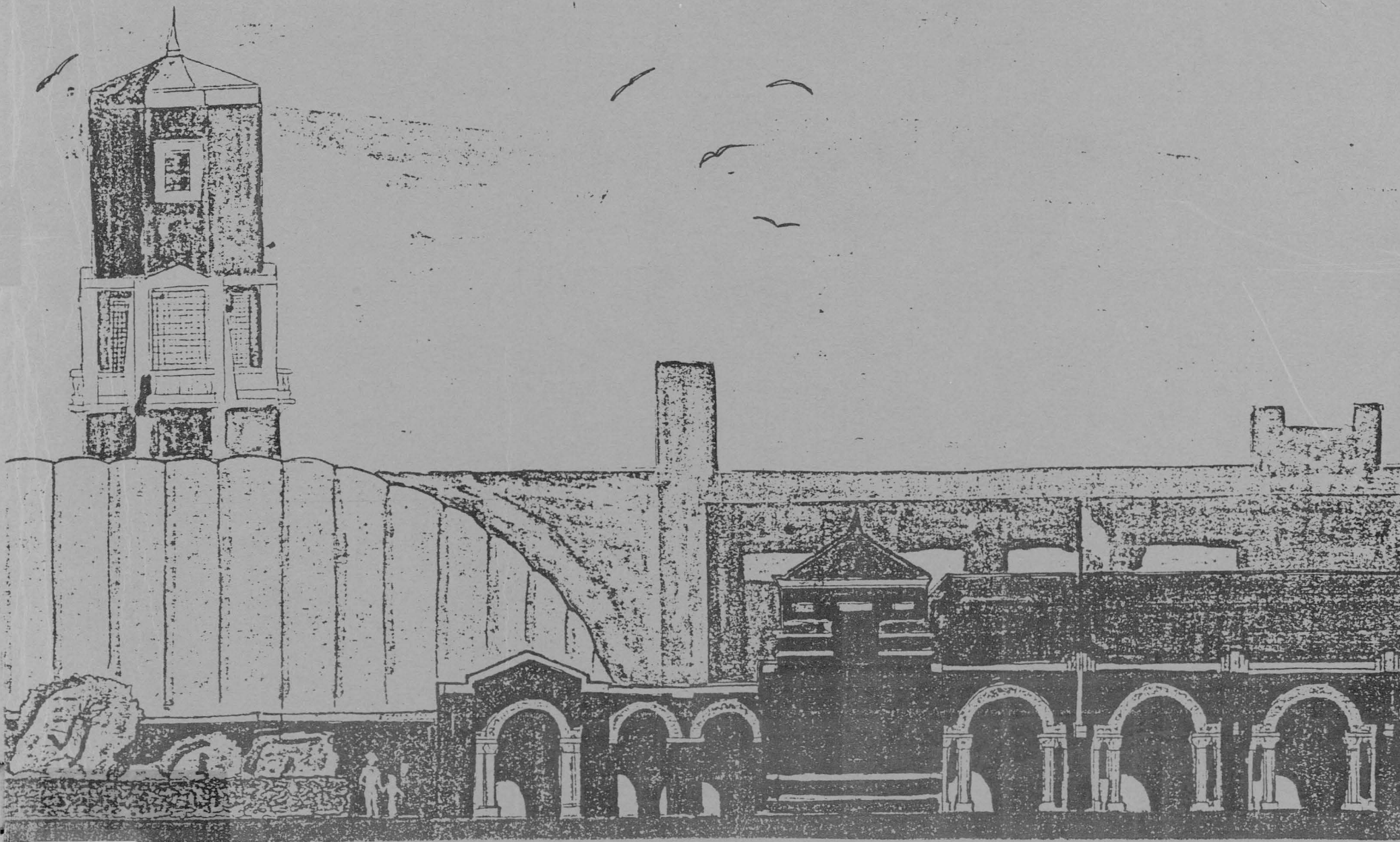




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# Adaptive Use Design Study

## JACOB RIIS BATHHOUSE

GATEWAY NATIONAL RECREATION AREA / NEW YORK - NEW JERSEY

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Adaptive use design study,  
Jacob Riis Bathhouse,

Area : adaptive use design  
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**ADAPTIVE USE DESIGN STUDY**

**JACOB RIIS BATHHOUSE  
GATEWAY NATIONAL RECREATION AREA**

**FOR:  
U.S. DEPARTMENT OF INTERIOR  
NATIONAL PARK SERVICE  
DENVER SERVICE CENTER**

**A/E CONTRACT NO. CX-2000-3-0027**

**BEYER BLINDER BELLE, ARCHITECTS & PLANNERS**

**APRIL 15, 1984**

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## Preface

These studies of adaptive use design alternatives were prepared by Beyer Blinder Belle, Architects and Planners, under Architect-Engineer Contract No. CX-2000-3-0027, to assist National Park Service management to evaluate the feasibility and desirability of various approaches to the preservation and adaptive use of the Jacob Riis Bathhouse, Breezy Point Unit, Gateway National Recreation Area. As the studies progressed, it became apparent that considerable capital investment would be required to adequately address the preservation and conservation needs of the Bathhouse. It also became more and more apparent that the National Park Service budget could not provide adequate funds and that we should start to consider seeking private capital investment under the Historic Property Leasing Program.

The leasing program requires that proposed alterations to National Register historic structures comply with NPS-28 Cultural Resource Management Guidelines, the Secretary of Interior's Standards for Historic Preservation, and any other requirements the National Park Service may impose. This requirement was carefully considered in the formulation of all of the adaptive use alternatives. The Historic Structure Report, Historical Data, for Jacob Riis Park Historic District states that the park "is historically significant as a relatively unaltered example of a publicly-planned and designed municipal bathing beach in the 1930s. . . . The bath house is the most important historic structure in the park and is an excellent example of beachfront recreational architecture of the early twentieth century."

The entire bathhouse complex (its mass, volumes, materials, form, design and details) is considered significant both historically and architecturally. Of relatively less significance are the changing structures and showers within the courtyard enclosures and the expedient alterations made to the structures since World War II. All of the adaptive use alternatives preserve the significant aspects of the bathhouse while providing for increasing intensity and efficiency of use. A future Historic Structure Report, Architectural Data should address the subject of significance of the various detailed aspects of the bathhouse and develop detailed alternative treatments that would comply with National Park Service policies and guidelines.

Proposals for alterations to the bathhouse under the Historic Property Leasing Program will be subject to the provisions of NPS-28, and review by the National Park Service, North Atlantic Region. The National Park Service, Mid-Atlantic Region, will review applications for certification of improvements for conformance to the Secretary of Interior's Standards for Rehabilitation to qualify for tax credits under the Economic Recovery Tax Act of 1981, as amended.

## Introduction

Given the parameters of the Jacob Riis Project -- i.e., that the NPS cannot independently finance its rehabilitation and on-going operation -- it seems clear that any adaptive use study must offer potential concessionaires scenarios for a range of uses which might be economically feasible. Given its isolated location, any adaptive use may appear to be at least problematical. But, assuming that adaptive use will prove to be practical, it seems apparent that the following parameters must be recognized:

1. The project has no immediate economic hinterland, as it would if it were on the waterfronts of Manhattan, Brooklyn, or Westchester. Hence, in order to be self-supporting, its facilities would have to be attractive to a regional or sub-regional market.
2. Because of the shortness of the bathing season, only two strategies seem likely to secure the continuing use of the facility:

Summertime use: modifications to existing plan to reduce year-round maintenance costs to an absolute minimum while providing increased usage of the thousands of square feet of presently mothballed space. The solutions may range from continuing to use the structure more or less "as is" to developing a reuse plan which calls for the full utilization of the entire structure. Schemes A through C assume rehabilitation for summertime use only.

Year-round use: amplification of existing plant to create a new range of facilities. Although this would involve substantial new capital investments, it might well be the only program which would be viable. If adopted, it would mandate a "critical mass" of interlocking, year-round facilities. In other words, the simple single-use program of summer sea bathing for which the facility was initially designed would have to be "beefed up" by a range of year-round, all-weather amenities such as sports facilities, e.g., heated pools; sauna; racquet ball courts; theaters; restaurants and bars. Scheme D is planned for year-round use. All such amenities would presumably interact with one another. All of them are revised on the assumption that at least part of the huge open courtyard would be enclosed with a transparent roof such as an inflated dome.

## Design

Though some of the present ground floor spaces are vacant or underutilized, reuse of these areas as improved concessions and services facilities is assumed in all of the following adaptive use design proposals. In each case it is assumed that the existing building envelopes will be rehabilitated in a way that will preserve their significance as relatively unaltered municipal bathing beach facilities while allowing changes and additions to be made to enhance the economic viability of the complex. Most schemes also assume the demolition of the maze of wood-frame changing facilities which exist in both halves of the central courtyard. Their condition, discontinued use, and the fire hazard they pose can justify this decision.

In all cases improvements (by others) to the boardwalk area along the beach are assumed. The provision of shade using both semi-permanent and temporary structures seems essential. Access to the second level of the Beach Pavilion from the boardwalk by the reconstructed exterior stairways is planned in several of the schemes. In each scheme it is assumed that the existing public toilet, police substation, first aid, and life guard functions will remain. The existing mechanical room is being maintained in its present location although more remote mechanical spaces be required in the decentralized use plans.

All adaptive use schemes are planned considering the requirements of the New York City Building Code. Excerpts from the code which relate to this project are listed in the Existing Conditions Report done in connection with this Adaptive Use Study. The major considerations at this level of schematic design have been for fire suppression, emergency exiting and access requirements for the handicapped. Alarm systems, emergency lighting and related issues have been further described in other sections of the study.

The feasibility of rehabilitating the Jacob Riis Bathhouse for both continued and adaptive use can be determined only after a thorough economic feasibility study has been made. The uses represented in the following schematic designs were selected from a listing of suggested new uses which have been offered in recent years.

The adaptive use schemes often suggest various uses for both halves of the bilaterally symmetrical structure. Each represents possibilities for zoning both use and responsibilities at the complex. Any of the uses represented in the proposals can be combined, modified, relocated, or deleted altogether.

**SCHEME A**

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#### SCHEME A (MINIMUM INVESTMENT)

Scheme A represents an approach involving the least amount of change to the facility for correspondingly little investment. This approach would be to extend the use of the facility by making only the most necessary repairs and improvements.

As an economy measure most of the facility would be "mothballed" or sealed off from public access, much as it is today. This spares even the cost of demolition of the maze of dilapidated changing facilities in the courtyard - structures which are practically unusable in any future plan for the facility. The "mothballing" of areas would also include the Entrance Pavilion and the entire second floor of the Beach Pavilion.

The majority of spaces along the south facade of the Beach Pavilion would be upgraded for continued leasing by concessionaires. Areas 3 and 4 would be National Park Service supported first aid, information and security facilities. The East and West Wings would be upgraded only as necessary without any addition of new toilet fixtures. A new enclosure for lifeguard services and equipment would be placed in the southeast corner of the Courtyard. The rear wing of the Beach Pavilion would continue to serve as storage for concessionaires and a locker area for employees.

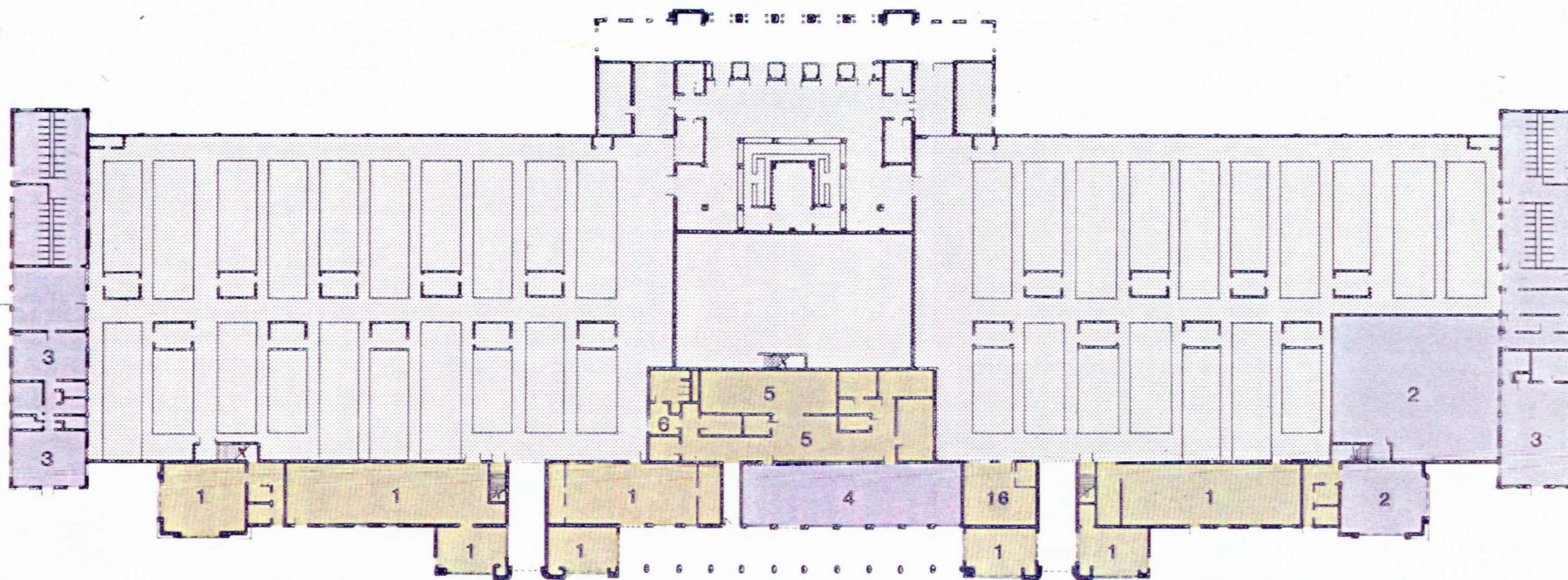
Rehabilitation of the exterior of the buildings would be limited to masonry repointing and consolidation as required, minor structural stabilization, roof and drain repairs.

Repairs and changes to electrical and mechanical systems would be minimal. A new gas fired hot water heater would be provided for the upgraded concession areas. New cold water, hot water, and hot water return piping from the boiler room would be extended to all concession, lifeguard and first aid areas on the south side of building. Each concession will be provided with hot and cold water valved outlets. Existing plumbing fixtures would be modified only to the extent necessary, replacing needed flush valves, toilet seats, and supply fittings. All fixture traps on 2nd floor would be sealed to prevent sewer gases from entering this space. The existing storm water system will remain.

Existing concession areas would be provided with new exhaust systems terminating on the roof. Window type air conditioners would be provided for the first aid and police offices and for the information spaces.

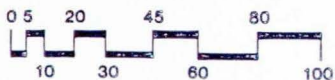
The entire electrical service and distribution system would be reused. Where practical existing branch circuiting would be reused. New panelboards would be provided in the rehabilitated areas. New lighting fixtures and devices would be provided throughout rehabilitated areas. In areas to be mothballed, no work will be performed and the entire electrical system and other mechanical systems would be left in its present condition. Power to these areas will be turned off.

The estimated cost of Scheme A is approximately \$780,000 (See Cost Estimate). With this minimal necessary financial investment repairs and improvements can be executed, thereby upgrading the quality and operation of the facility while maintaining the serviceability of the Beach Pavilion concessionaires. This scheme allows for future adaptive use of mothballed areas and a more extensive rehabilitation of existing fabric when private/public sector investment interest develops. Given the limited scope of work allowed by this option, the rehabilitation cost may be considered substantial since the result would be extended use of the facilities as it presently operates.



GATEWAY NATIONAL RECREATION AREA  
JACOB RIIS BATHHOUSE

# **SCHEME A (MINIMUM INVESTMENT)** **FIRST FLOOR**



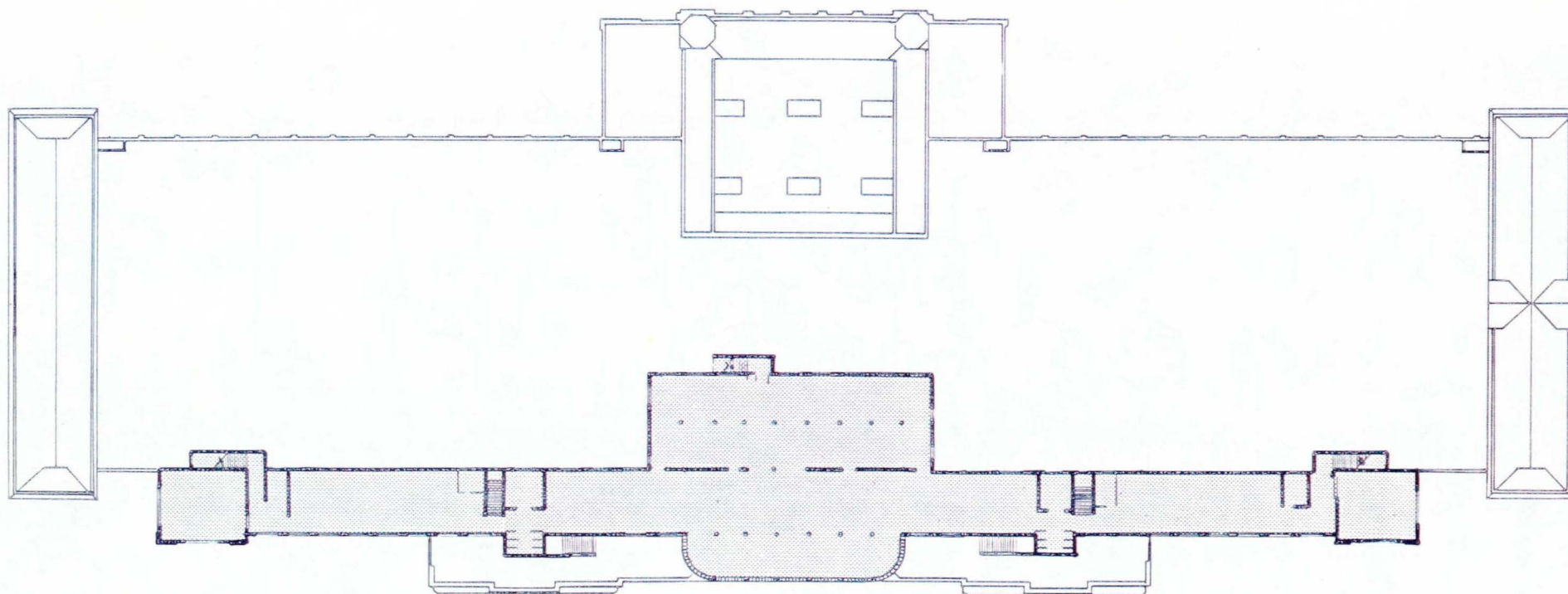
## **KEY TO NEW USES**

- |                         |                            |
|-------------------------|----------------------------|
| 1. CONCESSIONS AREA     | 9. KITCHEN                 |
| 2. LIFEGUARD FACILITIES | 10. RESTAURANT             |
| 3. FIRST AID/POLICE     | 11. OFFICES                |
| 4. INFORMATION CENTER   | 12. LANDSCAPE WITH GRASS   |
| 5. STORAGE              | 13. LANDSCAPE/SPORTS AREAS |
| 6. EMPLOYEE LOCKERS     | 14. HEALTH CLUB            |
| 7. LOCKERS FOR BATHERS  | 15. TENNIS COURT           |
| 8. BAR/LOUNGE           | 16. MECHANICAL             |

- |  |                  |
|--|------------------|
|  | RETAIL           |
|  | PUBLIC SERVICES  |
|  | HEALTH CLUB      |
|  | MOVIE THEATER    |
|  | LANDSCAPED AREAS |
|  | MOTHBALLED AREAS |

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GATEWAY NATIONAL RECREATION AREA  
JACOB RIIS BATHHOUSE

# **SCHEME A (MINIMUM INVESTMENT) SECOND FLOOR**



## **KEY TO NEW USES**

- |                         |                            |
|-------------------------|----------------------------|
| 1. CONCESSIONS AREA     | 9. KITCHEN                 |
| 2. LIFEGUARD FACILITIES | 10. RESTAURANT             |
| 3. FIRST AID/POLICE     | 11. OFFICES                |
| 4. INFORMATION CENTER   | 12. LANDSCAPE WITH GRASS   |
| 5. STORAGE              | 13. LANDSCAPE/SPORTS AREAS |
| 6. EMPLOYEE LOCKERS     | 14. HEALTH CLUB            |
| 7. LOCKERS FOR BATHERS  | 15. TENNIS COURT           |
| 8. BAR/LOUNGE           | 16. MECHANICAL             |

- |  |                  |
|--|------------------|
|  | RETAIL           |
|  | PUBLIC SERVICES  |
|  | HEALTH CLUB      |
|  | MOVIE THEATER    |
|  | LANDSCAPED AREAS |
|  | MOTHBALLED AREAS |

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**SCHEME B**

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#### SCHEME B (MODERATE INVESTMENT)

Scheme B represents a plan requiring a relatively moderate capital investment for rehabilitation of most but not all of the building spaces. In this scheme, more extensive rehabilitation would occur throughout the complex, however the Entrance Pavilion would be "mothballed" for some future use.

The courtyard area would be cleared of the changing room structures, and planted with a grass lawn. This space could be used for sunbathing and perhaps some passive recreation activities such as badminton. No functional changes would occur in the East and West Wings.

Concession areas would continue to occupy the ground floor of the Beach Pavilion with employee lockers and a National Park Service operated information facility in the rear wing. More beach front concession spaces would be provided in this scheme than in Scheme A since the NPS information center and the lifeguard facilities are being removed to more remote locations.

The second floor of the Beach Pavilion would again be used primarily as locker rooms and a bar/lounge. Offices, storage and lifeguard changing facilities would also be placed at this level. The exterior stairs from the boardwalk to the second level would be reconstructed and the roof terrace restored. All exits from the second floor level would be upgraded with construction having a 2 hour rating.

The exterior of all the buildings would be more extensively rehabilitated with structural stabilization, including lintel replacement, introduction of new expansion joints, and repointing as necessary. Other work would include treatment of masonry against the effects of weathering, consolidation of damaged cast stone work with only limited repair, and full rehabilitation of roofs and water handling systems.

Extensive rehabilitation of interior finishes, doors and windows would occur.

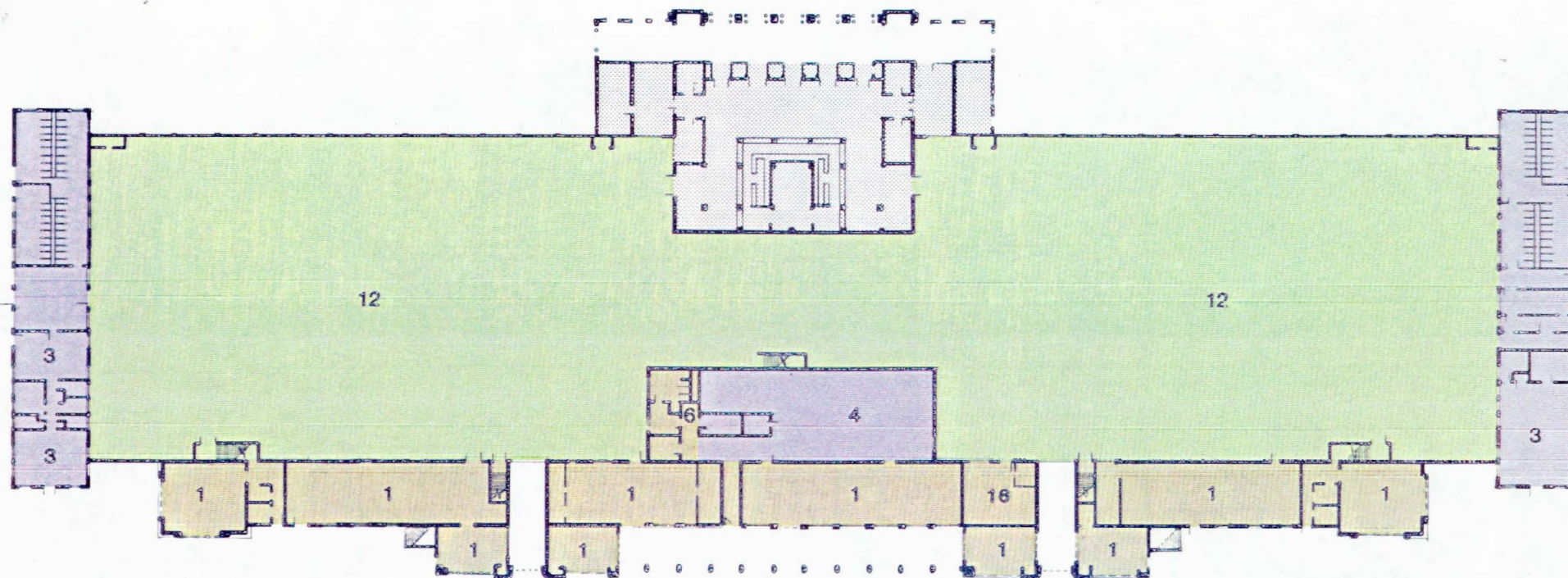
A new gas fired hot water heater and tank would be provided for the new concession areas. An additional water heater and tank would be provided to serve the bar and lounge. Existing plumbing fixtures would be modified only to the extent necessary, replacing needed flush valves, toilet

seats, and supply fittings. New cold water, hot water, and hot water return piping would be extended from the boiler room to all new concession, lifeguard and first aid areas. Each concession would be provided with valved outlets for hot and cold water as well as for new toilets. A new vent system would be provided from existing second floor toilet stacks. Vent headers would be located in concession areas with two outlets in each area. The existing storm water system will remain except that roof drains would be adjusted to accommodate any extensive roof repair. Vertical piping would be relocated as required to accommodate new partitions. Existing concession areas would be provided with new exhaust systems terminating on the roof. Window type air conditioners would be provided for the first aid and police offices and for the information spaces. No space heating system will be provided.

Under these schemes, the existing service and distribution system will be upgraded to allow for the installation of concession areas, mainly bar/lounge. New panelboards would be provided in the rehabilitation areas. New lighting fixtures and devices would be provided throughout. Rehabilitated concession spaces would be provided with new panelboards, size based on square foot area. In areas to be "mothballed", no work would be performed and the entire electrical system would be left in its present condition with shut down power.

The estimated cost of Scheme B is approximately \$1,926,000 (See Cost Estimate). The benefits of this plan include an increase in leasable concession space at the Beach Pavilion and re-use of the 2nd floor for a bar/lounge, life guards and a locker facility. In this scheme, the Bathhouse would undergo extensive interior rehabilitation, exterior rehabilitation, and structural repair. This option, like Scheme A, assumes possible future development of the Courtyard and Entry Pavilion spaces. A possible disadvantage of this plan would be the replacement of the Beach Pavilion storage/service facility with a relocated information center removed from immediate public access. It would be dependent on promenade signage to direct visitors to its location.

This option demands a moderately high financial investment for re-use of this structure as a seasonal facility.



GATEWAY NATIONAL RECREATION AREA  
JACOB RIIS BATHHOUSE

# **SCHEME B (MODERATE INVESTMENT)** **FIRST FLOOR**



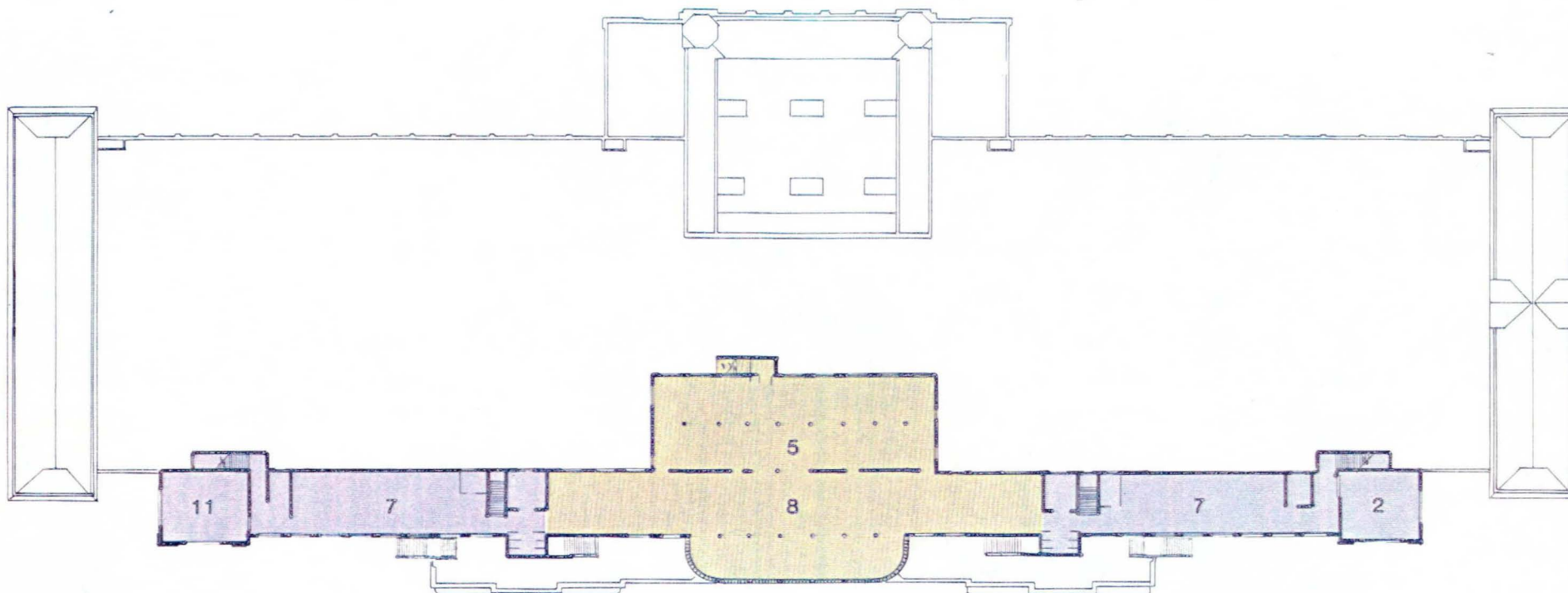
## **KEY TO NEW USES**

- |                         |                            |
|-------------------------|----------------------------|
| 1. CONCESSIONS AREA     | 9. KITCHEN                 |
| 2. LIFEGUARD FACILITIES | 10. RESTAURANT             |
| 3. FIRST AID/POLICE     | 11. OFFICES                |
| 4. INFORMATION CENTER   | 12. LANDSCAPE WITH GRASS   |
| 5. STORAGE              | 13. LANDSCAPE/SPORTS AREAS |
| 6. EMPLOYEE LOCKERS     | 14. HEALTH CLUB            |
| 7. LOCKERS FOR BATHERS  | 15. TENNIS COURT           |
| 8. BAR/LOUNGE           | 16. MECHANICAL             |

- |  |                  |
|--|------------------|
|  | RETAIL           |
|  | PUBLIC SERVICES  |
|  | HEALTH CLUB      |
|  | MOVIE THEATER    |
|  | LANDSCAPED AREAS |
|  | MOTHBALLED AREAS |

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GATEWAY NATIONAL RECREATION AREA  
JACOB RIIS BATHHOUSE

**SCHEME B (MODERATE INVESTMENT)  
SECOND FLOOR**



**KEY TO NEW USES**

- |                         |                            |
|-------------------------|----------------------------|
| 1. CONCESSIONS AREA     | 9. KITCHEN                 |
| 2. LIFEGUARD FACILITIES | 10. RESTAURANT             |
| 3. FIRST AID/POLICE     | 11. OFFICES                |
| 4. INFORMATION CENTER   | 12. LANDSCAPE WITH GRASS   |
| 5. STORAGE              | 13. LANDSCAPE/SPORTS AREAS |
| 6. EMPLOYEE LOCKERS     | 14. HEALTH CLUB            |
| 7. LOCKERS FOR BATHERS  | 15. TENNIS COURT           |
| 8. BAR/LOUNGE           | 16. MECHANICAL             |

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|--|-------------------|
|  | RETAIL            |
|  | PUBLIC SERVICES   |
|  | HEALTH CLUB       |
|  | MOVIE THEATER     |
|  | LANDSCAPED AREAS  |
|  | MOTHBALLLED AREAS |

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**SCHEME C**

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#### SCHEME C (CONSIDERABLE INVESTMENT)

Scheme C would involve a considerable investment by the National Park Service with parts of the plan possibly being financed and developed by private capital investment.

The use and rehabilitation of the East and West Wings and the ground floor of the Beach Pavilion would be essentially the same as Scheme B. An optional new elevator could be located in the Beach Pavilion to serve public access to the new restaurant upstairs.

A new restaurant at the second level would also have a bar/lounge with access to the open air terrace at the south elevation. A kitchen for the restaurant would be located in the rear wing. Offices and lifeguard facilities would occupy the extreme ends of the second floor.

The Entrance Pavilion would be used for receiving and directing beach-goers and other users of the facility. Presumably it would be operated at least in part by the National Park Service as a reception area. A number of other functions could possibly occur in this space.

The courtyard area would be cleared of the existing changing facilities and redeveloped with landscaping for open air court games, and perhaps an amphitheater.

The exterior of the Riis Bathhouse would be completely restored to its 1937 appearance. Rusting ironwork within masonry walls would be extensively replaced and all structural problems corrected. Missing or damaged ornamental cast stone work would be replicated with all elements of the exterior masonry completely restored. Windows and doors would be repaired or replaced as necessary. Roof systems would be rehabilitated.

Interior finishes would be substantially upgraded with repaired plaster and tile work and new painting throughout.

In this scheme the existing concession areas would be provided with a new exhaust system terminating on the roof. Package air conditioners would be provided for the first aid/police, office, information spaces and the bar and restaurant at the second level. No space heating

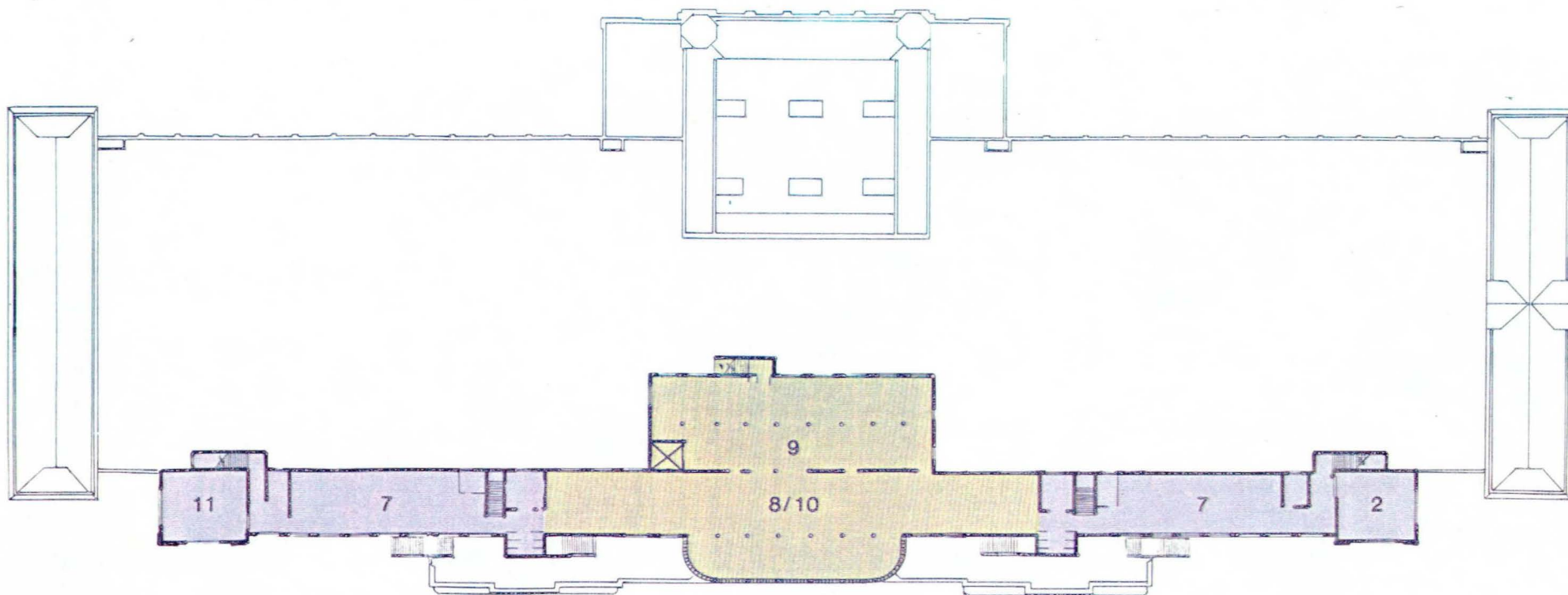
system would be provided. Exhaust systems would be provided for the second floor bar and restaurant areas. Commercial type hoods and exhaust systems would be provided for the kitchen areas.

The existing electrical service and distribution system will be upgraded to allow for the installation of concession areas and the bar and restaurant. New panelboards would be provided in the rehabilitation areas. New lighting fixtures and devices would be provided throughout. Rehabilitated concession spaces would be provided with new panelboards, size based on square foot area.

A new gas fired hot water heater and tank would be provided for the new concession areas. An additional water heater and tank would be provided to serve the bar and restaurant. Existing plumbing fixtures would be modified only to the extent necessary, placing needed flush valves, toilet seats, and supply fittings. New cold water, hot water, and hot water return piping would be extended from the boiler room to all new concession, lifeguard and first aid areas. Each concession would be provided with valved outlets for hot and cold water as well as for new toilets. A new vent system would be provided from existing second floor toilet stacks. The existing storm water system will remain except that roof drains would be adjusted to accommodate any extensive roof repair. Vertical piping would be relocated as required to accommodate new partitions. Existing concession areas would be provided with new exhaust systems terminating on the roof. The bar and restaurant area at the second floor would be sprinklered and all second floor fire exits rehabilitated with two hour rating construction.

The estimated cost of Scheme C is approximately \$3,327,000 (See Cost Estimate). This plan calls for major interior rehabilitation, structural repairs and exterior fabric rehabilitation. This option substantially expands the present use of the Bathhouse with a new bar/lounge and restaurant on the second floor while maintaining the location of the Beach Pavilion concessionaires. This scheme makes use of all parts of the building converting the Entry Pavilion to an NPS exhibit/information center and courtyards for open court games and/or an amphitheater. This alternative makes maximum utilization of built space which currently exists at the Bathhouse. Cost for this Scheme would be relatively high, however, more space is being re-utilized.





GATEWAY NATIONAL RECREATION AREA  
JACOB RIIS BATHHOUSE

**SCHEME C (CONSIDERABLE INVESTMENT)  
SECOND FLOOR**



**KEY TO NEW USES**

- |                         |                            |
|-------------------------|----------------------------|
| 1. CONCESSIONS AREA     | 9. KITCHEN                 |
| 2. LIFEGUARD FACILITIES | 10. RESTAURANT             |
| 3. FIRST AID/POLICE     | 11. OFFICES                |
| 4. INFORMATION CENTER   | 12. LANDSCAPE WITH GRASS   |
| 5. STORAGE              | 13. LANDSCAPE/SPORTS AREAS |
| 6. EMPLOYEE LOCKERS     | 14. HEALTH CLUB            |
| 7. LOCKERS FOR BATHERS  | 15. TENNIS COURT           |
| 8. BAR/LOUNGE           | 16. MECHANICAL             |

- |  |                   |
|--|-------------------|
|  | RETAIL            |
|  | PUBLIC SERVICES   |
|  | HEALTH CLUB       |
|  | MOVIE THEATER     |
|  | LANDSCAPED AREAS  |
|  | MOTHBALLLED AREAS |

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**SCHEME D**

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#### SCHEME D (MAXIMUM INVESTMENT)

Scheme D differs from Schemes A, B and C in that it would probably require substantial private capital investment in order for it to be accomplished. Presumably concessionaires would be the principle tenants of the year-round facility. The National Park Service presence and responsibility for the physical plant would be relatively minor.

Concessions would continue to be located at the ground floor of the Beach Pavilion and the East and West Wings would remain as first aid and security offices. Storage and employee facilities would be in a totally rehabilitated area in the rear wing of the Beach Pavilion at the ground floor.

The Entrance Pavilion would be adapted for use as a reception area with offices and as an entrance to new recreation facilities in the east and west courtyard areas. It would also provide both elevator and stair access to new facilities located at the second floor level between the Beach and Entrance Pavilions.

The rear portion of the Entrance Pavilion at the ground floor would be modified to serve as access to locker rooms, a bar/lounge and a health club office for new recreation facilities. The new construction joining the Beach Pavilion and the Entrance Pavilion would also accommodate two new 150 person capacity theaters, a bar and new bathrooms at the second floor level. A quality restaurant would be located in the central portion of the second floor in the Beach Pavilion with the remainder of the floor serving as either offices or lifeguard facilities.

The recreation/health club function depicted here is schematic and is intended to represent how various facilities would fit into the available space. New facilities include six new tennis courts, swimming and wading pools, and seven racketball courts. The swimming and tennis activities would be sheltered by heated pneumatic structures erected on a seasonal basis.

New construction in the central portion of the courtyard, as well as the pneumatic structures over the courtyard areas, were planned considering sight lines from outside the complex. Both roof projections are visible from various vantage points but their placement in plan (setback) and

design in elevation are intended to cause minimal intrusion on the architectural character of the north, east and west elevations.

Gas fired hot water heaters would be provided for the new concession areas as well as the new restaurant kitchen and bar. All new drainage, vents and domestic water services would be provided. New toilet facilities would be provided as required for the new health club. Sanitary drainage vent and domestic water would be provided for toilets and connected to new water distribution. A complete swimming and wading pool filtration system would be provided. Existing toilet fixtures would be modified only to the extent necessary, replacing needed flush valves, seats and supply fittings.

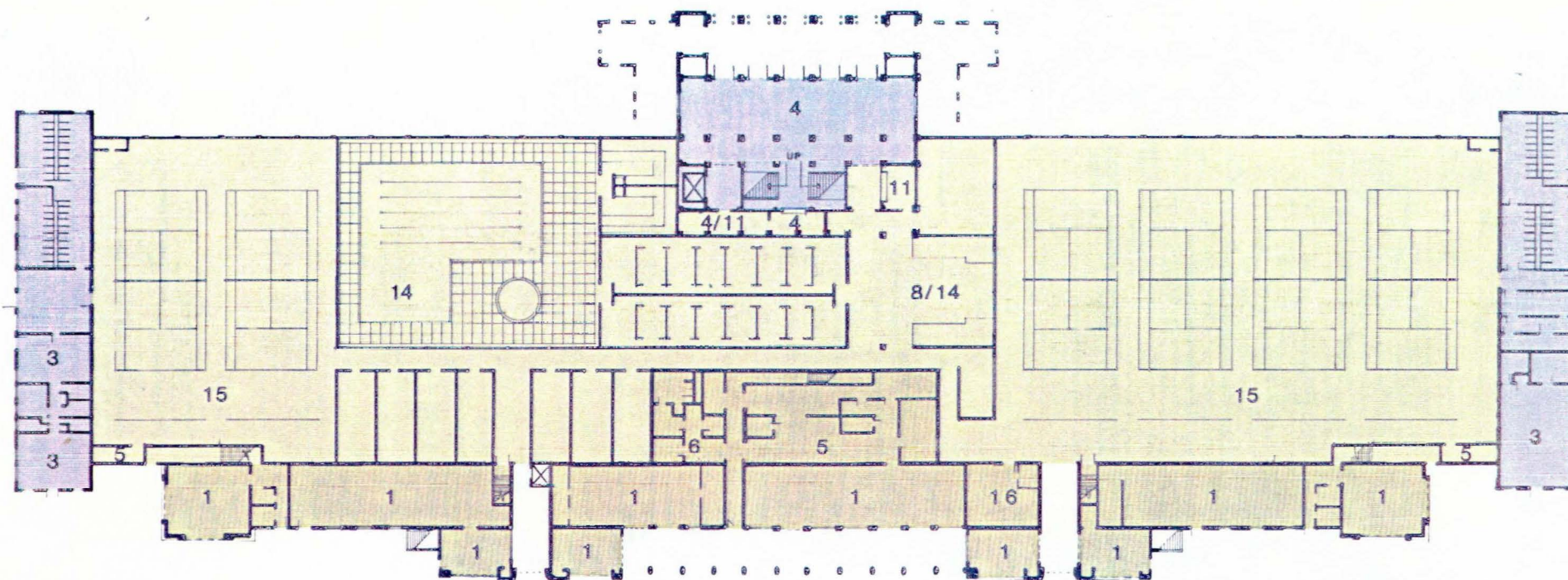
Under this scheme the existing concession areas would be provided with a new exhaust system terminating on the roof. A gas fired hot water boiler plant would be provided to heat all existing spaces and to supply heat to the air structures above the tennis court area. Pool heating would be provided from the boiler plant. A mechanical ventilation system would be provided for all new locker room areas. A packaged rooftop air conditioning system would be provided for the second floor restaurant area and for each theater. The bar and entry area, as well as offices in the East and West wings would also be air conditioned. Commercial hoods and exhaust systems would be provided for the kitchen area. An alternative power source, mainly co-generation, was investigated. Under this scheme, where maximum expenditure is proposed, it does not seem feasible. Two new elevators to the second floor theaters and restaurant would be provided.

Under this scheme a new service would be obtained from Long Island Lighting Company via a new pad mounted transformer. Secondary service would be 120/180 volts, 3 phase, 4 wire with provisions for metering for Park Service and general building loads, a separate meter for each concession area and a separate meter for the health club. The winter bubble enclosure for the health club

would be provided with an emergency generator (diesel fueled) to maintain service to bubble air support equipment. New panelboards would be provided and all new lighting would be fluorescent or HID type. Where possible branch circuits would be run concealed. All exposed branch circuits would be in rigid PVC coated galvanized steel conduit. The proposed theaters would be provided with emergency lighting in accordance with code requirements.

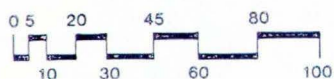
The estimated cost of Scheme D is approximately \$6,110,000 plus about 1,500,000 which would probably be required for specialized finishes (See Cost Estimate). This option requires substantial capital investment for new construction needed for the various health, sport and movie facilities and rehabilitation of the second floor to be used for a restaurant/bar. A complete rehabilitation of the exterior would occur including extensive cast stone replication work. The serviceability of the Beach Pavilion concessions is maintained since the rear storage area is not significantly altered in this scheme. This Scheme represents maximum development for a high investment. It assumes year round usage which has an untested feasibility at this site.

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GATEWAY NATIONAL RECREATION AREA  
JACOB RIIS BATHHOUSE

# **SCHEME D (MAXIMUM INVESTMENT) FIRST FLOOR**



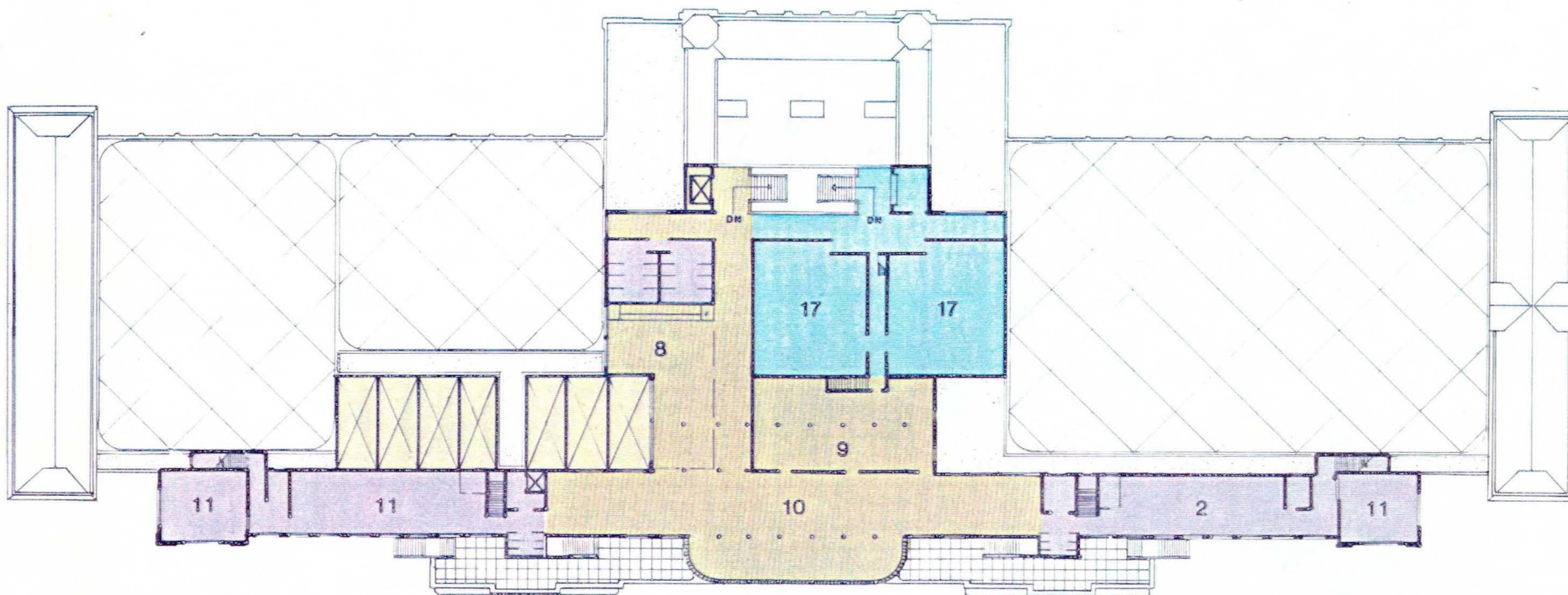
## **KEY TO NEW USES**

- |                         |                            |
|-------------------------|----------------------------|
| 1. CONCESSIONS AREA     | 9. KITCHEN                 |
| 2. LIFEGUARD FACILITIES | 10. RESTAURANT             |
| 3. FIRST AID/POLICE     | 11. OFFICES                |
| 4. INFORMATION CENTER   | 12. LANDSCAPE WITH GRASS   |
| 5. STORAGE              | 13. LANDSCAPE/SPORTS AREAS |
| 6. EMPLOYEE LOCKERS     | 14. HEALTH CLUB            |
| 7. LOCKERS FOR BATHERS  | 15. TENNIS COURT           |
| 8. BAR/LOUNGE           | 16. MECHANICAL THEATER     |

- |  |                  |
|--|------------------|
|  | RETAIL           |
|  | PUBLIC SERVICES  |
|  | HEALTH CLUB      |
|  | MOVIE THEATER    |
|  | LANDSCAPED AREAS |
|  | MOTHBALLED AREAS |

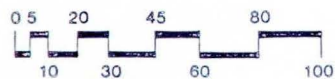
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GATEWAY NATIONAL RECREATION AREA  
JACOB RIIS BATHHOUSE

# **SCHEME D (MAXIMUM INVESTMENT) SECOND FLOOR**



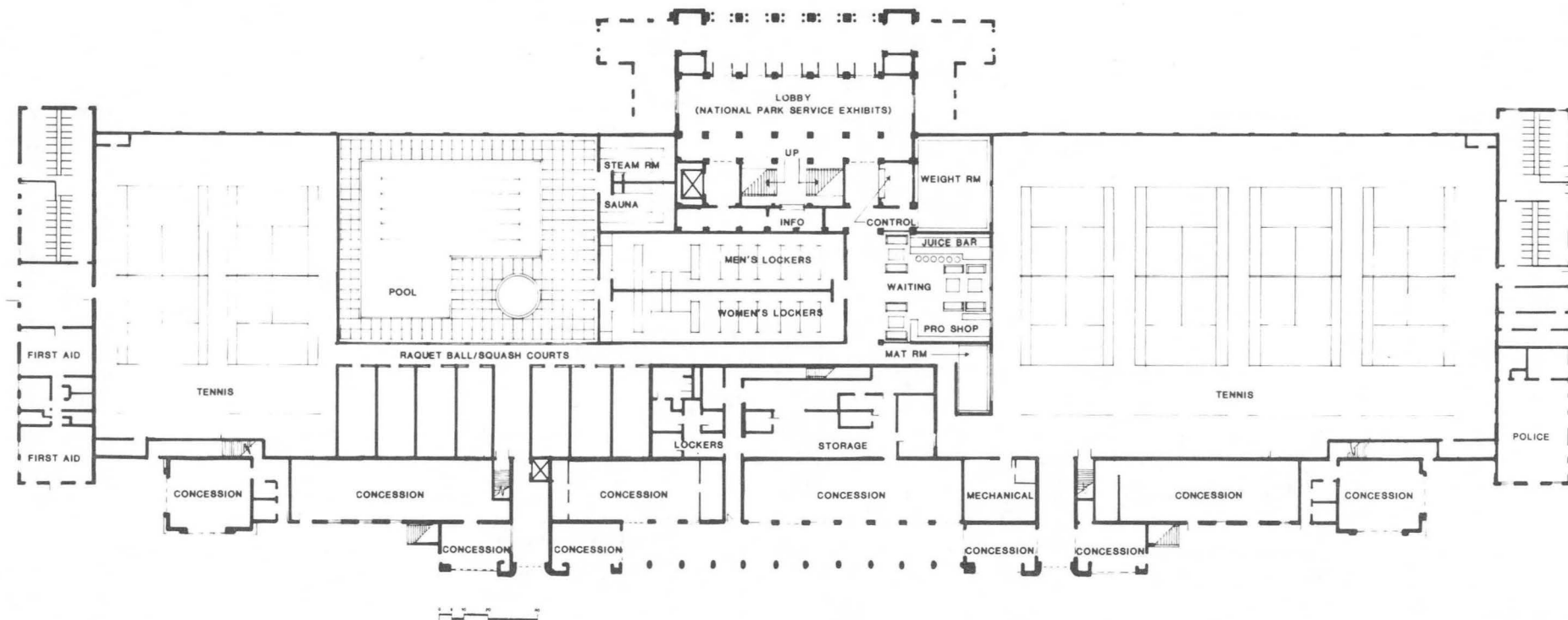
## **KEY TO NEW USES**

- |                         |                            |
|-------------------------|----------------------------|
| 1. CONCESSIONS AREA     | 9. KITCHEN                 |
| 2. LIFEGUARD FACILITIES | 10. RESTAURANT             |
| 3. FIRST AID/POLICE     | 11. OFFICES                |
| 4. INFORMATION CENTER   | 12. LANDSCAPE WITH GRASS   |
| 5. STORAGE              | 13. LANDSCAPE/SPORTS AREAS |
| 6. EMPLOYEE LOCKERS     | 14. HEALTH CLUB            |
| 7. LOCKERS FOR BATHERS  | 15. TENNIS COURT           |
| 8. BAR/LOUNGE           | 16. MECHANICAL             |
|                         | 17. THEATER                |

- |  |                  |
|--|------------------|
|  | RETAIL           |
|  | PUBLIC SERVICES  |
|  | HEALTH CLUB      |
|  | MOVIE THEATER    |
|  | LANDSCAPED AREAS |
|  | MOTHBALLED AREAS |

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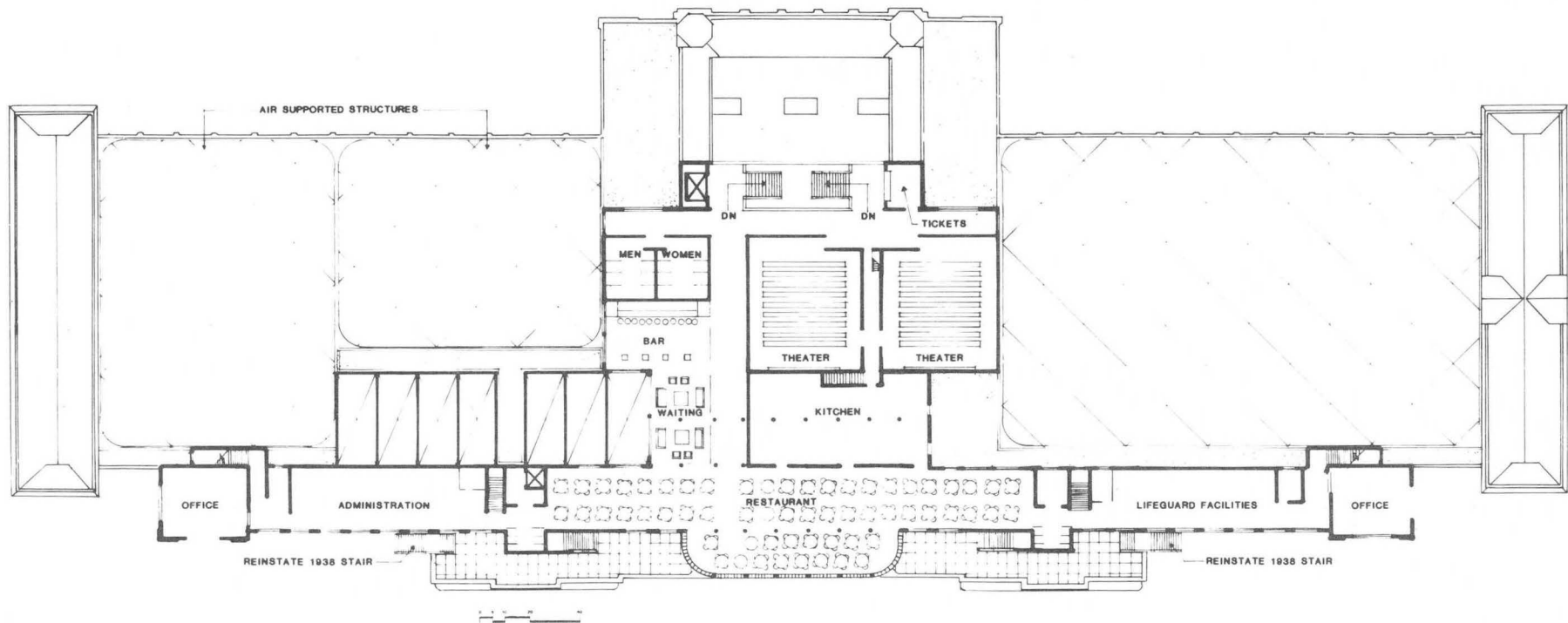


GATEWAY NATIONAL RECREATION AREA  
JACOB RIIS BATHHOUSE

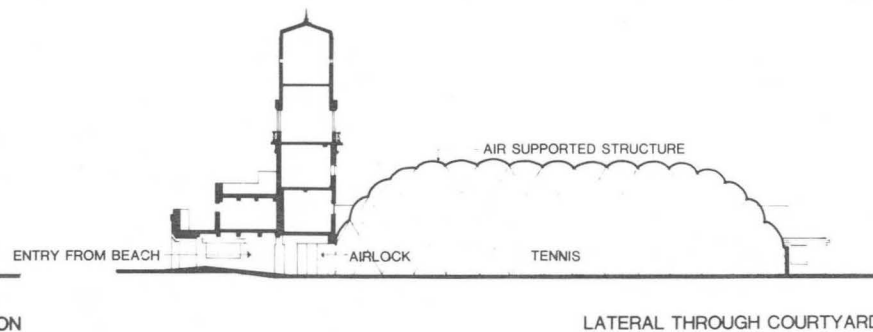
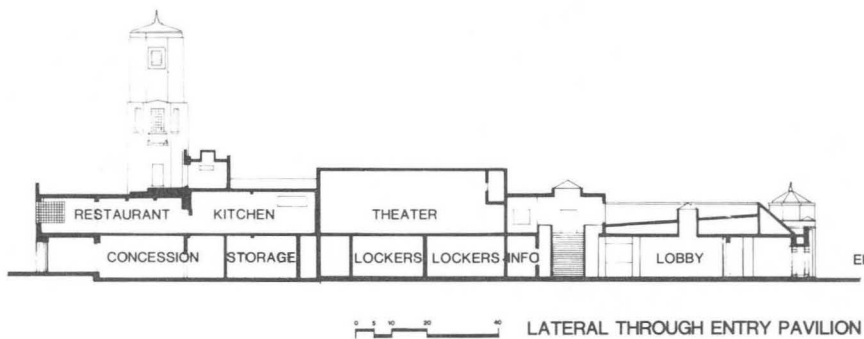
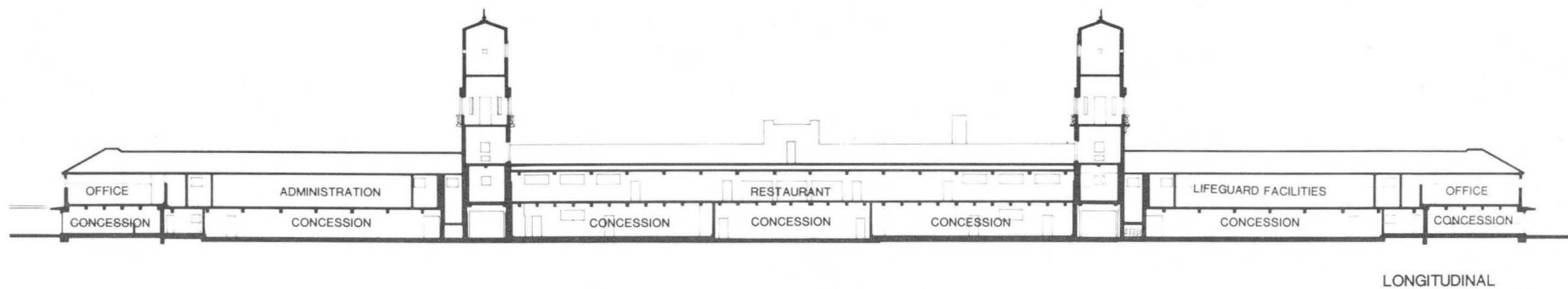
# SCHEME D PROPOSED FIRST FLOOR

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GATEWAY NATIONAL RECREATION AREA  
 JACOB RIIS BATHHOUSE  
**SCHEME D PROPOSED SECOND FLOOR**



GATEWAY NATIONAL RECREATION AREA  
JACOB RIIS BATHHOUSE  
**SCHEME D PROPOSED SECTIONS**

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## AREA SUMMARY

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## AREA SUMMARY

The diagram below indicates the approximate gross square footage of various areas of the existing Bathhouse complex:

### Enclosed area

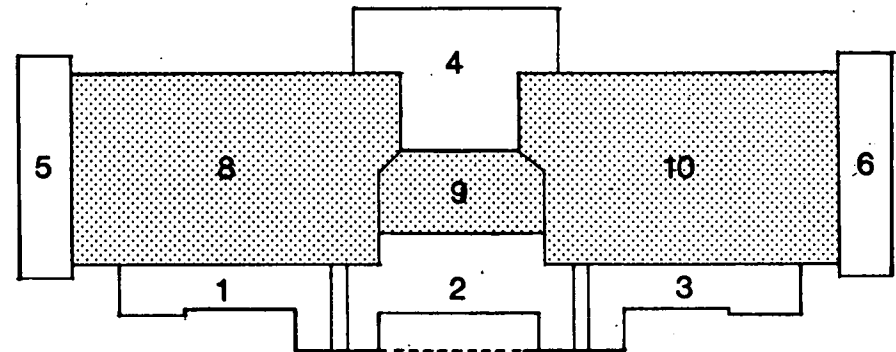
|      |   |   |                       |        |
|------|---|---|-----------------------|--------|
| Area | 1 | = | 3,590 sq. ft.         |        |
|      | 2 | = | 9,561                 |        |
|      | 3 | = | 3,590                 |        |
|      | 4 | = | 7,680                 |        |
|      | 5 | = | 3,996                 |        |
|      | 6 | = | 3,996                 |        |
|      | 7 | = | 17,277                |        |
|      |   |   | <u>49,690</u> sq. ft. | 49,690 |

### Open Courtyard area

|  |    |   |                       |               |
|--|----|---|-----------------------|---------------|
|  | 8  | = | 28,500 sq. ft.        |               |
|  | 9  | = | 6,240                 |               |
|  | 10 | = | 28,500                |               |
|  |    |   | <u>63,240</u> sq. ft. | <u>63,240</u> |

Total Building area 112,930

First Floor



Second Floor



Although major new construction is proposed in only one new adaptive use design scheme, the new or expanded uses planned in each scheme vary with each proposal. The schedule of area summarized in the following chart should be read in conjunction with each of the previously described adaptive use schemes.

## Area Summary

| Scheme           | A       | B       | C       | D       |
|------------------|---------|---------|---------|---------|
| Retail           | 13,741  | 23,118  | 25,138  | 26,615  |
| Public Services  | 14,832  | 18,822  | 24,552  | 24,552  |
| Health Club      | —       | —       | —       | 64,200  |
| Movie Theater    | —       | —       | —       | 5,571   |
| Landscaped Areas | —       | 63,240  | 63,240  | —       |
| Mothballed Areas | 84,357  | 7,680   | —       | —       |
| TOTAL            | 112,930 | 112,930 | 112,930 | 120,938 |

**COSTS**

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COST: GENERAL CONSTRUCTION

Cost estimates for the various adaptive use design schemes for the Jacob Riis Bathhouse can only be made on a general basis at this time. One objective in estimating the costs of those schematic designs has been to provide a type of equation which can demonstrate the relative value of various levels of rehabilitation intervention which are being considered. The accuracy of these estimates should be to within about 15% as is noted in the contingency item at the end of each estimate. Prices were largely based on per square foot cost estimates used for structures of similar construction.

The cost estimates are for the following four schemes:

- 1) Scheme A (Minimum Investment)
- 2) Scheme B (Moderate Investment)
- 3) Scheme C (Considerable Investment)
- 4) Scheme D (Maximum Investment)

Descriptions of these designs and others are found on the adaptive use design drawings, their accompanying explanations and the cost estimates.

Following are some general assumptions which were made:

- 1) Costs exclude estimates for any new site access and landscaping outside the Bathhouse perimeter walls.
- 2) The costs of reconstruction of the boardwalk and erecting retaining walls, awnings, outside seating, tables, trash receptacles, etc. have not been figured.
- 3) Underground utilities relating to the existing toilets, and the electrical service entry are planned for re-use except in Scheme No. 4, the maximum development scheme.
- 4) Most existing toilet fixtures are scheduled for repair and reuse in their present location.

- 5) Rehabilitation of the exterior of the buildings would at most involve restoring the 1937 appearance of the structure.
- 6) Costs exclude estimates for tenant improvements such as kitchen equipment, movable furniture, special finishes, etc.

COST: NPS/Private Sector Role and Maintenance

It is difficult at this point to determine what share of the cost for rehabilitation work at Jacob Riis would be borne by NPS and what will be the responsibility of private concessionaires or developers. This depends on what, if any, role NPS chooses to play in the final development plan. The same goes for maintenance since the division of responsibility is not drawn at this time.

Life cycle costing or any cost benefit analysis can only be discussed in generalities as long as designs for re-use are schematic. Design decisions using these evaluation methodologies can only occur when specific materials are being considered. This being a federal government property, it is assumed that new materials, systems and workmanship standards will be of the best quality. All design decisions would be made with long term maintenance and preservation in mind. An important factor also is how and to what extent the rehabilitated building will be used. This will be determined in the next phase of work on this project.

| LOCATION/DESCRIPTION                                                                     | Scheme<br>A | Scheme<br>B | Scheme<br>C | Scheme<br>D |
|------------------------------------------------------------------------------------------|-------------|-------------|-------------|-------------|
| <u>EXTERIOR</u>                                                                          |             |             |             |             |
| • BRICK MASONRY REPAIR,<br>REPOINTING, AND NEW<br>EXPANSION JOINTS                       | 70,000      | 70,000      | 70,000      | 70,000      |
| • MASONRY REHABILITATION<br>(OPTIMUM)                                                    | -           | -           | 65,000      | 65,000      |
| • CAST STONE CONSOLIDATION                                                               | 15,000      | 15,000      | -           | -           |
| • CAST STONE RESTORATION                                                                 | -           | -           | 85,000      | 85,000      |
| • MASONRY PAINTING &/OR<br>WATERPROOFING                                                 | 20,000      | 20,000      | 20,000      | 20,000      |
| • RECONSTRUCT EXTERIOR<br>STAIR AT BEACH PAVILION                                        | -           | 90,000      | 90,000      | 90,000      |
| • COURTYARD                                                                              |             |             |             |             |
| - LANDSCAPING (NEW FILL &<br>GRASS)                                                      | -           | 63,000      | 33,000      | -           |
| - PAVING AND EQUIPMENT FOR<br>OPEN AIR COURT GAMES (INCL.<br>NEW DRAINS & SITE LIGHTING) | -           | -           | 100,000     | 10,000      |
| • TENNIS COURTS TO AIR INFLATED<br>STRUCTURES                                            | -           | -           | -           | 210,000     |
| • SWIMMING & WADING POOLS TO AIR<br>INFLATED STRUCTURES INCLUDING<br>PAVING              | -           | -           | -           | 300,000     |

| LOCATION/DESCRIPTION                                                                          | Scheme<br>A | Scheme<br>B | Scheme<br>C | Scheme<br>D |
|-----------------------------------------------------------------------------------------------|-------------|-------------|-------------|-------------|
| <u>ROOF</u>                                                                                   |             |             |             |             |
| • REPAIR BUILT-UP AND PITCHED ROOFS                                                           | 40,000      | 40,000      | 40,000      | 44,000      |
| • NEW OR REPAIRED GUTTERS, STACKS AND DRAINS                                                  | 13,000      | 18,000      | 18,000      | 22,000      |
| • ROOF TERRACE REHABILITATION                                                                 | -           | 52,000      | 52,000      | 52,000      |
| <u>MOTHBALLING</u>                                                                            |             |             |             |             |
| • ENTRY PAVILLION                                                                             | 5,000       | 5,000       | -           | -           |
| • BEACH PAVILLION (2ND FLR)                                                                   | 5,000       | -           | -           | -           |
| • COURTYARD                                                                                   | 5,000       | -           | -           | -           |
| <u>STRUCTURAL</u>                                                                             |             |             |             |             |
| • STEEL LINTEL & SILL REPLACEMENT                                                             | 12,000      | 24,000      | 45,000      | 45,000      |
| • WALL, FLOOR AND CEILING REHABILITATION INVOLVING REPAIR OR REPLACEMENT OF STEEL REINFORCING | 35,000      | 80,000      | 150,000     | 160,000     |
| • STRUCTURAL CRACK REPAIR (INCLUDING TOWERS)                                                  | 40,000      | 50,000      | 85,000      | 80,000      |

## JACOB RIIS BATHHOUSE ADAPTIVE USE STUDY

APRIL 15, 1984

| LOCATION/DESCRIPTION                                                | Scheme<br>A | Scheme<br>B | Scheme<br>C | Scheme<br>D |
|---------------------------------------------------------------------|-------------|-------------|-------------|-------------|
| <u>DEMOLITION</u>                                                   |             |             |             |             |
| • REMOVAL OF CHANGING ROOMS,<br>SLAB AND PLUMBING FROM<br>COURTYARD | -           | 126,000     | 126,000     | 126,000     |
| • MISC. DEMOLITION AND<br>REMOVALS                                  | 15,000      | 30,000      | 35,000      | 80,000      |
| • DEMOLISH REAR PORTION OF<br>ENTRANCE PAVILION                     | -           | -           | -           | 18,000      |
| <u>INTERIOR</u>                                                     |             |             |             |             |
| • CEILING AND WALL REPAIR OR<br>REPLACEMENT (INCLUDING<br>TILEWORK) | 40,000      | 83,000      | 135,000     | 125,000     |
| • FIRE RATED STAIRS                                                 | -           | 52,000      | 52,000      | 52,000      |
| • NEW FLOOR FINISHES                                                | -           | -           | 10,000      | 10,000      |
| • NEW INTERIOR PARTITIONS<br>(INCL. NEW DOORS)                      | 10,000      | 20,000      | 35,000      | 35,000      |
| • PAINTING                                                          | 20,000      | 35,000      | 45,000      | 40,000      |
| <u>DOORS &amp; WINDOWS</u>                                          |             |             |             |             |
| • WINDOWS-REPAIR AND<br>MIN. REPLACEMENT                            | 5,000       | 10,000      | 10,000      | 9,000       |

| LOCATION/DESCRIPTION                                                                  | Scheme<br>A | Scheme<br>B | Scheme<br>C | Scheme<br>D |
|---------------------------------------------------------------------------------------|-------------|-------------|-------------|-------------|
| <u>DOORS AND WINDOWS (cont.)</u>                                                      |             |             |             |             |
| • REPLACEMENT WIDOWS                                                                  | 10,000      | 45,000      | 55,000      | 50,000      |
| • DOORS-REPAIR AND MIN.<br>REPLACE                                                    | 7,000       | -           | -           | -           |
| • DOORS-EXTENSIVE<br>REPLACEMENT OR<br>REHABILITATION                                 | -           | 15,000      | 25,000      | 25,000      |
| • HARDWARE                                                                            | 10,000      | 25,000      | 45,000      | 45,000      |
| <u>CONVEYING SYSTEM</u>                                                               |             |             |             |             |
| • ELEVATOR<br>(2ND ELEVATOR IN 4TH<br>SCHEME IS INCLUDED IN<br>NEW CONSTRUCTION ITEM) | -           | -           | 80,000      | 80,000      |
| <u>MISC.</u>                                                                          |             |             |             |             |
| • GRAPHICS                                                                            | 3,500       | 6,500       | 10,000      | 10,000      |
| • SPECIALITIES                                                                        |             |             |             |             |
| - TOILET ACCESSORIES                                                                  | 4,000       | 7,500       | 14,000      | 14,000      |
| - SHELVING                                                                            | 7,500       | 12,000      | 20,000      | 20,000      |
| • OTHER BUILT-IN'S INCLUDE<br>OFFICE COUNTERS, FLAG POLES,<br>ETC.                    | 5,000       | 10,000      | 18,000      | 18,000      |
| • LOCKER RE-INSTALLATION<br>AND REPAIR                                                | -           | 5,000       | 5,000       | 5,000       |

| LOCATION/DESCRIPTION                                                                                           | Scheme<br>A | Scheme<br>B | Scheme<br>C | Scheme<br>D |
|----------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|-------------|
| <u>HVAC</u>                                                                                                    |             |             |             |             |
| • WINDOW UNITS                                                                                                 | 5,000       | 7,000       | -           | -           |
| • ROOF TOP PACKAGE UNIT FOR<br>BAR/LOUNGE ONLY                                                                 | -           | 75,000      | -           | -           |
| • ROOF TOP PACKAGE UNITS FOR<br>BEACH PAVILION 2ND FLOOR<br>PLUS PACKAGE UNITS FOR WINGS<br>AND ENTRY PAVILION | -           | -           | 235,000     | 235,000     |
| <u>FIRE PROTECTION</u>                                                                                         |             |             |             |             |
| • SMOKE, FIRE ALARMS,<br>EXTINGUISHERS                                                                         | 5,000       | 12,000      | 20,000      | 20,000      |
| • SPRINKLER SYSTEM<br>(BAR/LOUNGE AREA)                                                                        | -           | -           | 25,000      | 25,000      |
| <u>MECHANICAL</u>                                                                                              |             |             |             |             |
| • PLUMBING                                                                                                     |             |             |             |             |
| - SOME FIXTURE AND TOILET<br>PARTITION REPLACEMENT                                                             | 40,000      | -           | -           | -           |
| - SAME AS ABOVE PLUS ADDED<br>TOILETS AND BAR AT 2ND<br>FLOOR                                                  | -           | 80,000      | -           | -           |

| LOCATION/DESCRIPTION                                                                                                                                                                                                 | Scheme<br>A | Scheme<br>B | Scheme<br>C | Scheme<br>D |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|-------------|
| - AS ABOVE PLUS ADDED TOILETS<br>IN ENTRANCE PAVILION AND<br>FULL RESTAURANT                                                                                                                                         | -           | -           | 125,000     | 125,000     |
| • NEW BOILER AND DISTRIBUTION                                                                                                                                                                                        | 80,000      | 100,000     | 115,000     | 115,000     |
| <u>ELECTRICAL</u>                                                                                                                                                                                                    |             |             |             |             |
| • SERVICE AND DISTRIBUTION;<br>LIGHTING AND POWER;<br>RENOVATIONS AND INSTALL-<br>MENTS OF NEW WHERE<br>REQUIRED                                                                                                     | 35,000      | 95,000      | 150,000     | 150,000     |
| <u>BASIC NEW CONSTRUCTION</u>                                                                                                                                                                                        |             |             |             |             |
| • 29,000 S.F. OF NEW BUILD-<br>ING 110 COURTYARD (EXCL.<br>TEMPORARY SHELTERED<br>SPACES) BUT INCLUDING<br>FOUNDATIONS, STRUCTURES,<br>EXTERIOR ENVELOPE COMPLETE,<br>INTERIOR PARTITIONS AND<br>BASIC M/E SERVICES. | -           | -           | -           | 1,500,000   |
| • CLEAR SPAN AIR INFLATED STRUC-<br>TURES. INCLUDES HEAT AND<br>EMERGENCY POWER UNITS AND<br>SPECIAL EQUIPMENT; NEW<br>FOUNDATIONS.                                                                                  | -           | -           | -           | 325,000     |

## JACOB RIIS BATHHOUSE ADAPTIVE USE STUDY

APRIL 15, 1984

| LOCATION/DESCRIPTION       | Scheme<br>A    | Scheme<br>B      | Scheme<br>C      | Scheme<br>D       |
|----------------------------|----------------|------------------|------------------|-------------------|
| <u>SUBTOTAL</u>            | 567,000        | 1,396,000        | 2,411,000        | 4,428,000         |
| <u>GENERAL CONTRACTORS</u> |                |                  |                  |                   |
| <u>O.H. AND PROFIT</u>     |                |                  |                  |                   |
| 20%                        | 113,400        | 279,200          | 482,200          | 885,600           |
| <u>CONTINGENCY</u>         |                |                  |                  |                   |
| 15%                        | <u>102,060</u> | <u>251,280</u>   | <u>433,980</u>   | <u>797,040</u>    |
|                            | <u>782,460</u> | <u>1,926,480</u> | <u>3,327,180</u> | <u>6,110,640*</u> |

COST PER SQUARE FOOT

|                             |         |          |          |             |
|-----------------------------|---------|----------|----------|-------------|
| Building<br>Rehabilitation  | 24/S.F. | 39/S.F.  | 58/S.F.  | 59.7/S.F.   |
| Courtyard<br>Rehabilitation | - /S.F. | 4.1/S.F. | 5.6/S.F. | - /S.F.     |
| New Construction            | - /S.F. | - /S.F.  | - /S.F.  | 48.9/S.F.** |

\* Suggest an additional cost of \$1.2-1.5 million for special interior finishes used in new construction including specialized wall, floor and ceiling finishes, electrical & mechanical distribution and all built-ins for specialized facilities.

\*\* Includes demolition costs.

As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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US NPS - Denver



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