Facilities Strategies to Support Corporate Change and Flexibility

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CHANGE/TRANSITION MANAGEMENT WHITE PAPER

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Although terms such as adaptability, flexibility, universal design, and universal access have been applied to real estate and facilities management for some time, concrete ways that to apply these concepts have been difficult to obtain. This paper outlines many of the advantages of adaptable office environments and offers real-world tips on where to draw the line between what needs to change and what doesn't. After all, providing office workers with high-quality environments in which to accomplish knowledge work is the key goal that should inform all facilities decisions.

Traditionally, organizations have equated space performance with space efficiency. Since efficiency usually refers to the number of people per unit of space, it is straightforward to calculate the savings in real estate costs associated with housing more people in smaller and smaller spaces. Since cutting costs never goes out of style — and real estate costs will almost certainly remain high into foreseeable future — this emphasis on space efficiency will continue.

However, this trend may represent an unfortunate emphasis on space performance rather than human performance. Growing numbers of case studies demonstrate that ensuring adequate facilities for the needs of workers almost always pays for itself — usually within the first three years. Perhaps maximizing space performance through minimizing allotments to individual workers negatively impacts the productivity potential of the entire system. Could it be possible that in order to optimize overall output per unit of space, performance must come to mean more than efficiency?

Four key points need to be balanced in addressing this question:

- Speed
- Flexibility
- Cost
- The Human Element

The speed of moves, adds, and changes within a particular space determines downtime for office workers. Fast changes mean that workers can begin being productive immediately following a reconfiguration — any lag time hurts the bottom line. Supporting flexibility not only influences the speed of changes, but can also eliminate the need for radical re-planning from the ground up. Cutting costs of facilities planning and maintenance cannot be ignored, but such strategies must be balanced by a consideration of the psychosocial needs of individual workers and work groups. Workers' interpretations of facilities planning are just as important to their well-being and productivity as the actual physical surroundings.

So what are some specific strategies that can be used to balance these competing interests? First, adopt a broad perspective that recognizes how the face of corporate America has changed and will continue to evolve. Stable, hierarchical organizational structures that in the past allowed long-range strategic planning for facility needs are being replaced by highly automated, technology-driven, decentralized organizations whose strategies must constantly change to meet shifting customer interests and demands. More and more organizations reflect a horizontal rather than a vertical structure, allowing for quick formation and dissolution of functional work groups and teams.

Given this emerging kaleidoscope of business opportunities, even such corporate giants as IBM do not develop strategic plans for their detailed operations beyond two or three years. Such unprecedented rates of change in corporate environments shift the impetus for strategic planning away from a centralized, executive vision toward customer preferences and behavior. Understanding the many possible levels of analysis within the corporation — from the company's mission statement all the way down to the nuts and bolts of day-to-day operations — represents the key to competitive

strategic planning. Long-term planning beyond five years should be based on just the right level of description where predictable change occurs. But even if the right level is chosen, at least three or four possible future scenarios should be developed to avoid surprises. Each of these long-range scenarios should include possible changes in the company's core competencies, customers, products, and services. The necessary flexibility in facility processes and operations to accommodate these alternative futures — as well as meet the specific needs of daily activities in the short term — must then be developed and maintained.

Naturally, this dynamic business landscape compromises the ability of facilities planners to anticipate space allocation needs. Ideally, space planning should mirror the two-tiered approach to strategic planning outlined above:

1. Long term: An abstract, adjustable perspective on possible needs, with the ability to support multiple scenarios for growth or restructuring

2. Short term: The capability to provide specific solutions for ongoing corporate activities and functions

Choosing the right combination of flexible, long-term constraints and specific short-term solutions represents a fundamental challenge for architects, designers, and facilities professionals. Ensuring timely access to functional assessment data and information about corporate restructuring — particularly at the level of teams where churn predominates — can give savvy facilities managers the ability to accommodate rates of change unthinkable just a few years ago.

Thus, rather than spend time reconciling long-term corporate planning with long-range space and technology requirements, facilities managers should concentrate on developing different alternate solutions that can be implemented quickly and at the lowest cost in the short term, without limiting themselves to one solution for the long term. Ideally, space and facilities configurations should be allowed to ebb and flow among several of these alternatives. Certainly long-term goals cannot be ignored in interior architecture and design, but reality dictates that the further into the future projections are made, the more likely they are to need revising. Consequently, the flexibility not only to allow but also to support short-range reconfigurations must be available.

Designers and facilities managers have at least four essential ways to address this volatile business climate:

- Do the most with what you have.
- Design integrated spaces rather than footprints.
- Allow more user-centered control over the space available.
- Support teams and private work within the same area.

These techniques can help assure that employees' performance and productivity will not be compromised by declining square footage.

1. Do the most with what you have.

Essentially — maximize. Exploit to the fullest the space and other resources already available. This suggestion sounds too simple to be really useful, but frequently, reconfigurations do not require a complete architectural overhaul of an entire area. Perhaps most, or at least some, of the existing walls can remain, and if panel systems are in place, modular components can be added to augment the functionality of the space without replacing the entire system. An ergonomics program can ensure that workers' environments adjust to fit them, minimizing injury risk and reducing workers' compensation costs. Sit-stand workstations can also be specified within smaller areas to help prevent injuries and allow more vertical flexibility and movement, thus minimizing the requirements for spreading work out horizontally. An interior design consultant may be needed to ensure proper coordination of added components such as privacy screens, marker boards, and freestanding tables within existing systems.

2. Design integrated spaces rather than individual footprints.

In order to accommodate more rapid change, work areas need to be considered as functioning units rather than as a collection of individual footprints replicated indefinitely for hundreds of workers. Rather than projecting a fixed, linear development of space needs in terms of the addition of individual workers, strategic facilities planning should focus on the more abstract level of functional work groups or teams. Research indicates that 60 percent of the skills employees require to do their jobs is learned informally, and teams are the most important arenas for this informal learning. Thus, support the formation, function, attrition, and recombination of teams should be a primary focus for facilities planning.

This idea has important, far-reaching implications for facilities managers as well as architects, interior designers, and office furniture manufacturers in terms of how furniture systems and components are designed and specified. To some extent, every corporation will require some customization of their facilities, primarily because different corporations may reorganize around different functional principles. But the grain size, scale unit, or level of abstraction for reorganization will increasingly occur at the level of self-organizing work groups, characterized by skilled technicians from across departments, rather than at the level of individual workers. Layouts and specifications should thus be structured to support collaboration within and between groups, concentrating on entire

work areas rather than individual footprints. Facilities constraints imposed on spaces should be flexible enough to allow the space to grow and adapt to changing needs.

3. **Allow more user-centered control over the space available.**

   Although centralizing decisions about furniture, components, and technological support simplifies the initial specification of a work area, the necessity to rapidly reconfigure the initial solution requires more decentralized control. To the extent that decisions about where to situate desks, tables, partitions, markerboards, chairs, telephones, and computers can be given to individual workers, facilities managers can concentrate on the more global aspects of facilities strategic planning for highly competitive, dynamic environments.

   If initial planning concentrates on outfitting functional spaces rather than replicating individual footprints, this encourages distributed decision-making regarding individual furniture and component reconfigurations. In some cases, moving computers, data, and communications may require intervention from facilities strategists or information systems technicians, but such innovations as LANs, wireless networks, and flexible power supplies are increasingly making individual locations interchangeable.

   Office furniture systems characterized by freestanding, modular components can enhance this approach to decentralized control over office configurations. Many times, components such as freestanding tables, acoustic screens, privacy partitions, markerboards, and mobile file cabinets can simply be added to existing facilities to accommodate more people within the same space. Efficient support of teams and individuals can thus be accomplished without resorting to a one-size-fits-all shrinking footprint. Research indicates that as density within a space increases, the need for screens and partitions also increases, although improved lighting can mitigate this relationship to some extent.

4. **Support teams and private work within the same area.**

   The emphasis should be placed on designing larger spaces that incorporate a variety of levels of group and individual needs. Such work areas should be quickly reconfigurable to coordinate and facilitate teaming and private work. Currently, individual footprints are typically replicated many times to fill an entire room, with conference rooms available at the periphery of the space. Why not design primary work areas to support rapidly reconfigurable teams of various sizes derived from the workers throughout the space, and provide a small number of peripheral private areas that can be shared as needed? Thus, the occasional needs for complete privacy can be accommodated while providing the advantages of a more open plan for social affiliation, facilitation, and communication. Group-centered design should replace individual-centered design.

   Integrating individual and team environments can also save space, but it's very important to acoustically separate group and individual tasks with floor-to-ceiling movable walls. Only in this way will these two kinds of activities not interfere with one another. The emphasis here is on designing broad work areas that provide adequate support for private, individual concentration and team interaction for each group across the floorplan.

   This recommendation to facilitate teams and privacy within the same reconfigurable area in many ways serves to synthesize the earlier suggestions. Doing the most with what you have often requires that the same space must support many different functional realities. If, initially, spaces rather than individual footprints are designed and outfitted, such multiple uses of the same space can be easily accommodated. Relatively stable constraints can be placed around entire department areas or "neighborhoods," rather than around individual workers.

   Finally, the ability to mix and match configurations and components throughout a work area gives workers a sense of personal control and ownership of their workspaces. Psychologists have long recognized the importance of this sense of internal control in health and well being. Although the relationship between job satisfaction and job performance can be complex, a satisfied worker is generally more productive.

Supporting Today's Knowledge Workers

Thirty percent of complaints to NIOSH come from office workers, and this percentage is rising every year. In addition to the mere protection of workers, the importance of retaining and leveraging the human potential of a highly skilled and highly mobile work force cannot be overlooked. The number of unskilled office workers as been in decline (to just 11.4 percent of total jobs by 2000), while the number of professional and technical workers as been increasing (to 19.8 percent of total employment by 2000). Thus, retention of and performance support for these knowledge workers is necessary to guarantee corporate productivity and competitiveness.

If workers' health, satisfaction, and performance aren't sufficient to establish the need for more flexible areas — specified as complete spaces rather than cramped, individual footprints — consider these trends in office systems identified by the Office of Technology Assessment:

1. More work being done on computers and greater distributed data handling

2. Increasing networking among PCs, mainframes, and peripheral systems

3. Enhanced data capture at the point of origin, thus eliminating the need for repeated data entry and contributing to the need for rapid response to dynamic market conditions

4. Improved communication across diverse and distributed sites of data and devices

While these trends may not surprise you, they do paint a picture of continued change and flexibility within office workspaces. Facilities managers will need to do more with less space, increase productivity with decreasing numbers of workers, and support rapidly expanding technology and communications systems — perhaps even functional linkages among remote locations. But remember that maximizing a space means optimizing its output, and assessing that necessarily involves the people who use the space. Minimize what can be minimized, but not at the expense of workers. The modest proposals we have developed here to address and support rapid change constitute a hopeful step toward maintaining America's corporate competitiveness.

References

Aamodt, M.G. (1996). Applied Industrial/ Organizational Psychology. Pacific Grove, CA: Brooks/Cole.

Adams, P.C. (1995). A reconsideration of personal boundaries in space-time. Annals of the Association of American Geographers, 85, 267-285.

Apgar, M. (May-June, 1998). The alternative workplace: Changing where and how people work. Harvard Business Review, 121-136.

Barua, A., Chellappa, R., & Whinston, A.B. (1997). Social computing: Computer supported cooperative work and groupware. In G. Salvendy (Ed.), Handbook of Human Factors and Ergonomics, 2nd ed., pp. 1760-1782. New York: John Wiley & Sons.

Celentano, D.D. (1991). Health issues in office work. In G. M. Green & F. Baker (Eds.), Work, Health, and Productivity, pp. 127-141. New York: Oxford University Press.

Corn, J.K. (1991). Historical perspective on work, health, and productivity. In G.M. Green & F. Baker (Eds.), Work, Health and Productivity, pp. 19-29. New York: Oxford University Press.

Davis, S., & Meyer, C. (1998). Blur: The Speed of Change in the Connected Economy. Reading, MA: Addison-Wesley.

Evans, G.W., Johansson, G., & Carrere, S. (1994). Psychosocial factors and the physical environment: Inter-relations in the workplace. International Review of Industrial and Organizational Psychology, 9, 1-29.

Galbraith, J.R. (1997). The reconfigurable organization. In F. Hesselbein, M. Goldsmith, & R. Beckhard (Eds.), The Organization of the Future, pp. 87-97. San Francisco: Jossey-Bass.

Gauf, M. (1995). Ergonomics that Work: Case Studies of Companies Cutting Costs through Ergonomics. Haverford, PA: CTDNews.

Guzzo, R.A., & Dickson, M.W. (1996). Teams in organizations: Recent research on performance and effectiveness. Annual Review of Psychology, 47, 307-338.

Harrigan, J.E. (1997). Architecture and interior design. In G. Salvendy (Ed.), Handbook of Human Factors and Ergonomics, 2nd ed., pp. 964-986. New York: John Wiley & Sons.

Hendrick, H. (1997). Organizational design and macroergonomics. In G. Salvendy (Ed.), Handbook of Human Factors and Ergonomics, 2nd ed., pp. 594-636. New York: John Wiley & Sons.

Kelly, K. (1994). Out of Control: The New Biology of Machines, Social Systems, and the Economic World. New York: Addison Wesley Longman.

Latané, B., Liu, J.H., Nowak, A., Bonevento, M., & Zheng, L. (1995). Distance matters: Physical space and social impact. Personality and Social Psychology Bulletin, 21, 795-805.

Moos, R.H. (1996). Understanding environments: The key to improving social processes and program outcomes. American Journal of Community Psychology, 24, 193-201.

Pacanowsky, M. (1995). Team tools for wicked problems. Organizational Dynamics, 23, 36-51.

Price, S. (August, 1997). Facilities planning: A perspective for the Information Age. IIE Solutions, pp. 20-22.

Propst, R. (1968). The Office: A Facility Based on Change. Elmhurst, IL: The Business Press.

Rosenblatt, B. (1995). New Changes in the Office Work Environment: Toward Integrating Architecture, OD, and Information Systems Paradigms. Norwood, NJ: Ablex Publishing Corporation.

Ryburg, J. (1995). Strategic Planning: Best F.M. Practices. Ann Arbor, MI: Facility Performance Group.

Shalley, C. E. (1991). Effects of productivity goals, creativity goals, and personal discretion on individual creativity. Journal of Applied Psychology, 76, 179-185.

Stanney, K.M., Maxey, J.L., & Salvendy, G. (1997). Socially centered design. In G. Salvendy (Ed.), Handbook of Human Factors and Ergonomics, 2nd ed., pp. 637-656. New York: John Wiley & Sons.

Van Delinder, T. (May/June, 1997). Creating a progressive office environment. Facilities Management Journal, pp. 18-22.

Verespej, M.A. (January 5, 1998). Formal training: Secondary education? Industry Week, pp. 42-44.

Webb, C.J. (August, 1995). Sitting + Standing = Healthier employees. Facilities Design & Management, p. 29.