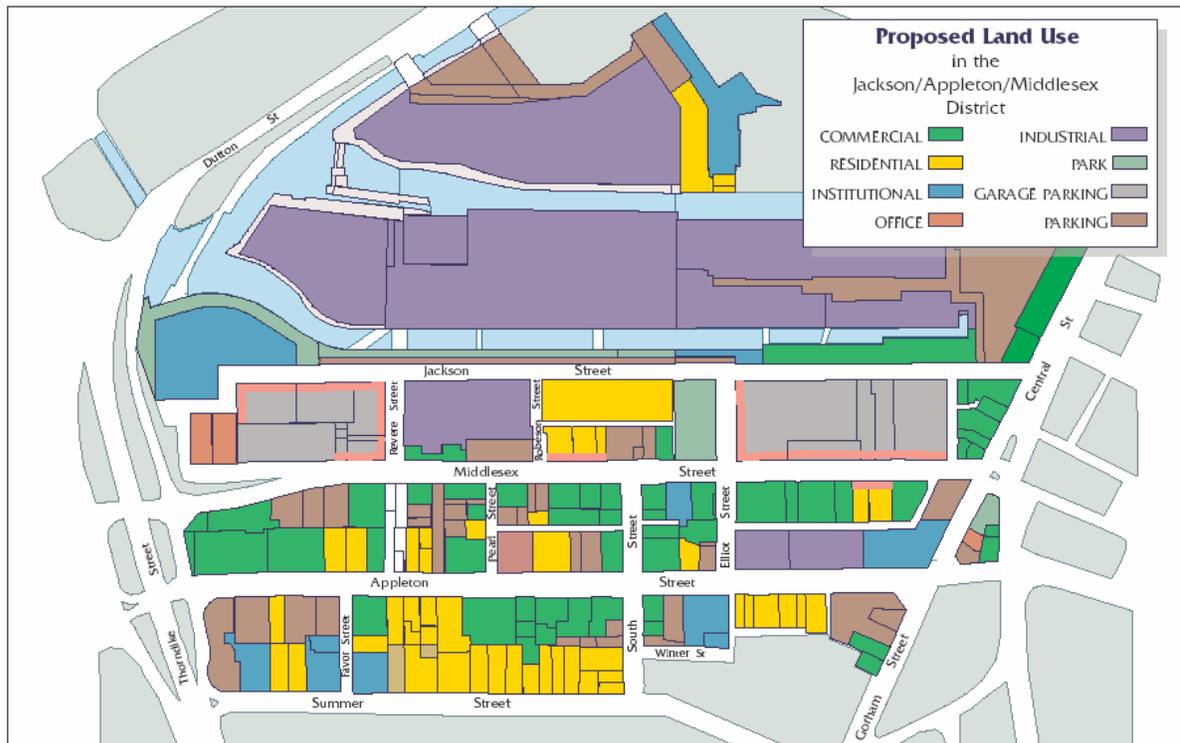
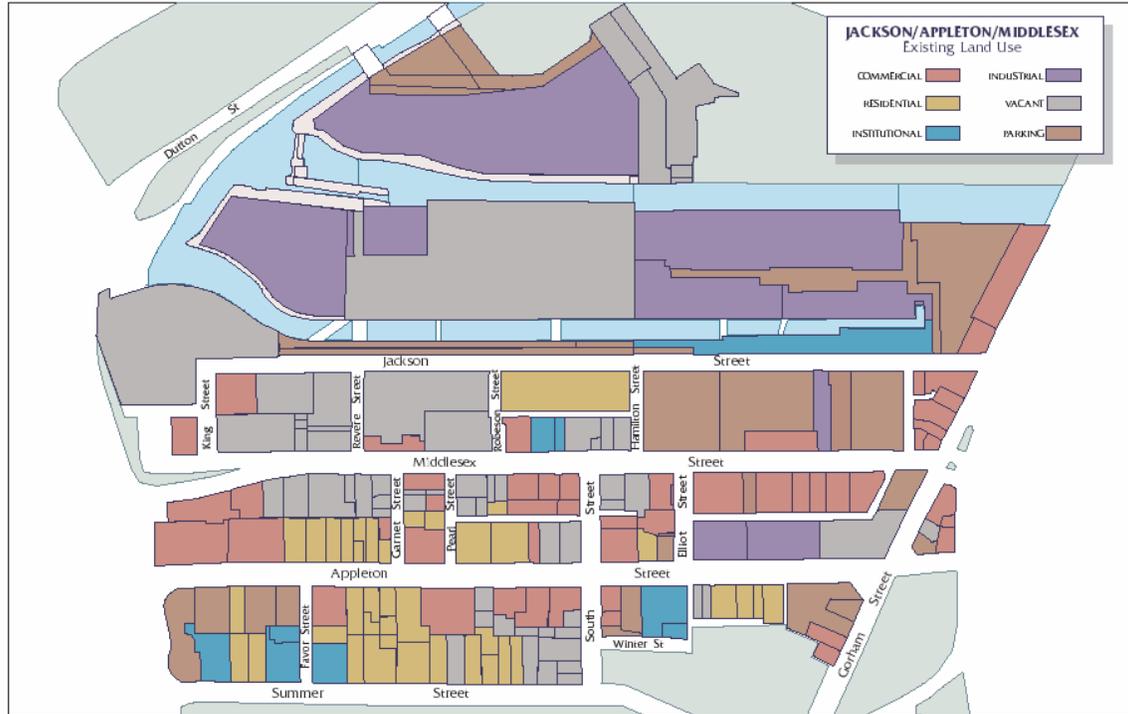
As mentioned during the argumentation of the paper, it might be a little early to claim the success or failure of the Plan. But our analysis can provide guidance on whether the Plan has the right combination of perspectives and content to succeed in its objectives. In my opinion JAM Plan ultimately presents a very complete and thorough vision of the Canals Industrial District, in perfect resonance with the city-wide Master Plan. The planning process was satisfactory and inclusionary with most stakeholders, with the important exemption of the residents.

Indeed there are two critics that I can make to the Plan. First, the neglecting and exclusion of Residents on both the planning process and the long-term side effect of gentrification.

Secondly, the lack of sound financial analysis to successfully proof the economic benefits of the plan and the monetary measurement of such success. I think such an extensive economic analysis is a moral prerequisite especially when the pillar of the Plan is to

acquire over 18.18 acres of private property using Eminent Domain for a yet vague and elusive objective of economic growth.

Overall, this is a very good plan that was intended to be implemented three decades ago. Certainly, the time for Urban Renewal of Jackson/Appleton/Middlesex district has arrived.



Bibliography

- Tables and graphs are all taken from the JAM Urban Revitalization and Development Project
 1. Jackson Appleton Middlesex Urban Revitalization and Development Project. March 2000. City of Lowell
 2. JAM Plan. Division of Planning and Development. City of Lowell
 3. Land Use Plan, Lowell Massachusetts. 1972
 4. Syllabus and reader from 11.360 Community Growth & Land Use Planning, edition Fall 2005 “Centralville in Lowell, MA”.

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Source: Google maps