The Design Continuum: An Operational Manager's Perspective

In an ideal planning scenario, the operational manager would define local issues, program requirements and related functions. The designer would then create the accommodation that would best facilitate the day-to-day operational performance of those functions. In the correctional Service of canada or any large organization, the operational manager not only manages a local agenda but also must integrate a much broader organizational, and even governmental, mandate. The operational manager's membership in this larger community complicates the design-operating continuum for it is not only local requirements that drive the design process in an expanded organization - it is also the philosophy and program modalities of the organization, as applied to the local environment.

We suggest, not as designers but as operators, that there exists a design continuum that inevitably influences all stakeholders in the design process. This continuum has four elements:

- philosophy,
- program modality,
- operational requirements (functions) and
- accommodation design (form).

We posit that the ideal continuum of design would follow this path. It should be noted, however, that change to any of the four elements has an impact on both design and operations, that change in any one element requires that all others be revisited to ensure that congruence is maintained. Thus, design in the real world is a cyclical and interactive, as opposed to a linear, process. Philosophy In the Correctional Service of Canada, the major philosophical foundations are set. The Mission and its core values seem durable and are not expected to change for at least a decade (and we hope longer). At first glance, a decade seems a comfortable planning parameter. But we know that the gap between the design of an institution and the actual completion of construction can be from four to six years, or even longer. This means that a change in fundamental philosophy in the final phases of the design-construction continuum could have an extensive impact on the operation.

Senior managers in corrections must be able to anticipate major shifts in organizational philosophy to avoid designing facilities to achieve goals that are no longer relevant. Given the cost and lifespan of such facilities, we have to live with our errors for a long time.

The capacity to anticipate philosophical shifts depends upon integrated communication. The information generated from environmental scanning exercises must be shared widely with operating and designing staff. Because operating staff frequently face issues that place the review of such information low on the "to do" list, the help of planning and design staff is needed. A great service could be provided through the synthesis of information and presentation of possible consequences or scenarios. These aids stimulate the operational staff's thinking and creativity.

Such a "pull through" strategy can market new concepts more effectively than a "push through" strategy based simply on disseminating a great volume of information. Those intrigued by an issue can return to

the source documents to see if they accept the conclusions reached. When these potential shifts are seen early on, designers can begin to anticipate the operational changes that will inevitably follow. Program Modality The organizational philosophy of the Correctional Service of Canada can be expressed in myriad ways. Since the Mission Statement was adopted, several task forces have recommended changes to corporate objectives, programming, offender management and, most important, to staff/inmate relationships. Program modality seems to be the most volatile element in the Correctional Service of Canada.

While the Mission Statement is solid, our search to express it is intense, energetic and fluid. This is demonstrated by a few examples of major initiatives in program modality: the implementation of the Unit Management organizational model; the movement of accountability for case preparation to wardens; the creation of a Special Operating Agency to facilitate occupational development programs; and the introduction of major changes to resource management and accountability. All of these initiatives have had, and will have, an impact on operational requirements. Operational Requirements -Function(s) Our experience tells us that the program modalities chosen by the Correctional Service of Canada come with a menu of operational requirements or expectations. In many cases, the changes in operational requirements affect the design of space. As the adage states, "form follows function." For example, many institutions have just completed, or are still completing, the necessary changes (in form) to their facilities to complement the operational requirements (functions) of the Unit Management program. Due to the constraints of our capital budgeting process and types of facilities, modification of forms frequently lags quite far behind modification of functions.

The Unit Management model, as an example, asked us to create consistent teams of staff who would work with the same groups of inmates. It asked that security and case management functions be combined in one correctional role. It asked that we interact in a more frequent, consistent, goal-based manner. It asked that units become autonomous, fully delegated operations responsible for all facets of the correctional mandate vis-a'-vis inmates, staff and even facilities.

We believe this particular modality is effective. However, some operations have lived, and are continuing to live, in facilities that do not easily lend themselves to the related operational requirements. This can be frustrating for operational managers and their staff. The costs in energy of creating a 'best fit" are high.

While operational managers are open to, indeed often seek, new program modalities, they are at the same time concerned with how these new programs will relate to their facility design. As an organization committed to research and the sharing of knowledge, it is unlikely that we can expect Unit Management, or any other program modality, to stay in place forever. Incremental improvements, or the recognition of changes required to respond to a changed environment, will lead toward the creation of a new model (perhaps a de-institutionalized correctional facility). Inevitably, new functions will require new accommodation design or forms. Accommodation Design - Form The accommodation design (form) follows operational requirements (function). In the real world of continual change, the determination of appropriate design is an interactive process. The designers can offer alternative ways of performing functions, through differing space alignments, which can challenge the thinking and traditions of operators. Operators must confront designers with the real world constraints - staff size, budgets, nature

of inmate population, community perceptions - that they deal with on a daily basis. If the purpose of such an exchange of ideas is to solve problems collaboratively, rather than to win a particular point, an optimal solution will be found. Discussion Within the framework presented above, we can discuss a few key questions on the relationship between design and operations. How can design have an impact on operations? We believe that design has a negative or positive impact on operations relative to its "fit" with the program modality being used and the operational requirements met or not met by the design. The negative impact can be dramatic, for example, design factors or assumptions that demand more supervisory staff than can be made available under conditions of economic restraint. Similarly, the positive impacts can be significant, such as the creation of spaces that make it natural for staff and inmates to interact around the activity of that area. How should design affect operations? Design is often placed in a reactive stance in terms of modifications to one or several program modalities, e.g., Unit Management. Design can significantly affect operations if it is allowed the opportunity to anticipate the program modality and the related operational requirements. To the extent that this is possible, design will facilitate operations by creating work space that is consistent with the functions expected. Equally, design can create environments that contribute to increased satisfaction and productivity for both staff and inmates. If we can tell the designers that an institution's primary focus is learning (education, cognitive skills, etc.), they can create an environment that supports learning (quiet living areas, adequate light and space for study, easy access to resource areas, etc.). Are operations prepared for the impact? Preparation for the impact of a design shift can be made only if operations have had the opportunity to detail the operational requirements that will arise from the philosophy and program modality now in place or anticipated by the organization. Our experience has been that front-line staff has not had sufficient time to identify these issues properly nor to develop commitment to them.

If we design a facility that makes it difficult to conduct counts (the apartment-suite housing concept, for example), it is the correctional officer, not the manager or designer, who pays the price for the decision. It is therefore imperative that as much input as possible is received from front-line staff.

Let us assume that the corporate philosophy and functional models have been developed and decided upon, we would hope with input from front-line staff. Now the input of staff is required to determine how various design alternatives can work for or against the achievement of those goals. If, again for purposes of example, the counting process is a continual source of irritation to staff and between staff and inmates, **it is not contributing to goal achievement.** Either the design or the counting procedure or both need to be changed. **The people who will perform the task are the ones who can best advise the designers.**

Unfortunately, it often seems that our planning process does not take into account the time needed for adequate front-line input. Too often, for reasons of time or expediency, we use proxies. Simply having once worked the ranges or in the file room does not qualify a manager to assess the adequacy of the design for the performance of those tasks today - too much has changed. Inmates are different. Procedures are different. Even legislation is different.

Our planning process often fails to recognize that front-line people cannot respond to proposals as quickly as staff who work at some other levels. Their primary attention must be focused on day-to-day operational tasks. As well, many front-line people work shifts. Thus, where a two-week turnaround may be realistic for managers, probably six weeks are necessary for front-line staff.

Equally, consultation with front-line staff must be based on clearly defined issues or questions, for example: how can counts be done in this apartment design concept? How can the idea of inmates preparing some of their own food be made operational? Managers may be accustomed to making linkages quickly between concepts and assumptions that are part of their daily currency. Those items are not the daily currency of front-line staff. It is not a question of ability or intelligence but, rather, a question of familiarity. If we are considering the idea (program modality) of having inmates do some of their own food preparation because we believe that this will reduce institutionalization and better prepare them to reintegrate into the community (philosophy), then we need to put both the idea and its underlying assumptions on the table. We must allow staff to understand and challenge both of these easily. Once staff members understand and accept, they will be in a position to provide the detailed commentary (functions) necessary for a useful consultation process.

Failure to allow adequate time for consultation with front-line staff leads to suboptimal operational and design decisions. Those decisions, in turn, lead to working situations that act against goal achievement and add to the tensions and stresses inherent in the work. Are the new institutional designs meeting the needs of operations? We are familiar with the new design for William Head Institution. On balance, it is a case whereby a new program modality (de-institutionalization) is being facilitated by the design of accommodation space. As operational managers, we feel the direction implied by the new designs is congruent with our Mission Statement. It facilitates a de-institutionalized, normalized program modality. It remains to be seen to what extent the final designs will meet the operational requirements implied by this new direction.

On a more general level, new designs must address two primary concerns - flexible space and over-accommodation. The volatility of our program modalities, referred to earlier, is an environmental factor that must be kept in the forefront. Since "soft" changes program modalities, functions) can and do occur much more frequently and quickly than "hard" changes (design), we need to build spaces that can be easily reused for different purposes. All building systems should be designed to handle change - the conversion of a boardroom to two offices should not require the reworking of the air circulation system. The concept of expandable and retractable spaces, as seen in modern community facilities, can be applied in our facilities. Within the constraints of security concerns, space adaptability and flexibility should be a high priority.

Again, due to the time gap between original planning and construction and the life span of our facilities, we need to over accommodate to some degree when we build. As programs and activities expand to meet inmate needs, space is required. Whether the program delivery is by staff, contracted resources or volunteers, there must be space to prepare and deliver the service. The current level of programming is not a reliable guide for future requirements. The relative cost of including such flex space in new construction, compared to the cost of additions at a later date, should argue for a percentage allowance for future growth. Can or should design move operations? It is not the design that moves operations but rather the choice of program modalities to achieve organizational goals. The role of designers in expanding operators' vision of alternative ways to make a program work, however, can influence operations. New structures alone cannot be expected to change staff attitudes. But if the organization is committed to a new way of doing business, the staff conversion process will probably be facilitated by a

good design. The chances of this occurring are greatly enhanced if the principles of consultation discussed above are respected. How, and in what direction, can design and operations move together in the future? We have a bias toward the normalization and de-institutionalization of environments that can still provide the controls necessary to protect the public. We believe that involving operations staff and design staff in problem identification, program modality creation and subsequent steps would help to synchronize the two entities. Operations and design will be forces in this process to the extent that they have been involved in the second and third element of our design continuum: program modality and operational requirements. In our model, the physical act of designing is the last step.