

SPACE MANAGEMENT METHODOLOGY

COURTHOUSE REORGANIZATION & RENOVATION PROGRAM



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PROGRAM BACKGROUND

The Courthouse Reorganization and Renovation Program, sponsored by the Appellate Divisions, First and Second Judicial Departments, State of New York, was conceived early in 1970 to develop alternative solutions for critical space and manpower requirements through the year 2000 for structures within and related to the urban court complex of New York City's Foley Square. The Program, serving beyond Foley Square as a demonstration project with nationwide implications, has resulted in imaginative, low-cost, space use concepts designed to improve the efficiency of court administration. It is hoped, that continuing facility improvements based on these concepts will bring the administration of justice closer to its ideal.

The Program was funded to the end of March, 1972, by the U.S. Department of Justice through the Law Enforcement Assistance Administration (LEAA). Additional project support has been provided by the Rockefeller Brothers Fund and by the Municipal Services Administration of the City of New York. The Appellate Divisions and the various courts under their jurisdiction provided necessary grantee contributions. The Port of New York Authority has contributed substantially to manpower planning studies. A supplementary LEAA grant made to the project in April, 1971, has funded a courthouse security study. Under terms of the original grant, the program staff is preparing a handbook on courthouse planning, reorganization and renovation for national distribution to administrators, architects and planners at the conclusion of the project. The handbook, containing information gathered from more than thirty states, will report findings of both the space management and security studies.

Dr. Michael Wong, Director of the Courthouse Reorganization and Renovation Program, is known widely for his contributions to courthouse and law-enforcement facilities planning, design and renovation.

Dr. Wong was Associate Director of the Court Facilities Study at the University of Michigan, 1968-1970. Undertaken to establish minimum standards for court facilities, this study was sponsored by the American Bar Association and the American Institute of Architects.

A registered architect from Australia, Dr. Wong holds a Ph.D. in Architectural Science and degrees in Architecture and Urban Planning.

This series of monographs has been prepared primarily for court administrators involved in facility design and renovation projects. It is felt, however, that architects, engineers and others expecting to embark on such an undertaking will benefit from much of the information contained in the series. Included in the monograph are the following topics:

- Space Management Concepts and Applications
- Space Management Methodology
- Space Standards and Guidelines
- Manpower Projection and Planning
- A Systems Approach to Courthouse Security
- Space Management and Courthouse Security
- A Comprehensive Information Communication System
- Program Administration and Cost Planning

General editor for the series is Peter Inserra of the program staff.

Comment and criticism on the content and format of the monographs is welcome and will assist the program staff in data updating before preparing the final draft of the handbook. Letters should be directed to Dr. Michael Wong, Director, Courthouse Reorganization and Renovation Program, Suite 922, 111 Centre Street, New York, New York 10013.

AMERICAN INSTITUTIONS, as never before, are reeling under sharp challenge that their bureaucratic labyrinths cannot be made to respond in time to solve the problems they may have helped create and which now threaten the quality of life in this country. Corporations, churches, banks, public utilities, governments -- new institutions join the list every day, all once partisan in some degree for the status quo.

Join, demands an increasingly vocal public in correcting abuses to the environment, in building decent homes for the poor, in breaking down barriers to education for the disadvantaged -- in finally providing equal justice for all. The alternative to response, at least in the minds of some, is clear: risk rebuke, boycott or retaliation more stern.

Many institutions are opting for change. Some organized religions are dropping archaic ritual for more meaningful exchange; big corporations and public utilities in greater numbers are cleaning up skies and waters they pollute; banks more than ever before are investing in ghetto housing and minority-operated businesses; colleges and universities are structuring more equitable admissions standards -- and reforms are being introduced into correctional and judicial systems.

But in casting about for method, then fastening upon one, institutions long complacent often rush into modernization programs making up in enthusiasm what they lack in approach and research methodology. Too frequently, approaches to problems are piecemeal and methodology is noticeably deficient in concepts that are comprehensive, integrated and flexible.

Judicial and law-enforcement administrators, turning with greater frequency to modernization programs, live with the unsettling knowledge that their particular system has in the past been a prime casualty of the narrow approach and weak methodology.

They know of courthouses where security breaches have produced reaction -- and more than reaction, the expenditure of millions of dollars for hastily implemented devices and procedures, the effectiveness of which is questionable at best.

They know of new facilities with needlessly duplicated departmental functions, the result of inadequate manpower analysis and space planning.

And they know of many other greivous mistakes that, like these, are difficult to rectify once made, and do little more than deposit on an already burdensome bureaucracy still another layer of inefficiency, further compounding a problem for which relief is sought.

To guard against inadvertently introducing such travesties, it is essential for an administrator to improve his understanding of appropriate approaches and methodologies established by a consultant engaged to carry out the vital space management phase of a project.*

THE 'RIGHT' METHODOLOGY

There is, unfortunately, no one standard methodology that can be applied to the range of problems which today confronts courthouse

* For a discussion on the necessity of space management planning, how to select the qualified consultant and services he should provide, see companion monograph in this series, "Space Management Concepts and Applications."

and law-enforcement administrators. These problems, while they may appear to be similar in many jurisdictions, are revealed, on closer analysis, to have ramifications peculiar to each locale. What is appropriate as a solution to space allocation in a midwestern farm-region courthouse may not be at all applicable to a court facility in a dense urban setting on the East or West Coast.

There are, however, certain concepts that the experienced space management planner can bring to any courthouse or law-enforcement facility project. Beginning with a general systematic approach formulated from training and experience, he will shape a local solution that is comprehensive, integrated and flexible. Understanding a consultant's approach and methodology requires at least a working knowledge of the space management concept in project planning. This monograph attempts to provide that understanding.

DEFINE PROGRAM GOALS

A competent consultant will conduct a space management study by focusing on several major goals tailored to the specific requirements of the project. The consultant's proposal should advocate:

1. FLEXIBLE SOLUTIONS

All relevant methods of providing adequate space for present and future needs should be analyzed as to viability and cost, incorporating minimum disruption to judicial and law-enforcement operations. The consultant will be meeting an important part of his obligation to facility users if he recommends a scheme that phases in renovation and construction with minimal disruption to the system.*

* For a discussion of how well phased renovation can work, see companion monograph, "Space Management Concepts and Applications" (Appendix).

2. COMPREHENSIVE, INTEGRATED AND SYSTEMATIC APPROACH

Centralized data collection, analysis and planning based on space management techniques should result in design standards and guidelines for the project. When related to design standards established for other judicial and law-enforcement facilities,* those from the current project probably should be incorporated in a system of comprehensive design standards and guidelines of such facilities -- an ultimate goal in this field.**

3. INNOVATIVE CONCEPTS AND PROGRAMS

While innovations have appeared to a limited degree in recent projects in this area, most have become imprisoned within restrictive frameworks. Innovative concepts and programs, to carry any currency, must be capable of ready incorporation with modern management planning techniques. Such an approach can break through traditional barriers to more functional systems without diluting the basic ideals and objectives of judicial or law-enforcement systems.

4. LOCATIONAL LINKAGES

The interrelatedness among courthouses, court-related and law-enforcement facilities related to the project should undergo detailed appraisal. Among the facilities that could be so studied are correction, juvenile, detoxification and medical and drug treatment centers.

* Courthouse design standards and guidelines are provided in a companion monograph, "Space Standards and Guidelines." See also, reports of the "Judicial Facilities Study," Ann Arbor, Michigan (1968-70).

** Project studies coordinated by state planning agencies should integrate facility requirements within a comprehensive plan, as well as investigate and coordinate essential locational and operational linkages.

5. PERSONNEL NEEDS

A consultant should realistically assess and evaluate manpower needs, then integrate the findings with management and facility requirements.

6. NEW SPACE AND OPERATIONAL STANDARDS

Devised within a comprehensive and integrated planning concept, these standards should be applicable to other projects.

7. CREATIVE ARCHITECTURAL AND URBAN PLANNING CONCEPTS

Such concepts must advance further than simply the planning of physical facilities to satisfy functional needs. What is required is a careful evaluation of all variables affecting facilities planning -- among them, security procedures, information communication and retrieval systems, and microfilming of old records.

8. SECURITY PROCEDURES

Where facility security is lax or inadequate, improvements should be recommended; where a security plan seems to be effective but has not really been tested, efforts should be made to conduct such tests under certain constraints. Where none exists, analysis and recommendations should be made in regard to the most advanced technology in security -- what is available now and what soon will become available.

APPROACH AND METHODOLOGY

To accomplish the forestated goals, the approach taken for a project should be comprehensive in scope and integrated in operation. The consultant's proposal should include in some form the following systematic sequence of research, programming, planning (and ensuing

synthesis) to enable formulation of essential standards and guidelines for the facility design of greatest flexibility. (See Fig. 1, following, "Space Management Research, Programming and Planning Process.")

DEFINE FACILITY OBJECTIVES

One of the first and most important steps in the space management planning process is to define clearly program goals and objectives. Goals and objectives give direction to innovative concepts used in arriving at final recommendations, the ultimate contribution of a study, act as constraints on program scope and represent standards and guidelines against which research findings and conclusions can be measured.

In any space management planning study, two sets of goals and objectives are operative -- those of the program (for example, optimizing space use in existing buildings) and those of the judicial system (for example, improving existing space use to improve the quality of judicial administration). In many cases, program objectives and goals coincide with or relate to those of the judicial system, and program goals usually serve the broader goals of the judicial system.

Carefully delineated goals and objectives are perhaps the single-most important function bearing on recommendations for existing or planned new facilities. A competent consultant will tailor a proposal and study along the following lines to reflect local project requirements.

DEFINE GOALS & OBJECTIVES

FORMULATE, TEST & EVALUATE APPROACHES

COMPILE & ORGANIZE DATA

ANALYZE EXISTING SYSTEM & FACILITIES

DEVELOP PROPOSED SYSTEM & FACILITIES

DEVELOP ALTERNATIVE BLOCK-USE PLANS

DESIGN CHECK LISTS & GUIDELINES

ESTABLISH DESIGN STANDARDS

legal
operational
manpower
space planning
security

questionnaires
interviews
measurements
observations
evaluations

systems
operations
people
documents
equipment
time
space

functions & facilities
overview
organizational structure
existing space use plans
sequence of operations
matrices
functional relationships
spatial relationships
evaluations
modifications

problems
evaluations
sequence of operations
matrices
functional relationships
spatial relationships
department's
buildings

departments
buildings
complexes

physical
philosophical
symbolic
design factors

activities
people
furniture
equipment
environment
accessibility
security
space

DEVELOP MANPOWER PROJECTIONS

DETERMINE SPACE REQUIREMENTS

DEVELOP SPACE USE DIAGRAMS & PLANS

DEVELOP ENGINEERING SOLUTIONS

EVALUATE FEASIBILITY

PREPARE COST ESTIMATES

PRESENT RECOMMENDATIONS & CONCLUSIONS

RECOMMEND IMPLEMENTATION PROCESS

departments
buildings
complexes
assumptions
caseloads
personnel
projections

departments
buildings
complexes

departments
buildings
complexes

structural
h.v.a.c.
electrical
plumbing
transportation
fire
security
others

structural
cost
building code
systems
implementation
approval

budget scheduling
unit costs
cost indices
wages
overheads
fees
others

reports
scaled models
graphics
photographs
slides
charts

phasing
scheduling
cost comparisons
reorganization
renovation
construction

FIGURE 1
SPACE MANAGEMENT RESEARCH PROGRAMMING AND PLANNING PROCESS

FORMULATE, TEST AND EVALUATE APPROACHES AND TECHNIQUES

BACKGROUND RESEARCH

For a consultant to fully understand the judicial system which is the focus of a study, a period of general background research usually is necessary prior to formulating research and planning approaches. The consultant's awareness of existing research techniques, facility space standards and reports on previous studies may avoid work duplication and unnecessary expenditures of time and money. Unfortunately, however, substantive information and data on judicial facilities is sparse. Background research, therefore, of necessity involves developing original information, much of it coming from preliminary discussions with administrators, department heads and others holding positions of responsibility in the courts to be studied.

It is most essential that each department head delegate a liaison officer to collaborate with program staff. To facilitate the development of such a working relationship, the presiding justice or administrative director of the court responsible for the program should inform unit, department and agency heads as to the existence of the program and its goals, and ask that each cooperate by appointing a key person as the liaison officer. The officer should be knowledgeable in his unit's organizational structure, operational deficiencies, personnel assignment and space allocation, as well as his unit's relationships -- organizational, operational, philosophical, and spatial -- to other components within the judicial system.

If no one other than the department head has a familiarity on this level, and when it is not feasible to appoint more than one liaison officer, then the department head may want to serve in this capacity. It would be useful, however, to assign a second liaison officer, should the first be unavailable.

Preliminary discussion with the liaison officer, and possibly other staff he selects from his unit, should provide the program team with ample background on unit historical development, administrative organization, operational sequence and major problems to be accounted for in approaches and research techniques.

DEVISE APPROACHES AND TECHNIQUES

A survey of all available research and planning approaches and techniques based on program goals and objectives should be undertaken to evaluate applicability to the local project. Where necessary, new or modified approaches can be devised. Techniques should be evaluated for their separate and interrelated worth. Techniques might include personnel interviews with unit staff (possibly with a questionnaire), measurement of operational parameters, such as work output and environmental conditions, observations of operational procedure and spatial characteristics and investigation of building and engineering systems.

TEST AND EVALUATE RESEARCH TECHNIQUES

Prior to beginning full-scale data compilation, it is essential to test research techniques in a pilot study of one department or unit of the facility. If a questionnaire is to be used, staff should participate in its formulation to obtain a full understanding of data required. Several interviews of a cross-section of personnel then should be conducted to assess the relevance of responses. If questions seem to convey ambiguities, wording should be made more precise. Some questions may become redundant when separate sections of the questionnaire yield similar information. The arrangement of questions according to related subject may have to be revised to minimize distraction of going from topic to topic during an interview. The most important reason for conducting a pilot study always should be to determine whether information collected by questionnaire will enhance the approach to project problem-solving.

Role-playing during the formulation of the pilot study is useful to pre-test the questionnaire. Program staff in turn can assume the roles of interviewer and interviewee. The technique should enable staff members to improve their capabilities, while at the same time being able to detect and rectify repetitions, inappropriate questions and other deficiencies of the draft questionnaire. More standardized data should result along with a time approximation for each interview.

A pilot study also should be conducted to test the tools which will be used to measure factors such as environmental conditions and personnel work output. Work sheets or questionnaires used to record observations or court proceedings should be tested under actual conditions, as part of the pilot study.

After completing a pilot study and verifying its success, data compiled must be subjected to a preliminary analysis, after which the questionnaire and other data-gathering instruments can be modified, as required.

This phase of the work illustrates the fact that, because the field of judicial and law-enforcement facility planning, design and administration is such a relatively new discipline, a staff typically has to undergo a substantial period of orientation and training.

COMPILE AND ORGANIZE DATA

COMPILE DATA

Full-scale data compilation work begins by the program director assigning staff members to teams, each team being responsible for several departments or an entire court. At the first meeting between team and liaison officer it is vital to establish basic guidelines for operation and communication. Some liaison officers prefer to have all team requests channeled to them, including those for departmental interviews; others prefer researchers to make their own appointments.

In either case, a basic ground rule is that the program team work as speedily and unobtrusively as possible during interviews.

Interviews can be arranged at a meeting organized by the liaison officers and attended by all departments or unit heads and program team members. Such a meeting "to break the ice" also can be used to further elucidate the nature, scope and purpose of the study, thereby saving valuable time during the actual data compilation phase.

Deciding who to interview, a consideration based largely on the diversity of departmental activities, should include at least the department head and a good cross-section of departmental personnel. All information pertaining to overall departmental operations -- caseload, for example -- should be obtained from the head or his appointed liaison. Others in the department will be able to describe factors such as staff responsibilities and work capacity, as well as space adequacy for functions performed.

Questionnaires to be used should be submitted prior to an interview, particularly if it extends over several pages. (A time for the interview, if not yet finalized, should be set.) Prior knowledge of the questions to be asked will better prepare an interviewee and may even influence him to gather supporting materials for the interviewer's use. This procedure should minimize interview length which, in any case, should be no more than an hour. Every effort should be made to collect all needed data at only one interview, although subsequent shorter meetings may be necessary to verify information, findings and recommendations.

When the nature of the work requires that two different teams interview the same person -- for instance, when both manpower planners and space planners require information from an administrative judge -- they should arrange to conduct a joint session. To retain the standard interview time of an hour or less, only key questions should be asked. In the foregoing example, the judge's law assistant probably would be capable of answering many questions that might otherwise be asked of the judge.

Having non-key staff members conduct interviews is a temptation to be avoided. On the contrary, it is essential that the interviewer be the same person doing a preliminary analysis of data gathered during the interview. Only in this way can nuances of the discussion be successfully interpreted.

It should be remembered, too, that a qualified liaison officer, consulted prior to the start of interviews, should be able to answer many questions that might take up precious interview time.

Finally, in advance of observing courtroom operations and movements as part of data-gathering, permission should first be sought from the judge presiding in the courtroom -- especially if equipment to measure light, sound or other environmental condition is to be used. Failure to do so could result in an embarrassing confrontation between judge and researcher. The same consideration would apply when a team member visits a courtroom or hearing room in session to sketch furniture, equipment and movement of persons and documents involved in the proceedings. Experience has shown that judges, who for the most part are supportive of facility improvement studies, are accessible to decipher unusual trial or hearing procedures which may bear on the study.

ORGANIZE DATA

Information and data extrapolated from a questionnaire should be arranged as close as possible to its final format to simplify initial analysis. The use of charts, matrices, tables and graphs is helpful at this stage. If, for instance, an overview is sought of the court system, then data on major court functions, persons participating in those functions, and spaces in which the functions are performed all can be shown on the chart. Lacking information should be apparent at a glance of these data display products. The matrix has been used, among other applications, to show relative significance between persons and functions. Factors such as area and cost analyses can be

understood more easily in tables, while factors such as increase and decrease in caseload and population can be simplified in graph form.

ANALYZE EXISTING SYSTEM AND FACILITIES

EVALUATE OPERATIONS AND FACILITIES

To gain a thorough understanding of existing operations and facilities, data should be collected from each department involved in the project. By means of personal interviews, by direct observation and by accurate measurement and assessment, specific information of the department as described later can be obtained.

Data compiled during the interview phase should encompass existing operations and future projections by the court on caseload, manpower and spatial requirements. Problems that perhaps were not defined fully at the beginning of the study should be more clearly delineated and pinpointed at this juncture. But instead of analyzing problems individually in isolation, they should be related to overall deficiencies of the system of justice. This more comprehensive approach would seek to improve the total system, not merely its components.

Existing operations and facilities can be evaluated as to their effectiveness in meeting goals of the judicial system. Part of this effort is an analysis of the adequacy and performance level of spaces within existing buildings, based on established space standards.* To help assure that the evaluation technique finally selected is unbiased, a number of approaches should be considered by staff as well as by court personnel and others associated with the courts who have experience in this area. Evaluations should be continuous throughout each stage of a facility research and planning program to maintain within acceptable limits the scope and accuracy of the program.

* See companion monograph, "Space Standards and Guidelines."

OBTAIN SYSTEM OVERVIEW

A still deeper understanding of system or facility operations can be gained by preparing an overview chart to show major functions and sub-functions of particular systems. The same chart or a companion chart should list the persons who perform included functions -- major functions may encompass several departments -- as well as documents and equipment involved, facilities in which the functions are performed and the time taken to perform each function (Table 1). While it is more expedient to study an existing system in terms of functions, it is useful to relate court departments or units to overlapping functions to prepare for subsequent departmental analysis and manpower projection studies.

A facility research, programming and planning analysis should be conducted in the most appropriate sequence, according to local requirements and parameters. Experience has shown that, in a program for a large metropolitan court complex, an overview study should be made of each court occupying a multi-story building or part of a building. The overview would determine relationships between major functions as well as between major or combined spaces. Each major function subsequently would be analyzed in greater detail, relating its sub-functions to functions and spaces within a major department. In the case of the major function, "jury assembly," the major space in which it is accommodated is a "jury assembly space." In an overview analysis, "jury assembly" is related to other major functions, such as "trial," "hearing," and "clerical" functions, and "jury assembly space" is related to "courtrooms" and "clerk's office." Subsequent analysis of functions or departments would categorize "jury assembly" into several sub-functions, including "general assembly," "reading," "work," "recreation," "eating," "jury impaneling" and "jury control"; similarly, "jury assembly space" would be separated into sub-spaces. Functional and spatial relationships then can be established at sub-functional or departmental level, as explained later.

ANALYZE ORGANIZATIONAL STRUCTURE

Each department should make available a chart indicating the hierarchy of organizational structure, lines of responsibility and number of persons employed. A revised organizational chart, possibly prepared by a management consultant should be made available for use in developing specific standards. Proposed managerial changes must be studied before any specific space standards can be formulated. The Courthouse Reorganization and Renovation Program staff has developed an organizational chart according to major functions, such as administrative, clerical, judicial and external (Fig. 2). This follows the function-oriented concept of research methodology and provides useful information relating to functional and spatial relationships.

PREPARE SPACE USE PLANS AND SECTIONS

It is essential to obtain a set of existing space use plans (drawn to a specified scale), if existing system operations and relationships between existing spaces and equipment is to be fully understood. To avoid duplication of effort, inquiry should be made at the public works department or archives as to the availability of existing architectural and engineering plans and specifications. When such documents are available, copies can be made and the plans reduced to the required scale. A standard scale (for example 1/32, 1/16, or 1/8 in. to 1 ft.) is important for purposes of presentation and comparison, especially when each building in a complex is to be individually analyzed (Fig. 3).

Sectional drawings of buildings also should be prepared with existing space allocation clearly shown. Traditional architectural sections are inadequate for an overview study of a building; several sections taken at different parts of a building are needed to show all components. The Courthouse Reorganization and Renovation Program has developed a section that shows an entire building in one drawing (Fig. 4). By this means, relationships between all spaces can be

studied at the same time. This sectional drawing is especially suited to the study of existing circulation and movement patterns of court staff, personnel and public. Unnecessarily long vertical movements, requiring frequent use of elevators can be shown by a transparent overlay showing various movement patterns. What results is a basis for improving spatial relationships.

These plans and drawings, together with existing operational flow charts, in addition to revealing problems of existing space use and operation, will yield guidelines on possible future use for existing structures.

ANALYZE OPERATIONS SEQUENCE

The sequence of existing operations can be reorganized and presented in flow charts, indicating time by distance and by notes. The sequence of operations can be sub-divided into major functions and sub-functions, or it can be presented as an overlay on a diagrammatic vertical section of an existing building as described above, to show the actual movement patterns as a factor in the sequence of operation (Fig. 5). By incorporating traveling, waiting and processing time and related data with the sequence of operations, the type and length of delays in the existing system can be pinpointed. Existing operations then can be measured against objectives, relating legal considerations, efficiency and the like. Depending on the way information is presented, the sequence of operations can be useful in determining existing functional and spatial relationships (Fig. 6).

DEVELOP PROPOSED SYSTEM AND FACILITIES

EVALUATE OPERATION AND FACILITIES

The above steps in the analysis process relate to the study and evaluation of an existing system and facilities. This step represents the first toward planning of new or reorganized facilities.

To derive proposed operations, existing operations are measured against the objectives of the proposed system. For example, long delays in certain functions will impede meeting the objective of a speedy trial. Another example: Binding and gagging or removing a defendant from the courtroom almost certainly will be considered as infringing on an individual's rights, unless other procedures are introduced.

By pinpointing causes of delays and other problems in space use, and by relating these factors to improved concepts developed by a management consultant, proposed operations can be defined. Such operations should significantly improve the effectiveness of manpower, document flow and equipment use, as well as the use of spaces within which the operations are performed. Additionally, time required for each operation should be reduced. From such changes, innovative solutions to space problems can be derived.

DEFINE PROBLEMS

Problems are defined in detail at this stage, between evaluation of existing operations and establishment of proposed operations and facility requirements. Problems can be classified into several categories, among them: types of crimes committed and cases initiated; frequency of occurrence; spatial and environmental problems; victims and offenders; and locational linkages. The following examples are

taken from a 35-state court survey conducted during the Courthouse Reorganization and Renovation Program:

A. Legislative: A bill being deliberated in a legislature may permit six-man juries in place of 12-man juries. Passage of the bill would affect required space for jury assembly, jury impaneling, jury box and jury deliberation within the facility.

B. Operation: Arraignment facilities are located haphazardly over several floors. Police officers, defendants, attorneys, correction officers and other court personnel have to travel vertically and laterally, involving several floors, before defendants are arraigned. Resulting time delays and operational inefficiencies can be clearly demonstrated (Figs. 7 and 8).

C. Personnel: Vague job classification descriptions in court-related departments frequently result in markedly ineffective use of manpower. Clerks, for instance, frequently are involved in overlapping operations.

D. Space: Spaces in law-enforcement facilities too often are planned without 1) adequate analysis of functional relationships and their priority, and 2) the separation of public, staff and prisoner circulation.*

E. Environmental: Poor lighting, noise and uncomfortable heating are common facility environmental problems. Lighting, air-conditioning and ventilation systems should be carefully integrated with the architectural design of court buildings.

F. Security: Facility security should be analyzed in terms of the integration of three major components: manpower, space planning and systems and equipment. The installation of sophisticated detection and alarm systems and associated automatic devices does not alone check the causes or even the symptoms of security breakdowns. Considerably more can be done to better utilize security manpower (for instance, court

* For detailed information, see companion monograph, "Space Standards and Guidelines."

officers) in space planning concepts. Relocating departments and separating circulation by desired levels of security and privacy are but two approaches.*

G. Communication: Single facilities and, especially, large complexes with related facility components should have a comprehensive and integrated information communication system. This system should include standardized directional signs to assist to a final destination those having business at the facility or within a complex. An information communication center with automated electronic equipment also might be planned to permit rapid retrieval of case information, as well as other pertinent data. The system should anticipate eventual use by judges, district attorneys and public defenders who, by keying a request into the terminal, can retrieve legal and case information. Full-scale development of such an information communication system, if not beyond the scope of the project, can be outlined as to its possibilities and personnel and space requirements.**

H. Siting and Locational Linkages: Facility siting and locational linkages among complex components are vital considerations, the solutions to which can affect final design. In many instances, inadequate consideration has been given to this initial phase of facility planning, resulting in mistakes far too costly to rectify after project completion.***

ANALYZE OPERATIONS SEQUENCE

From the information developed in the evaluation of proposed operations, a sequence of proposed operations can be presented in flow charts, similar to the presentation outlined for existing operations above. Operations remain in sequence, but are organized in terms of major functions. Sequence of operations should be presented on a diagrammatic section

* For detailed information on courthouse security, see companion monographs, "A Systems Approach to Courthouse Security" and "Space Management and Courthouse Security."

** See companion monograph, "A Comprehensive Information Communication System."

of the building to show how problems in existing operations and facilities have been resolved. Improved traveling, waiting and processing time also should be shown where possible.

DEVELOP FUNCTIONAL RELATIONSHIPS THROUGH MATRICES

The matrix is a useful analytical tool for measuring and quantifying functional and spatial relationships. Several matrices should be used to study intra- and inter-departmental relationships and inter-building relationships. The matrices here are based on three major components: 1) frequency or volume of movement of persons and documents between departments or functions, 2) the significance of such movements and 3) the significance of functional and locational relationships regardless of movement patterns (See Fig. 9). Each matrix, depending on the complexity of the functions it depicts, can be weighted on a "0-3", "0-5" or "0-7" scale, ranging from zero to maximum volume or significance, with a median at 2, 3, and 4, respectively, of the three scales. In cases where such a median is not required, the matrix can have unlimited point scale; however, the relative weight between any two points on the matrix scale should remain constant, especially if values are to be added. By weighting or quantifying movement and functional significance, values can be added along vertical and horizontal axes. Values for related matrices can be combined by adding or by applying an adjustment factor compensating for any relative difference in weight assigned between matrices. The combined values for each function will provide a basis for assessing the relative priority of functions or departments within a court system, as discussed in the next section.

While the use of the matrix to establish functional and spatial relationships diagram is not a new technique, its application to judicial facilities analysis is believed to have been carried out for the first time at the Judicial Facility Study in Ann Arbor, Michigan, (1968-1970).¹

¹ The associate director of that study is presently director of the Courthouse Reorganization and Renovation Program.

ESTABLISH FUNCTIONAL RELATIONSHIPS

From the data contained in the matrices, functional relationships can be established and shown graphically providing a system overview and departmental relationships (Fig.10). Significance and frequency of movement and document transfer would be represented by thickness of line and distance. More significant functions would be shown grouped closely together, whereas the less significant functions would be scattered along the periphery, linked by much thinner lines.

One of the uses of a functional relationships diagram of the overall court system is establishing a list of priorities of major functions or departments. In renovation planning projects, the existing building may not contain adequate space. Consequently, at some future date a decision may be required to relocate the least significant functions or departments external to the courthouse and to renovate the vacated spaces for use by departments more directly related to courts operation. The list of functional or departmental priorities will be of assistance in making such a decision. Used in conjunction with "block-use" plans, subsequently described, the priorities list forms a basis for assessing merit of departmental requests to alter use of existing space or to expand.

ESTABLISH SPATIAL RELATIONSHIPS

The kinds of spaces in which operations are performed are described in Table 1, "System Overview." Functions shown in the functional relationships diagram are replaced by their corresponding spaces reorganized and classified into public, restrictive, and secured or private spaces (Fig.11). Public spaces are accessible to the general public, as well as to the staff, but not to prisoners. Restrictive spaces are accessible to staff and public who have permission to enter. Secured or private spaces are inaccessible to the public and are restricted to staff who must have specific identification to enter. Secured spaces usually are occupied by prisoners, correction officers, law-enforcement officers and departmental workers (for instance, with probation, social and welfare

agencies) who are directly connected with the processing of a case, or with the welfare of the defendant.

Spatial relationships constitute one component of essential information needed for the planning of spaces in new or existing buildings. Other components are discussed later.

DEVELOP BLOCK USE PLANS

Establishing major spatial relationships prepares the way for developing "block-use" plans of a court building or a complex of buildings.

Not having yet formulated space standards nor projected manpower requirements, it is not feasible to assign a definite amount of space to any function or department. However, after making a preliminary assessment of functional or departmental needs developed from interviews and analysis of existing operations, it is possible to assign bulk space to departments, based on the forementioned priorities list and established spatial relationships, as well as design factors such as security need. If a request for space use change or expansion does not conform with the block-use plans, the request would be rejected or an alternative solution found.

Assume, for instance, that all spaces related to the arraignment process are to be accommodated on the ground floor of a criminal court building. Established functional relationships determine relationships between spaces, with a pertinent added factor being the need for better building security because the arraignment court is in session nights and on weekends. By locating on the ground floor spaces easily accessible to the public and court staff, the upper floors could be closed to the public evenings and weekends (Fig. 12).

Block-use plans, therefore, are bulk space allocations based on established functional relationships and overall preliminary

space requirements. These plans are a significant step toward forming basic space use standards throughout a facility. This step in the programming and planning process has particular viability on most urban-area projects. One of the major obstacles in implementing judicial facility projects has been the lack of adequate communication between the courts and agencies of the state, city or county responsible for project implementation. In many cases, while agencies are willing to assist in court facilities improvement, they cannot because the courts do not effectively convey the kind of improvements required. By establishing block-use plans as an emergency first step in the direction of detailed space planning, courts have a basis for adequately communicating their overall needs to the appropriate agencies.

ESTABLISH SPACE STANDARDS, DESIGN GUIDELINES AND CHECKLISTS

To develop detailed space plans from block-use plans requires the introduction of two additional major components: space standards and manpower projections. Space standards include work space standards and common or shared space standards. Work space standards can be defined as unit furniture, equipment and circulation space per person for each classification of personnel in an open office. For example, a clerk may require 25 sq. ft. of furniture and equipment space and circulation area of 35 sq. ft., a total of 60 sq. ft. Common or shared spaces, including conference rooms, storage, special equipment and public spaces, do not relate to a person or a class of personnel, but to the department as a whole.

In the development of space standards and guidelines, it is essential to consider national trends for applicability to local conditions. For example, there is a trend both in the federal and state court systems toward using smaller trial courtrooms. (The Courthouse Reorganization and Renovation Program recommended

1,200 to 1,500 sq. ft. and applying "office landscape" concepts.) By adopting such procedures, administrators should experience space and cost savings and greater facility flexibility.

Space standards for judicial facilities can be developed by:

1. Modifying applicable space standards for other types of facilities, clerical and administrative offices, for example.
2. Extracting data from a large number of plans of recent court buildings. This procedure can be carried out accurately only if the rationale behind space assignment for certain activities or personnel is known and evaluated.
3. Assessing research and consulting reports on specific facility projects throughout the country. Adjustments for local conditions have to be made before standardization of spaces can be accomplished.
4. Referring to research data compiled in the current program, including interviews with liaison officers and departmental personnel.
5. Referring to program research on the environmental requirements of court space, including subjective responses of court personnel to environmental conditions measured by testing equipment such as sound, light and psychometric meters.

Space standards should be presented on the basis of people using a space and their activities within the space. The standards should include unit equipment, furniture and circulation needs, as well as acoustics, illumination, color contrast and thermal environment requirements.

Noise standards should include acceptable noise level for each task performed and average coefficient of absorption for materials used in spaces.

Recommended light level, type of existing light fixtures, brightness contrast and illumination color and mood should be included under lighting standards.

Thermal standards should include the optimum combination of air temperature, relative humidity, air movement and surface radiation. An acceptable measurement of warmth which combines all four factors is the "effective temperature." Other space standards which might be included are courthouse security and accessibility to and from court spaces (Table 3).*

Design guidelines and checklists are useful to court administrators as well as to architects and planners embarking on the planning of court facilities. Design guidelines present a picture of the philosophical, symbolic, operational and physical requirements of facilities; checklists provide a basis for assessing the adequacy of facility components and equipment.

With the availability of space standards and spatial relationships described earlier, the space planner can proceed with detailed space planning to accommodate existing needs. However, to plan for future expansion needs, manpower projections will first have to be established.

DEVELOP MANPOWER PROJECTIONS

Manpower planners are an integral part of a space management team; close collaboration between the two will result in a more realistic measure of facility needs.

A manpower planning study for each department would identify and evaluate current staffing levels, historical growth trends, staffing rationale, staff productivity and assignment, overall departmental capability and limiting factors on staff size. Additionally, manpower projections rely on work schedules and responsibilities, probable effect on the facility of proposed legal and procedural changes, improvements in staff utilization, and caseload and staffing requirements for a specified future period

*For more complete information, see companion monograph, "Space Standards and Guidelines."

(30 years, in five-year intervals, for the New York study). Establishing a list of realistic assumptions relating to possible future changes and verifying these assumptions with personnel responsible for the operation of the courts, legislators and others is vital to the successful outcome of projections.

In a manpower study, factors affecting caseload in one court--say, a criminal court--can be different from those in another court--say, a civil court. For example, establishing a criminal profile by means of data extrapolated from Federal Bureau of Investigation statistics and analyzing the effect of population classification by age, sex, education and income on the crime rate in cities are essential factors in determining projected criminal court caseload; however, the factors affecting caseload in a civil court are more likely to be based more on economic conditions than on population growth, as would be the case in a criminal or family court (Fig. 13)

Having established a criminal profile as well as population characteristics and other factors affecting court caseload, a projection can be made for each case category (for example, felony, misdemeanor and violation cases). By carefully analyzing past trends in the number and use of personnel and their work capacity, and by evaluating prevalent and anticipated economic and political conditions, manpower requirements for each department can be projected (Tables 4 and 5). * When manpower projections become available for each department, they can be summarized to provide the total manpower requirement in each court. A separate manpower projection should be undertaken for courtroom and ancillary facilities.

DETERMINE SPACE REQUIREMENTS

Having established unit space standards for court personnel and having projected manpower requirements over a period of time,

*For more complete information, see companion monograph, "Manpower Projection and Planning."

space requirement for each department or function can be determined, first by assessing the amount of work space necessary for each department, and then by calculating the shared and common spaces needed in each department. A separate analysis of space requirements should be made for courtrooms and ancillary spaces. The combination of work space, common or shared space and courtroom and ancillary spaces would yield total space needs of a court building (Table 6). Space standards for each additional courtroom in an existing or new court building then can be established (Tables 8 and 9).

In the New York study, three conclusions in this area have been drawn:

1. Manpower and space requirements for an additional trial courtroom in the New York County Criminal Court (misdemeanors and violation cases) are lower than those for an additional trial courtroom in the State Supreme Court² Criminal Division (felony cases after indictment). The size of the courtrooms remains constant for both courts -- 1,200 to 1,500 sq. ft.
2. For each additional Criminal Court trial courtroom, adjoining ancillary spaces, including jury deliberation room, witness room, conference room and prisoner holding facilities, should be approximately two-thirds the size of the courtroom. Supporting space for departmental staff associated with the courtroom should be at least three times the size of the courtroom.
3. For each additional Supreme Court trial courtroom, adjoining ancillary spaces should be approximately the same as the size of the courtroom, while spaces for related departmental offices should be about four times the size of the courtroom.

Spatial projections should be completed for each department, each court building and each court complex. Summary charts at each

2. The Supreme Court in New York State is equivalent to a circuit or district court in other states.

level would provide all necessary space information required in the programming and planning of facilities for an entire project.

DEVELOP SPACE USE DIAGRAMS AND PLANS

DEVELOP DEPARTMENTAL SPACE PLANNING DIAGRAMS

With knowledge of the functional and spatial relationships and innovations developed through reorganization of operations and management techniques, departmental space planning diagrams can be developed for each department. These diagrams will translate the spatial relationships diagrams into space planning diagrams.

(Areas and shapes of spaces are not considered if they are not within the scope of the project.) All spaces should be represented by the same area, depending on size of presentation, and the same shape. However, their physical location in relation to each other, and their accessibility, can be shown. Based on these space planning diagrams, the designer who eventually will work on facility plans will be able to commence detailed physical planning and design of the department areas, including size and shape of spaces.

ESTABLISH BUILDING SPACE PLANNING DIAGRAMS

When all departmental space studies have been completed, the program team can begin to establish building space planning diagrams-- spatial relationships within an entire building -- with recommendations on allocation of bulk space by floors. By this time, space requirements for each department and for each building will have been established, and the allocation and planning of spaces within a preliminary building outline can be recommended. When the preparation of preliminary plans for the building is outside the scope of a project, this phase usually becomes the responsibility of the architect selected for the design and construction of the facility.

ESTABLISH BUILDING COMPLEX SPACE PLANNING DIAGRAMS

To move from building space planning diagrams to those for a complex of buildings, a thorough understanding of the location linkages and a clear delineation of planning objectives must be achieved. This information then can be combined with the data established in the previous steps to develop an overall space planning facility diagram. Preliminary recommendations on the siting of new buildings, an integrated security system and a comprehensive information communication system can be made and presented with the space planning diagrams. Actual space plans, however, may be developed by the architect, with the consultant serving on an advisory basis, as necessary. At this stage, alternative schemes can be developed to include departments, buildings, or a complex of buildings. More elaborate alternative schemes relating project to community also can be undertaken, when included within the scope of the project.

TRANSLATE SPACE PLANNING DIAGRAMS INTO DETAILED SPACE PLANS

While no special precision need be taken to structure space planning diagrams, the opposite is true in developing space plans which must be produced according to local building code regulations and zoning requirements (Fig. 14). Other restrictions which may be imposed upon detailed space planning include building site, floor area and floor-to-ceiling height, existing elevator and duct shafts and security requirements.

Responsibility for preparing detailed space plans generally rests with the project architect, although the space planner can become involved in this phase when it is so stated within project scope established at the outset of the study. Alternative space planning schemes usually are developed during the preliminary planning phase, while detailed plans are developed only for the selected scheme.

RE-EVALUATE STANDARDS AND RECOMMENDATIONS

Space use diagrams or plans provide the basis for the re-evaluation of space standards and recommendations for each kind of activity,

each department and each building. It now becomes possible to compile a comprehensive check list for the design of all departments within facilities or facilities within a complex. Resulting space standards then can be charted for ease of future application by the architect and by an in-house staff. This information should reflect the changing needs of facilities and innovations developed from the comprehensive and integrated analysis approach. All standards and recommendations developed by the consultant will assist the architect in developing a maximum flexible design.

The summary should consist of standards relating to operation, space (unit space, department, building and complex space), personnel (based on a management consultant's study), security precautions (manpower, systems and equipment, and space planning) and general planning and design guidelines and recommendations.

DEVELOP ENGINEERING SOLUTIONS

Preliminary engineering studies into structural systems and cost feasibility should be developed coincidentally with each alternative planning scheme. Engineering systems include heating, ventilation and air-conditioning (HVAC), electrical (including lighting), vertical powered transportation, plumbing and drainage, and fire protection (Fig. 15).

Structural feasibility studies usually are mandated as part of a renovation program to determine whether an existing building can support estimated additional load to be imposed during modernization and subsequent use (Fig. 16).

For reorganization and renovation projects, existing engineering system changes can be one of the most costly items in an implementation budget. To help minimize such costs, operating data pertaining to such systems should be established during the data-compilation phase of the project to determine systems adequacy to handle additional capacity of renovated spaces by a safe margin. Alternative systems should be analyzed individually and in combination with others in terms of cost and installation feasibility.

EVALUATE FEASIBILITY

As a result of the above systematic analysis approach, several alternative schemes (in the form of space planning diagrams or space use plans) can be developed. Preliminary evaluation of their feasibility should be conducted, but detailed evaluation can be made only after the architect has completed preliminary architectural design plans for alternative schemes.

Alternative schemes generally are developed to a preliminary architectural schematics stage, after which one scheme is selected and developed further into a detailed architectural plan. Feasibility of alternative schemes should be evaluated during the preliminary stages before computing detailed cost estimates.

To evaluate feasibility of alternative schemes, it is necessary that earlier phases of the research, programming and planning process be re-evaluated first by program staff, then by court and court-related personnel. The major test of feasibility is the response shown to proposed plans by eventual users of spaces for which recommendations are made.

Making cost estimates within available budgets is still another test of feasibility. A space management project must maximize spatial use at minimal implementation cost. With a financial crisis of large proportions now confronting most U.S. cities, alternative solutions will have to be found to constructing costly new court buildings. This concept and approach characterized the New York courts study in which reorganization and renovation was recommended wherever possible for existing facilities having good "rehabilitation potential." In New York, the approach resulted in large cost savings for the municipal government -- \$30 to \$50 million alone in the case of recommendations for expanded Criminal Court facilities.³

³ Courthouse Reorganization and Renovation Program, Phase Two Report, Vol.1, pp.xxii. March, 1971. The program team recommended renovating for court use, at an estimated \$17.5 million, an existing and soon-to be vacated New York State office building adjacent to the existing Criminal Courts Building.

PRESENT RECOMMENDATIONS AND SUGGEST IMPLEMENTATION PROCESS

Recommendations developed from a facility study can take the form of either a final written report or a "package" of space plans and documents, or both. The court responsible for the study, as well as users of the proposed or renovated facility, will have to approve all recommendations before they are made final. Other appropriate court personnel and liaison officers to the study should also be advised in advance of proposed recommendations. Ample time should be given to all for review and response. In any case, recommendations probably should be presented at a meeting attended by all court and court-related personnel who would be affected by implementation, and by key personnel from implementation agencies, such as the public works and budget departments. At such a meeting, scale models, photographs and graphics can help to simplify verbal explanations of the facility study.

By collaborating closely with agencies responsible for recommending implementation, a program director can contribute significantly to actual implementation. When funds to undertake a full-scale project appear to be lacking, the spatial planner can propose implementation by phases, each geared to available budget.

Several years may elapse between program inception and project implementation. Agency and departmental inefficiencies and external influences such as budget inadequacies or over-rigidity often combine to postpone implementation, sometimes for many years. Consequently, when projected need for a facility is five years hence, planning has to commence at least the same number of years ahead.

These considerations suggest deficiencies in current facilities planning at the state and municipal levels. A comprehensive and integrated judicial facilities master plan, incorporating long-term phasing for essential projects, can eliminate or, at least, minimize unnecessary studies and, even, implementation. Yet, few states, let alone large cities, have such a plan to which studies of local courts

and court-related and law-enforcement facilities would have to adhere. Many more U.S. states and cities in need of such planning should avail themselves of federal funding assistance presently available in this field.*

PREPARE PRESENTATION

A facility improvement program should not end with filing a final report. In more cases than not there is required a period of vigorous additional promotion -- "selling the implementation", this phase might be called.

A final report too often winds up forgotten on a shelf because, among other reasons, its recommendations belatedly prove to be impractical, because it suggests no procedures for implementation or because it has not drawn favorable response from agencies responsible for implementation.

Thoroughly promoting a program can help to ward off a similar fate for a current study. Experience on the New York courts has shown that a presentation incorporating a balanced combination of architectural scale models, photographs, large-scale charts and other graphic materials and color transparencies, is an excellent way to promote recommendations before persons who have little or no working knowledge of architectural and engineering plans. A facility scale model with removeable sections by floor permits administrators, judges and others to view in three dimensions spatial recommendations which may have been made in writing.

Photographs and charts are useful in simplifying complicated processes and procedures. Transparencies of facility projects in other locations not only are informative but provide visual relief during a lengthy presentation.**

* For suggestions in this regard, see companion monograph, "Program Administration and Cost Planning."

** Ibid.

PREPARE PROGRAM TIME SCHEDULE

The following schedule indicates approximate time required for implementing major stages of the foregoing methodology.

<u>Major Stages of Project</u>	<u>Average Time Required (Determined by Project Score)</u>
Meet with Committee, Project Director or Delegate and other Consultants to coordinate work schedule. Define goals and objectives.	One Month
Formulate, Test, Evaluate and Modify Research Approaches and Analysis Techniques	Two Months
Compile and Organize Data	Three - Six Months
Analyze Data	Two - Three Months
Establish Space Standards and Guidelines	One - Two Months
Project Manpower and Space Requirements	Two - Three Months
Develop Space Use Planning Diagrams	One - Two Months
Evaluate Feasibility and Recommend Implementation	One - Two Months
Prepare Cost Estimates	One - Two Months
Complete Report and Presentation	One - Two Months

A project limited to the study of one building or a small complex of buildings usually can be completed within a year, 18 months at the outside. Projects of city- or state-wide scope will require at least two years to complete, the longer time required primarily for data

compilation, analysis and presentation. While an attempt has been made to provide in sequence an indication of average time required for each major stage of a project, the time can vary with the scope of the project. Also, the time required for each stage may overlap to some extent with other stages.

A FINAL WORD . . .

It is hoped that the information contained in this monograph will assist project administrators in early discussions with a space management consultant, as well as during subsequent evaluation of a project proposal. The aim here has been to convey some sense of the consultant's role and responsibilities, especially as relates to a comprehensive project methodology. By understanding the consultant's approach, the administrator should be in a position to better assure a successful outcome for the project.

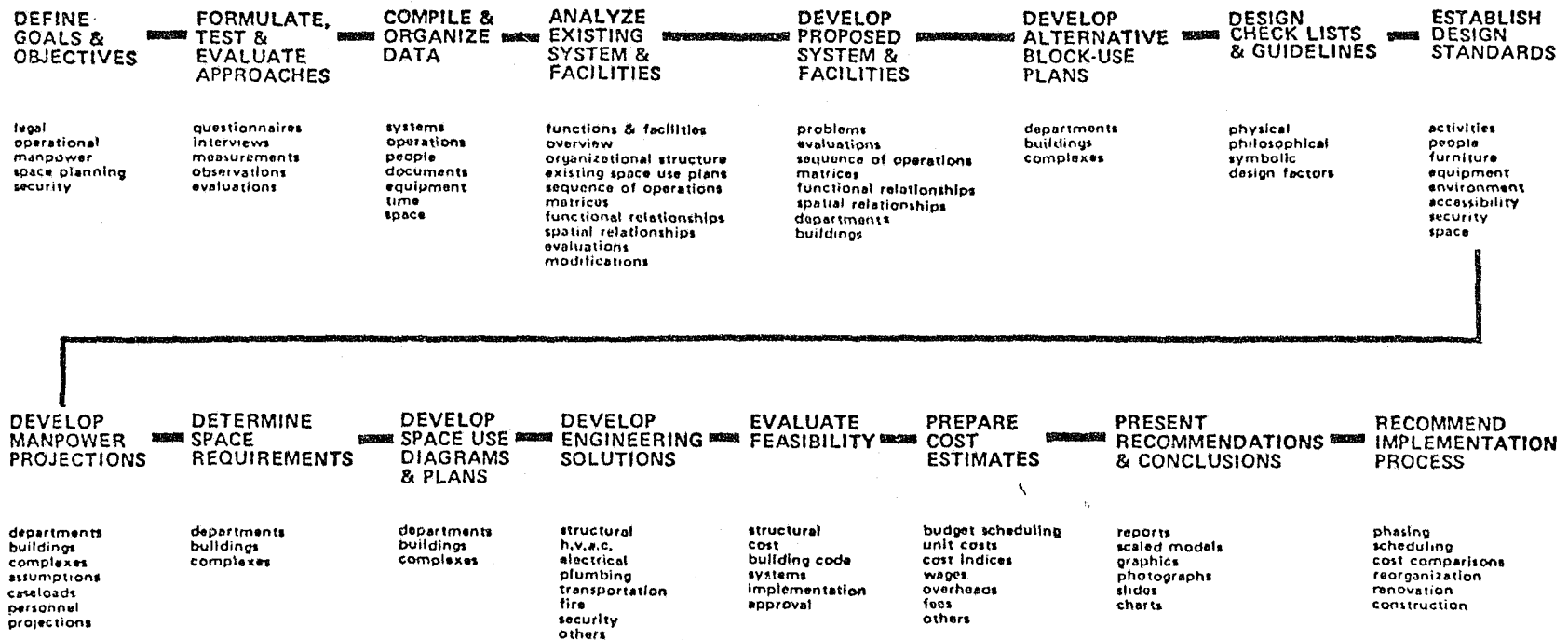


FIGURE 1
SPACE MANAGEMENT RESEARCH, PROGRAMMING AND PLANNING PROCESS

TABLE 1

SYSTEM OVERVIEW

SURROGATE'S COURT, NEW YORK COUNTY

FUNCTIONS	PEOPLE	SPACES	DOCUMENTS/EQUIPMENT	TIME
PROBATE				
DETERMINE JURISDICTION	Departmental Staff; Attorneys, Parties, Public	Probate and Administration Departments	wills, titles, legal documents	5 to 30 minutes
EXAMINE DOCUMENTS	Departmental Staff; Attorneys, Parties, Public	Probate and Administration Departments	wills, affidavits, accounts, letters of administration, legal documents	3 to 15 minutes
ASSIST DOCUMENT PREPARATION	Departmental Staff; Attorneys, Parties, Public	Probate, Administration, Guardians, Accounts and Estate Tax Departments	legal documents, forms	Varies
ACCEPT PAPERS	Departmental Staff; Attorneys, Parties, Public	Probate Department	legal documents, proposed decrees, letters of administration	1 to 3 hours
DETERMINE FEES and ESTATE TAX	Departmental Staff; Attorneys, Parties, Public	Probate and Estate Tax Departments	account sheets, forms	Varies
PROCESS PROBATE DOCUMENTS	Departmental Staff; Attorneys, Parties, Public	Probate Department	contest papers, decrees, affidavits	3 hours
SUBMIT LEGAL DOCUMENTS to SURROGATE	Probate Clerk, Surrogate	Chambers	legal documents, affidavits, contest papers with decrees	5 to 20 minutes
TRIAL and HEARING	Surrogate, Law Assistants, Clerk, Attorneys, Witnesses, Court Recorders, Parties, Public, Press	Courtrooms	all probate documents; calendar sheets, minute book	5 minutes to 1 hour
SIGN PROBATE DECREE	Surrogate	Courtroom or Chambers	decree or court order	5 minutes
CONTINUE GUARDIAN PROCEEDINGS	Departmental Staff, Attorneys, Parties, Public	Guardian Department	vouchers, receipts, forms	Varies
ADOPTION				
PROVIDE FORMS	Departmental Staff; Parents, Attorneys	Adoption Department	forms	5 minutes
RECEIVE and PROCESS COMPLETED FORMS	Departmental Staff; Attorneys, Parents	Adoption Department	forms, affidavits, birth certificates, naturalization papers	15 minutes
INTERVIEW PARENTS	Departmental Supervisor; Parents	Adoption Department, Parents' Houses	interview reports	1 hour
MAKE RECOMMENDATION to SURROGATE	Departmental Supervisor, Surrogate; Court Personnel, Parents, Attorneys, Children	Courtrooms, Chambers	report, forms, calendar sheets, legal documents	30 minutes to 1 hour
DISPOSE and FILE CASE	Surrogate, Departmental Supervisor; Attorneys, Parent, Children	Adoption Department, Chambers, Courtrooms	minute books	1 hour
CHANGE BIRTH CERTIFICATE	Bureau Staff	Bureau of Vital Statistics	forms	Varies

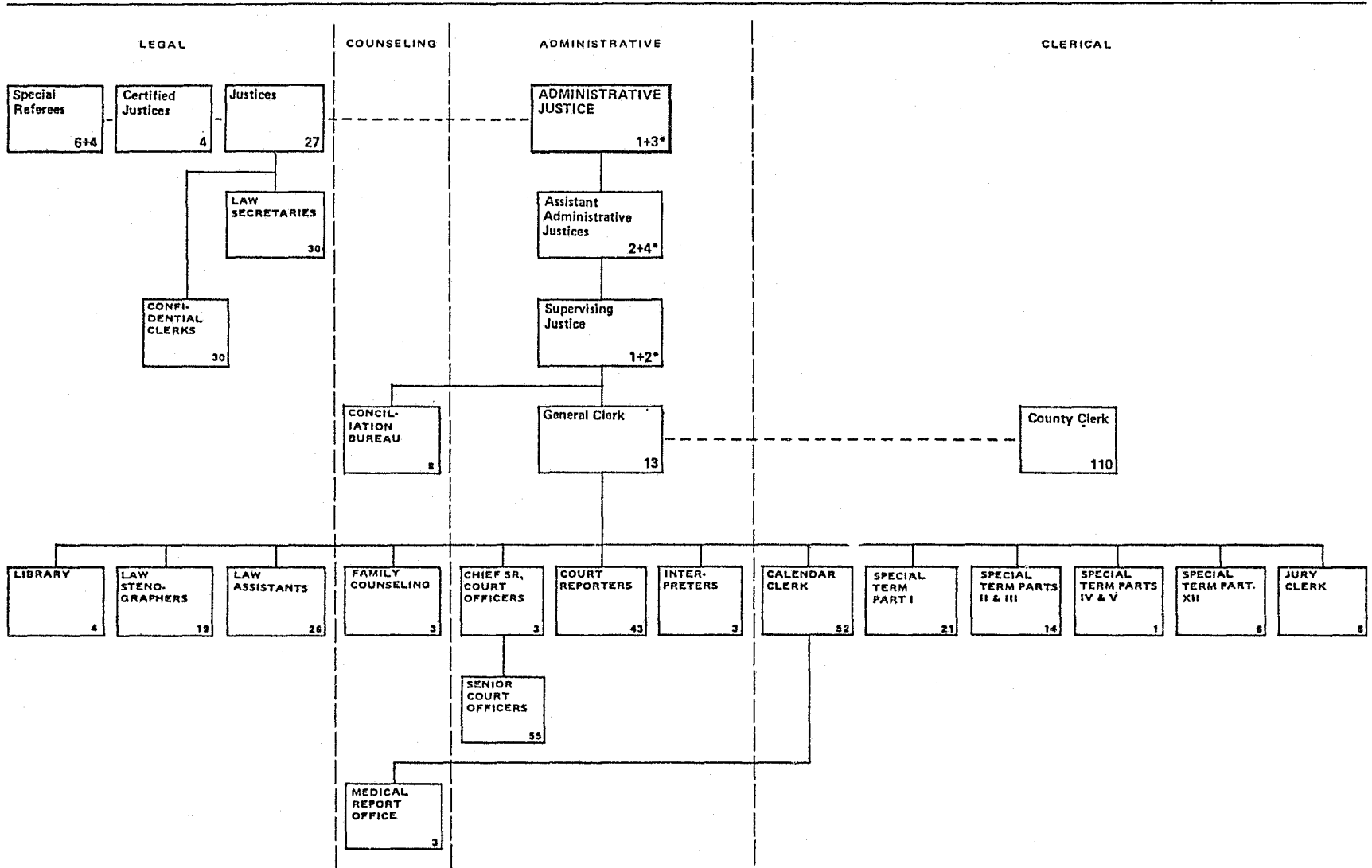


FIGURE 2
 ORGANIZATIONAL CHART
 SUPREME COURT CIVIL DIVISION, NEW YORK COUNTY

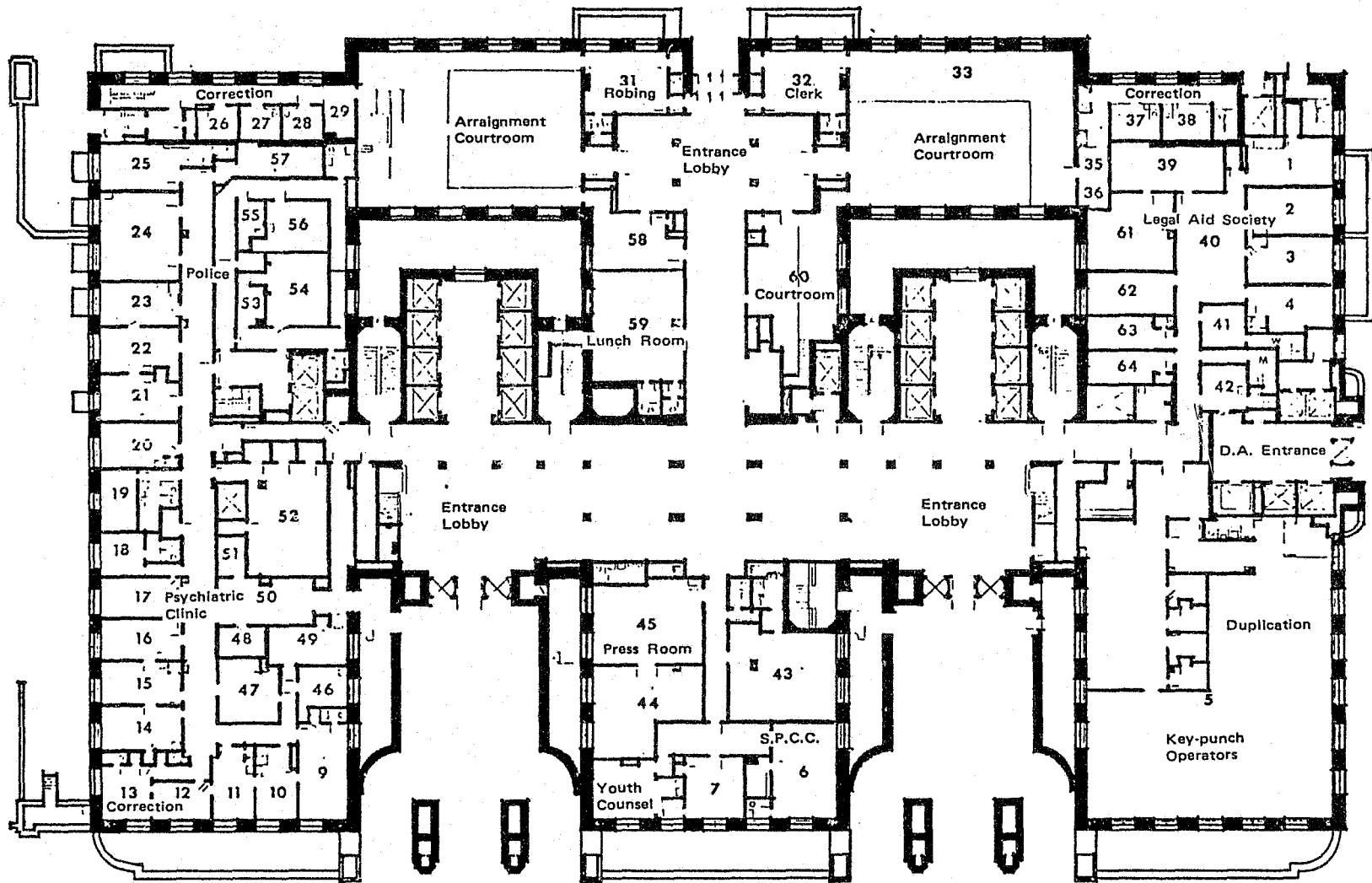


FIGURE 3
EXISTING SPACE USE PLAN
 GROUND FLOOR, CRIMINAL COURTS BUILDING, NEW YORK COUNTY

A-5

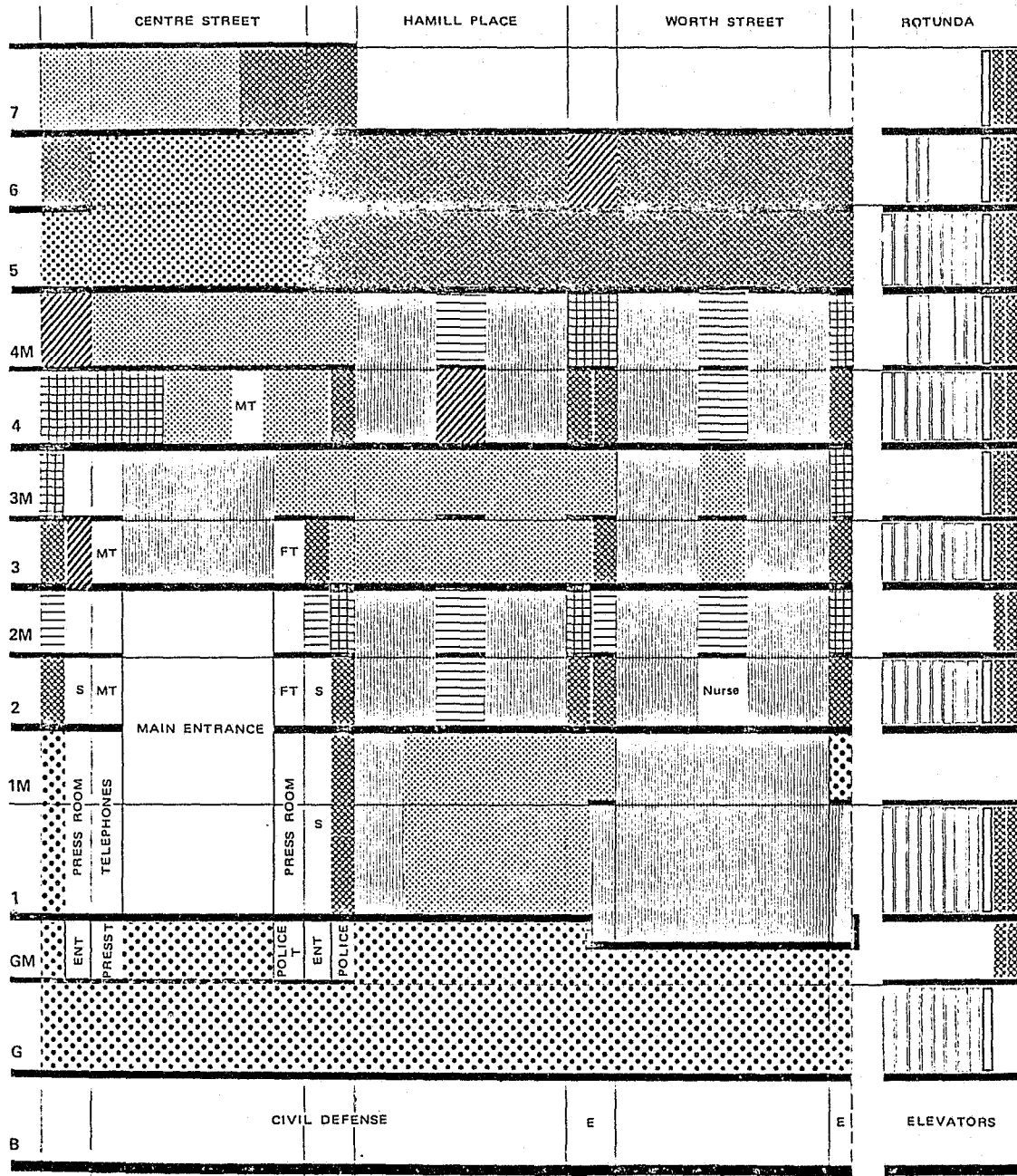
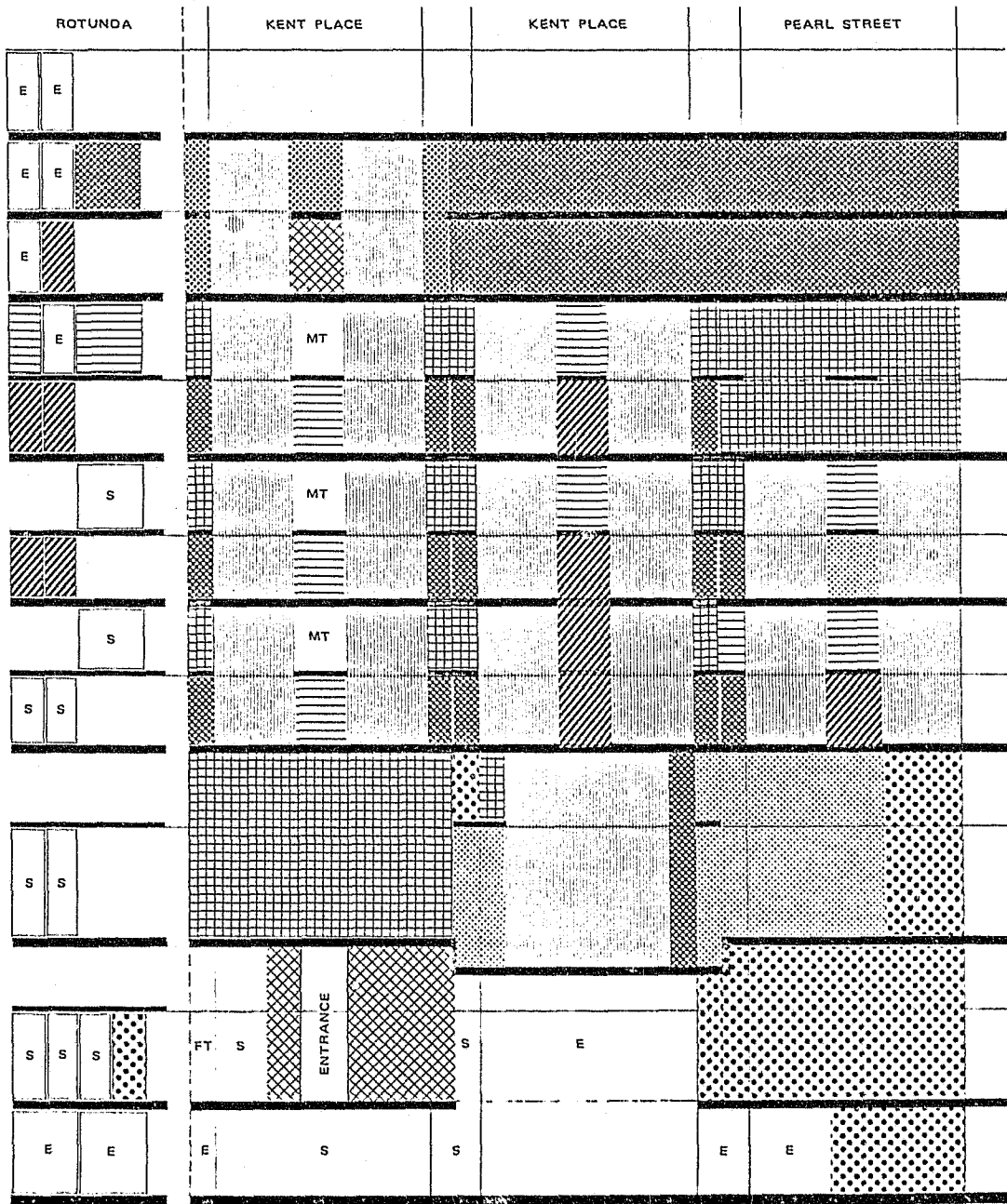











FIGURE 4
 DIAGRAMMATIC SECTION
 SUPREME COURT BUILDING, NEW YORK COUNTY

- MT MALE TOILETS
- FT FEMALE TOILETS
- E EQUIPMENT ROOMS
- S STORES
- ENT ENTRANCE



-  JUDGES' CHAMBERS, ROBING ROOMS
-  SPECIAL REFEREES
-  LAW ASSISTANTS
-  LAW LIBRARY
-  COURTROOMS

-  JURY ASSEMBLY & DELIBERATION ROOMS
-  COURT REPORTERS
-  CLERICAL OFFICES
-  COUNTY CLERK

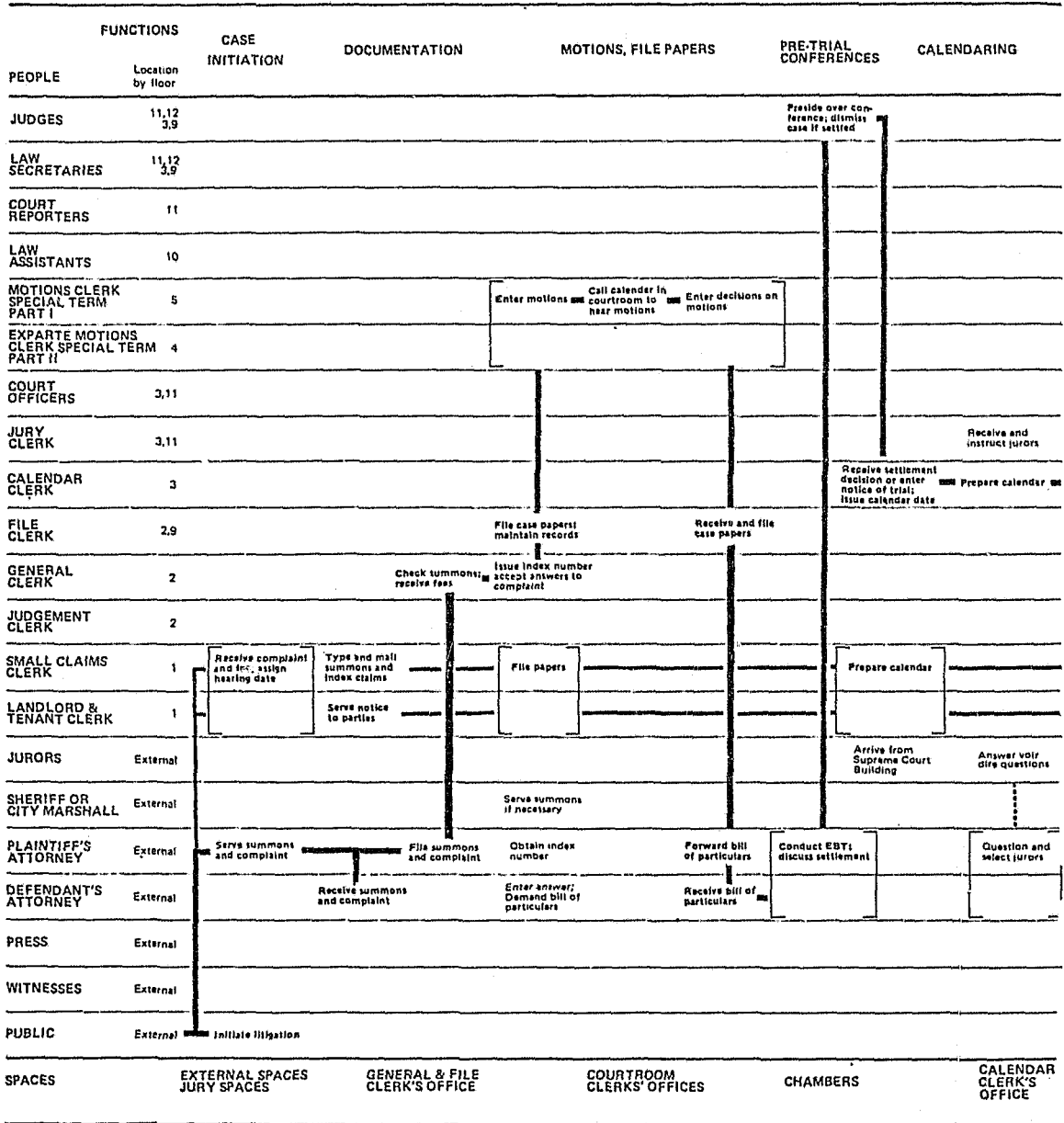
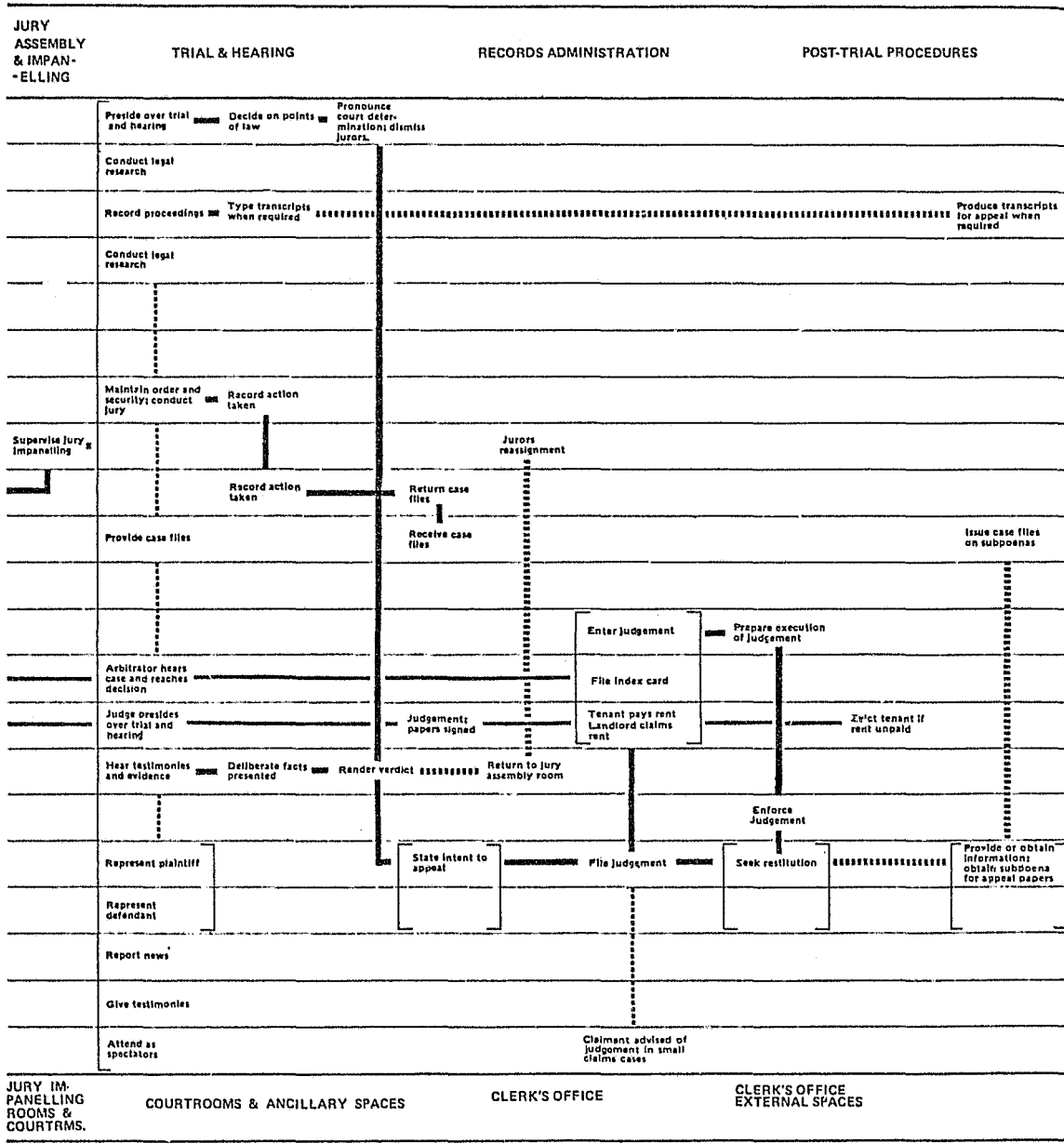


FIGURE 5

OPERATIONS SEQUENCE AND MOVEMENT PATTERNS RELATED TO DIAGRAMMATIC BUILDING SECTION CIVIL COURT, NEW YORK COUNTY



JURY IM-PANELLING ROOMS & COURTRMS.

COURTROOMS & ANCILLARY SPACES

CLERK'S OFFICE

CLERK'S OFFICE EXTERNAL SPACES

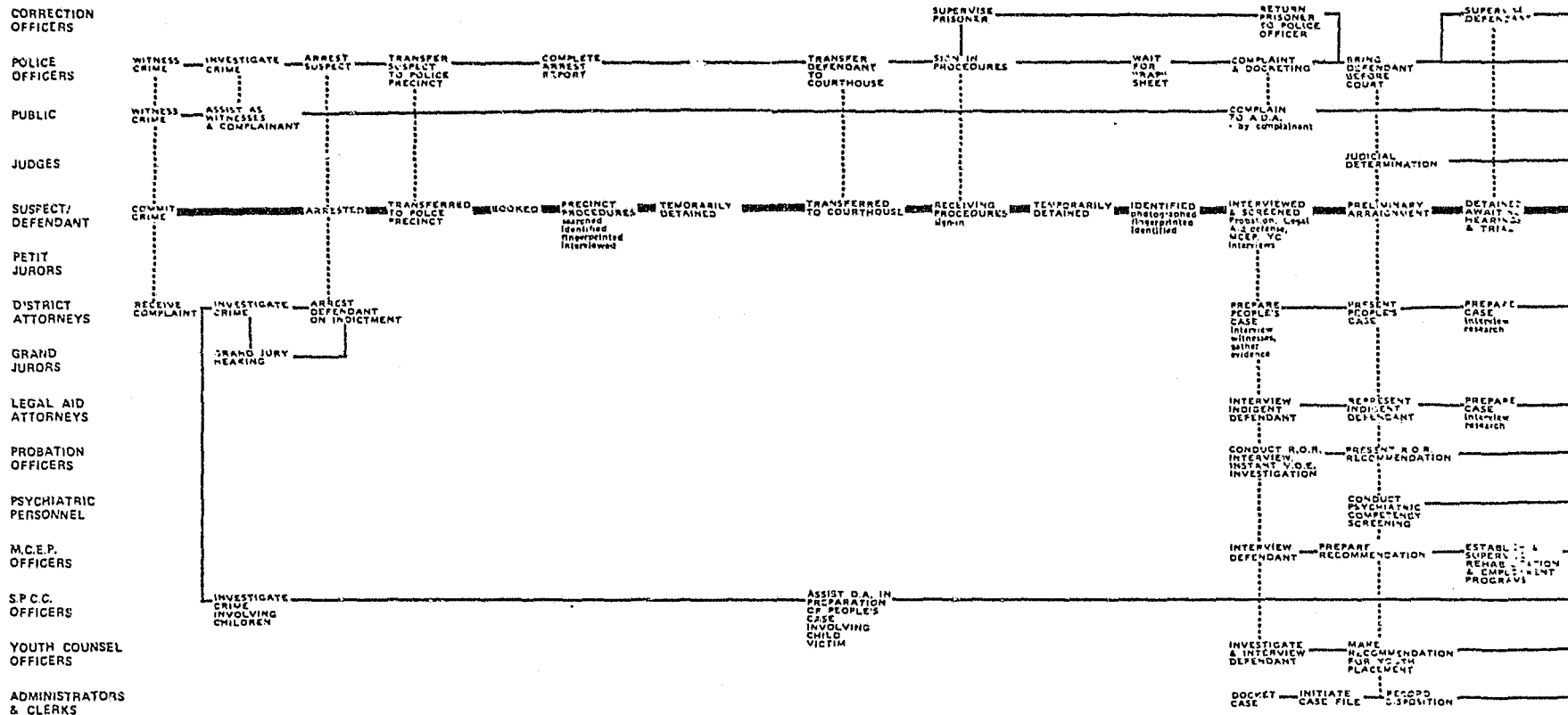


FIGURE 6
 OPERATIONS SEQUENCE OF CRIMINAL FELONY CASES
 CRIMINAL COURTS, NEW YORK COUNTY

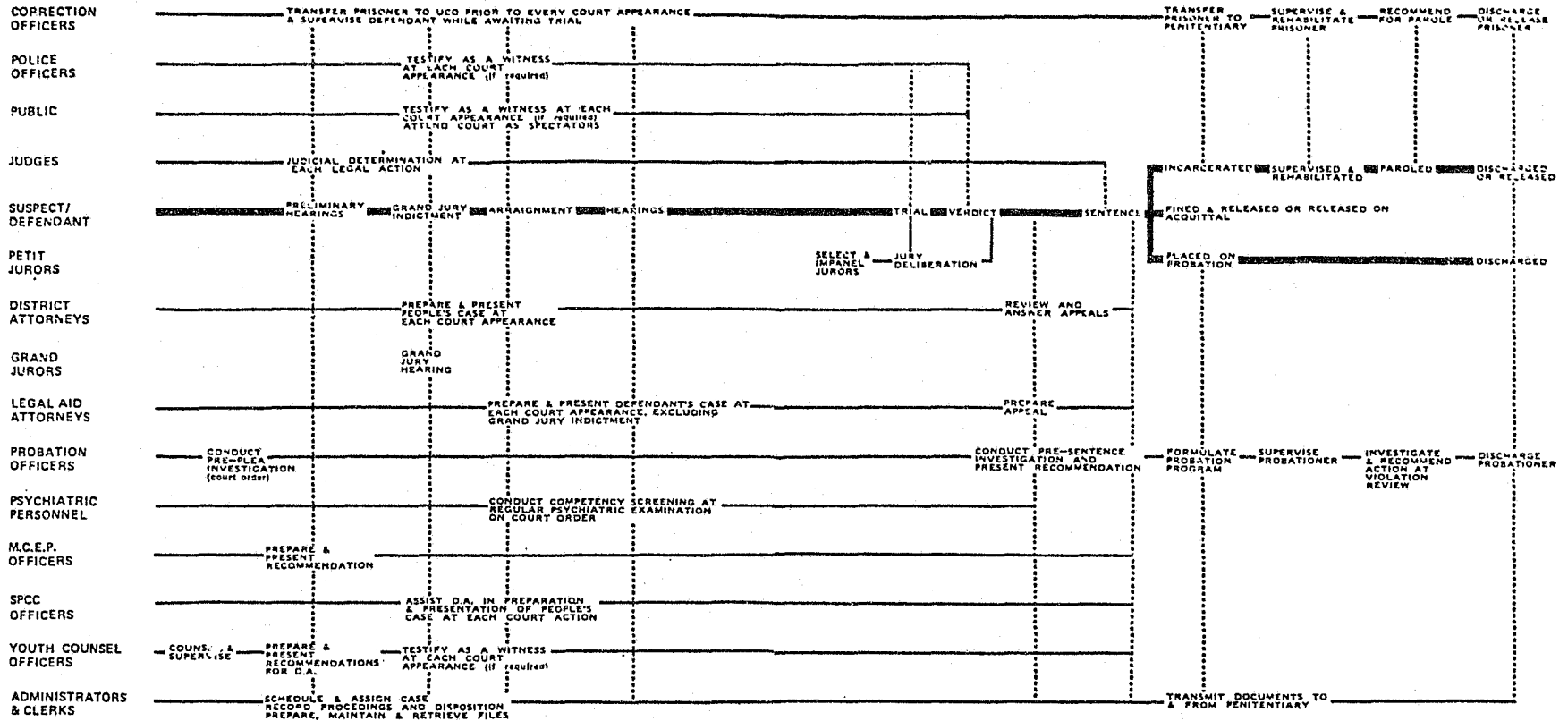


FIGURE 6 (continued)

OPERATIONS SEQUENCE OF CRIMINAL FELONY CASES
CRIMINAL COURTS, NEW YORK COUNTY

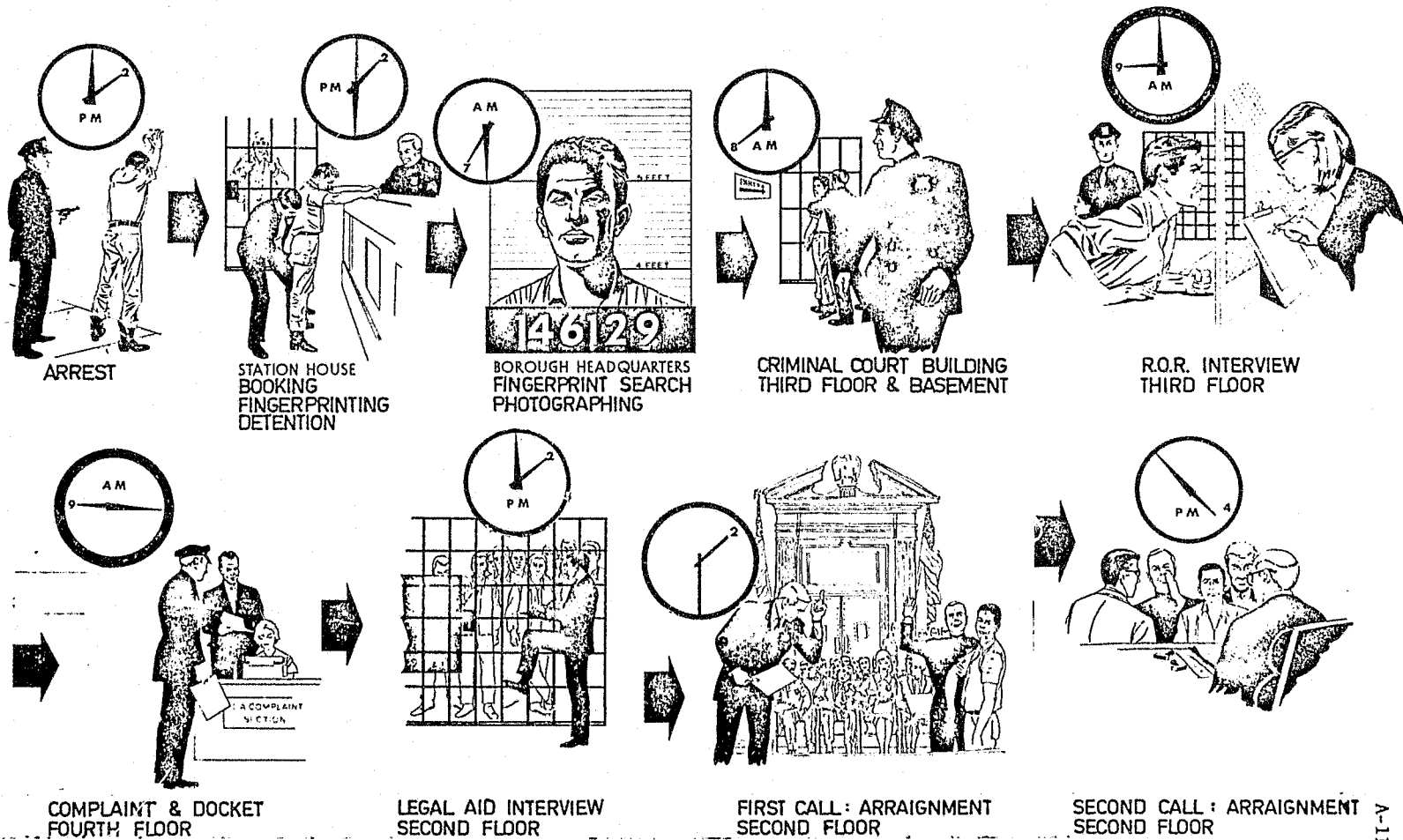


FIGURE 7
 EXISTING ARRAIGNMENT PROCEDURE
 CRIMINAL COURT, NEW YORK COUNTY

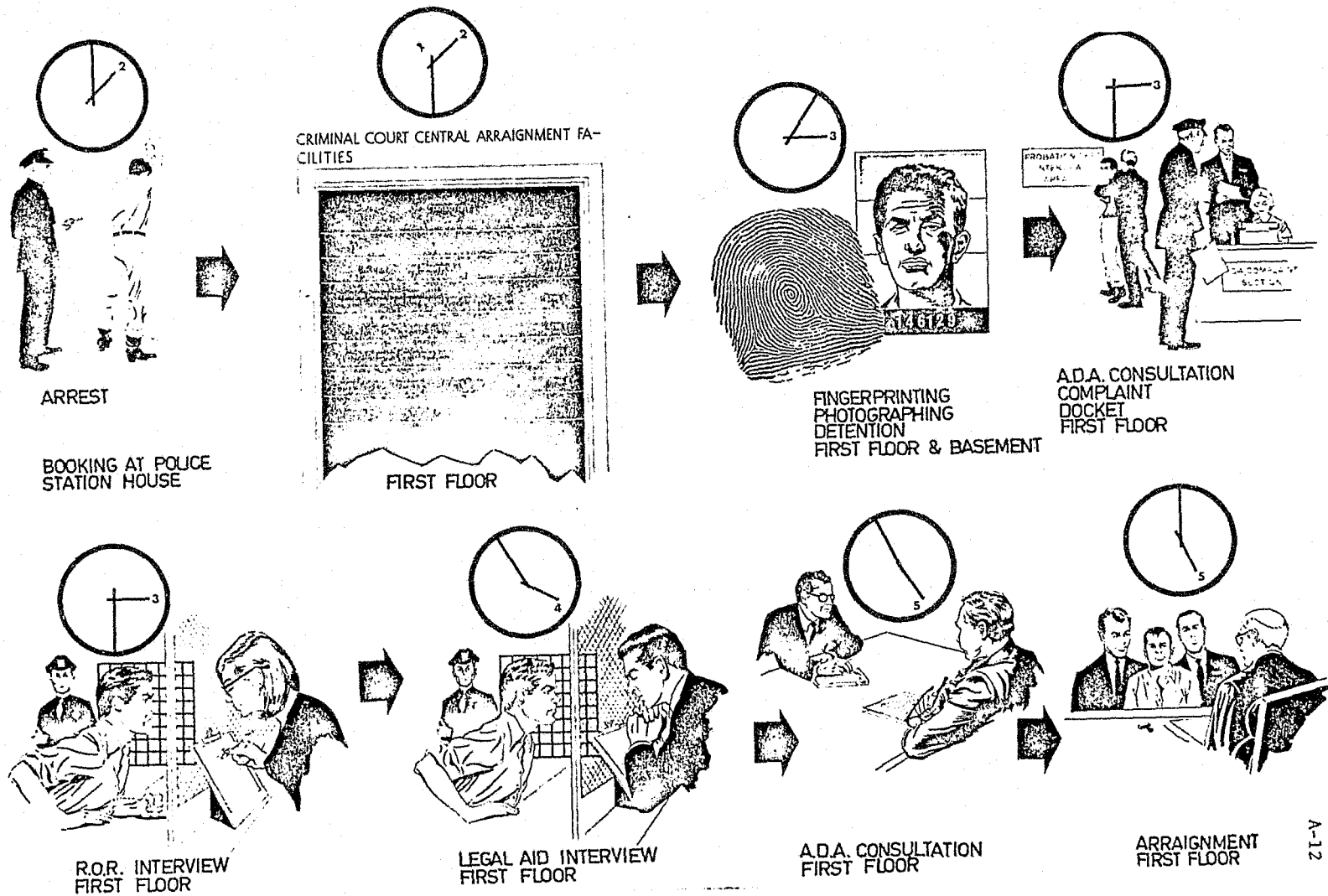


FIGURE 8
PROPOSED ARRAIGNMENT PROCEDURE
CRIMINAL COURT, NEW YORK COUNTY

FUNCTIONS	POLICE	CORRECTION	PROBATION	DISTRICT ATTORNEY	LEGAL AID	COMPLAINT	DOCKETING	COURT EMPLOYMENT	YOUTH COUNSEL	PSYCHIATRIC	S.P.C.C.	ARRAIGNMENT	ANCILLARY	CHAMBER	CLERICAL	ADMINISTRATIVE
POLICE		. 10	. 7	. 9	. 5	. 10	. 10	. 0	. 0	. 0	. 5	. 10	. 0	. 0	. 0	. 4
CORRECTION	10		. 9	. 6	. 9	. 0	. 0	. 8	. 8	. 8	. 6	. 10	. 0	. 0	. 0	. 0
PROBATION	7	9		. 4	. 6	. 0	. 0	. 4	. 4	. 0	. 0	. 8	. 0	. 0	. 0	. 0
DISTRICT ATTORNEY	9	6	4		. 10	. 10	. 8	. 4	. 4	. 6	. 8	. 10	. 6	. 8	. 6	. 4
LEGAL AID	5	9	6	10		. 10	. 8	. 4	. 4	. 0	. 6	. 10	. 6	. 8	. 6	. 4
COMPLAINT	10	. 0	. 0	. 10	. 10		. 10	. 0	. 0	. 0	. 6	. 9	. 0	. 0	. 9	. 6
DOCKETING	10	. 0	. 0	. 8	. 8	. 10		. 0	. 0	. 0	. 6	. 9	. 0	. 0	. 10	. 6
COURT EMPLOYMENT	0	. 8	. 4	. 3	. 4	. 0	. 0		. 6	. 0	. 0	. 7	. 0	. 0	. 0	. 0
YOUTH COUNSEL	0	. 8	. 4	. 3	. 4	. 0	. 0	. 6		. 0	. 0	. 7	. 0	. 0	. 0	. 0
PSYCHIATRIC	0	. 8	. 0	. 6	. 0	. 0	. 0	. 0	. 0		. 6	. 6	. 8	. 0	. 0	. 0
S.P.C.C.	5	. 6	. 0	. 8	. 6	. 6	. 6	. 0	. 0	. 6		. 5	. 0	. 0	. 0	. 0
ARRAIGNMENT	10	. 10	. 8	. 10	. 10	. 9	. 9	. 7	. 7	. 6	. 5		. 9	. 10	. 8	. 6
ANCILLARY	0	. 0	. 0	. 6	. 6	. 0	. 0	. 0	. 0	. 8	. 0	. 9		. 8	. 4	. 0
CHAMBER	0	. 0	. 0	. 8	. 8	. 0	. 0	. 0	. 0	. 0	. 0	. 10	. 8		. 6	. 7
CLERICAL	0	. 0	. 0	. 6	. 6	. 9	. 10	. 0	. 0	. 0	. 0	. 8	. 4	. 6		. 10
ADMINISTRATIVE	4	. 0	. 0	. 4	. 4	. 6	. 6	. 0	. 0	. 0	. 0	. 6	. 0	. 7	. 10	

FIGURE 9
SIGNIFICANCE OF FUNCTIONAL RELATIONSHIPS
 PROPOSED ARRAIGNMENT PROCEDURE, CRIMINAL COURT, NEW YORK COUNTY

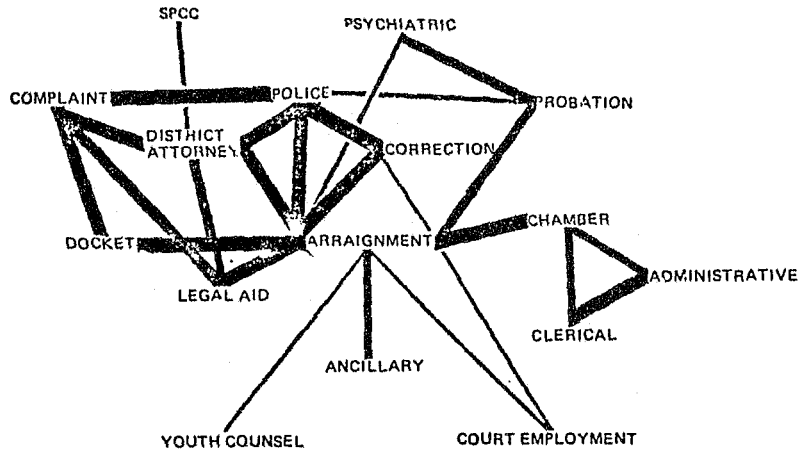


FIGURE 10
FUNCTIONAL RELATIONSHIPS DIAGRAM
PROPOSED ARRAIGNMENT PROCEDURE, CRIMINAL COURT, NEW YORK COUNTY

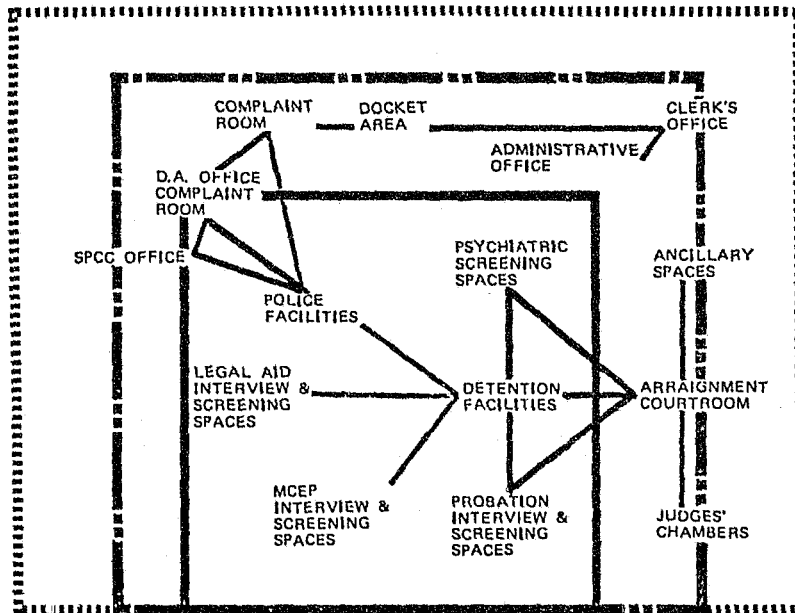


FIGURE 11
SPATIAL RELATIONSHIPS DIAGRAM
PROPOSED ARRAIGNMENT PROCEDURE, CRIMINAL COURT, NEW YORK COUNTY

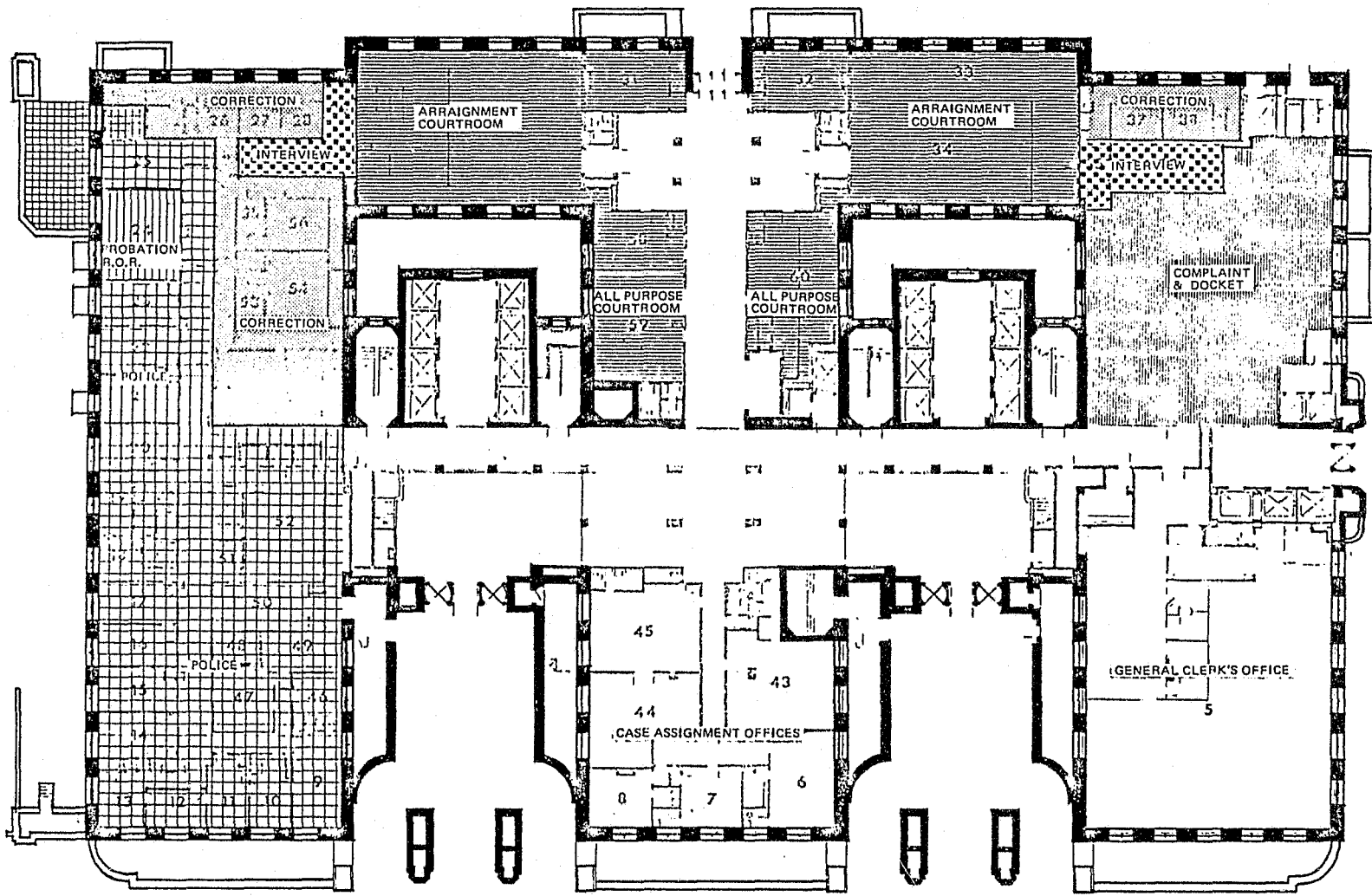


FIGURE 12
 PROPOSED BLOCK USE PLAN
 GROUND FLOOR, CRIMINAL COURTS BUILDING, NEW YORK COUNTY

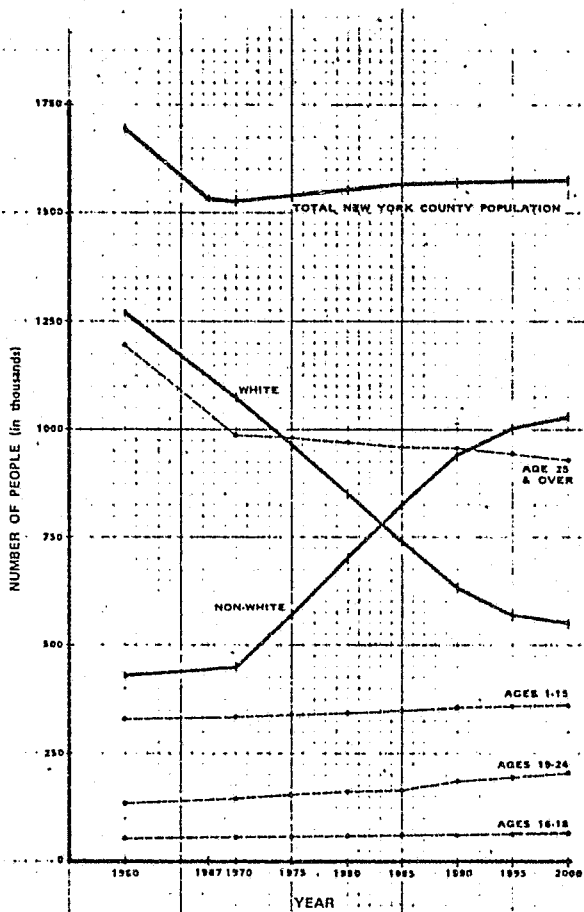
TABLE 2
 AREA ANALYSIS
 CRIMINAL COURTS BUILDING, NEW YORK COUNTY

FLOOR	GROSS AREA (sq. ft.)	FLOOR to FLOOR HEIGHT	VOLUME (cu. ft.)	NET AREA (sq. ft.)	FUNCTIONAL GROSS AREA (sq. ft.)	FUNCTIONAL NET AREA (sq. ft.)	ELEVATOR LOBBIES (sq. ft.)	PUBLIC CORRIDORS (sq. ft.)	PUBLIC AREA (sq. ft.)	TOILET NOS.
Sub-cellar	27,330	18' 0"	437,280	21,902	3,167	3,167	-	-	-	-
Arseaways	488	25' 0"	11,700							
Cellar	82,944	19' 0"	1,005,936	43,869	21,809	20,365	700	3,258	-	-
Boiler room (upper part)	10,371	17' 0"	176,307							
Arseaways	301	18' 0"	4,816							
Inclinator Mezzanine	381	Included in cellar height		331	-	-	-	-	-	-
First	54,268	18' 0"	868,288	41,951	30,029	25,923	1,598	9,414	-	-
	2,436	20' 3"	49,329							
Pylons	354	40' 0"	14,560							
Entrance lobby (upper part)	3,016	13' 0"	39,208							
Second	36,311	13' 0"	472,043	36,835	29,998	26,983	1,192	3,625	448	2
	3,810	10' 0"	38,100							
	10,212	25' 0"	255,300							
Third	39,888	12' 0"	478,658	27,710	24,145	17,896	678	700	414	2
Entrance lobby (upper part)	2,176	12' 0"	26,012							
Fourth	36,778	12' 0"	441,336	36,149	29,678	26,948	1,231	4,351	468	2
	11,220	24' 0"	269,280							
Fifth	35,113	12' 0"	421,356	26,622	20,531	18,753	1,130	2,622	447	2
	1,665	24' 0"	39,960							
Sixth	46,333	12' 0"	555,996	35,187	29,865	27,621	1,752	2,319	457	2
Seventh	47,998	12' 0"	575,976	37,027	31,945	30,214	1,751	2,467	458	2
Eighth	47,998	13' 0"	623,974	37,160	31,180	28,749	1,785	2,467	497	2
Ninth	47,998	14' 0"	671,972	36,671	31,133	29,292	1,889	2,543	-	-
Tenth	47,998	12' 0"	575,976	36,981	32,491	28,362	1,169	2,367	500	2
Eleventh	30,043	12' 0"	360,516	37,351	29,197	25,264	1,262	5,180	668	2
	17,956	24' 0"	430,920							
Twelfth	30,043	12' 0"	360,516	21,862	19,488	13,782	-	-	-	-
Thirteenth	29,638	12' 0"	355,656	35,247	28,540	24,954	1,213	4,513	601	2
	18,360	24' 0"	440,640							
Fourteenth	29,638	12' 0"	355,656	23,009	17,314	15,549	1,093	2,333	-	-
Fifteenth	39,628	12' 0"	475,536	36,673	30,983	26,433	1,183	3,608	492	2
	8,370	27' 0"	225,990							
Sixteenth	39,628	15' 0"	594,420	29,641	22,902	19,913	1,161	2,709	-	-
Seventeenth	30,020	18' 0"	495,330	28,816	22,950	22,950	418	4,819	317	2
	5,278	24' 10"	131,053							
	2,244	40' 1"	89,839							
Penthouse	4,592	13' 0"	59,696	14,032	-	-	-	-	-	-
	392	18' 0"	7,056							
	3,998	11' 0"	43,978							
	8,658	20' 6"	177,489							
Penthouse (upper part)	3,998	9' 6"	37,981	3,643	-	-	-	-	-	-
Tank House	4,505	25' 0"	112,625	3,340	-	-	-	-	-	-
Bulkheads (fan rooms)	612	9' 0"	5,508							
Exhausts	1,818	4' 0"	7,260							
Tower Floor A	4,505	20' 0"	90,100	2,849	-	-	-	-	-	-
Tower Floor B	2,116	21' 0"		1,106						
Tower Floor C	1,190	18' 0"		-						
Tower Floor D	576	13' 0"	7,488	-						
Tower Floor E	225	15' 0"	3,375	-						
TOTALS	866,291		12,988,045 (building)	655,763	487,731	433,118				
LAND AREA:	76,382		11,337,466 (above ground)							

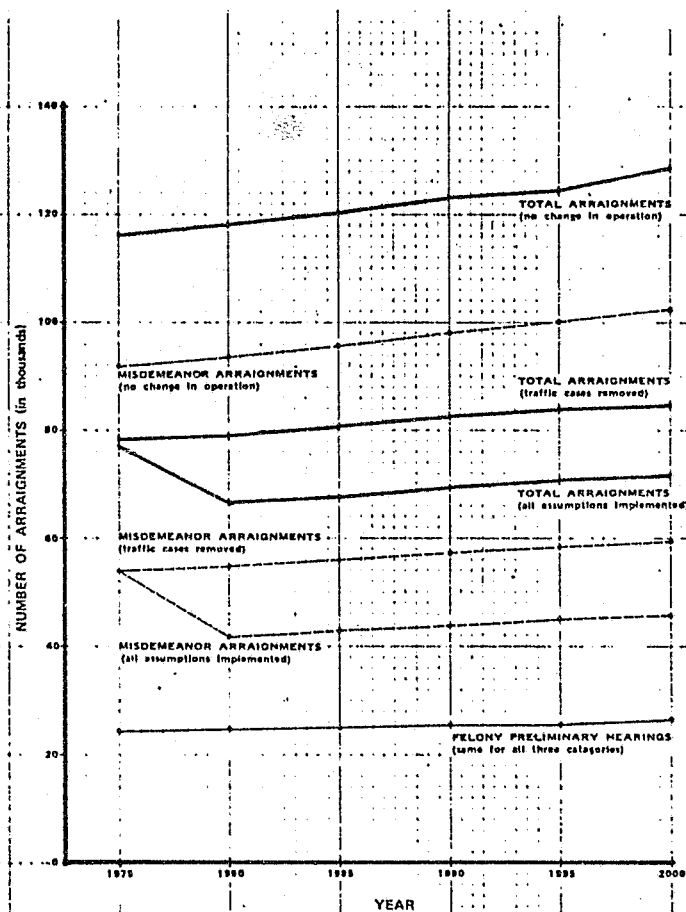
TABLE 3
DESIGN STANDARDS: JURY FACILITIES

ACTIVITY	PEOPLE INVOLVED	FURNITURE/EQUIPMENT	AREA		TOTAL (sq. ft.)	COLOR CONTRAST	LIGHTING		ACOUSTICS		ACCESS		
			FURNITURE/EQUIPMENT (sq. ft.)	CIRCULATION (sq. ft.)			LIGHT LEVEL (f.candles)	TYPE	BACKGROUND NOISE LEVEL	AVERAGE ABSORPTION COEFFICIENT	SPACE	ACCESS/SECURITY	
Entry and registration	Summoned jurors, jury clerks	Lounge chairs, side tables, registration counters/office equipment	4-5	4-6	8-10	High	20-30 supplementary lighting	warm, direct or semi-direct	NC 40-50	0.30-0.40	Public space, jury impaneling space, courtroom	Public/minimum	
Assembly and talking	Summoned jurors, jury clerks	Chairs, side tables, informal tables/reading materials	6-7	6-10	12-17	Medium	30-40	warm, direct or semi-direct	NC 35-45	0.30-0.40	All jury assembly spaces	Restrictive/limited	
Watching television	Summoned jurors, jury clerks	Chairs/television, screen, slide and movie projectors	4-5	7-11	11-16	Subdued	15-30	warm, diffused	NC 40-50	0.40-0.50	General assembly space	Restrictive/limited	
Reading, writing	Summoned jurors	Tables, chairs, bookshelves/books, journals	10-12	10-13	20-15	Medium	40-60	daylight, direct	NC 30-40	0.30-0.40	General assembly space	Restrictive/limited	
Working	Summoned jurors	Table, chair, booth/telephone	13-16	12-14	25-30	Medium	40-60	daylight, direct	NC 25-35	0.30-0.40	General assembly space	Restrictive/limited	
Recreation	Summoned jurors	Tables, chairs/writing materials	6-7	7-11	13-18	High	30-40	daylight, or warm, direct	NC 40-50	0.30-0.40	General assembly space	Restrictive/limited	
Dining	Summoned jurors, jury clerks, court officers, jurors	Tables, chairs/utensils	6-7	9-13	15-20	High	20-30	warm, semi-direct, or direct	NC 40-50	0.30-0.40	General assembly space	Restrictive/limited	
Eating (snacks)	Summoned jurors	Tables, chairs or stools/food, drink, cigarette machines	4-5	4-5	8-10	High	20-30	warm, direct or semi-direct	NC 40-50	0.30-0.40	General assembly space	Restrictive/limited	
Jury panel assembling	Selected jurors, jury clerk, court officer or bailiff	Jury clerk's counter, jury list, jury wheel	-	8-10	8-10	High	30-40	warm, direct or semi-direct	NC 40-50	0.30-0.40	General assembly space	Restrictive/limited	
Impaneling	selection	Chairs	4-5	4-5	8-10	Medium	30-35	warm, dir.	NC 30-40	0.30-0.40	Jury panel assembly space	Private/limited	
	- voir dire	Selected and impaneled jurors, attorneys	Table(s), chairs/jury list	15-20	25-30	40-60	Medium	35-60	warm, dir. or semi-dir.	NC 30-40	0.30-0.40	Public or attorney's entrance	Public or private/limited
	- clerical	Jury clerk	Table, chair/jury list, jury wheel	15-20	20-25	35-45	Medium	35-60	warm, dir. or semi-dir.	NC 30-40	0.30-0.40	Jury panel assembly space	Private/limited
Deliberating	- entry	Impaneled jurors, bailiff	Coat closet, couch	2-3	5-6	7-9	High	20-30	warm, semi-direct, or diffused daylight	NC 35-45	0.30-0.40	Courtroom	Private/maximum
	- toilets	Impaneled jurors (men and women)	Water closet (1) and wash basin (1) each for men and women	8-10 per toilet	18-20	26-30	High	20-30	or warm, semi-direct, or direct	NC 40-50	0.15-0.25	Entrance lobby of jury deliberation spaces	Private/maximum
	- deliberation	Impaneled jurors	Table, chairs/drinking fountain	6-8	12-16	18-23	Medium	40-60	warm, direct or semi-direct	NC 30-40	0.30-0.40	Entrance lobby	Private/maximum

THERMAL STANDARDS: 72°-74° ET (summer), 65°-71° ET (winter)



A. PROJECTED NEW YORK COUNTY POPULATION



B. PROJECTED FELONY PRELIMINARY HEARINGS AND MISDEMEANOR ARRAIGNMENTS IN THE CRIMINAL COURT

FIGURE 13
PROJECTED POPULATION AND CRIMINAL COURT INTAKE CASELOAD
NEW YORK COUNTY

TABLE 4
EXISTING MANPOWER DATA
 OFFICE OF PROBATION, NEW YORK COUNTY

ORGANIZATION UNITS	PERSONNEL TITLES	OFFICE MANAGER	INTAKE CLERKS	PROBATION OFFICERS	SUPERVISOR (P.O.)	BRANCH CHIEF	SUPERVISOR (TYPING)	TYPIST	RECORDS CLERK	LIAISON OFFICERS	PARA-PROFESSIONALS	TOTAL
INTAKE UNIT		1	4									5
PROBATION INVESTIGATION UNITS *				29	6	1				4	1	40
TYPING POOL							1	8	1			10
TOTAL		1	4	29	6	1	1	8	1	4		56

* There are 6 units headed by a supervisor, 3 units have 5 Probation Officers and 3 units have 6 Probation Officers.

Case load: Established by branch chief, 170 weighted cases/year, (1/3 for Youthful Offenders and 1 for an adult investigation.

TABLE 5
MANPOWER PROJECTION 1970 - 2000
 OFFICE OF PROBATION, NEW YORK COUNTY

Job Title	1970	1975	1980	1985	1990	1995	2000
Branch Chief	1	1	1	1	1	1	1
Supervising Probation Officer	6	8	6	6	7	7	7
Probation Officers	29	47	39	40	41	41	42
Para-Professionals	1	8	6	6	7	7	7
Court Liaison Officers	4	6	6	6	6	6	6
Office Manager	1	2	2	2	2	2	2
Clerks	5	8	6	6	7	7	7
Typists	8	15	13	13	13	13	14
Supervising Typists	<u>1</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>
TOTALS	56	97	81	82	86	86	88

TABLE 6

SUMMARY OF MANPOWER AND SPATIAL REQUIREMENTS 1970 - 2000
SUPREME COURT CRIMINAL DIVISION AND CRIMINAL COURT, NEW YORK COUNTY

PERSONNEL	NUMBER OF PERSONS ⁺		EXISTING AREA (sq. ft.)	ASSIGNED MIN. WORK AREA* (sq. ft.)	ADDITIONAL SPACE* (sq. ft.)	TOTAL REQUIRED AREA* (sq. ft.)	TOTAL ASSIGNED AREA ⁺⁺ (sq. ft.)
	1970	2000					
Supreme Court Judges	14	22	22950	21862	2625	24487	36064
Supreme Court Officers	172	264	19253	21300	12500	33800	27723
Criminal Court Judges	28	37	8400	16188	1750	17938	11088
Criminal Court Officers	104	115	11341	12269	9812	22081	12589
Legal Aid Society	158	211	8895	21750	3562	25312	11920
District Attorney's Office	386	535	135341	62394	33250	65644	128124
Office of Probation -- Supreme Court	121	171	21862	18500	3938	22438	30825
Office of Probation -- Criminal Court	55	88	4657	9562	1688	11250	7311
Psychiatric Clinic -- Supreme Court	10	11	1774	1425	1188	2613	1951
Psychiatric Clinic -- Criminal Court	24	32	1856	4169	1562	5731	2468
Department of Correction	257	330	43244	28900	31250	61050	54522
Police Department	79	71	6916	6125	5375	11500	6916
Youth Counsel Bureau	15	21	1382	2475	1312	3787	2032
Manhattan Court Employment Project	58	79	3250	8912	4000	13912	4420
Society for the Prevention of Cruelty to Children	3	4	350	575	125	700	467
TOTAL	1484	1991	291471	236406	113937	352243	398420

*for detailed information, see chapter, "Manpower Requirements for the Criminal Court and the Criminal Division of the Supreme Court."

++based on existing space use

*25% circulation space added

TABLE 7

**SUMMARY OF DEPARTMENTAL AND COURTROOM AND ANCILLARY SPACE REQUIREMENTS
CRIMINAL COURTS BUILDING AND THE STATE OFFICE BUILDING, NEW YORK COUNTY**

COURTROOMS AND ANCILLARY FACILITIES

Area of existing courtrooms and ancillary facilities in the Criminal Court Building	= 149,251 sq. ft.
Existing number of courtrooms in the Criminal Court Building	= 35
Projected number of courtrooms for the Criminal Court and Supreme Court Criminal Division	= 48
Projected number of additional courtrooms required for 2000 A.D.	= 13 + 6 hearing rooms*
Number of courtrooms provided in the State Office Building	= 24 + 12 hearing rooms
Number of courtrooms available for expansion needs beyond 2000 A.D.	= 11 + 6 hearing rooms
Area of courtrooms and ancillary facilities provided in the State Office Building scheme	= 118,784 sq. ft.
Average area per courtroom (assuming 2 hearing rooms equal 1 courtroom)	= 8,960 sq. ft.
Area of courtrooms and ancillary spaces required for 2000 A.D.	= 63,360 sq. ft.
Area of courtrooms and ancillary spaces available for expansion needs beyond 2000 A.D.	= 55,424 sq. ft.
Area of courtrooms and ancillary spaces required in the Criminal Court and State Office Buildings for 2000 A.D.	= 212,611 sq. ft. **

TOTAL AREA SUMMARY

Total required area, excluding public, jury, general clerk, courtrooms and ancillary spaces	= 351,343 sq. ft.
Total required area of courtrooms and ancillary spaces for 2000 A.D.	= 212,611 sq. ft.
Total required public, jury and general clerk area	= 93,800 sq. ft. ***
Total required Net Functional Area	= 656,754 sq. ft.
Total Net Functional Area for the Criminal Court Building	= 433,118 sq. ft.
Total Net Functional Area for the State Office Building	= 374,232 sq. ft.
Total Net Functional Area for the Criminal Court and State Office Buildings	= 807,350 sq. ft.
Net Functional Area available for expansion needs beyond 2000 A.D.	= 150,596 sq. ft.

PROJECTION BASED ON EXISTING SPACE USE

Total required area, excluding public, jury, general clerk, courtrooms and ancillary spaces	= 398,420 sq. ft.
Total area of courtrooms and ancillary spaces	= 212,611 sq. ft.
Total public, jury and general clerk area	= 93,800 sq. ft.
Total Net Functional Area	= 704,831 sq. ft.
Net Functional Area available for expansion needs beyond 2000 A.D.	= 102,519 sq. ft.

* assumed
 ** 149,251 sq. ft. plus 63,360 sq. ft.
 *** estimated

TABLE 8

**TOTAL SPACE REQUIREMENT FOR EACH ADDITIONAL COURTROOM
CRIMINAL COURT, NEW YORK COUNTY**

SPACE	PERSONS PER COURTROOM	UNIT AREA (sq. ft.)	ASSIGNED AREA (sq. ft.)	PER CENT TOTAL
COURTROOM	participants 15-30 spectators 24-40		1200-1500	
ADJOINING SPACES				
Robing room	1		150-180	
Jury deliberation room with toilet	6		158-228	
Witness room	2-4 (varies)		80-90	
Conference room	2-4		70-80	
Court personnel 's office	7-10		100-120	
Prisoner holding facility with toilet	5-20		60-180	
Circulation space (25% of adjoining spaces)			165-220	
Sub-total			773-1098	
RELATED SPACES				
Office of Probation (investigation & supervision)	2.5 probation officers 0.5 supervisors 0.3 paraprofessionals 0.3 liaison officers 0.1 administrative staff 1.4 clerical	80-90 110-120 80-90 80-90 150-180 65-75	200-225 55-60 24-27 24-27 15-18 91-105	
Legal Aid Society	2.7 legal aid attorneys 0.5 law assistants 0.1 administrative attorneys 1.6 supporting staff	110-120 80-90 150-180 65-75	297-324 40-45 15-18 104-120	
District Attorney's Office	2.6 assistant district attorneys 0.6 supervisory staff 2.0 clerical	110-120 150-180 65-75	288-312 90-108 130-150	
Department of Correction	3.3 correction officers 0.3 captains 1.0 administrative staff 2.2 clerical	65-75 80-90 110-120 65-75	215-248 24-27 110-120 143-165	
Manhattan Court Employment Project	0.5 career developers 1.0 representatives 0.3 administrative staff 0.3 clerical staff	80-90 80-90 110-120 65-75	40-45 80-90 33-36 20-23	
Psychiatric Clinic	0.5 psychiatrists 0.3 psychologists & social workers 0.4 administrative & clerical staff	150-180 110-120 65-75	75-90 33-36 26-30	
Administrative and Clerk's Office	0.3 administrative staff 3.9 clerical staff	150-180 65-75	45-54 254-293	
Police Department	1.7 supervisory staff 0.9 staff	110-120 80-86	187-204 72-81	
Judge's chambers with toilet & closet			350-400	
Jury facilities *			150-200	
Detention facilities *			100-150	
Circulation space (25% of related spaces)			837-958	
Sub-total			4165-4789	
SUMMARY				
COURTROOM			1200-1500	19.6-20.3
ADJOINING SPACES			773-1098	12.5-14.9
RELATED SPACES			4165-4789	67.9-64.8
TOTAL SPACE PER COURTROOM			6138-7387	

* facilities that can be located centrally in another building

TABLE 9

TOTAL SPACE REQUIREMENT FOR EACH ADDITIONAL COURTROOM
SUPREME COURT CRIMINAL DIVISION, NEW YORK COUNTY

SPACE	PERSONS PER COURTROOM	UNIT AREA (sq. ft.)	ASSIGNED AREA (sq. ft.)	PER CENT TOTAL
COURTROOM	participants 15-30 spectators 24-40		1200-1500	
ADJOINING SPACES				
Robing room	1		150-180	
Jury deliberation room with toilets	6-12		200-350	
Alternate jurors' room	1-2		80-100	
Witness rooms: State & defense	4-6 each (varies)		100-120 100-120	
Conference room	2-4		70-80	
Court personnel's room (if required)	7-10		100-120	
Prisoner holding facility with toilet	1-5		40-80	
Circulation space (25% of adjoining spaces)			210-290	
Sub-total			1050-1440	
RELATED SPACES				
Office of Probation	3.9 probation officers 0.9 supervising officers 0.1 administrative staff 3.0 clerical	80-90 110-120 150-180 65-75	312-351 99-108 15-18 201-225	
Legal Aid Society	0.8 legal aid attorneys 0.5 legal aid attorneys (mental health unit) 0.5 law assistants 0.1 administrative attorneys 1.6 supporting staff	110-120 110-120 80-90 150-180 65-75	88-96 55-60 40-45 15-18 104-120	
District Attorney's Office	5.9 assistant district attorneys 1.2 supervisory staff 3.9 clerical	110-120 150-180 65-75	649-708 180-216 254-293	
Department of Correction	3.3 correction officers 0.3 captains 0.1 administrative staff 2.2 clerical	65-75 80-90 110-120 65-75	215-248 24-27 110-120 143-165	
Psychiatric Clinic	0.2 psychiatrists 0.2 psychologists 0.2 clerical	150-180 110-120 65-75	30-37 22-24 13-15	
Administrative and Clerk's Office	0.3 administrative staff 2.4 clerical staff	150-180 65-75	45-54 156-185	
Other departments	0.1 individuals	110-120	11-12	
Judge's chambers:				
Judge's chamber & ancillary spaces		445-500	445-500	
Secretary		145-185	145-185	
Law assistant		95-110	95-110	
Grand jury facilities *	0.2 area of facilities		300-500	
Jury facilities *			300-400	
Detention facilities			75-100	
Circulation space (25% of related spaces)			839-998	
Sub-total			4980-5938	
SUMMARY				
COURTROOM - average trial courtroom			1200-1500	16.6-16.9
- public interest trial courtroom			2000-2500	24.9-25.3
ADJOINING SPACES			1050-1440	14.5-16.2
RELATED SPACES			4980-5938	68.9-66.9
				62.0-60.1
TOTAL SPACE PER COURTROOM - average trial courtroom				
			7230-8878	
- public interest trial courtroom				
			8030-9878	
* facilities that can be located centrally in another building				

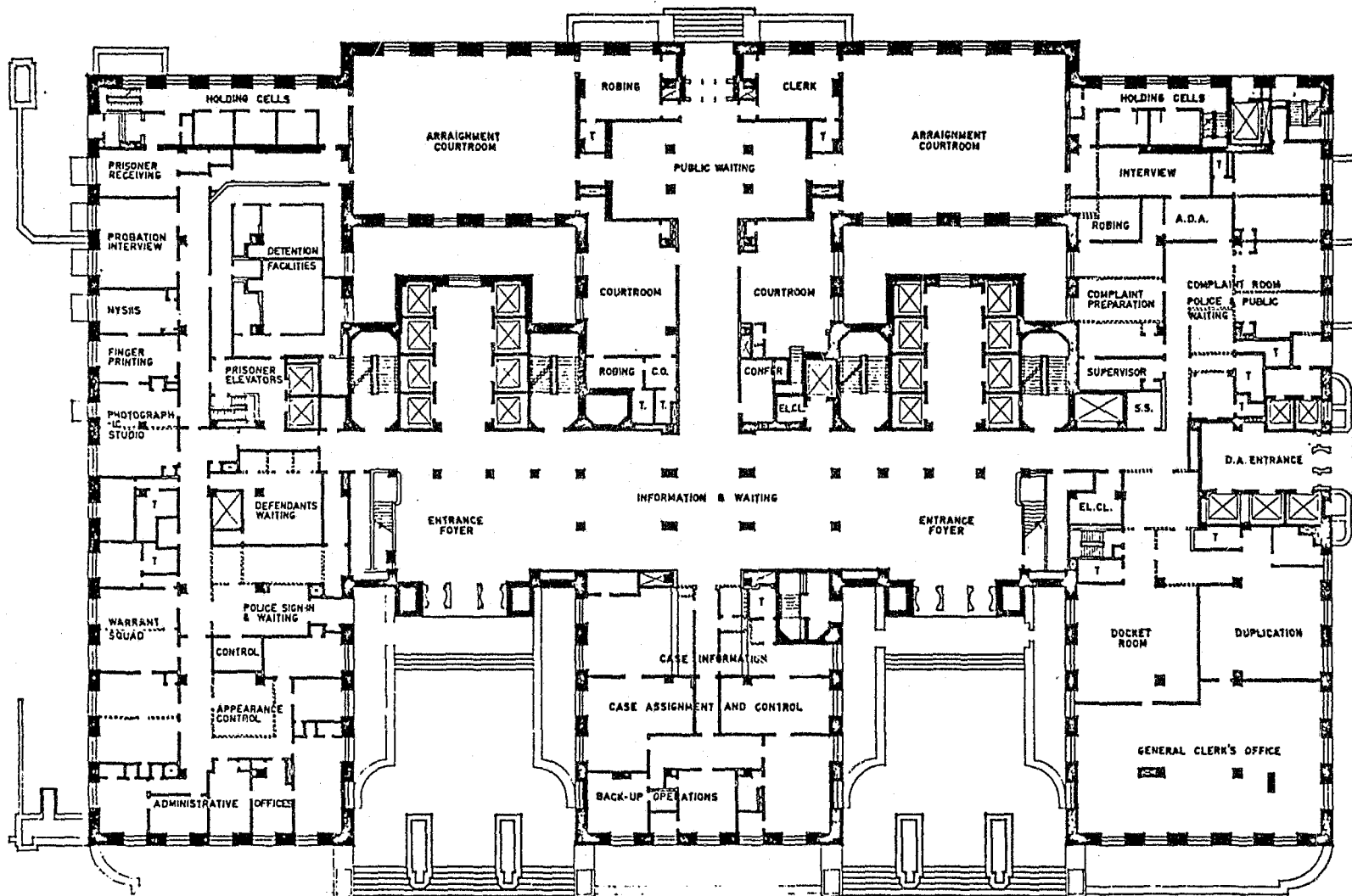


FIGURE 14
 PROPOSED DETAILED SPACE USE PLAN
 GROUND FLOOR, CRIMINAL COURT BUILDING, NEW YORK COUNTY

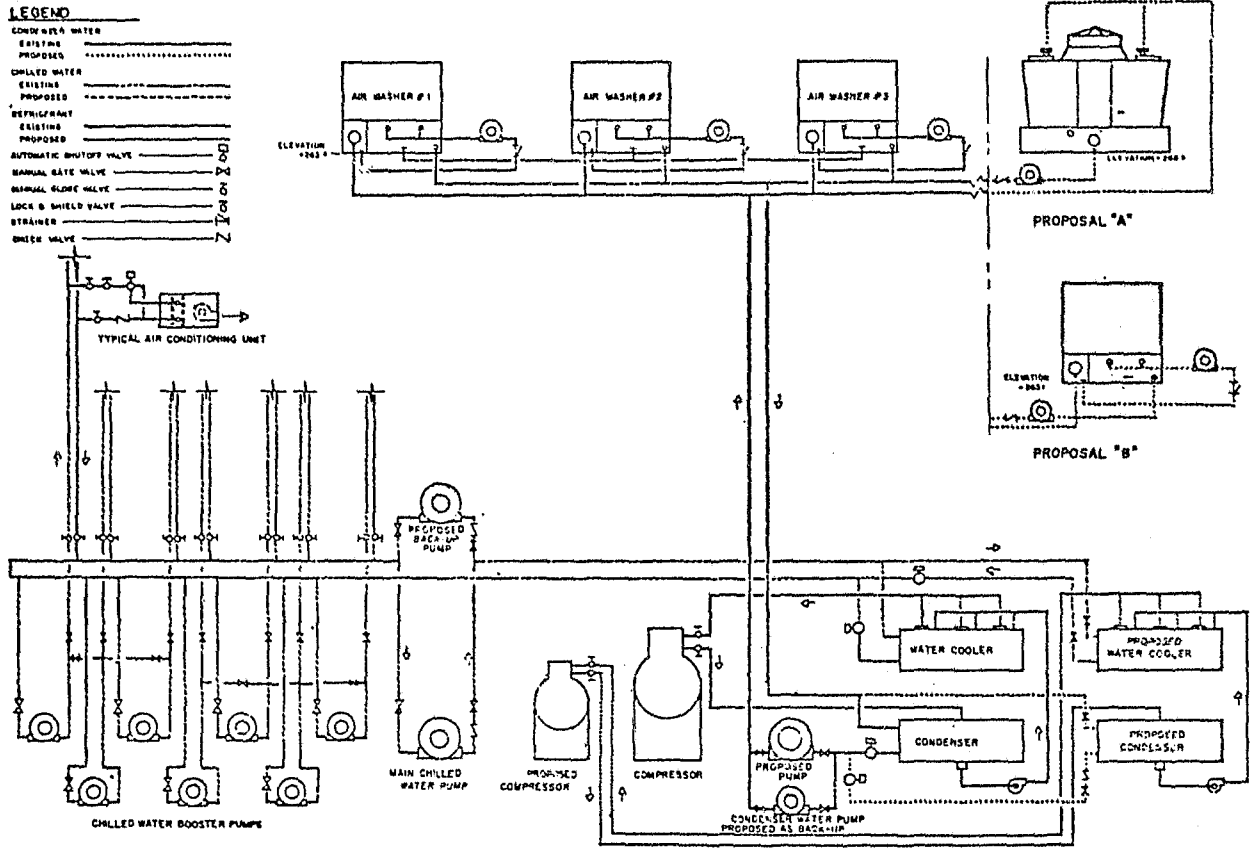
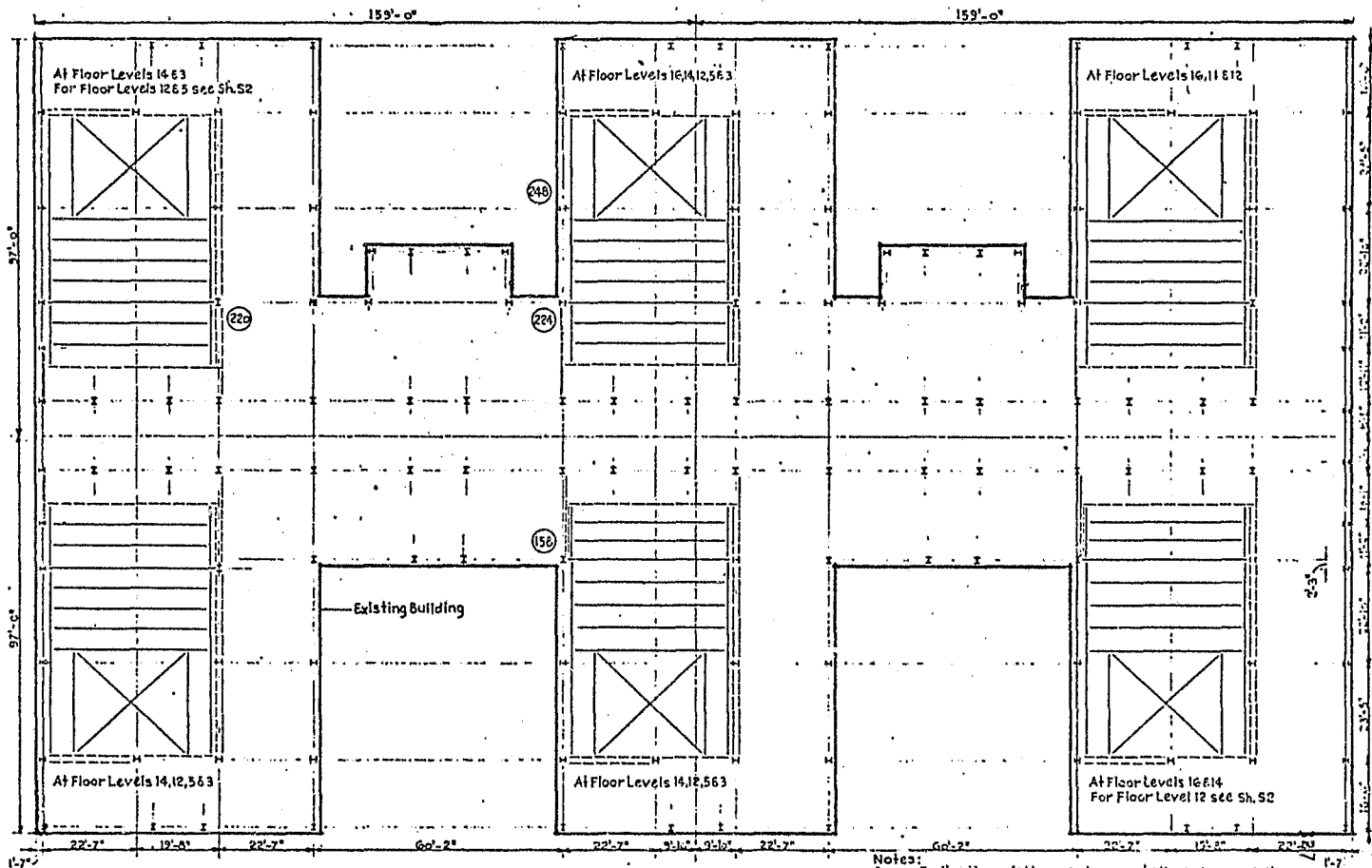


FIGURE 15
ENGINEERING SOLUTION IN RENOVATION PROJECT: AIR CONDITIONING SYSTEM
CRIMINAL COURTS BUILDING, NEW YORK COUNTY



TYPICAL FRAMING PLAN—FLOOR LEVELS 16,14,12,5/3
(For Proposed Floor Additions above Court Room Areas)

- Notes:
 1 ——— Indicating existing members, not all members are shown.
 2 ——— Indicates proposed new framing for this study.
 3. All columns shown are existing columns, except 4 new columns for each of 4 proposed new tower additions.

Col. 150

Fl.no.	Section	Area	Load	$\frac{P}{A}$	add. floor load	add. load	Load Tot.	$\frac{P}{A}$	incr. load	incr. %
14	14-11-4-20	125	1821	14.6	49	49	1870	15	.4	2.7
12	14-11-3-20 2RS 18-1 1/2	148.5	2151	14.5	"	98	2249	15.1	.6	4.5
5	14-11-1-20 2RS 22-2 1/2	240.5	3597	15	"	147	3744	15.5	.5	4.1
3	14-11-4-20 2RS 22-3 3/8	262.5	3865	14.7	"	196	4061	15.5	.8	5.1
Basement	14-11-4-20 2RS 24-3 1/4	281	4181	14.9	—	196	4377	15.6	.7	4.7

FIGURE 16
 STRUCTURAL FEASIBILITY
 CRIMINAL COURTS BUILDING, NEW YORK COUNTY

TABLE 10
RENOVATION COST ESTIMATES
 CRIMINAL COURTS BUILDING, NEW YORK COUNTY

FLOOR/ EQUIPMENT	H.V.A.C. COSTS	ELECTRICAL COSTS	PLUMBING COSTS	COST/FLOOR INCL. SER- VICES COSTS
Basement	-	-	-	-
First	37,500	18,500	4,000	175,236
Second	43,999	6,800	14,971	175,591
Third	-	6,700	26,400	85,945
Fourth	60,000	40,000	16,800	188,771
Fifth	22,500	10,000	5,570	98,833
Sixth & Seventh	-	-	-	84,598
Eighth, Ninth & Tenth	30,000	14,000	11,200	117,382
Eleventh, Twelfth & Thirteenth	24,080	3,200	-	66,534
Fourteenth	-	-	-	82,694
Fifteenth	-	8,000	-	101,471
Sixteenth	-	-	13,500	36,220
Seventeenth	-	-	-	-
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SUB-TOTAL				1,213,276
Existing Courtroom Renovation				855,600
Painting				122,000
Additional Electrical 100 amps in each closet				61,000
Window Cooling Units	40,000	8,600	-	48,600
300-ton Refriger- ation Unit	100,000	25,000	-	125,000
3 Clarage Air- Washer Units	-	-	60,500	60,500
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SUB CONTRACT	358,079	201,800	152,941	2,485,975
TOTALS				
General Contractor's Profit & Overhead	72,201	42,480	32,129	522,060
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TOTAL CONTRACT COSTS	433,280	244,280	185,070	3,008,036
15% Contingency	64,990	36,640	27,760	450,000
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TOTAL COST (July, 1971)				3,460,000

END