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From Arizona to South Carolina:
Transfer of a Prison Design Model

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The most profound change in the American criminal justice system during the past decade has been an explosion in the incarcerated population. Since 1981, that population has almost doubled. Over 700,000 people are in prison today. Conditions are comparable in local jails, where almost 400,000 are incarcerated. The combined rate of growth is approximately 1,200 beds per week, the equivalent of three new 400-bed prisons every week.[1]

This explosion has affected every element of American criminal justice, from the local city or county jail to the Federal prison system. The population explosion has reverberated beyond correctional institutions, causing problems for law enforcement personnel, the courts, parole and probation services, and community-based agencies.

Shared experience

Given the widespread nature of the crowding problem, it is critical that jurisdictions share their experiences in managing the crisis. Fortunately, this kind of cooperation is becoming increas-

From the Director

Federal and State prison population has risen 115 percent since 1980 to a current total of 700,000. Local jail populations now total nearly 400,000. These increases have outstripped available corrections capacity. And the probation and parole population has swelled to 2.7 million, creating unmanageable caseloads in many jurisdictions.

Today, prison and jail capacity is severely lacking in many States and localities. Federal, State, and local authorities are searching for practical, cost-oriented information on more efficient methods to increase corrections capacity.

The Construction Information Exchange of the National Institute of Justice responds to that need. The Exchange provides easy access to the latest concepts and techniques for planning, financing, and constructing new prisons and jails. State and local officials can tap into this valuable network and obtain the right information in a readily understandable form through the *Construction Information Exchange Data Base, the National Directory of Corrections Construction, and Construction Bulletins.*

The *Construction Information Exchange Data Base* is an up-to-date information resource on more than 260 jails and prisons built since 1978. The data base, which is regularly updated, offers detailed information on each facility, from construction costs and financing methods to staffing levels and operational costs.

The *National Directory of Corrections Construction* is a resource document providing the same wealth of information on facilities in hardbound form. The Directory includes floorplans for typical housing units for most facilities and lists the administrators, sheriffs, architects, and other professionals who have recently completed a prison or jail project.

Construction Bulletins are case studies of critical corrections issues and selected construction projects that demonstrate new building techniques and report time and costs savings.

This *Construction Bulletin* tells how South Carolina's State Department of Corrections planned and built an urgently needed new prison—ahead of schedule—by sharing the plans developed by the U.S. Bureau of Prisons for an institution in Phoenix, Arizona.

Building on concepts that had been a decade developing in the Federal prison system, the Phoenix Federal Correctional Institution, which opened in 1985, had become the current model for new Federal correctional facilities. When South Carolina officials attended a workshop showing the benefits of the Phoenix design, they halted work already in progress on a new prison in order to follow the new model. The transfer of a proven design enabled officials in South Carolina to save both time and money and avoid many of the problems inherent in "starting from scratch."

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ingly common. This *Bulletin* reports on a noteworthy example as it describes how the Federal Bureau of Prisons and the State of South Carolina shared plans for construction of new prisons.

As the crowding problem reached a crisis level, South Carolina officials turned to the National Institute of Corrections (NIC) and the Federal Bureau of Prisons (BOP) for assistance. The results of this effort should be of particular interest to jurisdictions now facing the need for more jail and prison space, and it illustrates how a new Federal program can help.

Like so many prison systems across the Nation, South Carolina urgently needed a new institution and could not afford the time and money required to "start from scratch." Officials knew that the conventional approach would take too long and cost too much. This dilemma was resolved when it was learned that the plans prepared for a Federal prison in Phoenix, Arizona, could be easily adapted for use in South Carolina.

NIJ's Construction Information Exchange was created to make possible more success stories like this one. The purpose of the new Federal program is to transfer positive experiences from one agency to another. Officials in South Carolina opened their new prison on a record schedule and budget because they transferred a design already completed for another agency, thereby eliminating several costly and time-consuming steps required by the conventional approach.

The Federal experience with prison construction

The Federal Bureau of Prisons has confronted a population explosion to over 44,000, an increase of 85 percent, over the last 7 years. The Federal penal system is currently operating at 59 percent over rated capacity, despite the 12 new institutions added since 1979. Two new institutions opened in 1988, with BOP acquiring additional facilities from private institutions and the military.

The Federal Bureau of Prisons—like all other jurisdictions—has had to manage this burgeoning population in a period of sharply limited budgets. As a result, it has turned to creative new ways to build institutions. Each new institution is based on lessons learned from other new institutions built during the past decade.

Although finishes, floor coverings, and furniture are more "institutional," the South Carolina floorplan is the same as that in Phoenix.

Since the expansion of existing institutions eventually overburdens their service capabilities, it is usually necessary to build new institutions at undeveloped sites. For these situations, the BOP has developed a standardized design model to the greatest possible extent. Like State and local officials who face critical crowding problems, the BOP recognizes that it costs too much and takes too long to "start from scratch" every time a new correctional institution is needed.

How design reflects philosophy: direct supervision

Noted architect Louis Sullivan said in 1986 that "form ever follows function." The Bureau of Prisons has long believed that design must strongly reflect the correctional philosophy of an institution. In prisons, the design must mirror how the institution is intended to operate. Through this approach, a convergence of philosophy and facility may be achieved.

For the past decade, the BOP has employed "direct supervision" or barrier-free architecture in the management of its incarcerated population. Direct supervision represents a management philosophy contrary to old traditions because the key to the new approach is human interaction. The basic human need to interact with others is a powerful stimulus, and the Bureau of Prisons relies upon this principle for positive social exchange.

In direct supervision, correctional officers are stationed *inside* the inmates' living areas, and interact with them routinely throughout the day. Living units for most prisoners lack bars, gates, and other security features that are typically associated with a traditional prison or jail. Instead, the atmosphere can be normal and humane.

This normal environment is a key result of direct supervision. Inmates are less likely to demonstrate hostile or negative behavior toward correctional personnel and other inmates. Furthermore, since the staff intermingles with inmates, it is much more likely to detect and resolve minor behavioral problems before they

become major crises. The physical location of staff together with inmates reinforces positive interaction and demonstrates that security staff members are correctional officers, not guards.

Institutional security does not suffer. Researchers have found that since inmates do not see a challenge in destroying standard furnishings, the frequency of vandalism plummets. The threat that vandalism or misbehavior will result in confinement to a more restrictive, controlled environment also helps to minimize damage. The security of the institution's perimeter is provided by fences with razor-type wire and electronic sensing devices. Reinforced concrete or masonry is used for exterior walls. (See NIJ *Construction Bulletin*, "Perimeter Security.")

This method has already been widely endorsed by such organizations as the American Correctional Association and the American Jail Association. Furthermore, initial surveys of jails that employ direct supervision indicate that these institutions experience significant improvements in staff morale and decreases in institutional tension, violent incidents, and sick leave. (See NIJ *Construction Bulletin*, "Cost Savings in New Generation Jails: The Direct Supervision Approach.")

Accountability is reinforced by the concept of unit management. In unit management, staff members such as counselors, administrators, or correctional officers are assigned to a specific group of inmates, usually those housed in a floor, wing, or unit. In many institutions using direct supervision, each living unit has a manager with a high degree of autonomy.

Thus, the typical design for an institution employing direct supervision would resemble a college campus, with living areas clustered around central core facilities and open spaces connecting them.

Evolution of the Phoenix FCI design

The Phoenix Federal Correctional Institution (FCI) represents the current design model for the Bureau of Prisons. This design is the result of a long evolution in Federal prison designs.

When the Chicago Metropolitan Correctional Center (MCI) was designed in the mid-1970's, the architects were challenged to develop an efficient design for a very small site without dominating the downtown neighborhood. They solved the problem with a triangular highrise building, providing a relatively large amount of perimeter space, within which a large number of rooms were built.

While allowing each inmate a view of the outside world, the triangular design offered excellent lines of sight from the entire central area as well as into all of the cells built around the triangle. A single officer could provide surveillance for an entire floor wherever he or she was in the common area—the middle of the triangle.

The design was so effective that it was adopted as the standard for most of the newly designed institutions within the Federal system. Prisons at Bastrop, Otisville, and Tucson used this innovation. When the triangular concept was used in a campus environment, a more efficient design connected two living units into one building so that they could share heating, ventilation, and air-conditioning, as well as other services—especially staff. Thus was invented the "bowtie" design, in which the two triangular living units are tied together around a central equipment and office area.

The "campus" design grew out of successful experience with Morgantown FCI for young offenders (1969), and was strengthened with the construction of the Pleasanton (California) and Miami FCI's in 1974 and 1975.

The Phoenix FCI was the climax of this evolution in institutional design and consolidated these developments. Opened in May 1985, it has a capacity of 528. The inmates are housed in four separate buildings, each consisting of two living units of 66 rooms each. A fifth building was designed to provide for pretrial detention, receiving and discharge, and as a detention/segregation unit.

The Phoenix design employs all of the advantages of the direct supervision philosophy, resulting in a state-of-the-art facility. Innovations include wooden furniture and doors (with tempered glass windows), ceramic lavatory fixtures, and carpeting. Around the perimeter, however, is a double fence with razor-type wire and sensing devices, as well as an armed mobile patrol vehicle.

The four service buildings provide space for administration, visiting, industries, and dining, recreation, and education. UNICOR (Federal Prison Industries) employs about half the inmates and reinforces another basic BOP philosophy: a positive work ethic.

Phoenix FCI is a medium security institution. The average age of the inmates is 36, and their average length of stay will be about 10 years.

Bureau staff, both locally and in the central office, are particularly pleased with the operation of Phoenix FCI. All the indicators that exemplify a well-run institution are present: low violence and misbehavior rates, high staff morale, and a relaxed atmosphere.

The Bureau has adopted the Phoenix design as the basis for all its campus facilities. The new prison at Marianna, Florida, incorporates these concepts, and represents a modified Phoenix design. For example, some of the housing units at Marianna FCI are modified for access by handicapped inmates in wheelchairs. The entrances to the living units have been widened and the center section of the housing building expanded for additional administrative office space. This illustrates one of the major advantages of a standardized design—it can be easily changed to accommodate special circumstances and requirements.

South Carolina: transferring design and philosophy

Like the Federal Bureau of Prisons, and like most other jurisdictions, South Carolina's Department of Corrections has been confronted with massive crowding. Its inmate population rose from 3,778 in 1974 to 11,765 in 1985. At that point, the system was almost 70 percent over its design capacity. As a result, litigation against the department forced a massive construction program.

Lawsuits and court orders concerning prison and jail crowding have become the norm for American correctional jurisdictions. In the last few years, 40 States and numerous local jurisdictions have been under court orders to relieve crowding. In South Carolina, the department entered a negotiated settlement in which they agreed to acquire an additional 4,500

beds by 1990. This required an ambitious construction program involving eight new institutions ranging in size from 288 to 696 beds.

The South Carolina Department of Corrections completed two State correctional institutions at Spartanburg and Greenville in the early 1980's. The State had already begun work on a proposed new prison using these two designs.

However, a new development in the State's correctional philosophy would change these plans. In 1985 State officials attended workshops conducted by the National Academy of Corrections that described the theory and practice behind direct supervision. The presentation was so convincing that officials promptly decided that it should be considered in South Carolina. After further review and careful study, the Department of Corrections accepted direct supervision as the guiding correctional philosophy of the State.

Selection of the Phoenix design

The acceptance of this new philosophy did create new problems. In particular, the planned design of the South Carolina housing unit was not well suited for direct supervision. It was box-shaped with two floors of cells around a central common area, and it lacked the office space required to fully implement the new concept.

The Department found itself in a dilemma. Plans for the institutions were already well advanced, the land had been purchased, and the acquisition processes for the construction of the prison were already moving at a site near Charleston, South Carolina. The prison was to be named after Francis Lieber (1800-1872), a noted South Carolina historian and a strong advocate of prison reform. A new housing unit had to be selected very quickly.

The Department sent out a team to choose the new unit. The team reviewed slides and plans of new correctional institutions across the Nation, selecting five Federal and State institutions to visit. The Phoenix design immediately attracted the team. The team studied the design of the Phoenix prison and toured the nearby Tucson facility, which has a similar housing unit. Both operations and design so impressed the team that they decided to pursue the concept.

Subsequently, four of the originally planned units were scrapped and replaced by the Phoenix model. One high security unit was retained for disciplinary housing to accommodate inmates not suited for a direct supervision environment. The Department was completely satisfied with its own design for a multipurpose building and decided to retain it also.

Changes to the Phoenix design

South Carolina obtained the plans to the Phoenix FCI by first contacting the Federal Bureau of Prisons. The Bureau referred them to the Phoenix architects, Lescher & Mahoney, who had worked on the project. The South Carolina architects, McNair, Johnson, and Associates, contracted with the Phoenix firm to do the site adaptation.

While the overall design was highly suitable to South Carolina, a number of changes were necessary before it could be used. For instance, the stucco-covered exterior window sunshades, so appropriate for the desert, were totally unsuitable for the hills and forests of South Carolina. There were also more important changes, such as adapting the building's foundation and heating, ventilation, and air-conditioning system.

The first change was to the exterior. The outside walls were designed to provide for more insulation than would be required in the Arizona desert. The walls were planned as a "sandwich" design using several layers of different materials. A concrete block wall was covered by rigid insulating panels in turn covered by brick. The resulting facade contrasted dramatically with the walls of the Phoenix prison. It is hard to believe that the stately brick buildings of Lieber are, behind the walls, the same design as the bold and distinctive units at Phoenix FCI.

A small programmatic change involved the location of the unit showers. In the Phoenix FCI, these were located at a "point" of the triangles. At Lieber, they are in the middle of the triangle's sides for better visibility.

The site-adapt process also included a check of the State structural codes to assure that the design conformed to requirements for Earthquake Zone 3. In addition, the foundation was changed to compensate for depth and soil conditions. The water heating system also had to be changed from solar to a traditional heat source. Other modifications included the use of some construction materials and techniques more common in South Carolina. For example, steel joists were substituted for the prestressed concrete roof supports used in Phoenix.

Despite these changes, the Department saved *10 months* of time that would usually be spent in the design and construction phases of the project. In fact, within 60 days of the first meeting between the Department of Corrections and the Phoenix architects, the construction documents were revised and issued to bidders.

The Lieber Correctional Institution became operational on June 10, 1986, 5 weeks *before* its planned activation date.

Preparation for direct supervision

The modification of the building was not the only change that the State had to adapt to the direct supervision philosophy. The correctional staff also had to be trained to use these new ideas.

South Carolina carefully planned this effort, too. The Warden at Lieber and his deputy of operations attended NIC workshops on direct supervision and unit management. Supervisory staff were handpicked a year before the opening and given intensive training in the new ideas. Over 90 percent of the staff had no previous training in corrections. They were selected and trained well in advance, then sent for brief tours of duty at several other State institutions. Since the entire Department was in the process of converting to direct supervision, the new staff did have some opportunity to see the philosophy practiced.

Further adaptations in South Carolina

The Lieber/Phoenix design is being used at four more institutions currently in operation or under construction. The McCormick facility was completed in the spring of 1987, and the Broad River facility went into operation later. Two more facilities at Allendale and Marlboro have been funded and are in the planning stages. The State's Central Correctional Institution (CCI) in Columbia will probably be a variation of the design, currently planned to be double the size of the Lieber capacity.

The new prisons will not be exact copies of the Lieber design. The Department has improved the design with a "computer-assisted design" (CAD) program, and it can be easily modified by new architects.

Changes are often necessary because of the environmental or site conditions within a State. Drainage, for instance, has to be considered for the specific site selected. Obviously, the desert in Phoenix requires a different approach from that used in South Carolina. Even within a State, coastal conditions may warrant a different mechanical or air-conditioning system from that of a mountainous site. These issues have been addressed in later designs such as McCormick.

Further changes were also made to the design to accommodate new space requirements. While adapting to the new model, the Department found that the office space had to be increased to accommodate the housing unit staff. (Each building has a deputy warden, and each unit has a social worker, classification/case worker, inmate relations coordinator, and an administrative specialist.) The latest designs have enlarged the central section of the housing unit to increase office space.

The severe crowding problem in the State has also necessitated the use of double-occupancy rooms. By pushing one wall out about 2 1/2 feet, the expanded floor space permits one-third of the rooms in each unit to house two inmates. Plumbing chases were expanded on the latest designs to improve access.

All five of South Carolina's Phoenix-design institutions have separate maximum-security administrative detention units. For this, the State used its original standard high security design. Two of the prisons have regional reception and evaluation centers attached. The Broad River prison near Columbia has an adjacent new State death row and execution facility.

Located near several other State correctional institutions, Broad River will also have a courthouse. State court personnel will come to this facility to hear pending cases involving inmates, thereby providing significant savings in inmate transportation costs.

Financing

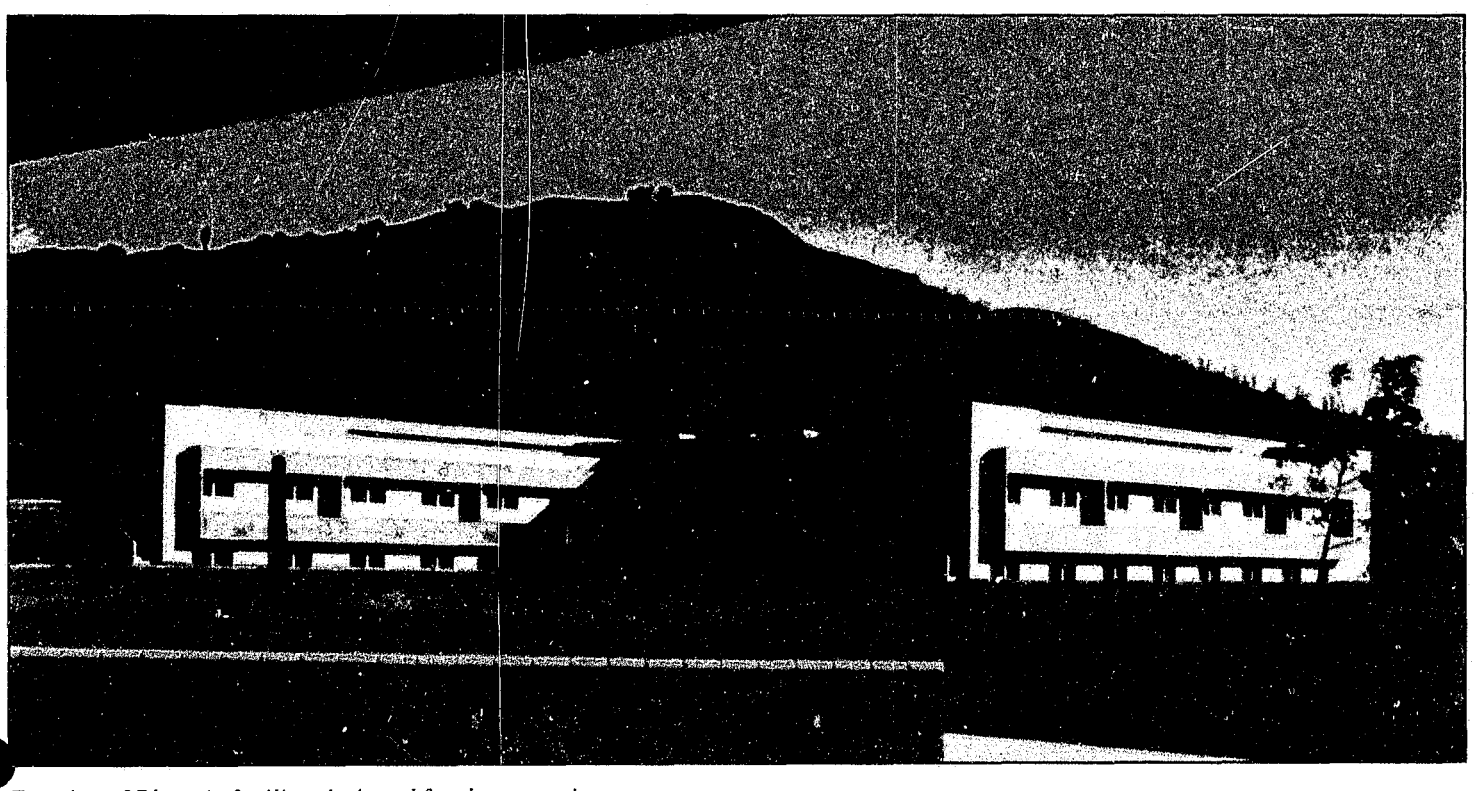
The State has financed its new institutions with general obligation bonds. However, the sixth prison, which will replace the Central Correctional Institution, will use a design-build-finance consortium that will lease the prison to the State. This was necessary because the correctional construction program caused a severe drain on the State's bonding capacity. (See the *Construction Bulletin* "Ohio's New Approach to Prison and Jail Financing" for more information on financing of correctional facilities.)

Results of the South Carolina experience

The initial operation of the Lieber Correctional Institution has been highly successful. The Department reports that violence and disciplinary problems are a small fraction of the rates at other State institutions. The atmosphere is very relaxed, but secure and professional as well. While there was initial concern that the ceramic lavatory fixtures would be vandalized by inmates, only one toilet needed replacement in the first 18 months of operation. The Department is highly satisfied with the operations here and at McCormick, and is looking forward to the completion of the other institutions in the coming years.

How to site-adapt a design: some guidelines

The experiences of the Bureau of Prisons and the State of South Carolina suggest



Exterior of Phoenix facility, designed for desert environment.

that sharing prison designs may be highly useful to jurisdictions requiring new construction.

How should a jurisdiction consider using an established design to select and construct a new institution? First, it should consider the advantages and disadvantages of using design models. Then, it should closely consider those aspects of the selection process critical in making the appropriate selection.

Disadvantages

Transfer of design is not supported by all experts in institutional design. The concerns fall into two principal categories, and they should be weighed carefully before the decision to adopt a design.

Institutional objectives. A design should not be transferred unless it satisfies the objectives of the correctional program at its new location. Almost every correctional institution is unique from some standpoint, and inmate populations may differ from each other. For example, differences in industrial, educational, or other programs mean that each institution has somewhat different problems of security, inmate movement, and other aspects of institutional life. Officials should carefully consider whether an established design from another jurisdiction will meet all the special circumstances of their own institution.

Costs of adaptation. A related concern is that, when a design is site-adapted, problems may arise that require more redesigning. Each of these may require further modifications, and the adaptation process may potentially become as complicated as starting anew with a fresh design. For example, exterior walls at Phoenix were significantly modified to improve their insulation and to blend the facility into the existing architecture. Additionally, all structural details had to be reviewed for the specific site conditions. Both of these actions require time and money to complete properly.

Advantages

On the other hand, the appropriate use of design models has several advantages that, for many jurisdictions, may be critical to their decision about the kind of institution to build. These include advantages in time, costs, operations, adaptability, and staff utilization.

Time. The most obvious savings is in terms of time. Based on a typical architectural schedule, design time for Lieber was about a sixth of that required for tailor-made institutions. Time is saved because engineering and construction problems have already been tested and worked out, thus there are fewer surprises or delays in construction. This dramatic difference is of critical importance to a jurisdiction under court order to relieve crowding.

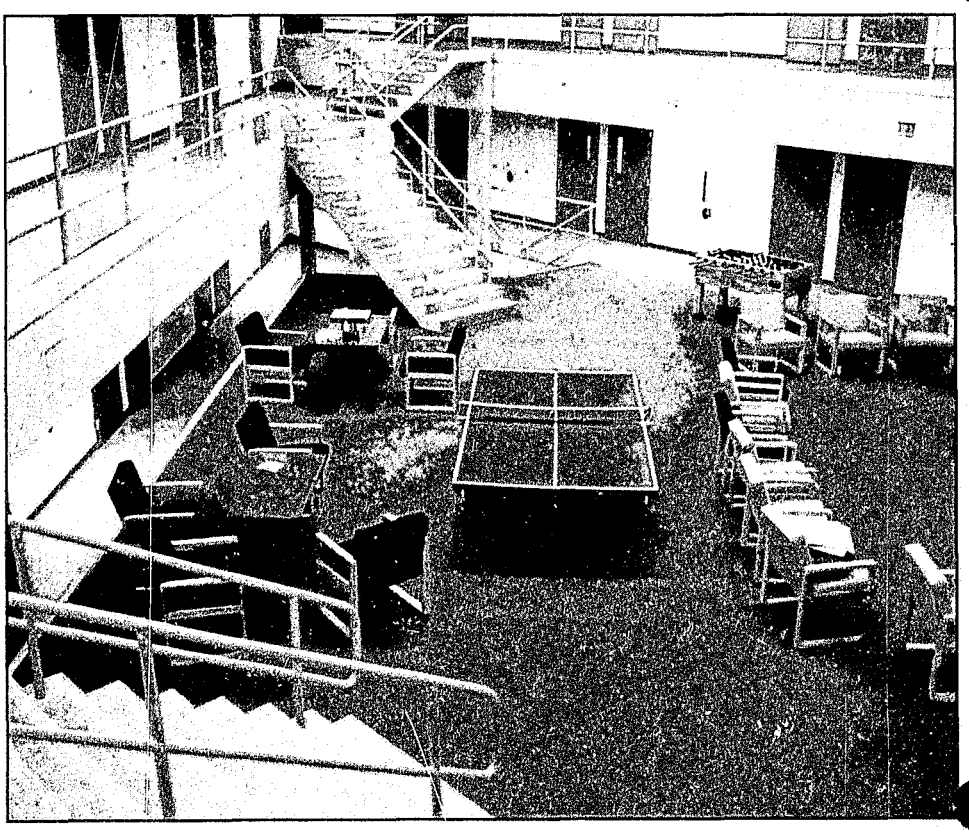
Costs. The "site-adapt" process also results in cost savings. If several institutions are to be built, more savings are possible. However, the savings in architectural fees should not be exaggerated. Each institution must be adapted to its site, and no design can simply be "lifted" from one location to another.

South Carolina has also realized savings in construction costs. Even though each of the five Phoenix/Lieber institutions is being built as a separate project, one contractor was awarded contracts to build two facilities. The bid on the second was about 5 percent less than it cost to build the first one. Consequently, reducing the risks and surprises for the contractor as well as the owner can mean more consistent bids and expenses.

Moreover, replicating the same building unit (four or five at Phoenix-design institutions) certainly holds down design costs.

Additional savings may also be realized by the fact that identical items such as doors, window frames, and other security hardware can be mass-produced. Standard building materials such as roofing can be identical for all the facilities, and purchasing these items in mass would decrease their cost. Of course, designs incorporating direct supervision realize further savings through the use of standard institutional materials and lower vandalism.

Operations. With the site-adapt process, the likelihood of problems is reduced dramatically, because the surprises are usually discovered and resolved before they are replicated. Even carefully planned institutions may have blind spots and other design flaws. Many of these may require unplanned and additional coverage by correctional officers, and each additional officer will add immensely to life cycle costs.



Phoenix interiors are "more humane," unlike traditional prison.

With the site-adapt process, these problems are nonexistent, because the surprises are all worked out or well known. The owners can go to an already existing institution and know with a high degree of certainty that their own institution will look and operate very similarly. They can see for themselves how the design will work, and know the staffing level that it requires. Thus, the use of the same design removes most of the risk present in a "start from scratch" approach.

Personnel training and assignment. Transfer of a design also has the advantage of providing a standard environment for correctional personnel and reinforcing a guiding philosophy for the system. In South Carolina, staff training for the new institutions has been eased because they can witness, in the operations at Lieber and McCormick, an atmosphere that will be very similar to the new institutions. For example, emergency response teams trained at one of the institutions can be assured that they can respond at any of them. Operating procedures at all of the institutions can also be very similar, and the staff at any one prison can share useful experiences and innovations with any other.

Considerations before deciding on a design model

Once the decision to employ an existing design is made, further care must be taken in selecting the specific design. Even in the light of the numerous advantages, the wrong design can have a negative and long-lasting impact on the institution and the entire corrections department.

Remember that design must reflect philosophy. The Phoenix design has been highly successful in the Bureau and in South Carolina. However, both have made a commitment to direct supervision and unit management. To be successful in this endeavor, the management of the correctional system must demonstrate a commitment in principle and in practical activities. Staff, facilities, and other resources need to complement each other.

Before selecting a design, the correctional department must be completely comfortable with the type of correctional philosophy it reflects. It must also be committed to that philosophy for the entire life of the institution.

Be prepared to make changes. By site-adapting a design, one can "save" many person-hours already expended for programming and decisionmaking. It allows an administrator to have a baseline to work from and improve upon. However, a previous design model cannot be employed without modifications that take into account the specific environment of the institution. These include:

- Exterior surface, appearance.
- Local construction materials.
- Local construction methods.
- Heating, ventilation, and air-condition ing systems.
- Soil conditions.
- Earthquake zone.
- Climate and drainage.
- Local codes.
- Specific population and classification requirements.
- Specific support programs and services.

In South Carolina's case, the original architect of the Phoenix FCI was called upon to site-adapt the institution. Even though most architectural firms would be willing to site-adapt plans from other designers, the use of the original architect was prudent, as the original designer already knew the details and program.

Obtain rights to the design. Both the Bureau and the State of South Carolina have full rights to the plans and construction documents. They can use them to construct additional versions of the design in the future or modify them as needed, as with any other professional service.

One must insure that any rights or royalties attached to the plans, specifications, and other documents prepared by the architect are understood and strictly observed.

Use Federal Government resources. The Department of Justice can assist States and local jurisdictions in their efforts to select design models. The Bureau of Prisons can provide some limited technical assistance or can assist with a revision of plans used for Phoenix or other Federal institutions. The National Institute of Corrections offers a variety of courses and other technical assistance on facility planning and design, including direct supervision and unit management.

The National Institute of Justice Construction Information Exchange can provide a variety of documents and other assistance in design selection, financing, and other issues critical to the construction process. Through the Exchange, officials will be put in contact with colleagues who have experience with particular designs.

For example, the *National Directory of Corrections Construction* is NIJ's catalog of prison and jail designs. It may be used as a reference guide to hundreds of design options, and explains the costs to site-adapt each facility to the reader's jurisdiction.

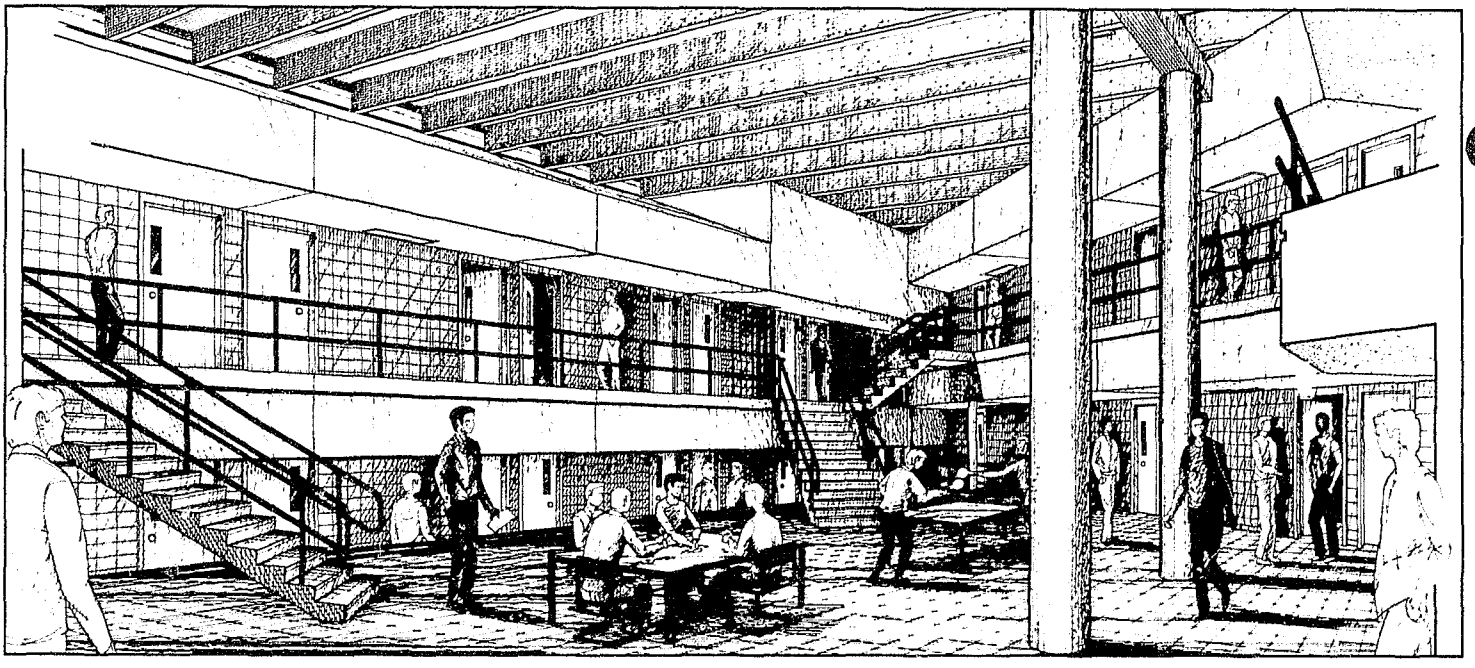
Conclusion

The crowding crisis will be with the correctional community for years to come. Using established designs is one of many techniques that can help to ease that crisis. South Carolina officials are to be commended for having the courage and foresight to be one of the first States to employ this exciting innovation in corrections.

Officials who have successfully completed this process will applaud the time and money saved over the conventional methods. The success of the South Carolina experience is a compelling argument for this approach. However, readers should exercise caution when considering the transfer of a design from one site to another. As shown in this *Bulletin*, it is not a simple task. Adapting an established design to a new location may be complex and mistakes may be costly. For those who are prepared to build on the experience of their colleagues, the rewards can be substantial.

Note

1. Source: Bureau of Justice Statistics, *Prisoners in 1989*. Total prison populations in 1989, 710,054. Estimated jail population was 395,553 (from *Jail Inmates, 1989)*. Combined total 1,105,607.



Interior of the Federal Correctional Institution in Phoenix.

Where to turn for more help...

The *Construction Information Exchange* has more information on this and other projects. The *Construction Information Exchange* is a Federal initiative that provides information on construction methods and costs for jails and prisons built since 1978. Through the Exchange, those planning to build or expand facilities are put in touch with officials in other jurisdictions who have successfully used efficient building techniques.

Publications include these *Bulletins* and the *National Directory of Corrections Construction*, covering building methods and costs for more than 200 prisons and jails. For more information, or to submit information for inclusion in the Exchange, contact:

Construction Information
Exchange/NCJRS
Box 6000
Rockville, MD 20850
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or 301–251–5500

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