

ISSUES IN INFILL DEVELOPMENT:
A CASE STUDY OF THE STRAUSS TANNERY, PEABODY, MASSACHUSETTS

by

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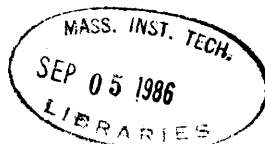


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requirements for the Degree of Master of Science in
Real Estate Development

ABSTRACT

The purpose of this thesis is to familiarize first-time developers with the development process and with several issues in the development of small scattered industrial sites. The method by which this is done is through the case study of a specific infill site, the Strauss Tannery, Peabody, Massachusetts. The analysis focuses on determining the feasibility of three alternative residential developments for this particular site. Included in the feasibility analysis of the site are an informal market study, a political analysis, a Chapter 21E analysis and a site analysis. In addition, general topics discussed include the issue of contaminated soil, the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, the Massachusetts' Department of Environmental Quality Engineering site review procedure, strategies for rezoning a site and the implications of contaminated soil for site acquisition.

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INTRODUCTION

In the past, the major obstacle to the redevelopment of scattered, small industrial sites has been the expense of rehabilitating or demolishing the existing structures. Today, increased environmental awareness of hazardous wastes and the growing anti-development atmosphere in many communities are becoming additional obstacles to such infill development. Nevertheless, as the supply of raw land diminishes and as land prices increase, the redevelopment of these infill sites is becoming more attractive to developers.

One of the objectives of this thesis, therefore, is to familiarize first-time developers with some infill development issues such as rezoning and hazardous waste and to offer suggestions on how a developer can minimize his risk exposure in undertaking this type of development. Another objective of the discussion is to familiarize the first-time developer with the development process itself. The method by which this will be done is through a case study of a proposed development for a specific site: The Strauss Tannery Site in Peabody, Massachusetts.

Although the discussion will be primarily directed towards first-time developers, certain sections could be useful to the development community in general. For example, the chapter on environmental issues which discusses

hazardous waste has relevance to the development of any site that has an underground oil tank, and the chapter on political issues discusses typical strategies utilized for rezoning a site.

The format of this thesis is such that the primary discussion throughout focuses on development of the Strauss Tannery Site; however, the issues raised by this case study are also applied to infill development in general. Chapter I: A Case Study of the Strauss Site, introduces the reader to the subect site by giving a brief history of its use and a summary of recent development proposals. Chapter II: The Politics of the Strauss Site, is an analysis of the political context of the Strauss site. It includes a discussion of neighborhood opposition to development of the site, the role of the local government, the current zoning of the site and attempts to rezone the site. Chapter III: Development and Hazardous Waste, is a discussion of the implications of hazardous waste for development. Included are a discussion of the Massachusetts Hazardous Waste Law Chapter 21 E, an outline of the DEQE's procedures in analyzing potentially contaminated sites, an outline of the typical analysis done by soils consultants, and, lastly, a discussion of the soils analysis done on the Strauss site. Chapter IV: The Feasibility of Developing the Strauss Site, is a financial feasibility analysis of the three development options considered for the site. In Chapter V: Additional Considerations for the Development of Infill Sites, two

other important issues raised by the Strauss Site case study are discussed, specifically: The implication of soil contamination for land acquisition and the resources required of the infill developer himself. Appendices which contain supporting information are referred to throughout the discussion.

CHAPTER I

THE STRAUSS TANNERY SITE

The site chosen for the case study is the Strauss Tannery at 145-147 Lowell Street, Peabody, Massachusetts (See the Site Context Map on page 10). This particular site was selected for analysis because it combines many of the complex problems of infill development such as hazardous waste, demolition costs and rezoning. At the same time, the site is not so complex that the primary issues become obscured.

The site to be analyzed consists of two parcels which belong to the same owner, Mr. David Strauss (See the Subject Site Map on page 11). The larger 1.6 acre parcel is occupied by several large, wooden, dilapidated structures, several of which have been used since 1867 for leather processing (See the photographs of the existing structures on page 15. See also the Building Location Plan of the site on page 12). The other parcel of about 4,000 SF at 141 Lowell Street is occupied by a rented one-family home. The total land area of the combined parcels, thus, is 1.8 acres.

The Uses Map on page 13 and the photographs on pages 14-17 provide an indication of the character of the surrounding neighborhood. The site is bounded on the east

by a row of one and two-family homes; on the north by the B & M Railroad and the Proctor Brook; on the west by a small cottage with a long access driveway and also by the John Southwick House which is an historic landmark; and on the south by Lowell Street. Access to the site is available from both Endicott Street and Lowell Street. The neighborhood to the west of Endicott Street consists primarily of older one and two-family homes; whereas, to the east of Endicott Street there are several older multifamily buildings and two new condominium developments. In addition to the Strauss Tannery factory, there are several other nonconforming uses in the area including a pharmacy, a service station, a hospital and a convenience store. The Strauss Tannery itself has not conducted any "wet" operations since 1984. However, some minimal work is currently carried on there in order for the factory to maintain its commercial status.

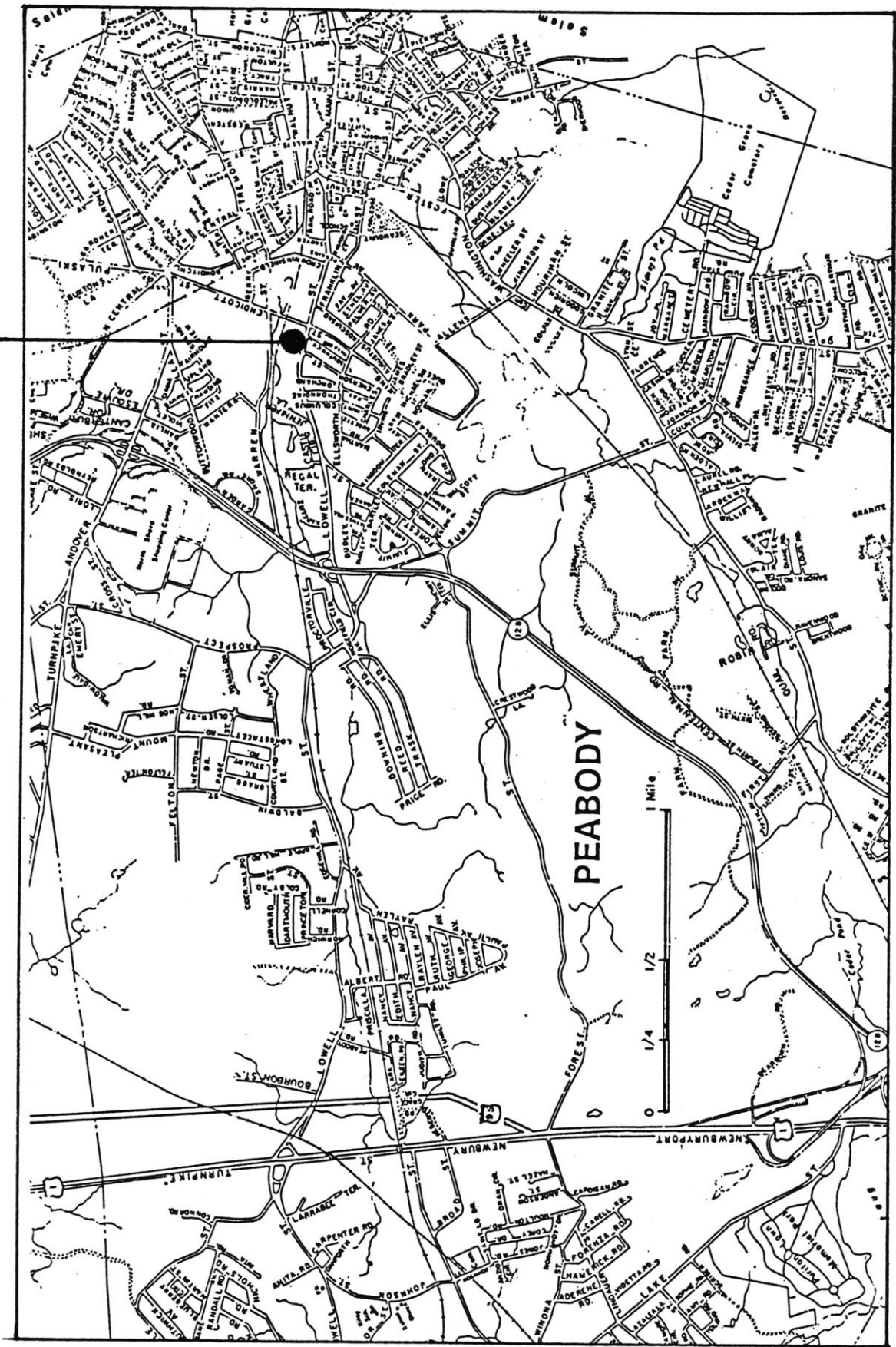
The site was put on the market when the tannery stopped operating in 1984. At that time, the owner proposed to build a 58 unit apartment complex consisting of three double-L shaped buildings at the rear of the parcel. In order to accomodate the proposed use, however, a rezoning of the site was required. An attempt was made to move the R4 district, which now ends at Endicott Street (See the Zoning Map on page 18), to include the Strauss parcel. The proposed zoning change encountered a great deal of neighborhood opposition and resulted in a petition of 400

signatures and the proposals eventual defeat.

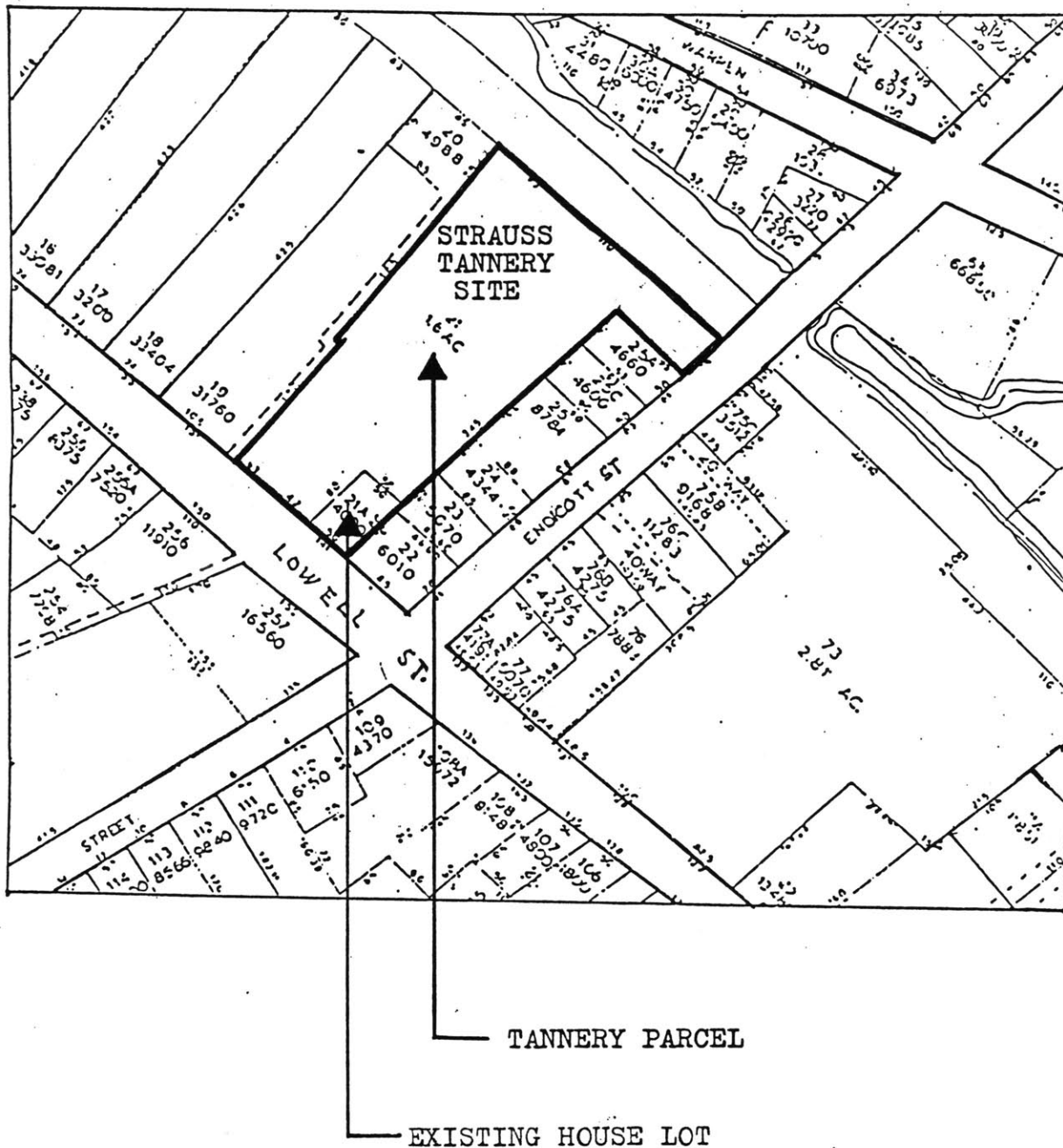
For the past year, the site has been under option by a local developer. This firm originally planned to build about thirty-six townhouse condominiums on the site; however, after meeting with abutters and obtaining input from the Planning Department, they downgraded the proposal to twenty units. This proposal will require the creation of a new zoning district that permits this type of development and the inclusion of the Strauss parcel within the new district. At the time that this thesis was being researched and written, the developer's proposal went before the Planning Board and the City Council. The results of these reviews and the issue of rezoning will be discussed in the following chapter.

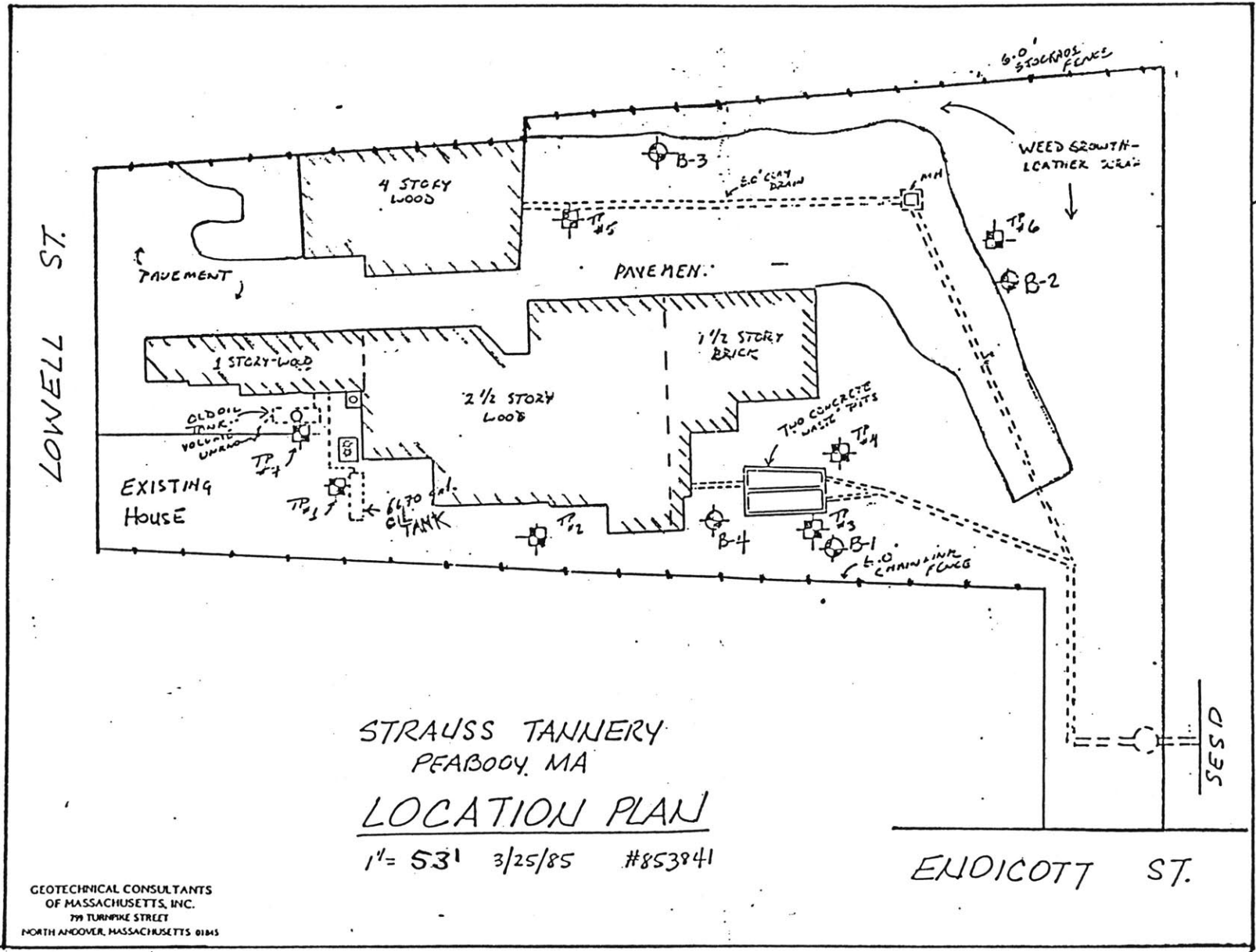
SITE CONTEXT MAP

STRAUSS TANNERY SITE



SUBJECT SITE





LOWELL ST.

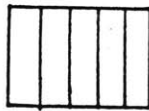
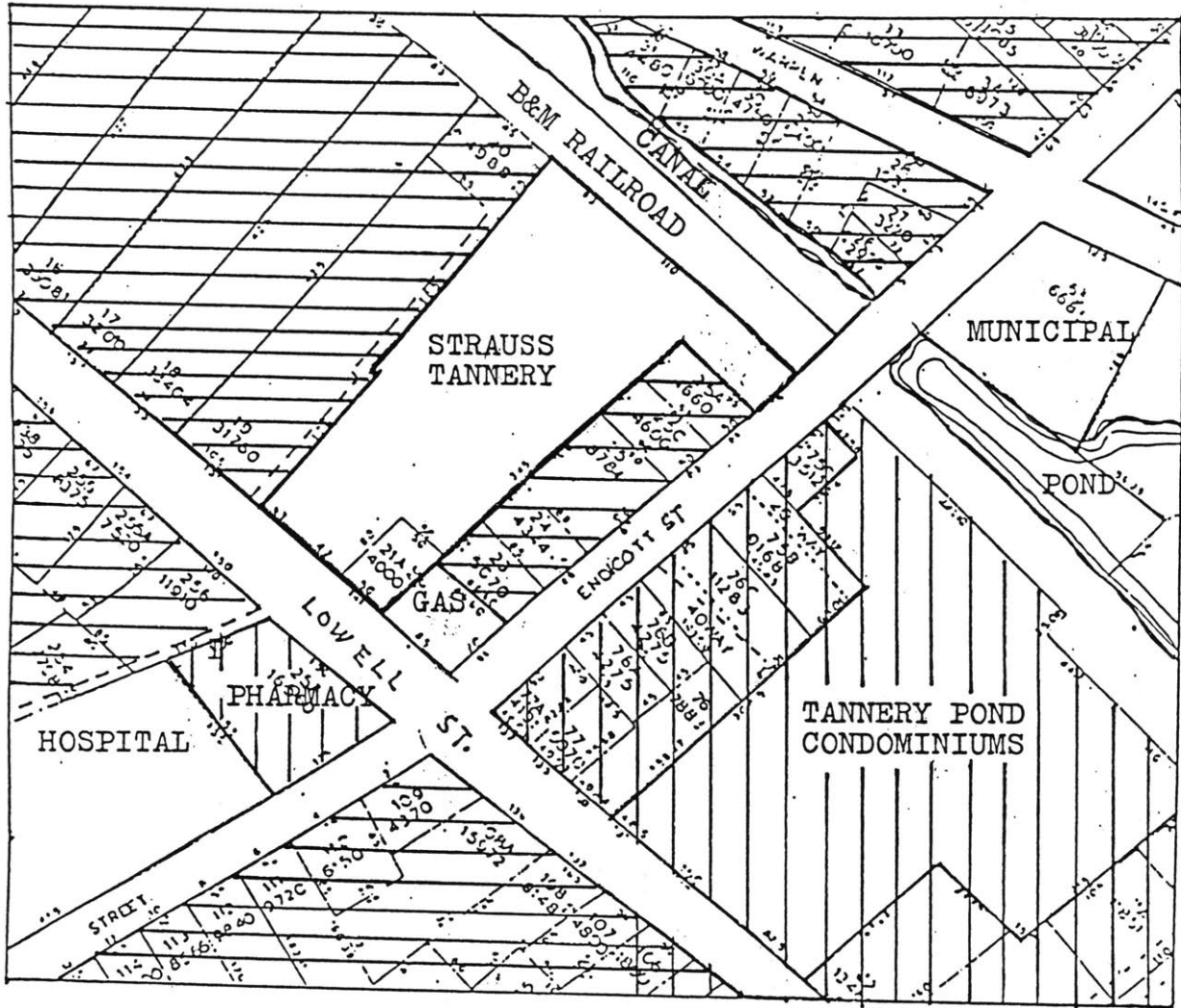
BUILDING LOCATION PLAN

STRAUSS TANNERY
 PEABODY, MA
LOCATION PLAN
 1" = 53' 3/25/85 #853841

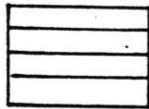
ENDICOTT ST.

GEOTECHNICAL CONSULTANTS
 OF MASSACHUSETTS, INC.
 799 TURNPIKE STREET
 NORTH ANDOVER, MASSACHUSETTS 01845

USES MAP



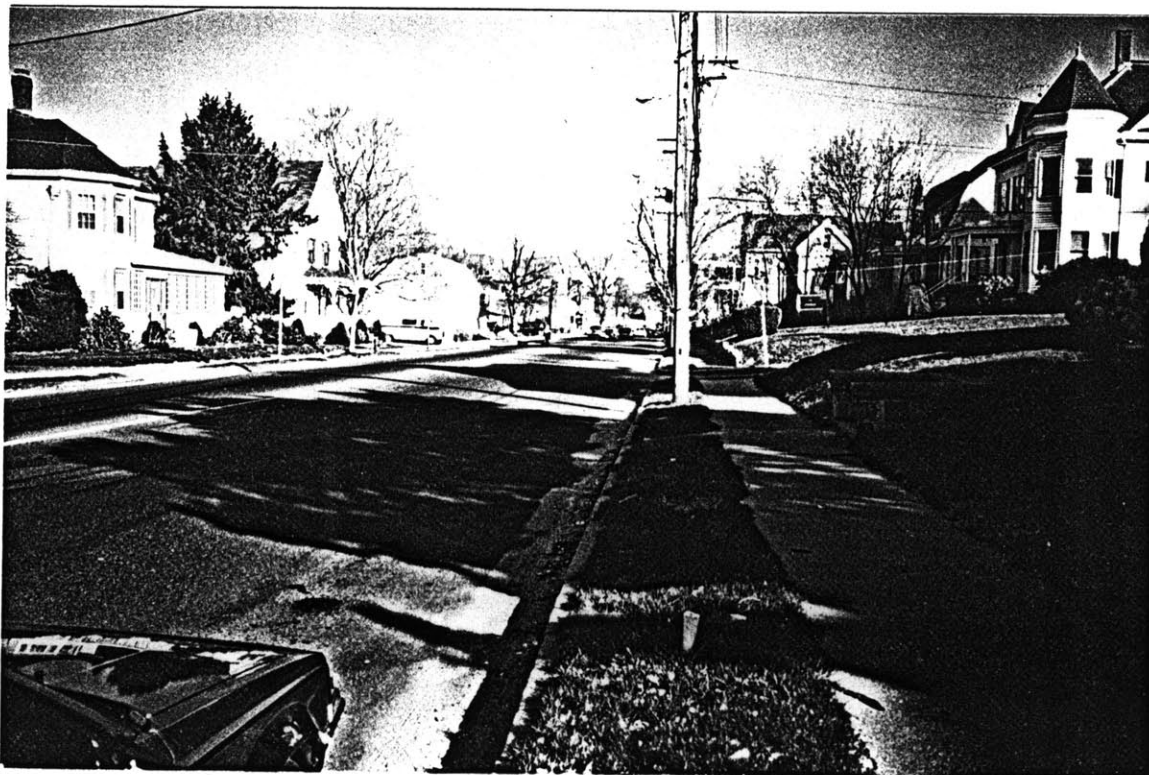
= MULTIFAMILY



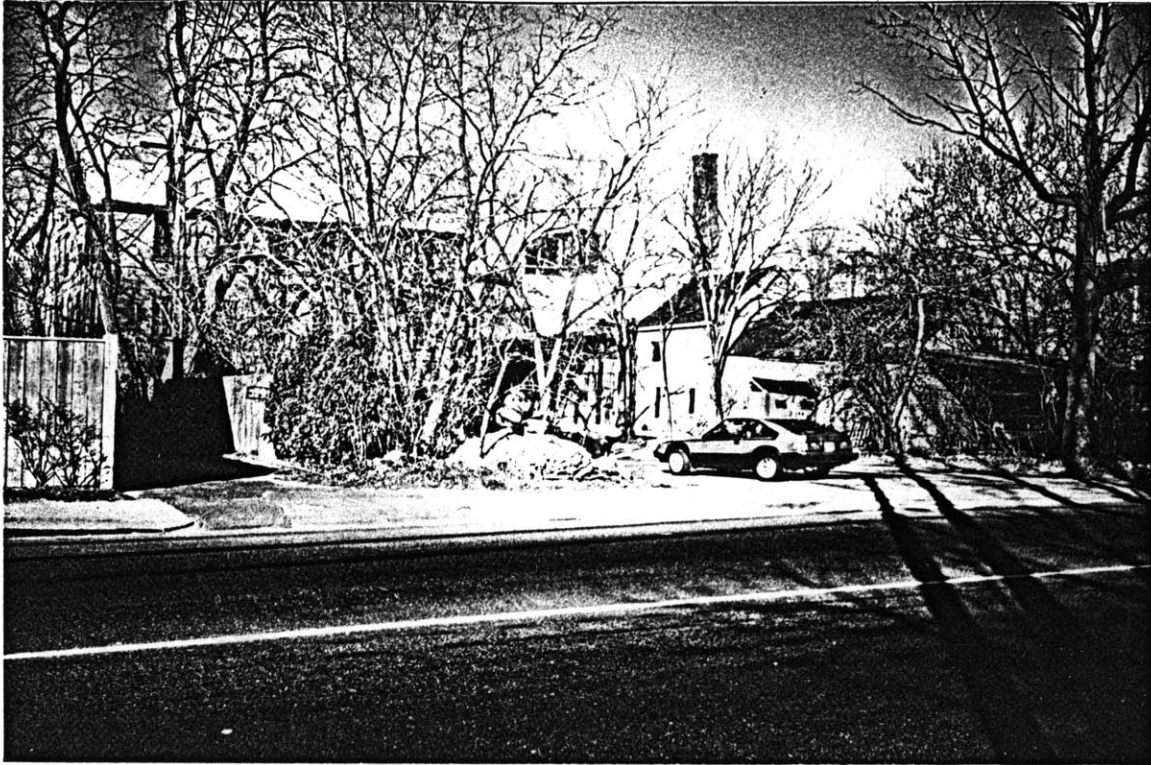
= ONE & TWO-FAMILY



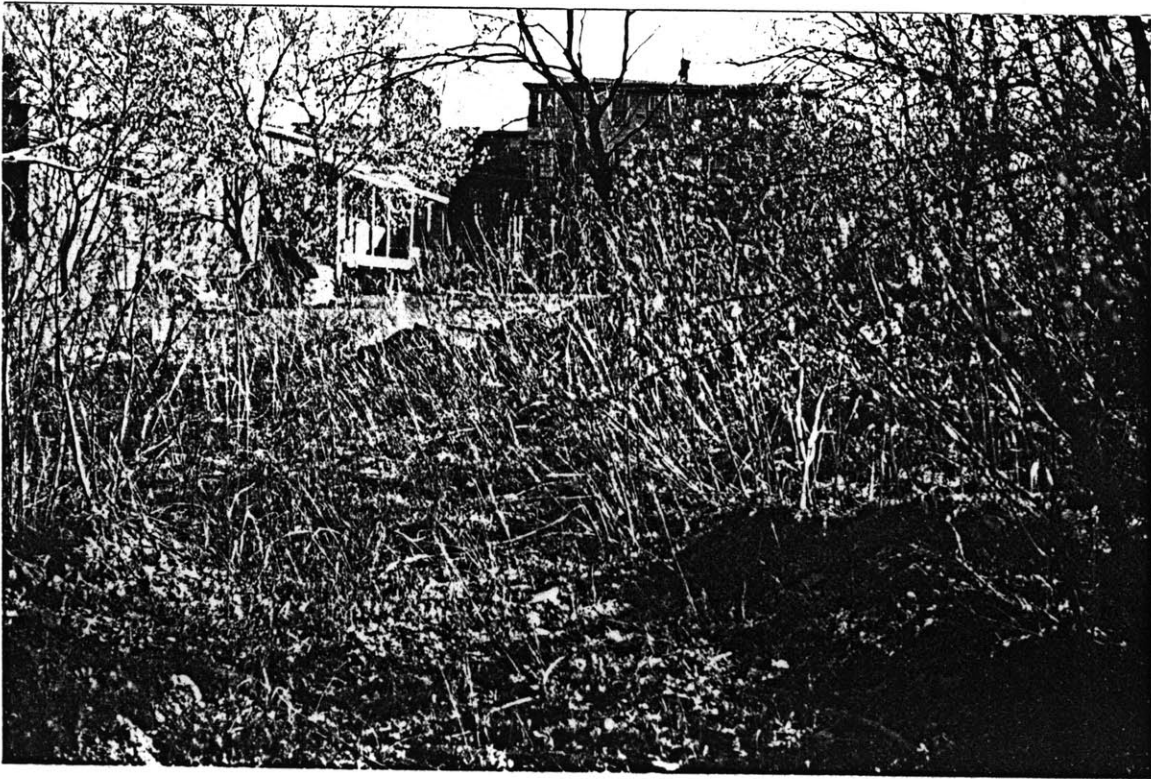
View of the Strauss house from the intersection of Lowell Street and Endicott Street.



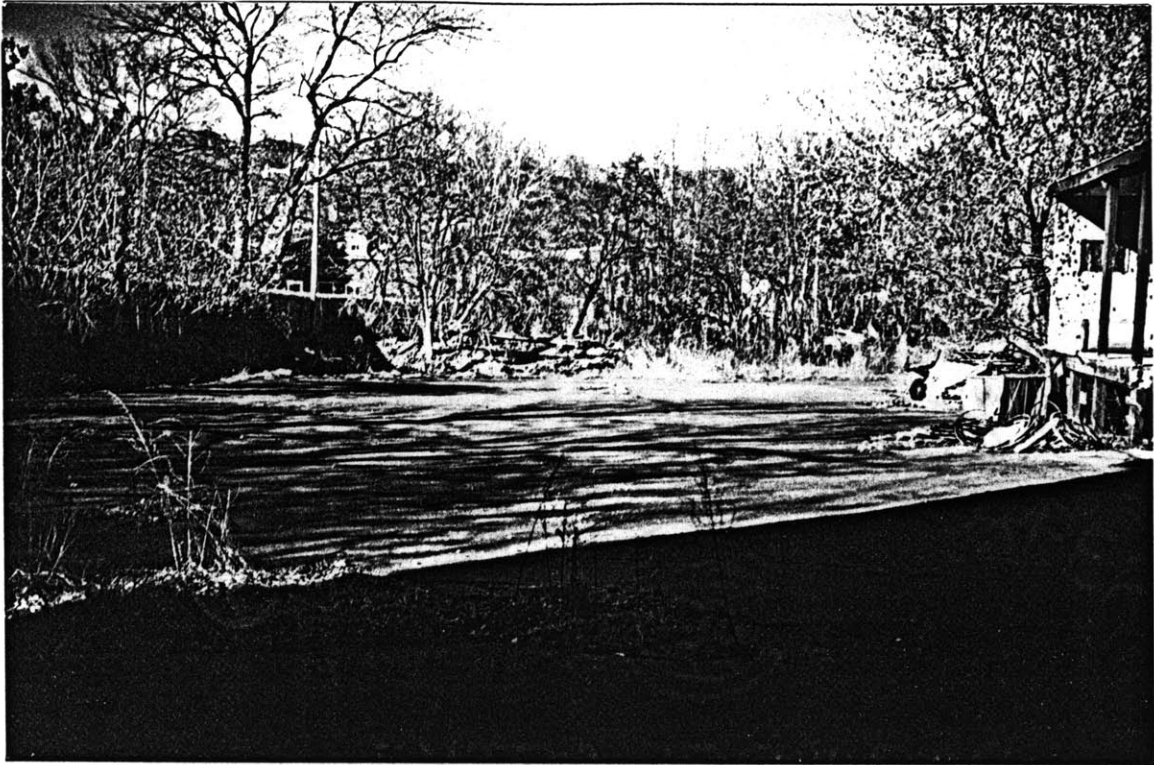
Easterly approach to the Strauss Site along Lowell Street.



Lowell Street entrance to the Strauss Tannery



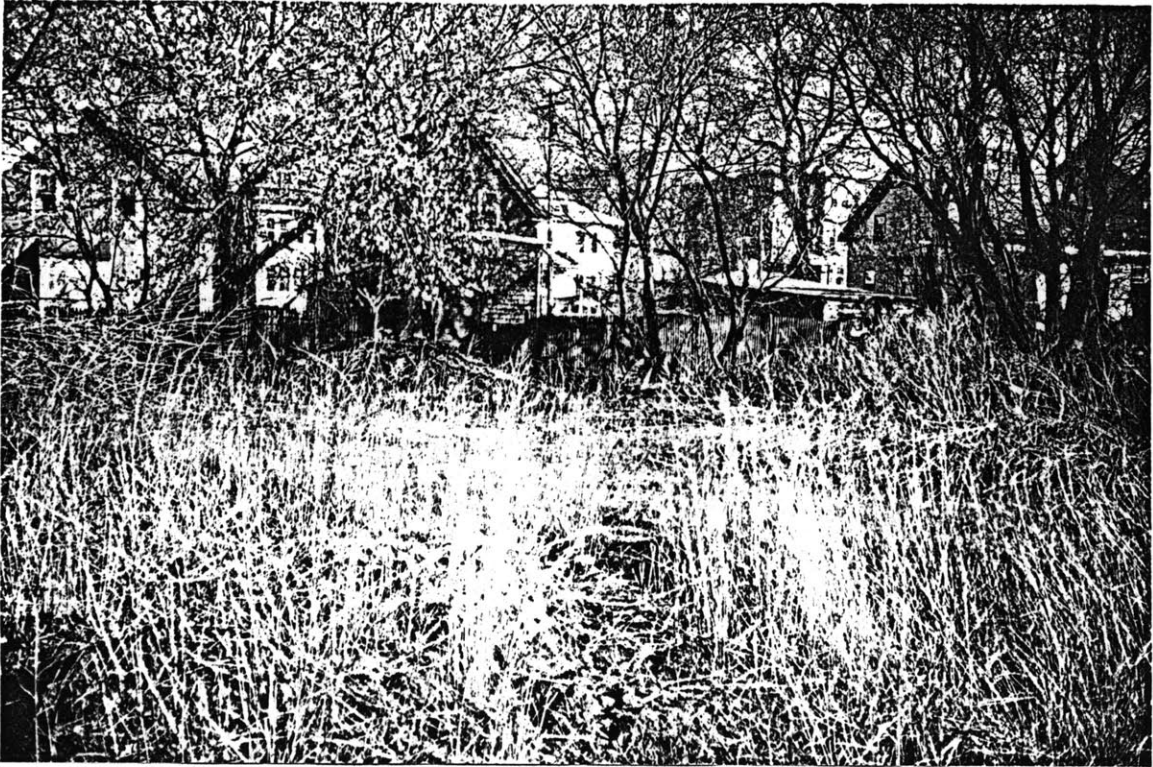
View of the tannery structures from the canal and the B&M right-of-way



View from the tannery to the canal at the rear of the parcel



Area of leather shavings at the rear of the parcel

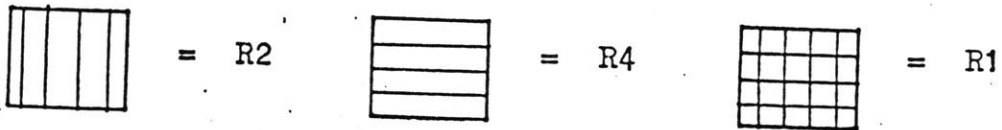
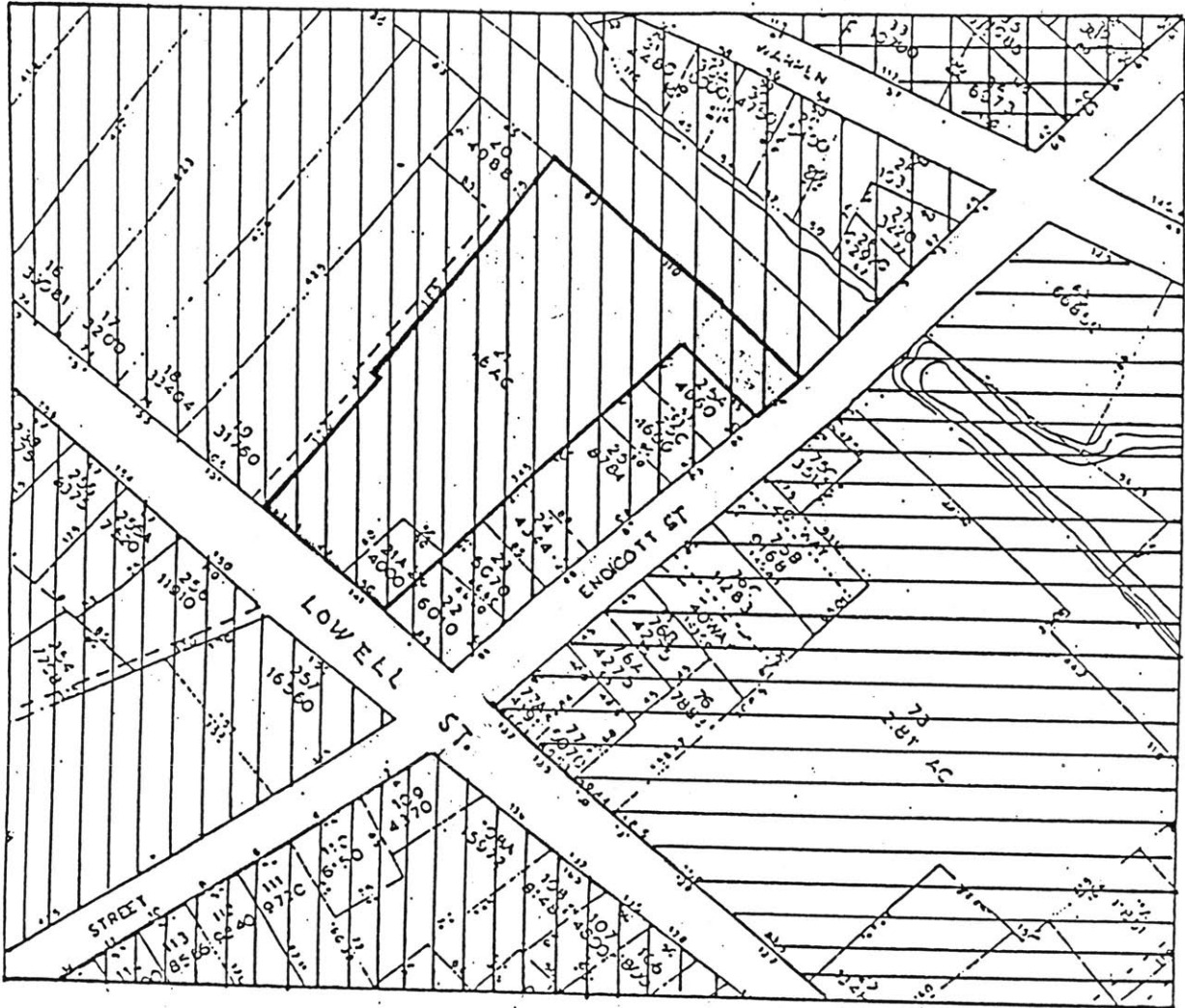


View from the interior of the parcel to
homes along Endicott Street



View along the eastern boundary of the parcel
from the rear

ZONING MAP



ZONING DIMENSIONAL CONTROLS

Districts:	Minimum Lot Dimensions		Minimum Yard Depths			Maximum Height (3) (ft)	Maximum Lot Coverage (4)	Maximum Floor Area Ratio (5)
	(1) Area (sq. ft)	Frontage (ft)	Front (ft)	(2) Side (ft)	Rear (ft)			
R-2								
One-Family	5,000	50	15	10	35	30	35%	—
Two-Family	7,500	50	15	10	35	30	35%	—

CHAPTER II

THE POLITICS OF THE STRAUSS SITE

The politics of the Strauss site essentially revolve about the issues of density and use, in other words, zoning. Although this is true of development in general, it may even be more so in the case of infill development. In this type of development, developers are typically faced with the problem of recouping high up front costs for demolition, site work and contaminated soil removal. Thus, the feasibility of a development will depend upon a combination of the unit profit margin of the final product and the density of the development. In most cases, though, the developer can do very little to increase the profit margin since it is primarily driven by market forces. Therefore, he usually has to rely on increased density.

That is the situation in the case of the Strauss site. Excluding the land purchase price, the developer of the site is faced with \$90,000 in demolition costs and essentially "variable" soil removal costs. In addition, the market analysis indicates a low margin product for this site. Therefore, in order for the development of the Strauss Site to be feasible, a higher density project will most likely be necessary.

The site is currently in an R2 district which permits

one and two-family units only. By adhering to the R2 Dimensional Controls which are given on page 18, the site could accomodate approximately eight semi-detached units and nine one-family units (See the Site Plans on pages 94-96). However, because the parcel is contiguous and under the control of one owner, only one one-family unit or one two-family unit can be constructed without obtaining Planning Board approval. Obviously, development of only one unit would not be feasible.

In its zoning ordinance, the City of Peabody does have a Planned Residential District (PRD) which is available by special permit. The PRD allows development of densities greater than that permitted by existing zoning; however, PRD is only applicable to parcels that are five acres or larger. Under such circumstances, it is common for developers to employ one or more of the following strategies in order to increase the density of their parcels: 1. Subdivision of the parcel according to the existing zoning; 2. Inclusion of the parcel within an existing district that permits the proposed use; and 3. Creation of a new zoning district and inclusion of the parcel within it.

In the first strategy, the parcel is subdivided with strict adherence to the zoning dimensional controls of the site's current zoning district. Of the three strategies, this one is normally the least time consuming and the most likely to succeed, because unlike the other two alternatives, this strategy does not require a change in the

site's current zoning. Nevertheless, use of this strategy does not guarantee a positive outcome for the developer, because any subdivision plan requires Planning Board approval. Thus, subdivision plans can become highly politicized issues and can be rejected for such reasons as public health, traffic impact, locations of new roads/intersections, etc.

The major disadvantage of utilizing the first strategy is that the density achieved may not be enough to justify the development costs or the developer's risk. In addition, it may not be good strategy from a negotiating viewpoint since the developer is placing his "last resort" strategy first. Finally, from an architectural perspective the physical product may not be as sensitive to the environment as it could be under more flexible zoning, because under the first strategy, the dimensional controls usually dominate site plan design.

The second strategy that the developer of the Strauss site could utilize to increase the allowable density is to have it included in an already existing district that permits the desired density. The most logical district to include the Strauss Parcel in is the R4 district that ends at Endicott Street. The major disadvantage of this strategy is that because City Council approval is required for any zoning change, there is the potential of the rezoning becoming a highly political issue. Another disadvantage of this strategy is that it could raise the issue of spot

zoning; therefore, care must be utilized in drawing the new district line so that it does not appear that the redistricting is directed only to the Strauss parcel.

This is the strategy that was employed by the owner of the site in 1984 when the 58 unit apartment complex was proposed. It became a highly emotional issue for the neighbors and resulted in a petition of 400 signatures in opposition to the zoning change. In addition to the high density, it appears that the abutters were concerned with the fact that several abutting parcels would be included within the R4 zone and that business uses are permitted in the R4 district.

The third option, as mentioned, is to create a new district that permits the proposed use and have the parcel included in it. Part of the rationale for utilizing this method is that if the developer can address the concerns of the neighbors in the drafting of the new district, he will probably face less opposition in the approval process. However, this strategy also raises the issue of spot zoning and can be politically difficult because it, too, requires City Council action. In fact, it is potentially the most problematic of the three alternatives because it requires two public actions. First, the new zoning category must be approved by the City Council. Then the City Council must designate the site as falling within this new zoning category.

The developer who currently has the site under option

is employing this strategy. The Developer's proposal called for the creation of a new R3-T Downtown Townhouse District that sets stringent controls and design criteria (See Appendix I on page 52 for a summary of the proposal). The proposal was drafted with considerable Planning Department involvement and some neighborhood participation. In addition, the Planning Board recommended acceptance by the City Council. Nevertheless, on June 19, 1986 the City Council voted unanimously against the creation of the new district. At the meeting it appeared that most of the Councilors felt that something has to be done with the Strauss Site but were concerned by the creation of a new district. Issues raised included: The implications for other parcels in the City that are 20,000 SF or greater (i.e. because everyone with such parcels would be requesting the designation "as of right"); The creation of a new district when the City is in the process of reviewing its zoning bylaws and trying to reduce densities; The legality of approving a site plan at the same time of creating a new district and the possibility of it being spot zoning, and; Whether or not \$125,000 is affordable housing.

A large vociferous opposition group was present at both the City Council and Planning Board hearings on the new district proposal. On the other hand, very few supporting the development appeared. Furthermore, the extent to which the opponents outnumbered the proponents was exacerbated by the fact that the new R3-T District was not only being

created for the Strauss Site but also for another parcel of land. Perhaps this was done in order to avoid the appearance of spot zoning or to share the legal expenses associated with the drafting of a new ordinance (Both developers were represented by the same lawyer). The result, though, was that many more opponents appeared at the meeting than would have if only the Strauss Site were being reviewed. In fact, the majority of the opponents were there because of the other site.

Abutters of the Strauss site were concerned with: Traffic congestion that already exists on Lowell Street and Endicott Street; The "high density" of the proposed development; The amount of development occurring in the City; The character of the neighborhood (i.e. The site, therefore, should be developed under the existing one and two-family zoning); The issue of what is "affordable" housing, and; Design guarantees (i.e. The built product is usually very different from what is on the drawings). Proponents of the development said that it would rid the neighborhood of a health hazard and a fire trap and that the design was very sensitive to the surrounding neighborhood.

Several opponents also spoke of the possibility of creating a "Tannery Museum" at the site. In fact, this idea had been proposed several years earlier. The concept of having a Tannery Museum to memorialize the City's past leadership in the industry has supporters in the City Government, but not at this site. It is felt that the site

would be inappropriate because of its location, large size and, most importantly, the high cost of rehabilitating the existing structure (See Appendix III on page 62 for a structural analysis of the existing buildings). Furthermore, given that a museum would probably generate more noise and traffic than a residential development, it appears to the author that this proposal by the opponents is more of a tactic designed at preventing development than of being a serious consideration. Appendix II on page 56 contains several articles and editorials that give a sample of the "politics" of the Strauss Site.

Conclusion

The political hurdles that developers have to overcome in the approval process are recognized throughout the development community; however, in the case of infill sites, one might not expect the amount of opposition that was encountered in the case of the Strauss Site. One would assume that because these sites are "eye sores" and health hazards, neighbors would welcome their development. Nevertheless, the case study showed that in certain situations the status quo may be more acceptable than change.

It should be noted, though, that although there was a great deal of neighborhood opposition to development of the Strauss Site, this may not be the case in all infill development. The Strauss case is somewhat unique in

relation to other infill sites in that it is surrounded by a residential neighborhood and located in an area that has been severely impacted recently by a large amount of new development and the construction of a major highway interchange. On the other hand, many infill sites are in mixed use downtown locations that are already zoned for higher densities and, therefore, may not require a rezoning. Furthermore, in many of these cases the local government may be willing to assist the developer in obtaining low-cost financing and expediting the process for the development of these infill sites. Thus, ideally an infill developer should target for development those infill sites which do not require a rezoning and are favored by both neighbors and the local government.

However, in those cases in which there is political resistance to the proposed development and/or a rezoning is required, there are several actions, that a developer can take to minimize opposition to his proposed development. It is important for the developer to become familiar at the outset with the local approval process, with the issues and with the "players" by talking to local officials and by attending public hearings on other development proposals. In addition, local officials and those neighbors most likely to be affected by the development of a site should be involved in the planning process at the outset in order to address their concerns. The developer should also identify those persons in favor of the proposed development and

encourage them to voice their opinions.

In those situations in which an infill developer is contemplating a rezoning in order to increase the allowable density, it is the author's opinion that the developer should evaluate carefully the probability of the rezoning succeeding and the necessity of the rezoning for the the feasibility of the project. The reason is that although an increased density may appear to make the proposed development more profitable, as the Strauss case study demonstrates, a rezoning can be very difficult, time-consuming and expensive in the long run. Nevertheless, a rezoning may be the only way to make the development of certain sites feasible. In such situations, the choice of which rezoning strategy a developer should use will depend on the development budget, the market conditions, the political climate and the time frame within which the developer has to operate. Thus, when a site needs to be rezoned, most developers choose the strategy of including the site within an existing zoning category in order to avoid the expense and political problems of creating a new zoning category. In fact the majority of developers who choose the strategy of creating a new zoning category do so because none of the existing zoning categories permit the proposed use.

Lastly, in the case of the Strauss Site, it is the author's opinion that the proper sequence of strategies was taken. At the time of the first development proposal in

1984, housing prices were at much lower levels; thus, development under the existing zoning would not have been feasible. The best alternative, then, was to have the parcel included within an existing district which permitted the proposed use. The opposition that resulted from the proposal probably would not have occurred had the proposed use been less dense and more sensitive to the neighborhood. Had it not been for this, the proposed zoning change may have succeeded. Subsequently, the next developer decided to attempt to create a new zoning category. Again, this may have been the right decision, because, as the financial analysis will show, development today under the existing zoning may only be marginally feasible. The proposed new zoning category addressed many of the concerns of the neighbors, and the development itself was much less dense. However, the major problem with it may have been one of timing (i.e. The impact development and highway construction have had on the neighborhood recently). Thus, for this same reason, no new development proposals, even under the existing zoning, should be attempted at this time. Otherwise, there will surely be a great deal of opposition. However, once the activity in the area has returned to normal, it may be possible to obtain subdivision approval for the site under the existing zoning. In fact, if housing prices continue to rise, it may actually be more profitable to wait and develop the site at a later date.

CHAPTER III

DEVELOPMENT AND HAZARDOUS WASTE

Soil contamination is potentially the source of greatest risk and expense for the developer of infill sites. The cost of transporting and disposal of contaminated soil alone can range from \$100 per ton to \$500 per ton. In addition to being faced with potentially enormous cost overruns, the developer may have difficulty in marketing the final product to a public concerned about the "potential health risks" of the site. Therefore, it is important for the developer of an infill site, or of any suspect site, to be familiar with these environmental issues before obligating himself on such a site. For this reason, this chapter begins with a brief discussion on issues such as Chapter 21E, the role of the Massachusetts' Department of Environmental Quality Engineering (DEQE) and procedures for site assessment. Discussion will then again focus on the Strauss site case study; specifically, the soils analysis done of the site.

Hazardous Waste Regulation and Chapter 21E

When hazardous waste is mentioned, most people think of illegal dumping, the Federal EPA and the "Superfund" sites. However, soil contamination is a serious problem on the smaller scale and is not always a result of illegal dumping. Byproducts of a manufacturing process occurring on a site may contaminate the site over time, or a site may have been filled years ago with material that at the time was thought to be harmless but has now been found to be a health hazard, or, simply, an underground gas or oil tank has leaked.

The Federal EPA concentrates primarily on the severely contaminated superfund sites and rarely becomes involved on the smaller scale sites, because they are too numerous for its resources. The role of the EPA on these smaller sites in most cases is limited to one of providing guidelines for determining contamination and for cleanup. Thus, the scrutiny of smaller sites is done at the state and local level.

Even at this level, though, it is difficult for the local agencies to keep track of those sites that are potentially contaminated. This is one of the primary reasons why Massachusetts passed its controversial Massachusetts Oil and Hazardous Material Release Prevention and Response Act, better known as Chapter 21E. As a result of its enactment, most site reviews done by DEQE are

initiated by site owners or potential site owners rather than by DEQE. The reason for this is that Chapter 21E virtually makes it impossible to finance a site or any development on it without a DEQE review of the site (A copy of Chapter 21E is in Appendix IV on page 64). This law gives the state the authority to place a superceding lien on any site that is contaminated irrespective of who is responsible for the contamination. In addition the state is entitled to treble damages. The implications for financing are obvious. Title insurance companies will not underwrite a property until they have some assurance from the DEQE, the enforcement arm of Chapter 21E, that "no further action by DEQE is warranted at this time." As one can see, Chapter 21E not only requires developers of potentially contaminated sites to inform DEQE of the contamination, but also forces them to do so. As a result, DEQE can concentrate its efforts on the site review process rather than on targeting sites for enforcement.

Site Assessment Process

The owner or the developer of a suspect site employs a consultant to do the initial 21E site analysis which is then submitted to DEQE for review. However, because it has very limited staff and resources and in an effort to expedite the review process, DEQE has implemented standard minimal guidelines and procedures that these reports must follow. If these standards are not met, the length of the review

process may be extended and/or the report may not be accepted by DEQE at all. Therefore, it is critical that a developer requiring a 21E assessment become familiar with this process. In addition, it would be wise for the developer to obtain the services of a consultant who has worked with DEQE in the past on 21E assessments and to get input from DEQE in the initial stages of the process in order to avoid surprises later on.

The site assessment process is comprised of four phases: I. Problem Definition; II. Problem Evaluation; III. Development of Alternative Remedial Actions and Recommendations, and; IV. Implementation. These phases are explained in detail in a DEQE memorandum called Site Investigation/Remedial Action Guidelines contained in Appendix V on page 74. In addition to this standardized procedure, DEQE has minimal standards for the submission of analytical data a copy of which is in Appendix V on page 79.

"As for the time required for a DEQE site review, a number of factors, such as staffing constraints and other hazardous waste emergencies, affect DEQE's capacity for processing site assessment reports. Thus, it is not possible to predict with any degree of certainty the time requirements to work through a hazardous waste/oil site problem with DEQE. In the case in which a site is not excessively contaminated, is not near important and sensitive public health receptors and is not the subject of DEQE enforcement activity, a moderately optimistic estimate

of the time requirements to work through a hazardous waste site problem with DEQE is about five to seven months. It must be stressed that this estimate is optimistic and assumes: 1. that the site assessment firm has provided a report that DEQE will find generally acceptable, 2. that there will not be any great difficulty in reaching agreement regarding the actions necessary at the site; and 3. that there will not be an unusual amount of difficulty in obtaining DEQE attention to this project. There is a remote prospect that the process could be concluded in a shorter period, but that would be possible only if all necessary steps were accomplished with great ease and great speed. It is likewise possible that the process could take longer than seven months if DEQE's response time is slowed to any degree, if DEQE requires extensive additional testing and analysis, if the problem becomes "politicized" to any degree, or if any significant problems arise in selecting and executing a remedial plan." ¹

"The scope and cost of the consultant studies required at a site will generally be related to the extent of the presence on the site of hazardous material or oil. A 21E preliminary site assessment may be expected to cost on the order of \$5,000 to \$20,000, depending on the site complexity, site history and the need for subsurface explorations and laboratory analyses. In most cases, hazardous material and oil are not present to a degree that would require significant remedial action. Where additional

studies are required under the provisions of 21E to provide the information required by DEQE for a detailed site investigation, the cost may range from \$15,000 to \$40,000 or more, again depending on the complexity and nature of the contamination. The cost of Remedial action, if required, may range from \$20,000 to \$200,000 or more. For example, the final cost of a fairly simple remedial scheme at a small site involving on-site soil aeration and limited treatment of groundwater through air stripping would be about \$25,000 to \$35,000." ²

The Strauss Site

The Report of Hazardous Materials Study for the Strauss Tannery done by Geotechnical Consultants of Massachusetts did not follow DEQE's minimum guidelines (Appendix VI on page 81 contains a memorandum outlining DEQE's criticisms of this report). This hydrogeological report probably would not have been accepted by DEQE if the developer of the Strauss site had submitted it directly to DEQE. However, the report was submitted by the developer to the Peabody Department of Public Health who then requested advice from DEQE on it. Therefore, because it was a public agency requesting the review, DEQE accepted the report.

DEQE's review of the Strauss Tannery shows that there does not appear to be any serious contamination problem with the site (See Appendix VII on page 86 for DEQE's

conclusions). The two potential "hot spots" that the developer should be concerned with are the ground below the leather trimmings and the soil surrounding the oil tanks. Although the test pits and borings done by the consultant do not reveal any serious problem in these two areas, the potential risk and expense of serious contamination should not be mitigated. Excavation could open up a "Pandora's box". Therefore, it would be wise for the developer to do additional testing in these suspected areas before purchasing the land and to carry enough of a contingency to cover contaminated soil removal cost overruns during development.

1

Memorandum by John J. O'Brien, an attorney for Rackmann, Sawyer and Brewster, One Financial Center, Boston, Massachusetts.

2

Lawrence Feldman, Ph.D., Goldberg-Zoino & Associates, Inc., "Site Investigations Under Massachusetts' 'Superfund' Law, Massachusetts Waste Management Report.

CHAPTER IV

THE FEASIBILITY OF DEVELOPING THE STRAUSS SITE

The objective in this chapter is to determine which of three alternatives: Clustered Townhouse Condominiums, Semi-detached Condominium Units or One-family Units, are feasible and to determine the maximum price the developer can pay for the land under each alternative. Financial pro-formas are presented for each of the three options on pages 42-47. In these pro-formas, hard costs, soft costs and land development costs are deducted from sales proceeds in order to determine the residual available for the developer's profit and for land purchase. From that amount, an average developer's profit of ten percent of sales proceeds is subtracted in order to arrive at the residual available for land purchase. In all three cases land development costs are the same and include only those premium costs associated with bringing the site to a "raw state" (i.e. demolition, hazardous waste removal, etc.) and does not include infrastructure costs (which are included under the hard costs for each alternative). These land development costs are presented on a separate schedule on page 41.

The three schemes and pro-formas are based on information obtained from a site, market and financing

analysis that were done. Appendix VIII, Site Analysis (page 89) contains a site plan and explanation for each of the three alternatives. Appendix IX, Market Analysis (page 97), is a discussion of the procedure utilized to determine the highest and best use of the site, the optimal amenity package, the target market and the probable price range. Appendix X, Financing Issues (page 106), is a discussion of the loan approval process, funding procedures, the types of loans available for this development and the costs of financing.

Analysis of the Alternatives

A quick analysis of the pro-formas reveals that the most profitable option for both the developer and the landowner is the Clustered Townhouse Proposal. The reason is that at twenty units, it has the highest density of the three proposed options. As a result of this higher density, revenues are greater in total than in any of the other two alternatives even though the per unit revenues of this alternative are the lowest of the three. In addition, fixed costs such as land development costs are lower per unit because they are spread over a greater number of units. Thus, although the per unit profit margin for the Semi-detached Condominium scheme is higher, the total profit of the Clustered Condominium scheme is \$53,512 more because of its greater density. However, as the discussion in the chapter on political issues revealed, it is unlikely that

the Clustered Townhouses will ever be built. The option remaining to the developer, then is to develop according to the current one-family and two-family zoning.

The one-family pro-forma shows that this alternative is not feasible. Even though these one-family units will have the highest sales revenues per unit, the value created barely covers the costs of development. The reason is that the cost of the roadway and the land development costs are spread over fewer units. In addition, the per unit construction cost of a one-family home is about \$22,000 more than that of a townhouse condominium. The net effect, thus, is no residual available for land purchase and a developer's profit well below the minimum required amount of \$148,500.

On the other hand, the alternative of Semi-detached Condominium development may be viable because it provides a substantial residual to both the landowner and the developer. The profitability, though, is not as great as in the case of the Clustered Townhouse development (The developer receives \$41,000 less, and the landowner receives \$12,512 less). The major problem with this alternative is that the scheme proposes sixteen units which is the maximum number of units that would be possible given the dimensional controls under the current zoning. However, in light of the current political atmosphere, it is unlikely that the maximum would be approved by the Planning Board. Therefore, the residual could be somewhat lower and, perhaps, inadequate to compensate either the developer or the

landowner.

Conclusion

Whether or not the profitability of either the Semi-detached Condominium scheme or the Clustered Townhouse scheme will be enough to make their development feasible depends on how much risk compensation the developer requires and on how much the landowner is willing to sell his land for. For example, throughout the analysis it was assumed that the developer would require a return of 10% of sales proceeds; however, at this scale of development, many developers require a 15% return. Consequently, this greater required return to the developer would result in less residual available for land purchase and, thus, could make the project infeasible from the landowner's perspective. Even in the case of a 10% return to the developer, the residual available for land purchase may not meet the landowner's land-value expectations. However, it can be argued that in fact the land is not worth any more. The reason is that the land's value is a function of the potential uses of it, which in this case appears to be Semi-detached Condominiums. Perhaps a solution to the problem of fulfilling the landowner's land-value expectations would be for the developer to include in the land purchase price the \$158,500 of land development costs. In return, the landowner would be responsible for demolition of existing

structures and removal of all contaminated soil.

In conclusion, the major obstacles to making the development of the Strauss Site feasible and to creating more land value are the inability to increase the allowable density to an economically acceptable level, the market constraint of a low margin product for the site, and the site premium costs associated with demolition and soil contamination.

THE STRAUSS TANNERY SITE

LAND DEVELOPMENT COSTS:

	Total
Total Land Area:	78,610 SF (1.8 acres)
COSTS	
Demolition Cost:	\$90,000 *
Clearing & Grubbing:	\$5,000
Chapter 21 E Hydrogeological Study:	\$14,000
Shipping and Disposal of Hazardous Material:	\$39,500 **
Contingency:	\$10,000
TOTAL SITE PREMIUM COSTS:	\$158,500
ACQUISITION COST:	Unknown

* Includes: Removal & disposal of structures, foundations, oil tanks, sludge pits and noncontaminated leather shavings. Includes the excavation but NOT the disposal of any hazardous material.

** Includes: Removal of hazardous waste from:
 Sludge Pit: approximately 20'x16'x18" or 18 cubic yards
 Soil beneath leather shavings: 1'x50'x100' or 185 cubic yards.
 Area around old oil tank: 20'x4'x20' or 60 cubic yards

Total Cubic Yards of Hazardous Waste: 263 cubic yards
 Assuming 1.5 tons per cubic yard then: 395 tons
 TOTAL COST: (@ \$100 per ton shipping and disposal) \$39,500

(NOTE: Amounts of hazardous waste removal are only estimates and could increase if more is encountered).

THE STRAUSS TANNERY SITE

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CONDOMINIUM DEVELOPMENT (Clustered Townhouses)

Estimated Selling Price:	\$128,500
Total Number of Units:	20
Size of Units:	
3 @ 1,056 SF	
15 @ 1,200 SF	
2 @ 1,536 SF (Existing House)	
Total Building SF	25,680 SF
Parking (2 @ 350 SF required per unit):	
Garage Parking:	26
Surface Parking:	16
Building Coverage:	12,840 SF (16.4 % of available land area)
Open Space:	41,270 SF (52 % of available land area)

DEVELOPMENT COSTS

	Total	Per Unit	Per Gross SF of Building
HARD COSTS			
SITWORK			
Earthwork (assume no ledge present)	\$80,000	\$4,000	\$3.12
Site Utilities	\$177,000	\$8,850	\$6.89
Loom & Seed	\$15,000	\$750	\$0.74
Allowance for Plantings	\$30,000	\$1,500	\$1.17
Total Sitework	\$306,000	\$15,300	\$11.92
BUILDING CONSTRUCTION COSTS			
15 units @ \$64,000	\$960,000	\$64,000	\$49.38
3 units @ \$60,000	\$180,000	\$60,000	\$46.82
2 units @ \$45,000 (rehab)	\$90,000	\$45,000	\$29.30
Total Building Construction Costs	\$1,230,000	\$61,500	\$47.90
TOTAL HARD COSTS (excluding land)	\$1,536,000	\$76,800	\$59.81

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SOFT COSTS			
As a percent of hard costs:			
Architectural & Engineering (4.5%)	\$61,440	\$3,072	\$2.39
Legal (.5%)	\$7,680	\$384	\$0.30
Administrative & Miscellaneous (3%)	\$46,080	\$2,304	\$1.79
As a percent of selling price:			
Sales Commissions & Promotions (6%)	\$154,200	\$7,710	\$6.00
Interim Financing			
Fees	\$38,000	\$1,900	\$1.48
Interest (11% for 12 months)	\$110,000	\$5,500	\$4.28
TOTAL SOFT COSTS	\$417,400	\$20,870	\$16.25
LAND DEVELOPMENT COSTS	\$158,500	\$7,925	\$6.17
TOTAL DEVELOPMENT COSTS	\$2,111,900	\$105,595	\$82.24
ESTIMATED SALES PROCEEDS	\$2,570,000	\$128,500	\$100.08
RESIDUAL AVAILABLE FOR DEVELOPER'S PROFIT AND LAND PURCHASE	\$458,100	\$22,905	\$17.84
DEVELOPER'S PROFIT (10% of sales proceeds)	\$257,000	\$12,850	\$10.01
AMOUNT AVAILABLE FOR LAND PURCHASE	\$201,100	\$10,055	\$7.83

THE STRAUSS TANNERY SITE

SEMI-DETACHED CONDOMINIUM DEVELOPMENT

Estimated Selling Price:	\$135,000
Total Number of Units:	16
Size of Units:	
14 @ 1,300 SF	
2 @ 1,536 SF (Existing House)	
Total Building SF	21,272
Parking (2 @ 350 SF required per unit):	
Garage Parking:	0
Surface Parking:	32
Building Coverage:	10,636 SF (14 % of available land area)
Open Space:	40,964 SF (52 % of available land area)

DEVELOPMENT COSTS

HARD COSTS	Total	Per Unit	Per Gross SF of Building
SITWORK			
Earthwork (assume no ledge present)	\$60,000	\$3,750	\$2.82
Site Utilities	\$132,750	\$8,297	\$6.24
Loom & Seed	\$14,250	\$891	\$0.67
Allowance for Plantings	\$22,500	\$1,406	\$1.06
Total Sitework	\$229,500	\$14,344	\$10.79
BUILDING CONSTRUCTION COSTS			
14 units @ \$67,000	\$938,000	\$67,000	\$51.54
2 units @ \$45,000 (rehabs)	\$90,000	\$45,000	\$29.30
Total Building Construction Costs	\$1,028,000	\$64,250	\$48.33
TOTAL HARD COSTS (excluding land)	\$1,257,500	\$78,594	\$59.12

(continued on next page)

SOFT COSTS			
As a percent of hard costs:			
Architectural & Engineering (4.5%)	\$50,300	\$3,144	\$2.36
Legal (.5%)	\$6,288	\$393	\$0.30
Administrative & Miscellaneous (3%)	\$37,725	\$2,358	\$1.77
As a percent of selling price:			
Sales Commissions & Promotions (6%)	\$129,600	\$8,100	\$6.09
Interim Financing			
Fees	\$33,000	\$2,063	\$1.55
Interest (11% for 12 months)	\$82,500	\$5,156	\$3.88
TOTAL SOFT COSTS	\$339,413	\$21,213	\$15.96
LAND DEVELOPMENT COSTS	\$158,500	\$9,906	\$7.45
TOTAL DEVELOPMENT COSTS	\$1,755,413	\$109,713	\$82.52
ESTIMATED SALES PROCEEDS	\$2,160,000	\$135,000	\$101.54
RESIDUAL AVAILABLE FOR DEVELOPER'S PROFIT AND LAND PURCHASE	\$404,588	\$25,287	\$19.02
DEVELOPER'S PROFIT (10% of sales proceeds)	\$216,000	\$13,500	\$10.15
AMOUNT AVAILABLE FOR LAND PURCHASE	\$188,588	\$11,787	\$8.87

THE STRAUSS TANNERY SITE

ONE FAMILY DEVELOPMENT

Estimated Selling Price:	\$165,000
Total Number of Units:	9
Size of Units:	
8 @ 1,900 SF	
1 @ 3,000 SF	
Total Building SF	18,200 SF
Parking (2 @ 350 SF required per unit):	
Garage Parking:	0
Surface Parking:	18
Building Coverage:	9,450 SF (12 % of available land area)
Open Space:	40,964 SF (60 % of available land area)

DEVELOPMENT COSTS

	Total	Per Unit	Per Gross SF of Building
HARD COSTS			
SITWORK			
Earthwork (assume no ledge present)	\$60,000	\$6,667	\$3.30
Site Utilities	\$12,750	\$1,417	\$0.78
Loom & Seed	\$14,250	\$1,583	\$0.78
Allowance for Plantings	\$22,500	\$2,500	\$1.24
Total Sitework	\$229,500	\$25,500	\$12.61
BUILDING CONSTRUCTION COSTS			
8 units @ \$88,000	\$704,000	\$78,222	\$46.32
1 unit @ \$60,000 (rehab)	\$60,000	\$6,667	\$20.00
Total Building Construction Costs	\$764,000	\$84,889	\$41.98
TOTAL HARD COSTS (excluding land)	\$993,500	\$110,389	\$54.59

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SOFT COSTS			
As a percent of hard costs:			
Architectural & Engineering (4.5%)	\$39,740	\$4,416	\$2.18
Legal (.5%)	\$4,928	\$552	\$0.27
Administrative & Miscellaneous (3%)	\$29,805	\$3,312	\$1.64
As a percent of selling price:			
Sales Commissions & Promotions (6%)	\$89,100	\$9,900	\$4.90
Interim Financing			
Fees	\$30,000	\$3,333	\$1.65
Interest (11% for 12 months)	\$68,000	\$7,556	\$3.74
TOTAL SOFT COSTS	\$261,613	\$29,068	\$14.37
LAND DEVELOPMENT COSTS	\$158,500	\$17,611	\$8.71
TOTAL DEVELOPMENT COSTS	\$1,413,613	\$157,068	\$77.67
ESTIMATED SALES PROCEEDS	\$1,485,000	\$165,000	\$81.59
RESIDUAL AVAILABLE FOR DEVELOPER'S PROFIT AND LAND PURCHASE	\$71,388	\$7,932	\$3.92
DEVELOPER'S PROFIT (15% of sales proceeds)	\$71,388	\$7,932	\$3.92
AMOUNT AVAILABLE FOR LAND PURCHASE	\$0	\$0	\$0.00

CHAPTER V

OTHER CONSIDERATIONS FOR THE DEVELOPMENT OF INFILL SITES

Before ending the discussion, there are two other issues raised by the Strauss Site case study that the author would like to address: 1. Soil contamination and site acquisition, and 2. The infill developer.

Site Acquisition and the Issue of Soil Contamination

Most developers are aware of the unpredictability of the approval process; therefore, rarely will a developer purchase a site outright without having obtained the approvals necessary for the development. For example, the purchase and sale agreement may be made contingent on obtaining these approvals. In other situations (as was the case in the Strauss Site) the developer may have to option the site and attempt to obtain the necessary approvals during the option period. In either case, the developer's risk is limited. Similarly, this strategy should be utilized when issues of hazardous waste are involved. For example, the purchase and sale agreement should be contingent upon the site being "clean" or upon obtaining approval from DEQE; or in the case of an option, the developer can utilize the option period for doing the

necessary soils analysis.

Nevertheless, these risk minimization strategies do not eliminate the risk to the developer. No matter how many borings or how much analysis a developer does on a site, he may still not get an accurate reading of the contamination present. However, once the developer owns the site he will be responsible for all hazardous waste encountered. This, therefore, suggests that since the owner of a suspect site is already responsible for any contamination that already exists, he perhaps could share some of the responsibility during development. For example, the developer could possibly do a joint venture with the owner, whereby the owner receives a greater amount than the actual land value but is also responsible for any contamination on the site. Another possibility would be for the developer to have the option of deeding the land back to the seller if a stated amount of contamination is found to exist. Thus, there are many creative arrangements that could be made to limit the developers risk. The likelihood of a seller accepting any of them will probably depend on a combination of such factors as the buyer's necessity to sell the site, the number of potential buyers and the extent of contamination on the site.

In any case, it is of primary importance that the infill developer recognize the necessity of considering the hazardous waste issue in the initial stages of the development of an infill site.

The Infill Developer

Development in general is a business characterized by substantial risks; however, developers use their experience to minimize their risk exposure. In the case of infill development, there are additional risks that the developer must be aware of, and it is hoped that this case study is a step in that direction. Nevertheless, the potential risks of infill development should not be mitigated.

The implication of these risks, therefore, is that the infill developer must have extensive financial resources or third party financial backing. There is the possibility of cost overruns for soil removal and construction or the market could soften. In addition to the potential "out-of-pocket" disbursements during the later development stages, the developer has to be able to cover expenses that will be incurred in the initial planning stages of the development when the project is not yet financeable. As in most types of development, the developer will have to fund legal costs, design/planning expenses, and the approval process. In infill development, the developer must also pay for hydrogeological consultant studies and other testing of the site.

Thus, given the potential risks of infill development, it would be unwise and probably impossible for a developer with limited resources to develop infill sites without some substantial financial backing.

Conclusion

The case study of the Strauss site has exposed the reader to the development process and to some of the issues that an infill developer must be aware of. In Chapter III, Development and Hazardous Waste, the reader became familiar with Massachusetts' hazardous waste law, Chapter 21 E, with the soils analysis process and with DEQE procedures. In Chapter II, The Politics of the Strauss Site, the reader became familiar with the issue of rezoning and the unpredictability of this process. These are just a few of the issues that were discussed. In conclusion, it is hoped that the experience gained through this case study can be used by the first-time developer and the infill developer to minimize their risk exposure.

APPENDIX I

The Proposed R3-T Zoning District

PEABODY CITY COUNCIL
NOTICE OF PUBLIC HEARING

Notice is hereby given that the PEABODY CITY COUNCIL of the City of Peabody will hold a PUBLIC HEARING on THURSDAY, JUNE 19th, 1986 at 7:30 o'clock P.M., in the F.L.WIGGIN AUDITORIUM,CITY HALL, # 24 LOWELL STREET,PEABODY,MASS. on a proposal to amend the Zoning Ordinance of the City of Peabody to include a new residence district to be known as "R-3-T DOWNTOWN TOWNHOUSE DISTRICT." The full text of said amendment and a description of two (2) areas to be so designated on the Zoning Map which accompanies said ordinance are on file with the Office of City Clerk and Community Development Department office in City Hall, #24 Lowell Street,Peabody,Massachusetts, where the full text may be examined and copies obtained.

The following is a summary of the proposed amendment:

1. The proposed district is to be known as "R-3-T Downtown Townhouse District" and is intended to allow for housing developments which permit higher densities so as to encourage affordable housing for young and middle income households;
2. Single family, two family, and multiple family dwellings are permitted in the district;
3. Cluster developments/single family dwellings are permitted by Special Permit;

4. Public housing for the elderly and those of low-moderate income are permitted by Special Permit;
 5. Municipal uses are generally permitted by Special Permit;
 6. Utilities are permitted by Special Permit;
 7. Business uses are not permitted;
 8. Industrial uses are not permitted;
 9. The density permitted in the proposed district is a maximum of fourteen (14) dwelling units per acre;
 10. Not less than thirty (30%) percent of the total land area must be free of structures, parking or drives;
 11. There shall be two (2) parking spaces for each dwelling unit;
 12. All utilities shall be underground;
 13. Snowplowing, rubbish disposal, maintenance of common areas shall be the obligation of the unit owners;
 14. Design standards are set forth in the full text;
 15. The minimum lot size of a single family lot shall be 5,000 square feet; for a two family dwelling 7,500 square feet; and for multi-family dwellings 20,000 square feet or 1,000 square feet per bedroom, whichever is greater;
 16. Landscaping requirements are set forth in the full text.
- The two areas proposed for inclusion within the R-3-T Downtown Townhouse District are known as the Strauss Tannery,

Lowell Street, and property of Summit Terminals, Inc., Lynnfield Street, adjacent to "Mrs. G's" dairy bar, and said parcels are bounded and described as follows:

The land, with the buildings and other improvements thereon, situated at Lowell and Endicott Streets, Peabody, Essex County, Massachusetts and being shown as Lots 21, 21A, 22, 23, 24, 25, 25A, 25B and 25C on Assessors Map 74, and being more particularly bounded and described as follows:

SOUTHWESTERLY by Lowell Street;

NORTHWESTERLY by lots 19 and 20, as shown on the
aforementioned Assessors Map 74;

NORTHEASTERLY by land formerly of the Boston and Maine Railroad; and

SOUTHEASTERLY by Endicott Street.

That the following described area presently located within an R-1-B Residence District to be designated as an R-3-T Downtown Townhouse Residence District:

The land in said Peabody situated on Lynnfield Street and being shown as Lots 16, 17, 19, 20 and 21 on Assessor's Map #101.

The foregoing summary of the proposed zoning amendment has been prepared and published under the authority of Massachusetts General Laws, Chapter 40A.

PEABODY CITY COUNCIL

COUNCIL PRESIDENT THOMAS WALSH

by direction:


Natalie A. Maga, Clerk

(June 3rd and 10th, 1986)

APPENDIX II

Newspaper Articles and Editorials

'Oldest tannery' may be razed for housing

By LARRY BLAKE
News Staff

PEABODY — The oldest tannery in the United States would be torn down for "affordable housing," according to a zoning change request to be heard by the Planning Board Wednesday.

The proposal, filed by lawyer Harry Ankeles, would set up a new "R-3-T Downtown Townhouse District." It would include the 1.8-acre site of the Strauss Tanning Co. Inc., 145 Lowell St., and approximately five acres on Lynnfield Street next to a dairy bar and owned by Summit Terminals Inc.

Ankeles said the main thrust is to allow construction of affordable housing units in areas of the city already built up. The South Peabody site, he added, would provide a "transitional use" of property, between residences and the nearby industrial areas.

F. Michael DiGiano, the city's

community development department director, said his staff had worked with Ankeles on the proposal before, but is "not unconditionally endorsing it." He said he would listen to the testimony at Wednesday's hearing (7 p.m. at the DPW garage on Berry Street), take a look at the proposal, then make a recommendation to the Planning Board.

David Strauss said the factory began operations in 1867 and he has found no record of any tannery that is older. He said he had suggested it be used for a tannery museum, but no historical group has money for such a project.

Strauss Tanning Co. Inc. ceased most manufacturing in 1984 and is now only doing limited work. There is no "wet work" being handled there, Strauss said.

He described himself as "an innocent bystander" in the rezoning, since Ankeles was seek-

ing it for potential buyers. Strauss had proposed a 16-unit apartment house on the site, two years ago, but two neighbors objected and the proposal fell through.

At present, he said, "no one is getting any benefit out of it," since there are only a few employees working there and the city is getting less taxes than it could from the property.

The proposed downtown townhouse district would allow for housing developments which are denser than other areas. It would allow up to 14 dwelling units per acre.

The Planning Board will also conduct public hearings on two proposed subdivisions Wednesday night.

One subdivision, Oak Hill Estates II, would be an extension of Sandra Road in South Peabody, with 19 lots. The second subdivision, Livingston Road Extension, is for five lots near the Lynnfield border.

Developments draw fire during series of hearings

By LARRY BLAKE
News Staff

PEABODY — Residents of South Peabody and Lowell Street flocked to hearings before the Planning Board Wednesday to support and op-

pose proposed housing projects.

Most of the proposed new housing would be in South Peabody. Hearings were held on two new subdivisions: Oak Hill Estates II off Sandra Road; and Livingston Drive Extension.

The lawyer representing both developers, John R. Keilty, said 19 lots would be built in Oak Hill Estates II, added to the 35 homes to be built in Phase 1 of a five-phase project adding to 112 homes. The Livingston Drive Extension subdivision would be only five lots, with the owner, Said Abu-Zahra of Salem, saying he intended to build one home for himself there and probably sell one lot to help pay for his home's construction.

Another lawyer, Harry Ankeles, asked the board to recommend to the City Council a new zoning district, an R-3-T downtown townhouse district. He proposed it be used at two sites: the Strauss Tanning Co. Inc., 145 Lowell St.; and approximately five acres of land on Lynnfield Street next to a dairy bar and Summit Terminals Inc.

The lawyers described most of the proposed housing as "affordable" and many persons spoke for the projects. But others said there was already too much building going on in their neighborhoods, leading to traffic congestion and overcrowding. There were also complaints about possible blasting of ledge, particularly at Oak Hill Estates; and worries about drainage and water problems.

A few owners of homes in Phase 1 of Oak Hill Estates praised the project. Gary Reeves of Curwen Road said he has bought a home in Phase 1 and the developer, Steve Calas,

"did everything he said he would." Reeves said, "Finally, there are homes affordable in Peabody for young persons like me."

Robert Shapiro of Shore Drive said he has three boys and "I'd like to feel my children can stay here. As far as I can see, the houses are well built and the man is living up to what he said he would do."

But Russell Donovan of 12 Quail Road said Calas had signed an agreement with a group before developing Phase I and "had violated practically every condition." He had not used blankets while blasting, to prevent rocks from being scattered throughout the area; and had begun working on a small brook before filing plans with the Conservation Commission. He also doubted the "affordable" homes claim, since it was first said the homes in Phase I would sell for \$125,000, but are now selling for double that.

Ankeles said Charter Development Corp. proposed 48 condominium units on the Lynnfield Street site, designed by an award-winning architect, Skip Kiley. The Strauss Tanning site would be developed by Charing Cross Corp., with Philip Singleton, Joseph DiStefano and Francis Bresnahan as the principles, he said. Twenty units are proposed on the 1.8 acre site of the leather company, which would be torn down for the project.

Judith Damon of Boxford, owner of a historic home next to Strauss Tanning, said she favored the project. "I'm an artist and I can't see anything wrong with this design," she said.

Opposed was Alec Niconchuk of 267 Lowell St., who said developers had "raped the city" and "never fulfill their promises." There is already traffic congestion of Lowell and Andover streets and "we don't need any more," he said.

THE SALEM, MASS., EVENING NEWS

THURSDAY, JUNE 5, 1986

OUR VIEW

Strauss tannery: preserve the past

It's great that the Eastman Gelatine Co. has seen fit to donate George Peabody's birthplace to the city that bears his name.

But we're having a hard time working up any enthusiasm for Mayor Peter Torigian's plan to turn the 300-year-old property into a tannery museum. Not when the perfect site for such a facility — the Strauss Tanning Co. factory on Lowell Street — is in imminent danger of falling to the wrecker's ball.

Unless Torigian and members of his administration act quickly, the last and best chance to preserve a living piece of Peabody's rich industrial history will be lost forever. In its place will be yet another housing development.

Until it limited its operations several years ago, Strauss Tanning was the oldest operating tannery in the country. Within the rambling wooden structure could be seen many of the tools and machines used to turn raw animal hides into quality fabric.

Once the leather manufacturing capital of the world, Peabody today retains only a vestige of the industry which made it famous. And yet memories of the tanneries linger in the minds of its older residents, many of whom spent their entire working lives toiling for the A.C. Lawrence Co. or one of its many competitors.

Torigian himself, who grew up in a three-decker on Warren Street, can tell a tale or two about life in the tanneries. And U.S. Rep. Nicholas Mavroules, D-Peabody, had a taste of it too.

Are these public officials now willing to let this crucial aspect of Peabody's heritage disappear? Can a few faded photographs and old tools really give future generations a sense of what it was to turn a hide into a piece of leather?

City officials on the North Shore are no doubt tired of hearing about the miracle that has transformed Lowell into the showplace of the northeast. But part of what makes that city what it is today is the effort that has gone into preserving its textile-manufacturing heritage.

This is not to say that the Torigian administration has sacrificed Peabody's past in the search for a high tech future. Brooksby Farm has proven to be an invaluable resource, preserving a piece of the city's agricultural heritage while at the same time providing much-needed recreational facilities for residents of the area.

In restoring the central business district, great care has been taken to find suitable locations for the Revolutionary War and Civil War monuments.

And Torigian this week indicated genuine enthusiasm about the prospect of obtaining and restoring George Peabody's birthplace.

But let them find some other use for this property. If it is a museum that is being sought, let it be a working facility where kids 50 years from now can see for themselves what made Peabody the "Tanner City."

Nelson Benton, staff writer

Controlling condos

To the Editor:

I am a lifelong resident of Peabody. I have seen the city grow from a lovely rural area, with farms and pastures, into a congested city.

My younger days were spent on a farm in South Peabody. For the past 35 years my family has lived on Lowell Street. Some years ago my neighbors and I fought the development of high rise apartments in the cornfield opposite Forest Street. We felt that such a development was not in the best interest of the city. We won the battle and now in place of the undesirable high rise apartments there exists a colony of lovely single family homes conducive to the area.

Over the years I have seen developers come and go. They all display an artist's concept of the proposed project which, when completed is a far cry from what the artist had in

mind. Many of the developers are irresponsible. They seem to grab their money and run without fulfilling their promises to the home owner. The city fathers seldom force the developers to fulfill their commitments.

Currently a "new animal" has reared its ugly head — condominiums! The cry from the developers and their glib tongued legal advisors is the need for affordable housing particularly for the younger generation. I agree wholeheartedly the need exists. However, by the time the speculators work over a condo project, it is no longer affordable. Isn't it amazing that condos are sold before the ground is broken. How do you buy something unseen?

The developers want to densify housing within the inner city. Build on every piece of land available. Rip down old properties if necessary to make room for condos. The time has come for the city planners to control the developers rather than vice-versa. Lowell Street has become extremely congested. I often say a little prayer that some considerate motorist will allow me to drive out of my yard. Endicott Street has become a race track. Motorists are beginning to run through stop signs and traffic signals.

Isn't it time for intelligent planning that best meets the needs of our city? Our neighboring cities, Salem and Boxford, are beginning to sense the need for controlling growth. A group in Boxford known as "Friends of the Library" have the right idea — check with them. If Peabody residents care about the future of their city, they should get involved now and protest spot rezoning designed to accommodate the condos.

A.W. NICONCHUK
Peabody

THE SALEM, MASS., EVENING NEWS

Housing developers won't give up on tannery site

By JEFFREY REMZ
News Staff

PEABODY — Housing still will most likely occupy the site of the Strauss Tanning Co. despite City Council rejection of a townhouse project there last week.

But whether a new housing plan will arise any time soon is

uncertain.

Charing Cross Corp. of Peabody, along with Frances J. Bresnahan of Peabody and Joseph DiStefano of Lynnfield, sought City Council approval for 20 townhouse units on the 1.6-acre Lowell Street parcel.

The proposal was shot down unanimously, ostensibly over traffic questions and a concern by the council of creating a new zone while other zoning alterations are being planned.

The area is zoned for single and two-family homes. The tannery, which has been in operation since 1867, operated as a non-conforming use.

"We're thinking about alternatives that would be accommodating to the neighborhood," said Charing Cross Vice President C.F. Saunders Tuesday, "and it appears at this time that what would be acceptable would be to build within the present zoning."

"It appears to us that there is no alternative to placate or conform with the wishes of the neighbors," he added. "We may or may not proceed."

Charing Cross, which has an option on the property, has no deadline by which it will make a decision, according to Saunders.

If Charing Cross does go ahead, it won't be with Bresnahan on board. "I wanted to do condos. Period. If the neighbors don't want it... what the hell is the sense of hitting your head against the wall?"

DiStefano could not be reached for comment.

Strauss Tannery owner David S. Strauss also seemed to favor the housing option. "Its location is outstanding in terms of residential property," he said. "I think it would be a good use for residential, low-rent housing, municipal use, or a mu-

seum."

He first floated the museum idea in 1972, but the city may use the recently donated George Peabody house on Washington Street for a museum.

Community Development Director F. Michael DiGiano said the creation of two-family homes would result in "fairly intensely developing" the area.

"It's going to take a lot of planning to make it work," he said.

One possibility is seeking state funds, which could be forthcoming if a certain number of units were set aside for low and moderate income people.

Pitfalls facing any developer are the demolition of the building and stripping away the first foot of material to a landfill. Transporting the dirt will be costly, and finding a landfill willing to take the material will not be easy, according to DiGiano.

While the future of the property is up in the air, Strauss is continuing a shoestring operation of between two and five part-time employees.

The effort is not a money maker, but, instead, helps pay the bills on the property.

Full-time operations ended at the plant Aug. 1, 1984. The 78,000-square-foot site went on the market the following day, but still remains in Strauss' hands. The building occupies nearly 30 percent of the property.

"I'm disappointed," said Strauss of the council's vote. "My disappointment is in the non-utilization of the property. If something else were built here, the city would get more taxes, and the property would be of more use."

"I can hold on for awhile," he said. "It's been in the family for awhile."

APPENDIX III

Building Structural Analysis of the Strauss Tannery

BUILDING STRUCTURAL ANALYSIS

Skidmore, Owings & Merrill
October 19, 1984
Page 7

Rene Mugnier Associates, Inc.
STRUCTURAL ENGINEERS
63 PRENTISS ST.
CAMBRIDGE, MASSACHUSETTS 02140
PHONE 354-3890

RE: Strauss Tannery, Peabody

In general, these buildings are in very poor condition and will require extensive underpinning, replacing and reinforcing in order to be brought up to the requirements set forth in the Massachusetts State Building Code.

From the evaluations of the problems described above, it should be noted that these buildings are in much worse condition than the average building of this age.

We have stated that from our experience on similar projects of this type, extensive work is necessary on these buildings. Each time that we have been involved with a building in similar condition, we ended up disregarding the rehabilitation option due to the large expenses necessary to rehabilitate the structure and to bring it up to code and also the cost of constant maintenance.

It should be also noted that once these buildings are repaired, there would be a lot of maintenance required due to the rather poor condition of the remaining portion of the buildings not requiring immediate repair. (These areas are already in a badly deteriorated condition to a point that we can foresee a relative need for repair work in the near future.)

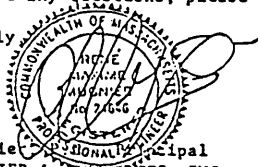
We are particularly concerned with the work and large expenses involved in the underpinning and rebuilding of the foundation. This work involves rather sophisticated contracting, which if not dealt with properly, may create a collapse of the structure above. It also involves exploratory expenses such as borings and test pits to determine quality of the soil as well as the condition of the bottom of the foundation. Once these corrections to the foundation are made it would be impossible to bring the structure back to level since the jacking of the structure may disconnect the members from the exterior walls. In addition, the masonry walls which have presently settled cannot be jacked back into place.

Please keep in mind that all the repair to these damaged foundations is for the purpose of saving an inadequate structure, which in many cases still requires extensive repair work.

From our experience in dealing with buildings of this type, it is in our judgment, based on our observations and qualifications, that it would be more costly to rehabilitate these buildings than to demolish and rebuild new buildings. This is due mainly to the expensive cost (in terms of money and effort) to repair the damage of the building to bring it up to code. Once repaired, the structure would still have to be reinforced to comply with museum specifications.

If you have any questions, please contact us.

Yours truly



Rene Mugnier, Principal
RENE MUGNIER & ASSOCIATES, INC.

Richard A. Smith, P.E.

APPENDIX IV

Chapter 21E:
Massachusetts Oil and Hazardous Material
Release Prevention and Response Act

CHAPTER 21E.
MASSACHUSETTS OIL AND HAZARDOUS MATERIAL RELEASE
PREVENTION AND RESPONSE ACT.

Section 1. This chapter shall be known and may be cited as the "Massachusetts Oil and Hazardous Material Release Prevention Act".

Section 2. As used in this section the following words shall, unless the context clearly requires otherwise, have the following meanings:-

"Assess" and "Assessment", such investigations, monitoring, surveys, testing, and other information gathering activities to identify: (1) the existence, source, nature and extent of a release or threat of release of oil or hazardous materials; (2) the extent of danger to the public health, safety, welfare and the environment; and (3) those persons liable under section five. The term shall also include, without limitation, studies, services and investigations to plan, manage and direct assessment, containment and removal actions, to determine and recover the costs thereof, and to otherwise accomplish the purposes of this chapter.

"Act of God", an unanticipated grave natural disaster or other natural phenomenon of an exceptional, inevitable, and irresistible character, the effects of which could not have been prevented or avoided by the exercise of due care or foresight. A natural disaster is unanticipated when it is of a type unexpected given the area, the season, and the past history of conditions.

"CERCLA", the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42USC Sec. 9601 et seq.

"Commissioner", the commissioner of the department of environmental quality engineering.

"Contain" or "Containment", actions taken in response to a release or threat of release of oil or hazardous material into the environment to prevent or minimize such release so that it does not migrate or otherwise cause or threaten substantial danger to present or future public health, safety, welfare or the environment. The term shall also include security measures, including,

without, limitation, the building of fences for the purpose of limiting and restricting access to a site or vessel where there has been a release or there is a threat of a release of oil or hazardous materials.

"Department", the department of environmental quality engineering.

"Environment", waters, land, surface or subsurface strata, or ambient air of the commonwealth.

"FWPCA", the Federal Water Pollution Control Act, 33USC Sec. 1251 et seq.

"Hazardous material", material including but not limited to, any material, in whatever form, which, because of its quantity, concentration, chemical, corrosive, flammable, reactive, toxic, infectious or radioactive characteristics, either separately or in combination with any substance or substances, constitutes a present or potential threat to human health, safety, welfare, or to the environment, when improperly stored, treated, transported, disposed of, used, or otherwise managed. The term shall not include oil. The term shall also include all those substances which are included under 42USC Sec. 9601(14), but it is not limited to those substances.

"Oil", insoluble or partially soluble oils of any kind or origin or in any form, including, without limitation, crude or fuel oils, lube oil or sludge, asphalt, insoluble or partially insoluble derivatives of mineral, animal or vegetable oils. The term shall not include waste oil, and shall not include those substances which are included in 42USC Sec. 9601(14).

"Owner" or "Operator", (1) in the case of a vessel, any person owning, operating or chartering by demise such vessel, (2) in the case of a site, any person owning or operating such site, and (3) in the case of an abandoned site, any person who owned, operated, or otherwise controlled activities at such site prior to such abandonment. The term shall not include a person, who, without participating in the management of a vessel or facility holds indicia of ownership primarily to protect his security interest in said vessel or facility.

"Person", any agency or political subdivision of the federal government or the commonwealth, any state, public or private corporation or authority, individual, trust, firm, joint stock company, partnership, association or other entity, and any officer, employee, or agent of such person, and any group of persons.

"Release", any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment, but excludes: (1) emissions from the exhaust of an engine, (2) release of source, by product, or special nuclear material from a nuclear incident, as those terms are defined in 42USC Sec. 2014, if such release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under 42USC Sec. 2210, (3) the normal application of fertilizer, and (4) the application of pesticides consistent with their labelling.

"Remove" or "Removal", the cleanup or removal of released oil or hazardous materials from the environment, such actions as may be necessarily taken in the event of the threat of release of oil or hazardous materials into the environment, the disposal of removed oil or hazardous material, or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health, safety, welfare or the environment, which may result from a release or threat of release.

"Respond" or "Response" or "Response action", assess, assessment, contain, containment, remove and removal.

"Site", any building, structure, installation, equipment, pipe or pipeline, including any pipe into a sewer or publicly-owned treatment works, well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or any other place or area where oil or hazardous material has been deposited, stored, disposed of or placed, or otherwise come to be located. The term shall not include any consumer product in consumer use or any vessel.

"Threat of release", a substantial likelihood of a release which requires action to prevent or mitigate damage to the environment which may result from such release.

"Trade secret", anything tangible which constitutes, represents, evidences or records a secret scientific, technical, merchandising, production, or management information, design, process, procedure, formula, invention or improvement.

"Vessel", every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water.

"Waters of the commonwealth", all waters within the jurisdiction of the commonwealth, including, without limitation, rivers, streams, lakes, ponds, springs, impoundments, estuaries, coastal waters and groundwaters. The term shall not include impoundments of chemical wastes.

Section 3. (a) The department shall take all action appropriate to secure to the commonwealth the benefits of FWPCA, CERCLA and other pertinent federal laws.

(b) For the purpose of implementing this chapter, FWPCA, CERCLA, and other pertinent federal laws and regulations, the department is authorized and directed to prepare and from time to time update a Massachusetts Contingency Plan which, as nearly as the department deems appropriate and practicable, shall comport with and complement the National Contingency Plan prepared under the authority of 33USC Sec. 1321(c) and 42USC Sec. 9605. In preparing said plan the department shall consider and take into account regionally and locally developed contingency plans.

(c) The department shall promulgate such regulations as it deems necessary for the implementation, administration and enforcement of this chapter, FWPCA, CERCLA and other pertinent laws. Such regulations may include provisions waiving or limiting the applicability of this chapter as to any matter which the department determines to be adequately regulated by another

program or government agency. The department shall integrate its implementation and enforcement of this chapter with other programs established for the protection of the public health, safety, welfare and the environment.

Section 4. The department, whenever it has reason to believe that oil or hazardous material has been released or that there is a threat of release of oil or hazardous material, is authorized to take or arrange for such response actions as it reasonably deems necessary. Releases and threats of release for which the department undertakes such response actions, and the extent of such response actions, shall be determined by reference to the Massachusetts contingency plan. Prior to undertaking any response action, the department shall notify the owner or operator of the site or vessel of its intent to take such action. Such notice shall not be required when the department does not know the identity or location of the owner or operator, or when because of an emergency or other circumstance, the giving of such notice would be impractical. In the event the department and the department of public health jointly determine the need for, scope and cost of a study of the public health effects of a release or threat of release of oil or hazardous material, the department shall provide for the conduct of such a study under the direction of the department of public health.

Nothing in this section shall preclude assessment, containment and removal by any person threatened or damaged by such release or threat of release, provided such assessment, containment and removal is conducted in accordance with the Massachusetts contingency plan and consistently with assessment, containment and removal actions conducted by the department. Chemicals shall not be used in the assessment, containment and removal of released oil or hazardous materials unless and until their use has been authorized by the department.

Any person who undertakes assessment, containment or removal action regarding the release or threat of release of oil or hazardous material shall be entitled to reimbursement from any other person liable for such release or threat of release for the reasonable costs of such assessment, containment and removal. If such release resulted from the negligence of two or more persons, each shall be liable to the others for his pro rata share of the costs of assessment, containment and removal. Any person who without charge renders assistance at the request of a duly authorized representative of the department in removing oil or hazardous material released shall not be held liable, notwithstanding any other provision of law, for civil damages as a result of any act or omission by him in removing such oil or hazardous material, except for acts or omissions of gross negligence or willful misconduct.

Section 5. (a) Except as otherwise provided in this section, (1) the owner or operator of a vessel or a site from or at which there is or has been a release or threat of release of oil or hazardous material; (2) any person who at the time of storage or disposal of any hazardous material owned or operated any site at

or upon which such hazardous material was stored or disposed of and from which there is or has been a release or threat of release of hazardous material; (3) any person who by contract, agreement, or otherwise, directly or indirectly, arranged for the transport, disposal, storage or treatment of hazardous material to or in a site or vessel from or at which there is or has been a release or threat of release of hazardous material; (4) any person who, directly or indirectly, transported any hazardous material to transport, disposal, storage or treatment vessels or sites from or at which there is or has been a release or threat of release of such material; and (5) any person who otherwise caused or is legally responsible for a release or threat of release of oil or hazardous material from a vessel or site, shall be liable, without regard to fault, (i) to the commonwealth for all costs of assessment, containment and removal incurred pursuant to section four and section eight relative to such release or threat of release, (ii) to the commonwealth for all damages for injury to and for destruction or loss of natural resources, including the costs of assessing and evaluating such injury, destruction or loss, incurred or suffered as a result of such release or threat of release, and (iii) to any person for damage to his real or personal property incurred or suffered as a result of such release or threat of release. Except as provided in paragraph (b), such liability shall be joint and several.

(b) Any person otherwise liable for any costs or damages set forth in subclauses (i), (ii) and (iii) of paragraph (a) who establishes by a preponderance of the evidence that only a portion of such costs or damages is attributable to a release or threat of release of such oil or hazardous material for which he is included as a party under clauses (1), (2), (3), (4) or (5) of said paragraph (a) shall be required to pay only for such portion.

(c) Subject to the limitation provided in paragraph (d), there shall be no liability under paragraph (a) for a person otherwise liable who can establish by a preponderance of the evidence, (A) that the release or threat of release of oil or hazardous material and the damages resulting therefrom were caused by:

(1) an act of God;

(2) an act of war;

(3) an act or omission of a third party other than an employee or agent of the person, or than one whose act or omission occurs in connection with a contractual relationship existing directly or indirectly, with the person, except where the sole contractual arrangement arises from a published tariff and acceptance for carriage by a common carrier by rail, if the person establishes by a preponderance of the evidence that he exercised due care with respect to the oil or hazardous material, that he took precautions against foreseeable acts or omissions of any third party and the consequences that could foreseeably result from such acts or omissions, and that he complied with all notification requirements of section seven; or

(4) any combination of the foregoing paragraphs, or (B) with

respect to liabilities under subclauses (i) and (ii) of paragraph (a), that the substance or amount thereof released or threatened to be released does not represent a long or short term danger to the public health, safety, welfare or the environment.

(d) Any person whose land has been the site of a release of hazardous material for which the department has incurred costs for assessment, containment and removal under section four and who can establish by a preponderance of the evidence that he is otherwise eligible for the defenses set forth in paragraph (c) shall be liable to the department for such expenses only to the extent of the value of the property following the department's assessment, containment and removal actions.

(e) All persons liable under this section who are liable for a release or a threat of release for which the department incurs costs for assessment, containment and removal, shall be liable, jointly and severally, to the commonwealth in an amount up to three times their liability as set forth in this section.

(f) No indemnification, hold harmless, or similar agreement or conveyance shall be effective to transfer from the owner or operator of any vessel or site or from any person who may be liable for a release or threat of release of hazardous material under this section, to any other person the liability imposed under this section. Nothing in this paragraph shall bar any agreement to insure, hold harmless, or indemnify a party to such agreement for any liability under this section.

Section 6. The department may specify reasonable requirements, applicable to sites and vessels where releases of hazardous material might occur and to activities which might cause, contribute to, or exacerbate a release of hazardous material, to prevent and control, and to counter the effects of, such releases. Such requirements may be prescribed by regulations adopted under section three for classes of sites and vessels which the department reasonably has determined to pose a threat of release of hazardous material, and by order under section nine for specific sites and vessels which the department has determined to have a record of releases, or to have failed to respond properly to a release or threat of release of hazardous material, or to be conducting an activity which poses a threat of release of hazardous material. Such requirements may include, without limitation, but without duplication of requirements prescribed in other programs of the department, the preparation of contingency plans, the acquisition, construction, maintenance and operation of equipment, facilities and resources for the monitoring, prevention and control of releases, and the staffing and training of personnel regarding the prevention and control of releases of hazardous material.

Section 7. Any owner or operator of a site or vessel, and any person otherwise described in paragraph (a) of section five, as soon as he has knowledge of a release or a threat of release of oil or hazardous material, shall immediately notify the department thereof. Such notice shall not be required hereunder for any release which conforms to the terms of a currently valid permit

or license issued by the department. Such notice shall not be required hereunder for the application of a pesticide product registered under the Federal Insecticide, Fungicide, and Rodenticide Act 7USC Sec. 136 et seq., and under the provisions of chapter one hundred and thirty-two B, or to the handling and storage of such a pesticide product by an agricultural producer.

Section 8. For the purpose of the administration and enforcement of this chapter and for the protection of the public health, safety, welfare and the environment, authorized personnel of the department may enter any site or vessel, at reasonable times and upon reasonable notice, to investigate, sample and inspect any records, conditions, equipment, practice or property. In the event that the department reasonably determines as a result of such investigation, sampling or inspection that there has been a release or that there is a threat of release of oil or hazardous material from or at such site or vessel, the department and its authorized personnel, agents and contractors may enter such site and vessel and areas proximate thereto and undertake such actions pursuant to section four relative to the assessment, containment and removal of oil or hazardous material as it reasonably deems necessary.

In the event that it has reason to believe that the owner or operator of a vessel or site has made fraudulent representations to the department or has destroyed or concealed evidence relating to a release or threat of release or to the assessment, containment or removal of a release or threat of release, the department may seize any records, equipment, property or other evidence it deems necessary. During the course of any assessment, containment and removal actions, the department may restrict and deny entry to the site or vessel and proximate property to protect the public health, safety, welfare and the environment and to provide for the efficient, expeditious and safe conduct of such actions; such restriction and denial shall not preclude access by the owner or operator of such site or vessel, provided that such owner or operator complies with all safety and operational protocols and requirements imposed by and to the satisfaction of the department and provided such owner or operator does not interfere with the efficient, expeditious and safe conduct of the department's assessment, containment and removal actions.

Section 9. Whenever it has reason to believe that oil or hazardous material has been released or that there is a threat of release of oil or hazardous material, the department may order any person causing or legally responsible for such release or threat of release to conduct an assessment of such release or threat of release. Releases and threats of release for which the department orders such assessment shall be determined by reference to the Massachusetts contingency plan.

Whenever in the opinion of the department release or threat of release poses a significant danger to the public health, safety, welfare or the environment, the department may issue to any person causing or legally responsible for such release or threat of release an order requiring such person to conduct such

containment and removal actions, consistent with the Massachusetts contingency plan, as the department reasonably deems necessary.

Whenever there is a violation of this chapter, the department may issue to such person causing or contributing to such violation an order requiring the production or analysis of samples and the production of records, or imposing such restraints of or requiring such action by said persons.

Issuance of an order under this section shall not preclude, and shall not be deemed an election to forego, any action authorized by section four or any action to recover damages, costs, or to seek civil penalties, criminal fines and sanctions, or injunctive relief.

Section 10. Any person aggrieved by a determination by the department to issue, deny, modify, revoke or suspend any order under the provisions of this chapter may request an adjudicatory hearing before the department under the provisions of chapter thirty A. Any such determination shall contain a notice of the right to request a hearing and may specify a reasonable time limit, not to exceed twenty-one days, within which said person shall request said hearing. If no such request is timely made, the determination shall be deemed assented to. If a timely request is received, the department within a reasonable time shall act upon such request in accordance with the provisions of said chapter thirty A.

If in making a determination which under the provisions of the first paragraph may be the subject of an adjudicatory hearing, the department finds that an imminent threat to the public health, safety or the environment could result, pending the conclusion of the adjudicatory hearing requested thereon, the department may order that the determination become provisionally effective and enforceable immediately upon issuance, and shall remain so notwithstanding and until the conclusion of any adjudicatory hearing procedures.

A person aggrieved by a final decision in an adjudicatory hearing held under the provisions of this section may obtain judicial review thereof pursuant to the provisions of chapter thirty A.

Section 11. Any violation of this chapter, or of any regulation adopted or order issued thereunder, shall be presumed to constitute irreparable harm to the public health, safety, welfare or the environment. Such presumption may be rebutted by a preponderance of evidence.

In addition to liability for costs incurred by the commonwealth for the investigation, assessment, containment and removal of a release or a threat of a release of oil or hazardous material, any person who violates any provision of this chapter, or any order or regulation issued or adopted thereunder: (a) shall be subject to a civil penalty not to exceed twenty-five thousand dollars for each such violation; or (b) shall be punished by a fine of not more than twenty-five thousand dollars, or by imprisonment for not more than five years or both, for each such violation. Each

day such violation occurs or continues shall be considered a separate violation.

The superior court department of the trial court shall have jurisdiction to enjoin violations of, or grant such additional relief as it deems necessary or appropriate to secure compliance with, the provisions of this chapter, or any order or regulation issued or adopted thereunder upon the petition of the attorney general or the commissioner. Upon request of the commissioner, the attorney general may bring an action to recover all costs incurred by the commonwealth in the assessment, containment and removal of any release or threat of release of oil or hazardous material. Actions brought by the attorney general to recover such costs shall be commenced within five years from the date the commonwealth incurs all such cost or five years from the date the commonwealth discovers the person responsible for the release or threat of release on account of which the commonwealth has incurred such costs, whichever occurs later.

Section 12. Notwithstanding the provisions of any law to the contrary, any information, record, or particular part thereof, obtained by the department, its personnel or contractors pursuant to the provisions of this chapter, upon request shall be confidential and shall not be considered to be a public record when it is determined by the commissioner that such information, record or report relates to secret processes, methods of manufacture, or production, or that such information, record or report, if made public, would divulge a trade secret. This section shall not prevent disclosure of any information necessary for an enforcement or cost recovery action or to comply with CERCLA or FWPCA.

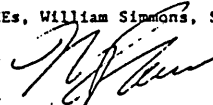
Section 13. Any liability to the commonwealth under this chapter shall constitute a debt to the commonwealth. Any such debt together with interest thereon at the rate of twelve per cent per annum from the date such debt becomes due, shall constitute a lien on all property, and rights to property, real and personal, presently owned or after acquired, of the persons liable under this chapter if a statement of claim, describing the property subject to the lien and signed by the commissioner, is filed within ninety days after the incurrence of costs and expenses. In the case of real property, the statement shall be filed in, accepted and recorded by the appropriate registry of deeds. In the case of personal property, whether tangible or intangible, the statement shall be filed in accordance with the provisions of section 9-401 of chapter one hundred and six.

Any lien filed pursuant to this section shall have priority over any prior encumbrancer or levying creditor, and over any subsequent purchaser, encumbrancer, or levying creditor of the owner of the property subject to the lien. Such lien shall continue until the liability for the amount so assessed is satisfied. Such lien against real property may be dissolved by filing with the appropriate register of deeds a certificate signed by the commissioner that the debt for which such lien attached, together with interest and costs thereon, has been paid or legally abated.

APPENDIX V

DEQE Site Investigation/Remedial Action Guidelines
&
Minimum Standards for the Submission of Analytical Data

MEMORANDUM

TO: REEs, Deputy REEs, William Simmons, Steven Leonard
FROM: William F. Cass 
DATE: August 24, 1982
SUBJECT: Site Investigation/Remedial Action Guidelines

In order to determine the most environmentally sound and cost effective remedial action at an uncontrolled hazardous waste site, considerable information about the site and its impacts of public health and the environment must be evaluated during the preparation of cleanup plans. The following guidelines outline an evaluation process which is a systematic approach to developing remedial action plans for uncontrolled sites. The major purpose of these guidelines is to ensure that the unique characteristics of each individual site or incident dictate the scope of work for the site investigation. They also require an evaluation of the public health impacts of both the uncontrolled site and the remedial action plan.

The guidelines are intended for use by the Department to inform owners/operators or other responsible parties in hazardous waste cases of their level of effort and commitment when they develop remedial action plans. These guidelines can be used in developing Departmental Orders, Consent Agreements or state-funded remedial action plans.

Please contact Dick Chalpin for additional information if necessary.

RC/jp
cc: Division Directors
DHW Enforcement Staff

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING
DIVISION OF HAZARDOUS WASTE

Site Investigation/Remedial Action Guidelines
August 13, 1982

Phase I: Problem Definition

- A. Establish site history which includes at a minimum:
 - 1. Types and quantities of hazardous waste generated by past and present manufacturing processes.
 - 2. Past and present waste treatment, storage and disposal practices.
 - 3. For all areas both on and off the site of generation where wastes were stored, treated or disposed of, indicate by waste type the site location, the conditions of containment and the waste quantities.
 - 4. Identify the characteristics of all waste storage, treatment and disposal areas identified in (A.3.). This will include but not be limited to site characteristics included in Table 1 which relate to potential impacts on groundwater, surface water, air quality and local populations.
 - 5. Generic names and formulations of chemicals used in and produced at the facility.
- B. Based upon information collected in part A, determine the environmental media likely to be affected. Develop and implement, after Department approval, environmental screening programs as necessary to establish baseline contaminant levels on and off the site. Such screening programs may include preliminary assessment of air, land, and water conditions. Identify immediate action items such as temporary diking, covering, or containment of hazardous situations. Screening programs must include sampling protocols and quality assurance/control plans.
- C. Prepare a site specific safety and health plan for on-site personnel or employees of investigating teams, contractors or subcontractors. Evaluate the need for site security and implement any necessary security measures.

TABLE I
Generic Site Details to Consider When Investigating Hazardous Waste Sites

Potential Hazard	Site Characteristics	Considerations		
		Ground Water Route	Surface Water Route	Air Route
Contaminant Migration	Route Characteristics	<ul style="list-style-type: none"> • Depth to Aquifer of Concern • Net Precipitation • Permeability of Unsaturated Zone • Physical State 	<ul style="list-style-type: none"> • Facility Slope and Intervening Terrain • One-Year 24-Hour Rainfall • Distance to Nearest Surface Water • Physical State 	<ul style="list-style-type: none"> • Facility Slope and Intervening Terrain • Meteorological Data
	Waste Containment	<ul style="list-style-type: none"> • Containment type 	<ul style="list-style-type: none"> • Containment type 	<ul style="list-style-type: none"> • Containment type
	Waste Characteristics	<ul style="list-style-type: none"> • Toxicity/Persistence/Stability • Hazardous Waste Quantity 	<ul style="list-style-type: none"> • Toxicity/Persistence/Stability • Hazardous Waste Quantity 	<ul style="list-style-type: none"> • Reactivity/Incompatibility/Stability • Hazardous Waste Quantity
	Receptors	<ul style="list-style-type: none"> • Ground Water Use • Distance to Nearest Well/Population Served 	<ul style="list-style-type: none"> • Surface Water Use • Distance to Sensitive Environment • Population Served/Distance to Water Intake Downstream 	<ul style="list-style-type: none"> • Land Use • Population Within 4-mile Radius • Distance to Sensitive Environment
Fire and Explosion	Waste Containment	<ul style="list-style-type: none"> • Containment type 		
	Waste Characteristics	<ul style="list-style-type: none"> • Direct Evidence of fire or explosion • Ignitability • Reactivity • Incompatibility • Hazardous Waste Quantity 		
	Receptors	<ul style="list-style-type: none"> • Distance to Nearest Population • Distance to Nearest Building • Distance to Nearest Sensitive Environment • Land Use • Population Within 2-Mile Radius • Number of Buildings Within 2-Mile Radius 		
Direct Contact	Observed Incident	<ul style="list-style-type: none"> • Observed Incident 		
	Accessibility	<ul style="list-style-type: none"> • Accessibility of Hazardous Substances (site security) 		
	Waste Containment	<ul style="list-style-type: none"> • Containment type 		
	Toxicity	<ul style="list-style-type: none"> • Toxicity 		
	Receptors	<ul style="list-style-type: none"> • Population Within 1-Mile Radius • Distance to Critical Habitat 		

Phase II. Problem Evaluation

Phase II involves a full field investigation of the site. The full scope of this investigation is based upon information obtained from the Phase I report. However, if the Phase I information is inadequate, a systematic scan of the entire site may be necessary to ensure that waste deposits do not go undetected.

It is at this point during the investigation that initial evaluation of public health impacts from exposure to contaminants from the site is conducted.

Table 1 addresses the environmental factors and site characteristics which will provide the general information about the site which relate to public exposure.

At a minimum, each confirmed waste deposit and/or suspect area identified in the Phase I report is to be examined in order to determine:

- a. The exact location of the waste and its composition, concentration and volume;
- b. The pathways through which hazardous waste is migrating within the site and may migrate from the site; the stability and persistence of the contaminants in the environment will be considered in order to assess concentration of the contaminants off the site;
- c. The population risking exposure to releases of hazardous wastes;
- d. The routes, levels and duration of potential human exposure to contaminants identified at all sites, (i.e., address the potential for inhalation, ingestion of and direct contact with contaminants or contaminated materials, directly and indirectly).

These investigations must include hydrogeologic studies, and air, surface and ground water, and soil monitoring. These studies must include sampling protocols and quality assurance/control plans.

At any point prior to completion of the field investigation, specific remedial actions may be recommended and implemented, after Departmental approval, when the developing site data indicates an immediate need for such actions to be taken to protect public health and the environment.

Phase III. Development of Alternative Remedial Actions and Recommendations

After identifying the nature and extent of the problem and its impacts of public health and the environment, identify the alternative remedial solutions to hazardous waste problem including the suitability of the site for on-site secure disposal of the uncontrolled waste deposits.

This section must include an evaluation of alternative remedial actions on the health of the population at risk.

In examining remedial action alternatives, including a "no action" alternative, the Department will consider:

- a. Cost effectiveness and feasibility.
- b. The effectiveness of the alternatives and their capabilities for eliminating pollution from the waste sources; and for eliminating the public health threat.
- c. The short-term reliability and operability of the alternatives.
- d. The long-term operation, monitoring and maintenance requirements of the alternatives.
- e. Implementation schedule.
- f. Public Health impacts.

Phase IV. Implementation

After Departmental review and approval, any necessary remedial actions will be implemented by the responsible party.



S. Russell Sylva
Commissioner
935-2160

The Commonwealth of Massachusetts
Department of Environmental Quality Engineering
Metropolitan Boston - Northeast Region

5 Commonwealth Avenue, Woburn, MA 01801

MINIMAL STANDARDS FOR THE SUBMISSION OF ANALYTICAL DATA

DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING
DIVISION OF HAZARDOUS WASTE
METROPOLITAN BOSTON/NORTHEAST REGIONAL OFFICE

November, 1984

APPLICABILITY: Effective immediately, analytical data submitted to the Department pursuant to pollution investigation and assessment studies must meet certain minimum, uniform standards relative to data presentation and documentation. Submissions inconsistent with the provisions of this document and/or laboratory data deemed to be of poor quality by Department engineers and chemists will not be accepted for regulatory review.

GENERAL REQUIREMENTS: All environmental data must be scientifically valid, defensible, and must achieve the level of precision and accuracy necessary for the intended use of the data. The quality assurance and quality control practices utilized for the collection, analysis, and handling of environmental data must conform to current EPA protocol and procedures, and be consistent with the provisions of the Department's Quality Assurance Program Plan.

SPECIFIC STANDARDS FOR DATA PRESENTATION: Data summations, tabulations, charts and graphs are encouraged to facilitate the presentation and evaluation of analytical data. However, included with or appended to any such submission must be formal laboratory report sheet(s) or document(s). At a minimum, all such reports must contain the following information:

Laboratory Information

- (1) Laboratory name, address, telephone number
- (2) Laboratory contact person
- (3) Laboratory certification status (EPA/State)

Sample Information

- (1) Sample identification number or notation (field/laboratory)
- (2) Sampling location (if available)
- (3) Type sample and/or physical description (water, wastewater, soil, sediment, sludge, etc.)
- (4) Type of sample container(s)
- (5) Field preparation/preservation technique(s)
- (6) Date of sampling

Analytical Procedure(s)

- (1) Date of analysis (for extractables, include date of extraction)
- (2) Statement on sample preparation and analytical methodology (include EPA methodology notation, where applicable, and type of instrumentation utilized)
- (3) Statement of detection limit(s)

Data Presentation

- (1) Concentration values for all analytical parameters shall be clearly depicted and tabulated
- (2) Concentration units shall be clearly indicated (ug/l, mg/l, ug/kg, mg/kg, etc.)
- (3) Analytical concentrations for solid or semi-solid materials, expressed in mass/mass units, shall indicate whether quantification is based upon a wet-weight or dry-weight basis
- (4) EP Toxicity or other elutriate data shall be clearly labelled as such
- (5) For analysis of EPA priority pollutants or components thereof, all compounds and/or metal parameters must be individually listed, followed by either (a) the detected concentration, (b) "None Detected", or (c) "Below Minimum Detection Limits"

GENERIC QA/QC STATEMENT: Included in or appended to each analytical report shall be a brief, generic statement of standard quality assurance/quality control (QA/QC) procedures utilized at the subject laboratory facility. Such a statement shall include general references to EPA publications as well as specific information on: (1) for trace organic analyses, details on the use of blanks, spikes, replicates, unknown samples; GC and/or GS/MS tuning and calibration practices, (2) for metal analyses, information on the use of standards, instrument calibration, (3) for other analyses, appropriate QC information.

CERTIFICATION: All laboratory reports shall be signed and dated by a responsible employee of said facility, certifying that the information contained in the subject report is, to the best of his/her knowledge, accurate and complete.

DOCUMENTATION: In general, data received from a DEQE certified laboratory (certified for those parameters under review) will be accepted at face value, provided it is properly presented. Nevertheless, all laboratories must be prepared to defend the quality of their data and be prepared to submit, upon request, specific information and QA/QC data for individual analyses. In-defensible data will not be accepted for regulatory review.

APPENDIX VI

Critique by DEQE of the Strauss Site Hydrogeological Study



S. RUSSELL SYLVA
Commissioner
935-2160

The Commonwealth of Massachusetts
Department of Environmental Quality Engineering
Metropolitan Boston - Northeast Region
5 Commonwealth Avenue
Woburn, Massachusetts 01801

December 10, 1985

Mr. Samuel Fusco
Geotechnical Consultants, Inc.
Willows Professional Park
799 Turnpike St.
North Andover, MA 01845

RE: PEABODY - Report of Hazardous
Materials Study for Strauss
Tannery - 145-147 Lowell St.

Dear Mr. Fusco:

Recently, you received a letter from this Office regarding the hazardous materials site assessment performed by your firm for the subject property. That letter, dated November 25, 1985, focused on the further investigative work and remedial actions necessary for this site, as dictated by the applicable state laws and regulations.

The purpose of this letter is to comment on the technical aspects of the report that we received, so that future reports done by your firm, that will be reviewed by this office, will be of acceptable quality and presented in an acceptable form, thereby preventing delays in the review process.

The following comments are in reference to the "Report of Hazardous Materials Study", dated May 1, 1985, performed for the Strauss Tannery site at 145-147 Lowell St., Peabody:

- 1) A site history was not presented with the report. Without a detailed site history, including information on processes used at the site, raw materials used, wastes generated, wastewater generated, etc., an evaluation of the scope of work performed is difficult. Optimal locations of test pits/borings and the proper parameters to sample and analyze for are especially difficult to determine without site history information.
- 2) No well installation information or sampling information was provided, nor were the laboratory data sheets included with the report. State-of-the-Art protocol for well installation, soil and groundwater sampling, and analytical procedures are contained in several recent publications, including the EPA publication "Manual of Ground-Water Quality Sampling Procedures" by Scalf, McNabb, Dunlap, and Cosby (1981). Proper documentation of the field procedures used must be forwarded with reports for Departmental review.

- (3) Under Section II (2) of the report, the Geotechnical Consultants, Inc. report indicates there are no wells on-site. In fact, there is a well on-site, (approximately 200 ft. deep) once used to keep leather splits moist.
- (4) In the Summary section of the report, it is recommended that the oil-contaminated soil around the abandoned fuel storage tank be removed, but you do not consider the material as "hazardous". Please be advised that oil-contaminated soil is considered a "hazardous" material under M.G.L. Chapter 21E, the "Massachusetts Oil and Hazardous Materials Release Prevention and Response Act."
- (5) In reference to the analytical results, the first piece of data is 4.5 mg/l of Chromium and 0.3 mg/l of lead in groundwater from a test pit. This sample was not filtered, however, and two later, filtered samples revealed much lower levels of both Chromium (0.05 mg/l and 0.14 mg/l) and Lead (<0.1 mg/l for both samples). The Department prefers that data of unfiltered test pit samples, analyzed for metals, not be included in reports for regulatory review, since this type of data has no use in evaluating groundwater contamination with heavy metals. Other data obtained by non-approved or accepted means should likewise not be included in reports for regulatory review.
- (6) The report states that soils contain heavy metal contaminants, yet data for heavy metals levels in the one soil sample obtained by Geotechnical Consultants, Inc. was not provided.
- (7) The report describes that "the testing also measured concentrations of Silver, Cadmium, Arsenic, Barium, Mercury and Selenium." The data sheets that were later sent upon request (from this office) do not concur with this. According to the data sheet of the unfiltered groundwater sample, only mercury was detected along with lead and chromium. Cadmium and Silver were both reported as "<0.01" which may be the detection limit for the analysis, but is unclear. Arsenic, barium and selenium are not included anywhere in the data sheets.
- (8) The reference of the "EPA hazardous material limit of 5 mg/l" apparently refers to limits set for 8 heavy metals in the EPA EP Toxicity test. Be advised that EP Toxicity is an elutriate procedure designed to provide a regulatory classification of RCRA hazardous wastes. Its utility beyond this objective is limited; evaluation of groundwater quality relative to this procedure is inappropriate.
- (9) It is unclear why boring/monitoring well B-1 and boring B-4 were not placed downgradient of the two concrete sewerage pits, which represent the greatest potential sources of subsurface contamination. The groundwater quality at these locations cannot be assumed to be equivalent to groundwater quality directly downgradient of the pits. Since the objective of the well and borings and subsequent analyses was to "further investigate the contamination levels" of the groundwater on-site, the placement of the well and boring B-4 appears unsound.

Mr. Samuel Fusco
Page 3

- (10) The following statement from your summary is confusing, and still needs to be explained: "The soil does contain a relatively high percentage of Chromium but less than the EPA limit. Values of 2 to 4 mg/l are noted." For one thing, solid samples cannot have units of "mg/l", unless of course the data are EP Toxicity test data, which these apparently were not.
- (11) Drums were documented as being at the site, but no mention of what was in the drums is made.
- (12) Test pits #1 and #7, near the two underground storage tanks, were not at the downgradient side of the tanks. Consequently, a leak may have occurred yet gone undetected by the test pits that were excavated. This, in fact, appears to be the case for test pit #7, since a leak was known to have occurred from that tank, but oil contaminated soil was not uncovered in the test pit.
- (13) The boring logs reveal that a well was placed in boring B-1 (13' PVC well with 2' riser). No other logs show that a well was installed, yet laboratory data sheets indicate a water sample was delivered to the lab marked B-4. Again, this is confusing.

Since a description of sampling procedures and laboratory data sheets were not included with the original report, they were requested by Steve Johnson of my staff, and sent to this Office by you. Comments on this submittal are as follows:

- (1) You state that "initial sampling was from test pits where soil was scraped from the excavation sides into mason jars and then sealed", yet the initial analytical work only included data from one water sample.
- (2) In the second sampling round, one soil sample was delivered to the laboratory, but there is no identification or indication of where on-site the sample was taken. This sample was analyzed for oil and grease and Volatile organic compounds (VOC's). No heavy metals analyses were done, despite chromium being the single most important potential contaminant on-site. The documentation of how the sample was preserved for VOC analysis is insufficient. Further, the method for testing this soil sample for VOC's is not adequately documented on the data sheet.
- (3) Sampling descriptions for the VOC analysis of the groundwater sample is likewise inadequate. For instance, was the vial a 40 ml amber glass vial? Was care taken to prevent mixing of the water before being put in the vial? Was care taken to omit air bubbles from the vial?

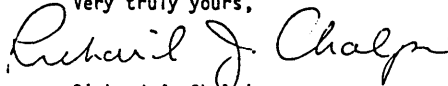
I have attached a copy of the Department's "Site Investigation/Remedial Action Guidelines" and "Minimal Standards for the Submission of Analytical Data". Please be advised that future reports which are submitted for regulatory review must be performed and reported in a manner the Department finds "reviewable". Since this report was forwarded to the Department by the Peabody Department of Public Health, the site history gathering and other research was done by my staff. Reports done for real estate transaction purposes, which we are aware you do, will not receive similar special consideration.

Mr. Samuel Fusco
Page 4

This office receives hundreds of hazardous materials site assessments yearly, and oversees the investigative and remedial work of over 200 active sites. For this reason, we have developed policies and procedures for handling site assessment reports that attempt to generate consistent investigative work among all the consulting firms. Realizing that all sites do not merit the same level of detailed investigation, and also understanding that studies for real estate transaction purposes have a limited purpose and scope due to their nature, we still feel that the report done by your firm for the Strauss Tannery site had enough problems to necessitate this type of letter.

If you have any questions, call either Steve Johnson or John Fitzgerald, P.E., at 935-2160.

Very truly yours,



Richard J. Chalpin
Acting Regional
Environmental Engineer

RJC/SJ/ae

cc: DEQE, DSHW
One Winter Street, 5th Fl.
Boston, MA 02108
Attn: Ms. Madeline Snow



APPENDIX VII

DEQE's Statement on Soil Contamination at the Strauss Site



S. RUSSELL SYLVA
Commissioner
935-2160

The Commonwealth of Massachusetts
Department of Environmental Quality Engineering
Metropolitan Boston - Northeast Region
5 Commonwealth Avenue
Woburn, Massachusetts 01801

November 25, 1985

Mr. Samuel Fusco
Geotechnical Consultants, Inc.
Willows Professional Park
799 Turnpike Street
North Andover, MA 01845

RE: PEABODY - Strauss Tannery,
145-147 Lowell Street

Dear Mr. Fusco:

The Department is in receipt of a document, entitled "Report of Hazardous Material Study", completed by Geotechnical Consultants, Inc. for the subject site. This report, forwarded to the Department by the Peabody Department of Public Health, describes the investigation performed by your firm to identify if a release of oil or hazardous materials has occurred at the subject property, pursuant to Massachusetts General Laws (M.G.L.) Chapter 21E, the "Massachusetts Oil & Hazardous Materials Release Prevention and Response Act."

After reviewing this report, and having obtained site history information from Mr. David Strauss of Strauss Tannery, the Department has the following comments/recommendations, some of which were expressed verbally to you by Steve Johnson of my staff, and were incorporated into your letter of September 16, 1985 to Charing Cross Corporation:

- (1) The Department concurs with the recommendation of Geotechnical Consultants, Inc. that the chrome-tanned leather trimmings, spread around different areas of the property, be removed.
- (2) It is recommended that the abandoned 5000 gallon fuel oil tank on the property be removed under local Fire Department supervision. If any release of oil has occurred, contaminated soil will have to be exhumed and brought to either (a) an approved asphalt batching plant, or (b) an approved landfill out-of-state. The extent of contaminated soil removal, and the need for further remedial work due to a release of oil at the site, will be determined by Department personnel at the time of tank removal.
- (3) It is also recommended that the currently used 6700 gallon fuel oil tank, which was installed in 1970, be leak-tested if it is to remain in use. Since the estimated average leak-free life of steel underground storage tanks is less than 15 years, an EPA-approved leak detection test should be done to provide information on the integrity of the tank. If this second tank is also to be abandoned, it is advisable to, again, notify the local Fire Department and follow their regulations on abandoning underground tanks.

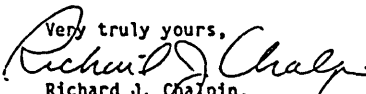
- (4) The remaining sludge in the concrete sewage pits must be classified as either solid waste or hazardous waste, and then disposed of properly, pursuant to applicable state and federal regulations.
- (5) The areas upon which the leather trimmings are spread may contain elevated levels of chromium from the trimmings. Therefore, you, as site consultants, must adequately sample the residual soil beneath these leather trimmings, once they are removed, for total concentrations of chromium and hexavalent chromium. From the results of these analyses, the Department will decide if any capping requirements will be necessary to prevent human exposure to elevated levels of total or hexavalent chromium. Such a capping requirement may consist of 1-2 feet of clean soil over the leather trimmings disposal area after future site development.

Steve Johnson of my staff should be notified, in advance, when the oil tank removal is scheduled. Beyond the above recommendations/requirements, the Department anticipates no further remedial actions at this time relative to MGL Chapter 21E, the "Massachusetts Oil and Hazardous Materials Release Prevention and Response Act."

The Department's determination in this matter shall not limit the response or action we might take with respect to other sites in the area or the response or action we might take regarding this property in the event that further information comes to the attention of the Department. Should it be found at any time during or after construction that the conditions on the property pose a release or threat of release of oil or hazardous materials subject to M.G.L. Chapter 21E, the Department will exercise its response and enforcement authority accordingly.

The conclusions set forth in this letter are based upon the information in the Geotechnical Consultants, Inc. report and therefore, should not be relied upon without further review by the Department if the report has any material omissions or misstatements.

If there are any questions regarding this matter, please call Steve Johnson or John Fitzgerald at 935-2160.

Very truly yours,

Richard J. Chapin,
Acting Regional Environmental Engineer

RJC/SJ/se

cc:

Ms. Madeline Snow, DEQE, DSHW, 1 Winter St., Boston, MA 02108
Mr. Peter Angeramo, Dept. of Public Health, City Hall, 29 Lowell St., Peabody, MA, 01960
Mr. David Strauss, Strauss Tannery, 145 Lowell St., Peabody, MA 01960

APPENDIX VIII

Site Analysis

SITE PLAN ANALYSIS

General Site Analysis

The photographs on page 15 and the Building Structural Analysis on page 62 indicate that the buildings currently occupying the Strauss Tannery parcel are in a severely deteriorated condition and beyond the point of economically justified rehabilitation. Therefore, if the site is to be developed, these structures will most likely have to be demolished. On the other hand, the existing Strauss house located on the smaller parcel (See the Subject Site Map on page 11) is in good condition and characteristic of the type found in the neighborhood and should, therefore, be preserved (This was done in the three alternative plans). The photographs of the site also show that the site is covered with trees and other vegetation along most of its perimeter; however, years of exposure to industrial activity appear to have affected the vegetation to the point that most of it probably will not survive much longer. Thus, all three site plan schemes include a moderate amount of new trees and landscaping.

The site itself has about a 1-2% slope at the front (Lowell Street) and rear and about an 8% slope in the middle 250 feet (See the Site Section below the Clustered Townhouse Condominium Plan on page 94). The hydrogeological analysis done by Geotechnical Consultants and an on-site inspection

by the author indicate that there is no ledge present that would affect utility and foundation excavation. Adequate utilities are available at the site boundary. Thus, aside from the cost of contaminated soil removal and demolition, the Strauss Site does not appear to present any other significant sitework premium costs.

Lastly, neighbors are concerned with the impact any development of the Strauss Site will have on the surrounding neighborhood. Traffic congestion along Lowell Street is a major concern; therefore, in all three schemes, access to the site is limited to Endicott Street (Emergency access should be possible from Lowell Street, though). Neighbors would also like to maintain the character of the existing neighborhood in terms of design and density.

Comparison of the Three Alternative Site Plans

The three proposed site plans are on pages 94-96. The one and two-family plans were drawn by the author; whereas, the Clustered Townhouse Condominium plan was designed by J. W. French Associates, Boston, MA for the current developer of the site. The reason for utilizing the developer's plans, in the case of the Clustered Townhouses, is that this plan is the result of a great deal of input from the neighborhood and the Planning Department and, therefore, should be representative of their concerns.

Of the three alternative site plans, the Clustered Townhouse alternative is the most sensitive to the

surrounding neighborhood, primarily because of the flexibility that the proposed R3-T zoning would allow in planning the site. In this plan, a vegetation and space buffer is maintained along the perimeter of the parcel. The buildings focus inward onto a large common "green", thus the name: Lowell Green Condominiums. The structures along Lowell Street are designed so as to maintain the character of the street. In addition, the buildings throughout the development are broken and have differently styled roofs so as to give visual interest to the site. Parking is integrated into the landscape. This scheme also allows the planner to take advantage of the topography of the site when laying out the buildings (For example, thirteen units have parking at the basement level). Lastly, although the Clustered townhouse plan does have the highest density at twenty units, it also has about the same amount of open space as the other alternatives (52% of the available land area).

On the other hand, the One and Two-Family site plans are not very sensitive to the surrounding neighborhood, primarily because the zoning dimensional controls of the R2 district provide very little flexibility in design, especially in this case in which land use must be maximized in order to make the project feasible. The result is that the impact of the development on the surrounding neighborhood takes on a secondary role in design.

In both of these site plans, road length has been

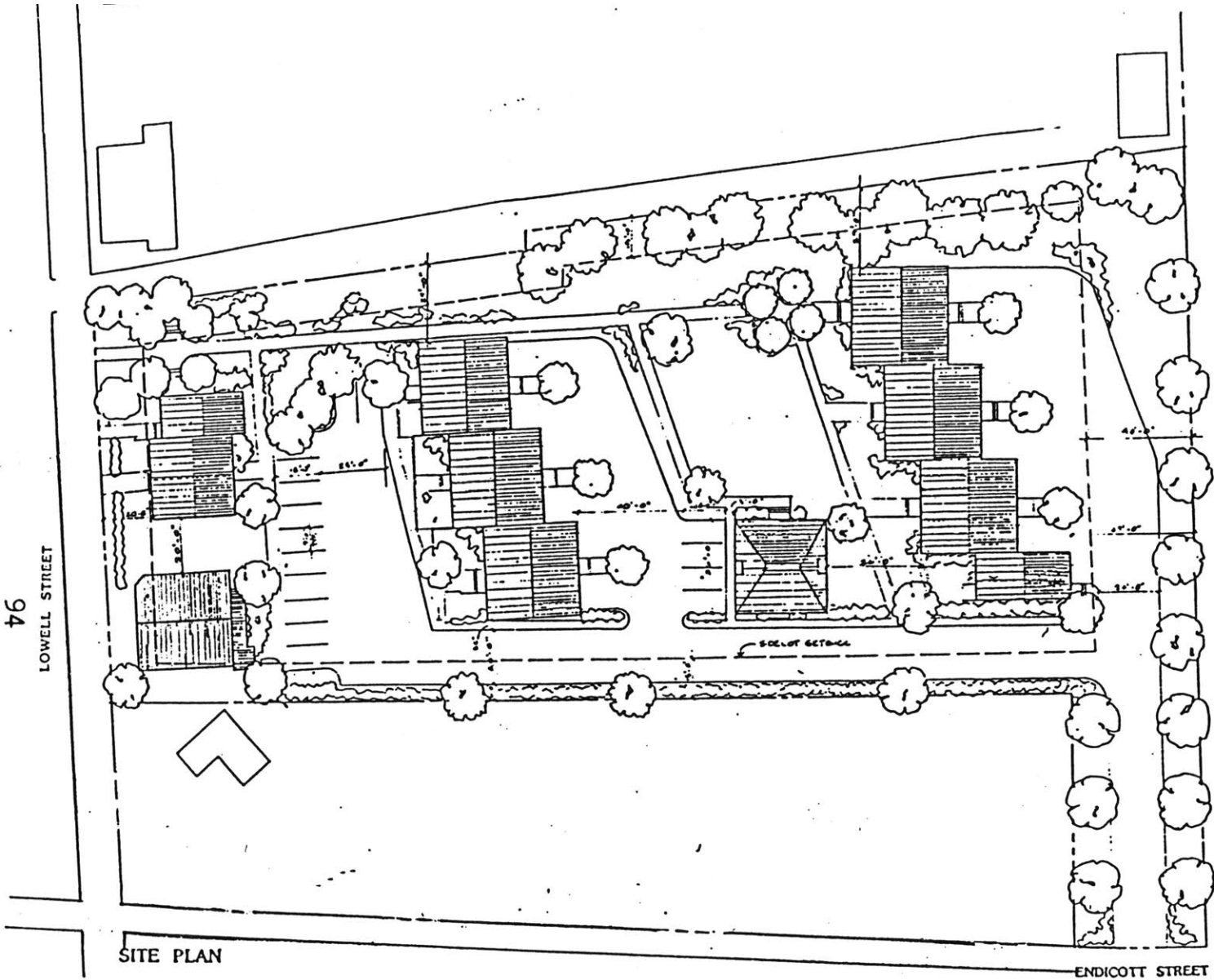
minimized in order to maximize land usage and to minimize cost. As in the Clustered Townhouse plan buildings can be designed so as to maintain the character of the surrounding neighborhood throughout the development but, especially, along Lowell Street. The perimeter of the site is buffered with landscaping as well.

In conclusion, it is the author's opinion that the Clustered Townhouse plan is the alternative that is most sensitive to the neighborhood. Although it does have the highest density of the three site plans, the final built product may be perceived to be less dense than that of either the One or Two-Family plans.

LOWELL GREEN
CONDOMINIUMS

Peabody, Massachusetts

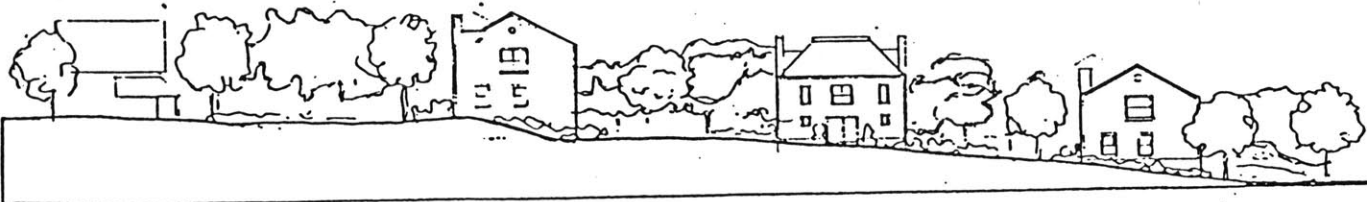
CLUSTERED TOWNHOUSE CONDOMINIUMS



LOWELL STREET
94

SITE PLAN

ENDICOTT STREET



SITE SECTION

J.W. FRENCH ASSOCIATES, INC
185 MASSACHUSETTS AVE.
BOSTON, MA 02118
617 552 1100

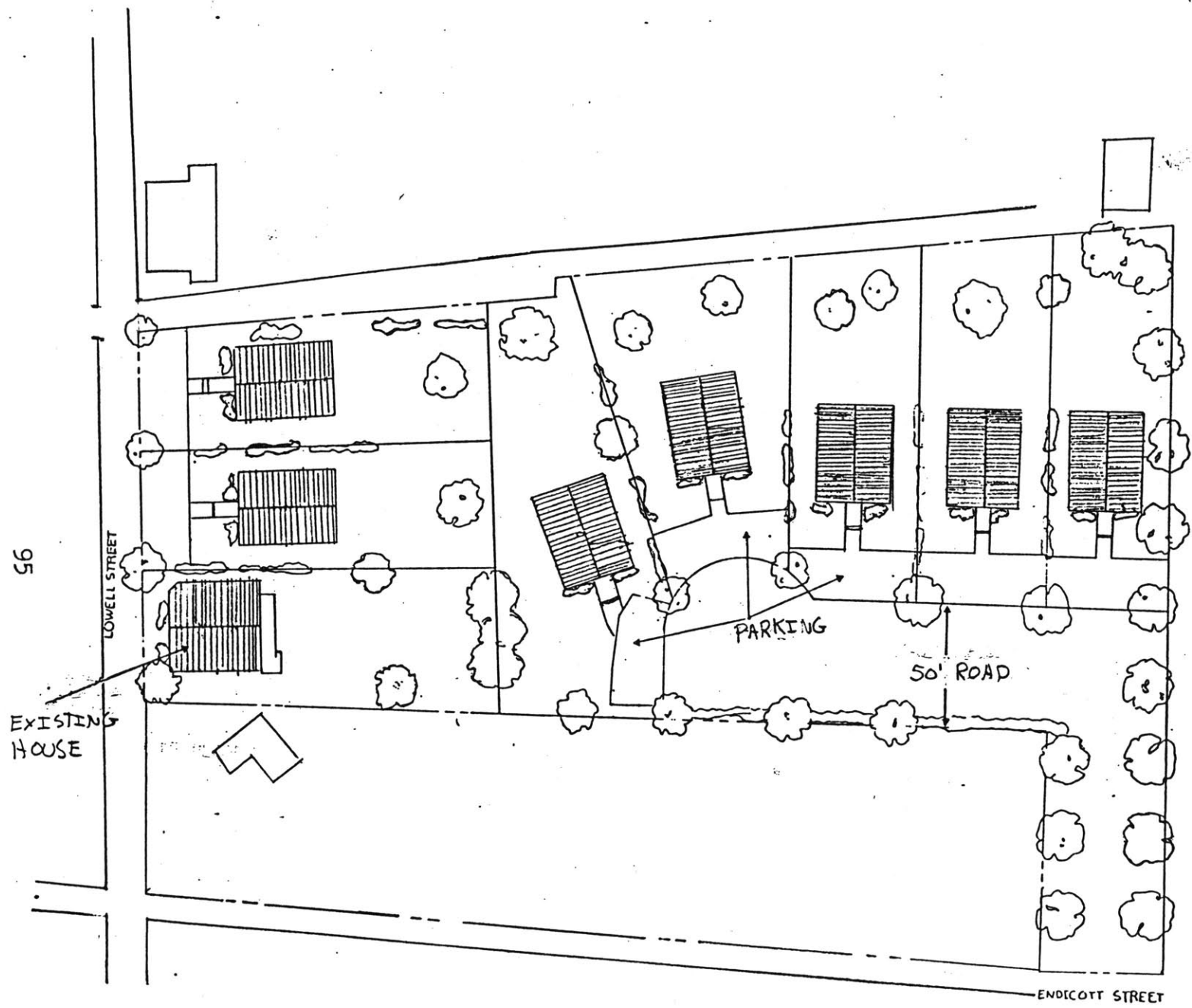
Project No.	86-20-01
Scale	1/8" = 1'-0"
Date	6/15/86
Drawn by	TPO
Checked by	
Reviewed	

Proposed Site
Plan & Section

SP-1

TWO-FAMILY
CONDOMINIUMS

TWO-FAMILY CONDOMINIUMS

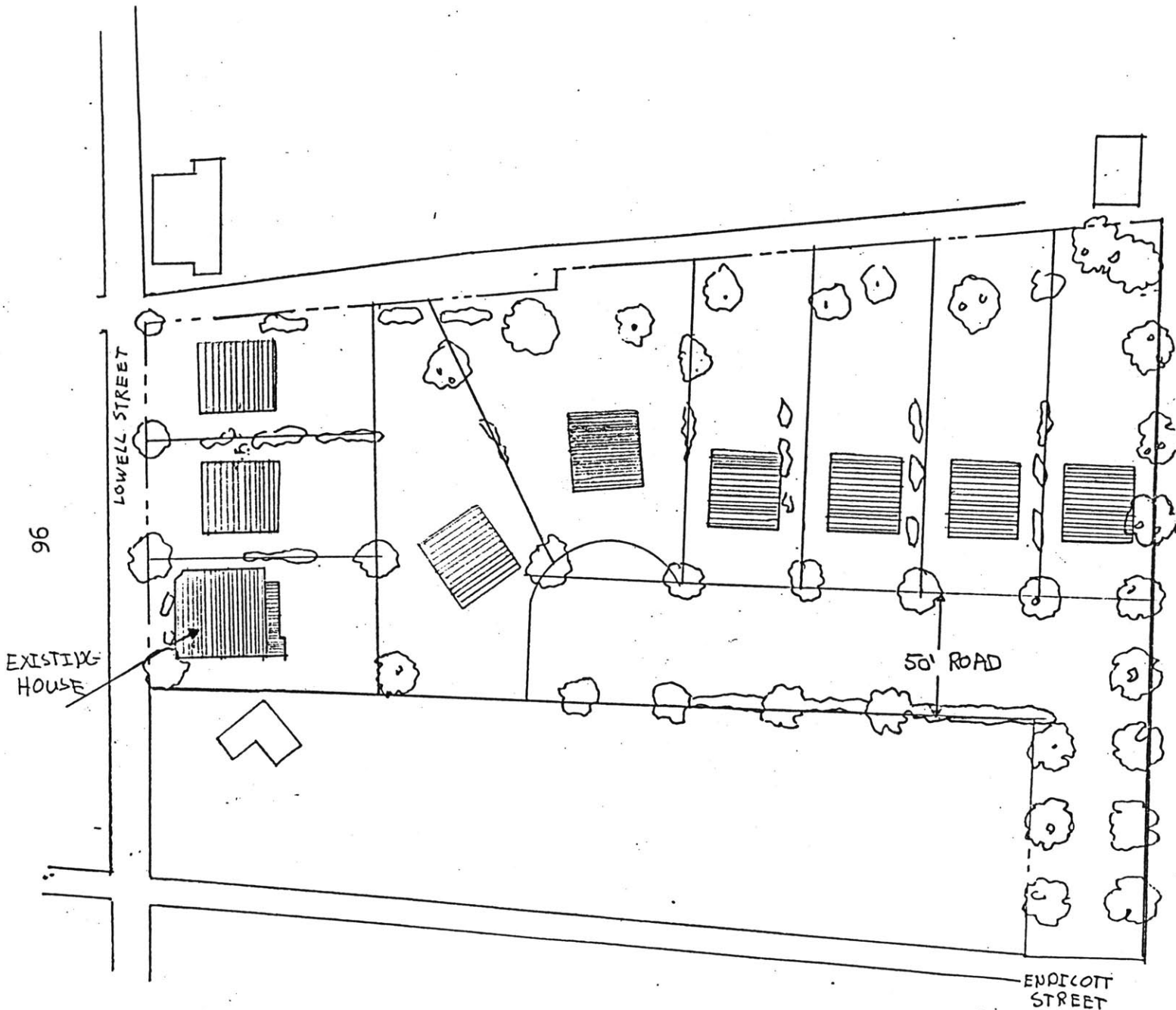


Drawn by
ED MARTIUS

SCALE:
1" = 60'

PROPOSED
SITE PLAN





ONE FAMILY

ONE-FAMILY UNITS

Drawn by:
ED MARTINS

SCALE:
1"=60'

PROPOSED
SITE PLAN



APPENDIX IX

Market Analysis

MARKET ANALYSIS

Ideally a developer should do a formal market study to determine the highest and best use for a site. However, this is not always possible nor necessary for every development. The decision to do a formal market study will depend primarily on three factors: 1. The cost of the study in relation to project cost 2. The size of the project in relation to the supply of similar product available in the market, and 3. The type of development (i.e. A market study may be more necessary in determining the viability of a commercial development than of a residential development). Furthermore, the scope of the study will be defined not only by market forces of supply and demand but also by the political climate, local zoning ordinances, surrounding uses and the physical character of the site.

Using this rationale then, a formal market analysis would not be cost effective in the case of the Strauss Site. In addition, the political climate and the character of the surrounding neighborhood suggests the most acceptable highest and best use would be either single family units, semi-detached townhouse condominiums or clustered townhouse condominiums. However, this does not imply that no market analysis is necessary. On the contrary, the developer must still determine the target market, the amenities and the product to be offered, the necessity of phasing, pricing, etc. In addition to these demand factors, the developer

will also want to know what is happening to supply. It is true that a development the size of the Strauss Site may not individually impact supply and price significantly; however, in combination with other ongoing development in the region, it could.

The common solution employed by developers of small scale projects in obtaining market information at a low cost is to get an "intuitive feel" of the market by interviewing real estate brokers familiar with the local market. This is the method of analysis that I used. However, a word of caution is necessary in utilizing this method of analysis. It is primarily based on historical trends and information rather than on projections of future growth. Furthermore, one logically assumes that because brokers are constantly interacting with the market, they should have a "pulse" on it. This, though, is not always true. Many are very good salespersons but, in fact, have minimal factual information on the market, and most are overly optimistic. It is wise then to interview a number of reputable, experienced brokers and to combine their opinions. I interviewed three, and the following is a sample of the questions I posed to them.

Questions relating to demand for each of the three acceptable residential uses:

- What do you see as the best use for the site?
- Who is the target market?
- What amenity package should be offered?
 - .unit size?
 - .garage?
 - .type of HVAC?
 - .number of rooms, beds & baths?

- .basement?
- .unit style?
- .private yard area?
- .number of parking spaces?
- .other?
- What prices should be expected pre and post construction?
- Do most buyers come from within the region?
- Are most units owner-occupied?
- Do you see possible marketing problems because of the issue of soil contamination? Do you know of any developments that had such problems?
- Do you foresee any obstacle to development of this site?
- Is Fannie Mae approval of the project necessary in order to facilitate unit sales?

Questions relating to supply:

- Does it take longer to sell units today than six months or one year ago? Does this indicate a softening market?
- Have prices been increasing as rapidly today as in the past? What do you estimate the inflation/deflation factor to be?
- Would you recommend development of this site at this time?

Marylin Bavardi of Carlson Real Estate, 532 Lowell Street Peabody, Mass. provided comparables of the Tannery Pond village which is located on the block opposite the Strauss Site. The Tannery Pond Development consisted of the following: Sixty-five townhouse condominiums at an average size of 1000 SF each (15'x30'); Some units are slab on grade and others have a basement/garage; One residential and one visitor parking space are provided for each unit; Each unit has a fully applianced kitchen, a laundry area, two bedrooms and one full bath. Tannery Pond was completed about eighteen months ago. All units were sold during preconstruction at prices between \$69,900 and \$93,900. Today they are reselling in the \$125,000-145,000 range. Ms. Bavardi also indicated that an ongoing development of about

seventeen units directly across the street from Tannery Pond is all presold, but she does not have any other information on it.

For the Strauss Site she recommends somewhat larger townhouse units of between 1,200 and 1,400 SF. Selling prices should be in the \$125,000 to 145,000 range. She suggests similar size and price for two-family clusters. In the case of one family units, she recommends 2,000 SF capes that could sell for between \$160,000 and \$170,000. The target market for the development would be first time buyers. On the other hand, empty-nesters and second time buyers would be seeking a more upscaled development.

Ms. Bavardi believes that the condo market in Peabody is becoming saturated and that the market in general is softening. Therefore, she believes that for any of the proposed alternatives it may take about three to four months to sell all the units and that inflation will be less than 12%. She also felt that, given the softening market, phasing of the development in segments of ten units would be a good strategy. In addition, Ms Bavardi recommended that the project be certified by Fannie Mae in order to facilitate buyer mortgage financing .

Lastly, Ms. Bavardi brought up the issue of contaminated soil. She recalled that the developers of Tucks Point Condominiums, a former chemical facility site on Beverly Harbor, had difficulty in selling units. However, after information about the status of the contamination on

the site had been disseminated in the market place, these concerns were allayed, and the units were eventually sold.

Jude Flynn of Carlson Real Estate Appraisal Service, Salem, Mass. said that it was in an excellent location because of its easy access to the highways and to the shopping malls. However, because of the softening market, he felt it would still take from three to six months to sell all the units.

In the case of townhouse condominium units, he said that prices would be in the \$120,000-130,000 range. The target market would be young couples but probably not first-time buyers, since they would probably not be able to afford that price range. The other group of typical condominium buyers, older couples, would also not be the target market because they would be interested in a more upscaled development. He gave Tannery Pond as an example of the probable buyer type.

This particular target market would be looking for 900-1,500 SF units with two bedrooms and two parking spaces. He said that the kitchen, the living room, a fireplace and bathrooms are very important. However, a garage is not important and only adds about \$1,500 to the value of the unit. The most common HVAC system is heat pumps.

In the case of the single family homes, he suggested the same target market and amenities. In addition, a basement area would be important. Units should be cape-style, 1,800 SF (28'x32') and could sell for \$140,000-160,000.

Lois Codair, principal of Lois Codair Realty, 20 Lowell Street, Peabody, Mass. said that today it is definitely a buyer's market. When interest rates first declined the pent-up demand resulted in units being sold in two to three days; however, today, because of the large number of listings in relation to buyers, it takes much longer.

Mrs. Codair says that the target market for that particular site would be young couples and first-time buyers. She feels that the best use of the site would be townhouse condominiums with 1,100-1,200 SF of space and could sell for between \$110,000 and \$120,000 in pre-construction. Units should have two bedrooms, a fully applianced kitchen, 1-1.5 baths, a living room, two parking spaces and some private yard area. She recommends a fully-applianced kitchen over a garage. Phasing of the condominiums should be done at ten units per phase.

In the case of single family units, Mrs. Codair recommends cape or ranch style units with 1,500 to 2,000 SF of living space. These could sell for as much as \$185,000.

In her opinion, Fannie Mae approval of the development would be helpful but not necessary, since there are several local banks willing to hold onto a mortgage. Finally, she did not see any marketing risks in the issue of soil contamination, as long as the appropriate soils analysis have been done.

Conclusions From Market Analysis:

Based on my conversations with these brokers, I concluded that the optimal mix of amenities for either single family or townhouse condominium units is two bedrooms, one and a half baths, a fully applianced kitchen, a large living area, a private yard, a basement area, two parking spaces and a heat pump HVAC system. Townhouse condominiums should be about 1,300 SF and can sell for \$128,500 per unit in the PUD configuration. In the case of the semi-detached scheme, the selling price would be higher at \$135,000. Single family units should be cape-style with about 1,900 SF of living space and can sell for \$165,000 per unit. From a market perspective, phasing is not a major issue at this scale of development. However, it may be required by lenders.

The market risk of possible soil contamination did not seem to be a major issue with two of the brokers. However, this may be due to their lack of knowledge of any such cases and their lack of experience in marketing such developments. The author, on the other hand, is of the opinion that there is considerable market risk in the development of similar sites. In order to minimize this risk the developer of this type of site would be wise to obtain a soils analysis from a reputable firm that meets all of the DEQE guidelines for conducting such analysis and have a soils consultant continually conduct tests during demolition, debris removal

and foundation excavation. If necessary, records of this objective testing information can be later used to substantiate assertions to buyers that the site is "clean" and that it poses no health hazard. Of course, following these steps will not eliminate market skepticism of soil contamination, but it can mitigate it.

APPENDIX X

Financing Analysis

Obtaining Financing and Financing Terms

In the type and scale of development as that of the Strauss Site, banks typically lend on the merits of the individual project. From the bank's perspective, it is not necessary for a developer to have a great deal of resources, financial strength and extensive track record if the project is economically sound. However, this is not to say that a lender does not differentiate between experienced and inexperienced developers. A first-time developer is scrutinized much more: Credit checks are done, bonding of the general contractor is required and all subcontractors are verified. In the case of a well established developer, this verification is not as rigorous. In addition, the experienced developer receives better borrowing terms, especially if he has money on deposit at the bank. Currently, the bank offers the experienced developer rates at 1-1.5 points over the prime rate of 8.5%; whereas, the first-time developer would receive 2-2.5 points over prime. There is another type of loan that may be preferable to the first-time developer which has a reduced rate and a reduced commitment fee; however, the lender participates in the sale of each unit. In this type of loan, the overall cost to the developer is usually greater but the advantage to the

developer is that it reduces his short term carrying costs.

From this discussion one can conclude that if a development proposal is economically feasible, financing is obtainable. However, in infill development the possibility of hazardous waste on the site and the implications of this with respect to Chapter 21E complicate the issue of financing. Before a Title insurer will underwrite a property, it will require that a 21E soils analysis for hazardous waste be done by a competent consultant. In addition, a statement to the effect that "no action by DEQE is warranted on this site at this time" is required from DEQE.

Once the project has been approved by the lender, title insurance has been obtained and permits/approvals are in place, the loan contract is finalized. The contract stipulates the interest rate, the disbursement schedule, payment procedures and other terms. During the construction phase, the developer is reimbursed according to the work completed. The usual procedure is for the developer to submit each month an AIA Percent of Work Completed Form to the bank's hired engineer who verifies the work. In the meantime the bank's legal counsel checks the title. If the reimbursement is approved, the bank reimburses the developer for ninety percent of the hard costs and one hundred percent of the soft costs. The remaining ten percent of the hard costs are withheld until forty days after completion of the entire project. Equity,

if necessary, is contributed up front. In addition to construction costs, the loan may include funding for land purchase, legal fees, appraisal fees, commitment fees, other closing costs, loan interest, etc. Repayment of the loan is normally tied into unit sales, and normally banks like to be repaid two thirds of the way through the project.

In small scale residential development of this type, the lender if it is familiar with the particular market, will not usually require a formal market study. However, to protect itself, the lender may require that one quarter of the units be presold and that the development be phased. The phasing strategy will depend on the particular site plan; however, it is normally done according to clusters in cluster developments. For example, a lender will stipulate that it will withhold funding on future clusters until a certain percentage of already-built clusters are sold.

Finally, at this scale of development, this lender does not require Fannie Mae approval of the development, but does recommend it. For those unfamiliar with Fannie Mae approval, it is necessary in the case of most new residential developments in order to make these mortgages tradeable on the secondary mortgage market. Otherwise, financing may be difficult to obtain for unit buyers because a bank making a mortgage on a non-approved development will likely have to hold onto the mortgage for its term. Fannie Mae approval is required in new developments only, primarily because of the construction risks and the possibility of the

development not being completed; whereas, older developments do not require this approval because the development is already established. In smaller developments, however, it is helpful but not necessary, if there are enough local banks willing to hold onto the mortgage.

A summary of the expected financing costs for development of the Strauss Site follows:

Rate for First-Time Developer	11 %
Rate for Experienced Developer	10 %
Commitment fee	1 point
Appraisal Fees	\$ 1,000
Legal Fees	\$ 5,000
Fannie Mae Approval	\$10,000
Other	\$ 2,000

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