

Alternatives to the Construction of a New Library

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WHEN I BEGAN TO CONSIDER this business as a career in the early 1960s (along with many of the rest of you), I did so primarily because libraries were beginning to be recognized as important for the country beyond a handful of big cities and established universities. There was federal money then (hundreds of thousands, can you believe?) for regional library projects all over the place. Most of us who did not grow up in big cities were seeing our one or two room "Carnegies" moving to magnificent new quarters at least three times the size and at least three blocks away. My plan was to get my degree (at Rutgers) and go back to Nebraska to build libraries like that all over the state.

Some of that actually happened in Nebraska, but without me because I never got home. I stayed in Baltimore County where we built some twenty-two libraries of all kinds and sizes during the next twenty years.

During the sixties and early seventies, that kind of expansion was taken for granted in the library world. Mostly all of that expansion was into new buildings because many libraries were housed in facilities at least thirty years old. It was also during that time that library architecture began to be considered as a specialty of its own and most of our best current thinking in that area is a result of those expansion years.

At least two conditions were the cause of that time coming to a close around the end of the seventies. The most obvious and probably most

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important condition was the combination of inflation and the end of free flowing federal financing for new library construction. The cost of a new library building had nearly tripled in little more than ten years and matching or "coming up" with those funds on the local level seemed less and less attractive.

A second and more subtle condition was the result of evolving library technology and philosophy. It was beginning to be considered that more space on a new site was not necessarily the answer. Many libraries began to opt for computerizing their operation, retrofitting their furniture and equipment, rehabilitating their facilities and their mechanicals, and rearranging the available space in the existing building for more judicious use, all at a fraction of the cost of a new building. Other libraries, finding that their present location was the best one in town, planned for additions on that site in addition to the "3 Rs"—rearrangement, retrofit, and rehabilitation—still for less than half the cost of new construction.

Still others, of course, blessed with not adequate space to rearrange, adequate location, or adequate physical facility, were forced to consider alternatives to new construction. Many tried conversion of structures intended for other purposes or, failing that, some portable or prefab structure. Through all of this we have learned enough to know that some alternative to new construction may actually be the best solution to many current facility problems for all kinds of libraries in all parts of the country.

No matter which of the basic alternatives is considered—*rearrangement, conversion, addition, portable or prefab structure*—none should be pursued without, at the very least, a space needs analysis. Without that kind of study, a perceived space problem may be the result of poor original planning and arrangement. Requests for more space by staff or public may not be justified at all in light of the library's operations, demographics, and circulation.

Important conclusions can be made from the application of relatively simple criteria when deciding upon a course of action in the absence of an elaborate study. The easiest way (and I hate to give this away free) to determine your relative space requirements is to simply get a pad and pencil and tour your facility. Look carefully at each of the major areas of operation (both public service and behind the scenes) and write down for each its present size, the percentage by which it is too large or too small, and whether or not it is in the best location in the building. Total them all up and consider moving some. Does it balance? Would it if some functions were moved? By what percentage are you

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over or under? Could some operation be deemphasized and diminished in size? If so, would that provide room for the most cramped areas? How much unused or improperly used space is in the building? Is there space for new services if the space was used properly? When you add it all up, if the results are more than 20 to 25 percent space needed over what is available, you ought to consider a move or an addition. If the figure is less than that, a rearrangement and more advantageous use of your existing space plus new better scaled equipment will probably buy you at least five years in the present facility.

All of that, of course, to be done properly, requires the factoring in of many other elements of your operation, but basically that is the stuff of which space needs analyses are made and you will be more than halfway home by performing this little exercise.

Having decided, then, that the necessary space for your library's needs has at least a 25 percent deficit, the question is now what to do to alleviate the problem. The following brief discussion of five alternatives is intended to aid in that endeavor. Each alternative has been intentionally generalized because each case is different and each solution necessarily must be customized. In some cases a combination of alternatives is desirable. Whatever the application, it should be obvious from this discussion that there are indeed ways to ease your library's space problems without the expenditure of a minimum of \$3 million and three years' time.

Rearrangements

If your guesses show less than a 20 to 25 percent deficit in space needs, a rearrangement may be your best solution. The most important elements of a rearrangement are the repositioning of essential services (sometimes the movement of a service to a space of higher quality is as good as gaining more space for that service), the elimination of unnecessary corridors and aiseways, the elimination of unnecessary fixed partitions (that alone can add an amazing number of square feet), reemphasis and deemphasis of selected functions, and the use of new equipment (improved in both efficiency and size). An additional important ingredient in all of this is, of course, redecoration. Such a rearrangement will not only provide at least temporarily adequate space for those currently crowded operations and services but quite often will also liberate enough space for the addition of some functions that previously could not be housed.

Obviously, rearrangements are the least costly and least difficult to accomplish of the alternatives being considered here. Generally, a rearrangement can be done for the cost of some new equipment plus the necessary redecorating costs (painting walls and possibly adding new carpet in some areas). In some cases where a multilevel operation is unavoidable, an elevator must be added as part of the project. Even then, this alternative is far and away the least expensive of building a new facility or addition. A recent proposal for rearrangement of a 20,000 square foot facility at Summit, New Jersey was priced at about \$80,000, including considerable new equipment and an elevator, as opposed to about \$500,000 for a 5000 square foot addition (note that most rearrangements assume in-house labor for the actual moving and painting, etc.). Many rearrangements may be accomplished for practically nothing and still return enormous benefits in the library's ability to house and dispense its services.

Assuming, however, that the deficit of adequate space in the library, as determined by our quick study or some other (more costly but more reliable) method, is more than the 25 percent mentioned earlier as a somewhat arbitrary outside limit, the answer now as to what to do is narrowed to: (1) a move to another building, (2) an addition to the present structure, or (3) the construction of a new facility. Since the third alternative is outside the scope of this article, only the first two will be discussed further.

Additions

In the logical progression from least to most expensive, the next most economical method for the acquisition of additional space (as opposed to expansion to a branch) is an addition to the existing library. The choice of this alternative assumes a "yes" in response to a number of very important questions:

1. Is the existing building structurally adequate to continue to function as the library and to accept an addition?
2. Does the site contain adaptable space for an addition of the appropriate size (determined by the space needs study) and for proportionate additional parking?
3. Is the location adequate to the point that numbers 1 and 2 even apply?
4. Is an addition architecturally feasible?

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If these four criteria can be satisfied, an addition is probably your best solution. Once the square footage necessary in the addition has been established and the other criteria satisfied, the most important next step in this situation is the careful preparation of the architectural program. A program for an addition is every bit as important as it is for a new building. In this case, it must convince the staff and the board and it must instruct the architect that the addition will both gain square footage and allow space in the existing building to be reused almost as new space by the library. Not only is that kind of planning enormously beneficial economically, but also it allows an almost complete reorganization of the library's operations if that is indicated.

Consider the benefit to the library economically from an addition as opposed to the construction of a new building. A 20,000 square foot, thirty-year-old library needs a 5,000 square foot addition. It meets the four previously listed criteria. Such an addition should cost less than seventy dollars per square foot. Even if the figure is \$70, that is \$350,000 for the construction of the addition alone. Depending upon the degree of renovation of the existing space (using \$35 per square foot for rehabilitation, \$15 per square foot for renovation, and only \$5 for redecoration), the total for renovation of the existing 20,000 square feet would be between \$175,000 or \$25,000. This translates into a new library of 25,000 square feet for \$525,000 (assuming the use of new and reusable space and using the higher figure for the total cost of rehabilitation including mechanical, energy conservation, etc. rather than just renovation or redecoration). The square foot cost for that new space is twenty-one dollars. Obviously, some additional project costs would have to be added (architectural fees, permits, furniture, equipment, miscellaneous) so that the final cost per square foot might increase to \$25. Nonetheless, there is simply no comparison between getting a virtually new 25,000 square foot library for \$25 per square foot (\$625,000) as opposed to a brand new building of the same size at \$70 per square foot plus site costs of at least \$200,000 (\$1,950,000). That is why additions are such an attractive alternative if the four criteria mentioned earlier apply. If only one or two of the criteria apply, however, and this alternative is undertaken under those conditions just because of its economic advantages, an unsatisfactory compromise may well be the result.

Conversions

Faced with the kinds of figures just discussed for new construction when an addition is just not possible, many library boards and local

politicos turn to the apparently next most economically feasible alternative—i.e., the conversion of some existing building into a new library.

The conversion of a building built to serve some other purpose into a library is a very tricky undertaking. The path is full of pitfalls and the result is sure to be even more of a compromise than when an addition which has been specifically designed to house the functions of a library is the chosen alternative to a new building.

Situations for and subjects of conversions are different in each case. Almost every kind of building has been considered for a conversion to a library. The list includes historic old houses, churches, banks, stores of all kinds, hotels, filling stations, barns, warehouses, train stations—among others—and in one case (I promise it's true) an unfinished mausoleum. Unfortunately, many of those projects were completed and in most cases the only thing they were better than was no library at all.

The situation to avoid and the one which most often seems to occur is the following: The library finally convinces the local authorities that its quarters are woefully inadequate. The mayor's brother-in-law has just gone out of business (gone broke) downtown and has an 8,000 square foot building available to sell to the city for use as a new library. Of the 8000 square feet, 4000 is in office space on the upper level but, no matter, the present library quarters are only 2500 square feet. Not that anyone ever really asks the library whether or not they think it is a good deal, but even if they did, the idea of almost doubling the space seems too good to pass up. Never mind that the building is in the wrong part of town (which is partly why the business failed) and has no parking and leaks and is ugly. The local architect is only too glad to redesign the inside for the local contractor to renovate. The new front doors, of course, will remain the center of the building (to match the other stores in the block) so there will be no chance for circulation control with workroom backup. Finally, the local furniture store owner will be all too glad to fill up the space with a furniture store version of what a library should look like (I'm sure you've all seen at least one) and the deed is done. I know of a number of situations like that, but I trust they are few and far between and that those who are able to avoid the scenario just described may find a conversion project altogether satisfactory to their needs.

If that is to be the case, there are certain criteria which must be applied and a number of pitfalls which must be avoided. The criteria for choosing a conversion are basically the same as those used for a new

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building. The best way to choose an appropriate candidate for a conversion is to be able to compare at least two buildings against each other. The major considerations should be:

1. *Size.* It must meet the library's analyzed needs for the next twenty to thirty years.
2. *Location.* It must be as good as or better than the present one. If there is presently no library, it must be in an acceptable location—as though it were for a new building.
3. *Structural conditions.* It must be sound in foundation, walls and roof, and floors must be rated at least 150 lbs. per square foot or be modifiable to that figure (without this criterion none of the others matter).
4. *Cost.* What will be the cost of conversion based upon a professional estimate which must be added to the cost of the building itself?
5. *Availability.* How soon could renovation begin?
6. *Aesthetics.* Can the building ever be made to "look like a library" or will it always be thought of as "the old First Methodist" or "the old Hutzler's Department Store?"

Seldom will any one conversion candidate score a "10" in all six categories, but a high score overall probably means you are on the right track to a successful project.

Many of those same criteria just listed are also the names of the pitfalls in the process:

1. *Location* can be deceiving. The library must consider why the building is available in the first place. What is happening to that neighborhood and what are the future plans for that area? What is the condition of the surrounding structures? What is the access to the building (day and night)? Is there parking?
2. The *structural condition* must be carefully analyzed. This should be done by a qualified engineer. Many an older building which appears to be structurally sound couldn't meet today's codes—especially for public buildings. Some things to look for are: (1) unreinforced masonry walls over ten feet high, (2) types of construction which will not allow the addition of electrical (data lines, etc.) or mechanical chases in ceilings or walls, (3) in the case of multilevel buildings, types of construction which will not allow the installation of elevators and stairways, and (4) large glassed-in areas which will never be energy efficient.

Many older buildings in which these conditions exist would otherwise pass an inspection not predicated upon the particular needs of your library.

In addition, the *mechanical system* is almost always one of the major problems in a conversion. Whatever is there was probably adequate for whatever the building was doing. The problem is that libraries need a much more sophisticated heating, ventilating, air conditioning system than many other kinds of buildings. The cost of upgrading to an adequate and energy efficient system will be a factor given it can be done in the first place.

It is the *cost* of the whole project though that is really the crux of the matter. This is where most otherwise acceptable conversions go awry. Most proposed conversion projects meet the majority of the six "suitability criteria" mentioned earlier and are implemented—using as the cost the basic cost of the building *v.* the cost of a new building of the same size. It is the total project cost which must be considered if an accurate comparison is to be made. Besides the cost of the structure itself, which to be viable must not exceed a little less than half the cost of new construction, there are the less popular costs of mechanical rehabilitation and upgrade, the costs for interior alterations (most buildings need to be essentially gutted first at considerable cost), and the upgrade of the entire building to meet handicapped and fire codes (usually necessitating the addition of either ramps or elevators; but certainly that of entrances, restrooms, conveniences, etc., and probably a sprinkler system)—which may add as much as 25 percent to the cost.

The cost of all of that added to the cost of the building itself may very well approximate or exceed the cost of new construction and still be a compromise. If the total cost is within several hundred dollars of say a \$2 million new building project, unless it is a superb, otherwise unobtainable location, it is obviously not the bargain it appeared to be.

Unless that total cost is less than 75 percent of the cost of new construction, a conversion is probably not the proper alternative. If it is still the only one available, it will have to be handled in the best way possible.

None of the foregoing considerations of conversions should be undertaken without the preparation of at least a basic outline for an architectural program. Necessary elements for costing out simply cannot be included without that kind of planning. Even with funds expended proportionately to new construction, the conversion of existing space as an alternative to new construction must generally take its

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place up the scale in cost and down the scale in desirability from an addition as a method of improving a library service facility.

Probably the best application for a conversion is a slight variation on the type just discussed. That is the use of an existing space in a shopping center or similar project for a small or "mini" library. These spaces are usually from about 1500 to 3000 square feet and entirely nondescript in their design. Mostly rectangular or square, these store-like areas are less a conversion, in that sense, than they are just reuse of an adequate space.

"Store front" operations of this kind can be leased for five, ten, or fifteen years with great advantages to the library. While they are technically temporary, they allow the library to lease a space for its library needs at minimal cost without the commitment of a permanent building. If the guess was wrong, the operation can be moved to another location and because the space is so simple, usually only some paint on the walls, some furniture, and possibly carpet are necessary to open up for business.

Operations of this type are, of course, only adequate for small branches or minis, but quite often they are enough to relieve the strain on a single or central library to the extent that the perceived crowded conditions will disappear for a number of years. This alternative should be seriously considered if expansion of the library's overall operation is a possibility.

Prefab and Portable Structures

A final, but by no means least desirable, alternative to a new building on a new site is the prefab or portable structure. Portable structures are, by their very nature, temporary. Their purpose may range from serving as temporary quarters while a new library is being prepared to serving as the library in an area until use patterns can be determined or a more adequate facility can be found. Whatever the requirement, in situations where less than three service locations are necessary, the "portable" is probably considerably more economical than a bookmobile. A portable can be about twelve feet by forty feet and may indeed be as large as many little one room rural libraries all over the country.

The more substantial and obviously more desirable (if more than 500 square feet is required) type of this alternative is the prefab structure. The two most notable versions of this type of small library are the octagonal peaked-roof wooden building in use in several rural areas of

the country and the expandable metal structure popular in many cities and metropolitan areas.

These structures (and other prefab buildings of varying size and shape) are most advantageously used when expansion of the library's operations is indicated rather than as a solution to a space problem within an existing library facility. These small buildings (approximately 1200 to 2000 square feet) may be the best answer to an expansion program when leased facilities are not available and when a larger and more permanent building is not required.

The decision to use this type of building must be based upon most of the same criteria as those used for any small library or branch library. In this case, the size must be adequate to the projected needs, the location must be the best available, there must be parking and good access to the building, and the building should fit into the surrounding area or neighborhood. The bail-out feature here is that these buildings are literally, though quite often with considerable difficulty, movable, and an initial mistake in location can be corrected at a believable cost.

Generally, these structures are a little less expensive than conventional library buildings. Their size limitations, however, make them a little less desirable than the conventional building or store front conversion in most cases. But, where conditions are right for a prefab building, they may very well be the most desirable alternative in many situations in which modest library expansion is indicated.

Conclusion

Whatever the reasons a library may consider alternatives to the construction of an all new facility as an answer to their building problems, the results may be every bit as effective a solution as a new building would have been. Many legitimate arguments are currently being forwarded as reasons to opt for other than totally new construction. They range from preservation of a historically significant building to a location which just cannot be improved upon, to aiding in the rehabilitation of a particular neighborhood. Such arguments, when properly applied, mitigate against using cost of the project as the only criterion for choice and in many cases, ought to be the central issue in that choice.

Alternatives, therefore, of the five types discussed here must be seriously considered as the best choice when libraries in the next decade and beyond are faced with expansion of their operations and service capabilities without the emptying of the local coffers. Whatever the

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situation, those alternatives offer an attractive flexibility in dealing with the almost universal condition of the need for more space in almost all kinds of libraries in almost all parts of the world today.

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