A New Community Theater for Terre Haute

THESIS PROJECT 1977 DAVID G WILLS
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Philosophical Statement

My involvement in this project is that of student architect. This project is presented as an undergraduate thesis and as such is the culmination of my undergraduate educational experience. It should therefore reflect my abilities and be presented in a professional manner.

I visualize the end product as a good architectural statement that goes beyond accepted theater design and explores new concepts which advance the state of the art.

My personal goals for this project include:
1. The design of an efficient and economical facility.
2. A facility that integrates with the natural environment, responding to the natural land forms, vegetation, and man made features in terms of function and form.
3. A structure that is honest. The purpose of each element should be clear from its size, material, scale, and location.
4. The rejuvenation of an old and historic park that previously has been neglected and has enjoyed little use.
5. Creating a facility that demands quality in future additions to a comprehensive master plan for Fairbanks Park.
Contents:

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Abstract

This document is a building program for a New Community Theater to be named The Weldin Talley Community Theater. The proposed facility will be located in Fairbanks Park on the central west side of Terre Haute, Indiana.

The term 'community theater' is used throughout this document to describe a theater-type facility provided by a board of directors formed for the purpose of acquiring and running the theater. Ideally the community theater should be part of a comprehensive center in which old and young could share in all kinds of leisure pursuits in congenial surroundings.

As with any building program this document is much more than a guideline. It gives definite instructions to create an atmosphere for the designer. It also is specific in delineating the technical activity that will take place in a community theater. It proposes the minimum number of square feet for all primary and supporting theater areas and states the function of each area and the priority of relative location. It also discusses the qualitative issues of growth and change for both theater facility and park.
Historical Statement

Before the professional theater was subjected to the competition from motion pictures and television, it was run almost completely as a highly speculative business financed by private individuals or companies. Its purpose was to sell live entertainment as profitably as possible.

In most areas it is now impossible to sell such theater performances to audiences large enough to make a profit after costs. Consequently, most of the theaters that operated profitably during the early years of this century, have now ceased to exist.

Presently the majority of the theater-going population views theatrical performances provided by amateur companies. These amateurs in most instances own their facilities and can efficiently stage eight to ten productions each year. Too many companies, however, are compelled to play in unsuitable and badly equipped multi-purpose halls.

A community theater is not necessarily a substitute for a theater that has a resident professional repertory company. Even the large urban areas which already have resident professional companies also need community theaters to stimulate cultural activity.

It is reasonable to expect that the future increase in leisure time will stimulate amateur theatrical activity if a facility is available. If the community theater is to develop maximum value it must have the widest possible appeal. The theater will best serve its community if it is seen to be a vital and versatile section of a lively organization that is efficiently catering to the greatest possible variety of leisure activities.
Existing Facilities

The Community Theater of Terre Haute was established in 1926. It has operated continuously since then in a number of facilities. In 1952 Mrs. Weldin Talley purchased a motion picture theater and donated it to the theater group in memory of her late husband. This facility has served the group very well in the past but is rapidly becoming obsolete.

High maintenance costs, the lack of fly space for scenery, little stage flexibility, a small seating capacity, and no parking area for theater patrons are some of the problems which necessitate the construction of a new facility.
Client Profile

The Board of Directors of the Weldin Tailey Memorial Community Theater of Terre Haute is the client for this project. This board manages and maintains the existing facility and will continue the same for the proposed facility. The Board of Directors and Members of the Community Theater comprise an amateur, nonprofit organization dedicated to providing the citizens of Terre Haute with varying forms of theatrical entertainment.

The client has expressed the following goals for the proposed facility:
1. The facility should have prestige, i.e., it should be a dignified structure that identifies itself as a center of cultural activity.
2. The facility should respect its context:
   A. It should be oriented to receive visitors pleasantly and with ease.
   B. It should respect the existing amenities of Fairbanks Park.
   C. All areas of the park should be respected and presented with a pleasant visual image.
   D. The facility should be united with the existing amphitheater.
3. The facility should respect budget constraints.
4. The facility should possess an inherent flexibility, its planning should be as simple and foolproof as possible, and it should be easily maintained.
5. The facility must be secure.
6. The facility should be comfortable, safe, spacious and warm, a place that evokes the maximum emotional and intellectual theatrical experience.
Feasibility

While not attempting to provide an economic feasibility profile, this study will define for what purposes the proposed facility is likely to be used, what form of theater it is thought would best suit those purposes, and the maximum seating capacity likely to be needed.

The proposed facility will serve primarily as a theater space for the performance of between five to eight plays each year from the Broadway stage. Additionally, the facility will be used for the presentation of foreign and children's film series. The Board of Directors also wish to provide a facility that could be leased on occasion to interested groups as a space for lectures, presentations, debates or musical performances.

The proscenium theater is thought to be the best theater shape for amateur productions of legitimate drama or musical comedy. By definition, a proscenium theater is a shape in which the audience faces the performing area on one side only and sees the performing area through an architectural opening. The performing area is not always limited by that opening, it can project out a nominal distance into the auditorium in the form of a forestage or apron. This theater form is also most sympathetic to film presentations. The facility will also enjoy a versatility in that it is to be located in Fairbanks Park and can utilize an existing amphitheater with a thrust stage.

The existing theater facility has 350 seats. The Board of Directors have determined that twice this number will be needed in the new facility to accommodate current patrons. They also foresee greater community participation with the completion of the new facility and are planning for future growth with 100 additional seats. Therefore, a theater with a seating capacity of 800 is needed.
User Profile

In most theatrical facilities there are two distinct user groups: the production personnel and the audience. This is true of community theaters, however, the possibilities for potential interaction between these two groups is much greater. In the community theater one can be part of the audience one night and a member of the stage crew the next.

The audience wants to hear and see the performance without distraction and in comfort and safety, but its ultimate objective is to receive the utmost sensory stimulation toward the maximum emotional and intellectual experience. Maximum appreciation and enjoyment of, and in a sense participation in the experience by each individual depend on the maximum enjoyment of it by the entire audience. Group reaction to a single performance stimulus is somewhat less than total unless the stimulus is received at the same time, in the same measure, and with the same significance by the entire group. The production personnel have requirements consistent with these, they want the physical facilities which will allow their show to stimulate the audience to the maximum of intellectual and emotional appreciation.

A listing and brief description of the direct and indirect users follows.

DIRECT USERS:

General Manager; A full time employee appointed by the Board of Directors. This person should have a good knowledge of theatrical production, but is primarily a manager, responsible for the smooth operation of the facility, financing, and public relations.

Clerical Staff; Part time or full time employee(s) as needed, responsible for secretarial and receptionist duties.

Box Office Staff; Volunteer staff responsible for advertisement and ticket sales.

Catering Staff; Volunteer staff responsible for the procurement and preparation of any refreshments to be sold at a performance. This group may also be called upon to prepare or assist in the preparation of refreshments at social functions.

Maintenance Staff; Part time employee(s) responsible for general janitorial work, general maintenance, and security.

Ushers and Coat Room Attendants; Volunteers responsible for the general comfort and safety of the audience.

Stage Manager; Volunteer responsible for the procurement or construction of sets and scenery. The stage manager directs all operations supporting a performance, coordinates lighting, acoustics, and stage facilities and is responsible for the efficient organization of back stage operations.
Electrician: Volunteer who works closely with both the stage manager and the maintenance staff. Responsible for the safety and condition of all lighting and electrical stage equipment.

Stage Hands: Volunteers who work under the direct control of the stage manager. Responsible for all stage work other than electrical, scenery, sets, and costumes.

Theater Artists: Volunteers or visiting groups who are the core of the performance. They may be playwrights, composers, directors, actors, dancers, musicians, or comedians.

Audience: People from all age groups who attend a performance. Defined as people with sufficient culture to appreciate a conventionalized and aesthetic form of entertainment.

INDIRECT USERS:

Terre Haute City Park Department: City employees who are responsible for the care and upkeep of Fairbanks Park.

Fairbanks Park Visitors: People who visit the park and might be affected by the visual form if not the activities of the theater facility.
Organizational Chart of the Weldin Talley Memorial Community Theater

Board of Directors

General Manager

- Clerical Staff
- Box Office Staff
- Catering Staff
- Ushers, Coat Room Attendants
- Maintenance Staff
- Electrician
- Stage Manager
- Stage Hands
- Theater Artists
- Audience
Economics

The Weldin Talley Memorial Community Theater is a nonprofit organization that is neither subsidized by city government or endowed. Its total financial support is provided through gate receipts, membership, and donations.

Funds for construction of the proposed facility will come primarily from three sources:
1. An existing building fund.
2. A local philanthropist who has agreed to match any funds the theater group can acquire.
3. Long term loans from existing financial institutions.

At this time the Board of Directors is also investigating possible financial assistance from groups such as The National Committee For The Endowment of The Arts.

Currently there is no official statement on the total funds available for the construction of this project. However, the City of Terre Haute has agreed to lease the necessary land in Fairbanks Park at a cost of $1 per year for 99 years.

As in any building proposal, time is a crucial economic factor. Rising material and labor costs coupled with high inflation necessitate careful planning. Cost benefit analysis is valuable in comparing by cost and effectiveness criterion such as economy, safety, growth potential, versatility, service life, maintainability, and prestige.

As such, all aspects of the theater should be considered in terms of cost effective benefits.

Current average building costs compiled from the construction of similar theater facilities are listed on the opposite page. These costs are only a guideline for cost effective studies and should therefore be used as a design tool.
## AVERAGE BUILDING COSTS, Building Type: Theaters, Playhouses

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*Source, Dodge Cost Report, 1977*
Building Codes

For this project, The Uniform Building Code (UBC) will govern, and the following regulations of the UBC will be strictly adhered to:

Occupancy: Group B, Division I. Any building or portion of a building having an assembly room with an occupant load of less than 1000 and a stage, stages and enclosed platforms as defined in sections 417 and 420 shall be constructed in accordance with chapter 39, UBC.

Type of Construction: Type I. A four hour fire-resistive occupancy separation.

Allowable Floor Area and Height: Unlimited.

Location on Property: All buildings housing Group B occupancies shall front directly upon or have access to a public street not less than 20 feet in width. The access to the public street shall be a minimum 20 feet wide right of way unobstructed and maintained only as access to the public street. The main entrance to the building shall be located on the public street or on the access way.

Exit Facilities: Stairs, corridors, exits, and smokeproof enclosures shall be provided as specified in chapter 33, UBC.

Light, Ventilation, and Sanitation: All portions of Group B occupancies customarily used by human beings and all dressing rooms shall be provided with natural or artificial light, ventilation, and sanitary facilities as specified in sections 605 and 1711, UBC.

Shaft Enclosures: Exits shall be enclosed as specified in chapter 33, UBC. Elevator shafts, vent shafts, and other vertical openings shall be enclosed as specified in section 1706, UBC.

Fire-Extinguishing Systems: When required by other provisions of the UBC, automatic fire-extinguishing systems and stand-pipes shall be installed as specified in chapter 38, UBC.

Special Hazards: Motion picture machine rooms shall conform to the requirements of chapter 40, UBC. Proscenium curtains shall conform to the requirements set forth in UBC Standard Number 6-1.
Building Functions

A theatrical facility may be divided into two major areas, the 'front' of the house or public areas and the 'backstage' or production areas. However, it is part of the philosophy of a community theater that all who participate have or gain some knowledge of theatrical production. Not only should the community theater permit a uniform stimulus and response to a production, but in essence the facility should teach.

For the purpose of organization, the public and production areas are separated in this program. Each area or space will be analyzed by the following criteria:

A. Description
B. Persons served
C. Equipment
D. Systems
   1. Heating/Cooling
   2. Ventilation
   3. Humidity
   4. Lighting
   5. Acoustics
   6. Communications
E. Circulation and Frequency Pattern
F. Location Priority
G. Views
H. Special Considerations
PUBLIC AREAS

I. Marquee
   A. Description: Exterior entrance to theater.
   B. Persons Served: All guests of the theater.
   C. Equipment: Lighted playbill sign.
   D. Systems
      1. Lighting: 25 Fc. desired illumination.
   E. Circulation and Frequency Pattern: Auto dropoff area for theater patrons. Most use before or after a performance.
   F. Location Priority: Adjacent to "front" doors, with close proximity to public street.
   G. View: General view of park amenities, first impression of theater interior spaces.
   H. Special Considerations: Roof area over marquee must have excellent drainage.

II. Vestibule
   A. Description: 800 sq. ft. minimum at 1 sq. ft. per auditorium seat. Entrance to theater and area of ticket purchases.
   B. Persons Served: All guests of the theater.
   C. Equipment: Portable ticket takers, Box(es), display and advertisement equipment.
   D. Systems:
      1. Heating/Cooling: Heated to 60 degrees and cooled to 5 degrees lower than outside temperature. Pressurized to retard blasts of cold air.
2. Ventilation: Air from vestibule should not be recirculated.
5. Acoustics: Materials with high absorption coefficients should be used. Noise should not be allowed to leak into auditorium.
6. Communications: Signaling system to announce curtain time.

E. Circulation and Frequency Pattern: 10% of the audience will wait to meet friends and 20% will wait from 2 to 5 minutes to purchase information.

F. Location Priority: Adjacent to marquee, ticket booth and lobby.

G. View: Unobstructed visibility to auto dropoff area under marquee is mandatory.

H. Special Considerations: Area to identify contributors to theater building. Low maintenance, safe finish materials.

III. Ticket Booth/Office
A. Description: 250 sq. ft. area for the sales and administration of tickets.
B. Persons Served: Volunteer staff in charge of ticket sales and advertisement, patrons purchasing tickets.
C. Equipment: 2 ticket windows, ticket counter with cash drawers, ticket racks, safe, lockable storage for front of the house supplies, drafting table, 2 desks, and 2 file cabinets.
D. Systems:
   1. Heating/Cooling: Pressurized to retard blasts of cold air. General comfort levels.
   2. Ventilation: Good ventilation to remove odors from glues, paints, and inks.
   3. Humidity: General comfort level.
   4. Lighting: 70 Fc., general illumination, with task lighting at ticket windows and drafting table.
   5. Acoustics: Not critical.
   6. Communications: Telephone(s), police alarm system at safe, inter office communication.

E. Circulation and Frequency Pattern:
   General office use.

F. Location Priority: Adjacent to vestibule and administrative office.

G. View: Views of the park from the office area are desirable.

H. Special Considerations: Consider installing illuminated price listings and a seating chart of auditorium and balcony.

IV. Main Lobby
   A. Description: 1120 sq. ft. at 1.4 sq. ft. per seat. Basically a distribution area between vestibule and auditorium.
   B. Persons Served: All theater guests.
   C. Equipment: Full length tinted mirror(s), wall tables, planters, benches, ash trays and furniture.
   D. Systems:
      1. Heating/Cooling: General comfort levels.
      2. Ventilation: Adequate to remove tobacco smoke and supply fresh air.
3. Humidity: General comfort level.
4. Lighting: General illumination level with dimmers. Lighting must be warm and flattering, but must not enter auditorium.
5. Acoustics: Sound absorbant wall, floor, and ceiling surfaces. Sound must not enter auditorium.
6. Communications: Locate public telephone(s) in lobby. Signaling system to announce curtain time.

E. Circulation and Frequency Pattern: Patron circulation from vestibule to auditorium, vestibule to coatroom to auditorium, and auditorium to lounge before, during, and after performance.

F. Location Priority: Adjacent to vestibule, coat checkroom, lounge, and auditorium.

G. View: Ushers must have visual control of the entire lobby area to direct patrons to seats.

H. Special Considerations: Furniture in the lobby must be located in space over and above the clear width required as pasageways by building codes.

Note: Balcony and side lobby provisions for comfort and safety are derived by observing the same considerations which apply in the main lobby.

V. Coat Check Room
A. Description: 400 sq. ft. A space for the storage of patron's outer garments during a performance.
B. Persons Served: Patron's who don't want to be bothered by their wraps during a performance.
C. Equipment: Counter, Racks to accommodate hats, coats, sticks, umbrellas, and parcels.
D. Systems:
1. Heating/Cooling: General comfort levels.
3. Humidity: General Comfort levels.
4. Lighting: General illumination levels with task lighting at counter.
5. Acoustics: Use materials with a high coefficient of absorption.
6. Communications: None required.

E. Circulation and Frequency Pattern: Potential for great use before and after performance.

F. Location Priority: Adjacent to lobby.

G. View: Not required.

H. Special Considerations: The counter for checking wraps should be on the patron's right as he enters the lobby.

VI. Lounge
A. Description: 2000 sq. ft., the place where the audience stretches, talks, and refreshes itself during intermissions.

B. Persons Served: All guests of the theater.

C. Equipment: Upholstered chairs, tables, ashtrays, water coolers, and exhibition and display materials.

D. Systems:
1. Heating/Cooling: General comfort levels.
2. Ventilation: Adequate to remove tobacco smoke and supply fresh air.
3. Humidity: General comfort level.
4. Lighting: Illumination intensity at entrance, lavatory entrances, and refreshment bar should be higher than the general levels of 10 to 25 Fc.
Pale magenta is a good color for illumination but should be supplemented by white or steel blue to highlight the audience.

5. Acoustics: Floor, walls, and ceiling should be constructed of materials with a high coefficient of absorption.

6. Communication: Public telephones and a signaling system to announce curtain times.

E. Circulation and Frequency Pattern: Great use before a performance and at intermission. This space may also be used for social meetings, lectures, discussion groups, and board meetings.

F. Location Priority: Adjacent to lobby, restrooms, and refreshment bar.

G. Views: Views to the exterior are desirable, but not critical.

H. Special Considerations: The lounge should be located to the patron's right as he enters the lobby from the auditorium.

VII. Toilets/Anterooms

A. Description: 4 (2 for each sex) at 400 sq. ft. each, 1600 sq. ft. general restroom facilities with powder room for ladies.

B. Persons Served: All guests of the theater including children and the handicapped.

C. Equipment: Five urinals, three lavatories and two toilets for men, five toilets, and five lavatories for women. Adequate trash containers, ash trays, and mirrors, make up counter, stools and sick couch for powder room.
D. Systems:
1. Heating/Cooling: General comfort levels.
2. Ventilation: Vent restrooms to exterior.
3. Humidity: General comfort level.
4. Lighting: General Illumination levels with task lighting at lavatories and make up counter.
5. Acoustics: Restrooms must be acoustically isolated from auditorium and stage.
6. Communications: None required.

E. Circulation and Frequency Pattern:
General use. If a performance is longer than three hours, restroom use increases fourfold.

F. Location Priority:
Adjacent to lounge and balcony lobby.

G. Special Considerations:
All materials and surfaces should be durable with low maintenance qualities.

VIII. Administrative Offices
A. Description: 400 sq. ft. General office and 150 sq. ft. manager's office. Space for general administration, including reception, bookkeeping, and correspondence.

B. Persons Served:
The theater general manager and supporting staff. Any people who may have business with the theater group.

C. Equipment:
Typewriters, desks and chairs, files, and supply cabinets according to the need of the organization. Duplicating equipment.

D. Systems:
1. Heating/Cooling: General comfort levels.
Based on the ability to recognize shapes and confirmed by sequential seat selection of unreserved seats, the order of desirability of locations is: A. front center, except when the picture screen is close to the front row; B. middle center; C. middle side; D. front side; E. rear center; F. rear side.

2. Ventilation: Standard, with possible vent for duplicating equipment.
3. Humidity: General comfort level
4. Lighting: General illumination levels with task lighting at desks.
5. Acoustics: Not critical.
6. Communications: Telephones at each desk, intercommunication with stage manager and supporting staff.

E. Circulation and Frequency Pattern: General office routine, day use.
F. Location Priority: Adjacent to lobby.
G. View: Views of park are desirable.
H. Special Considerations: Insure comfort for the users.

IX. Auditorium/Balcony
A. Description: 800 seats, 4500 sq. ft. including balcony. The house, the area from which the audience views the performance.
B. Persons Served: All patrons of the theater who wish to view a performance.
C. Equipment: 800 upholstered theater seats.
D. Systems:
1. Heating/Cooling: An audience coming into a theater will raise the temperature one degree F. per minute for the first fifteen minutes. It is therefore necessary to keep the auditorium cool with fresh outside air or cooling. A theater system must be capable of rapid adaptation to changed conditions and have large excess capacity to minimize change.
2. Ventilation: The accepted amount of air needed is ten cfm per person. The best cycle of air is from ceiling to floor which insures minimum dust, uniform efficient heating, and eliminates drafts.

3. Humidity: The relative humidity must be maintained at between 40 and 50%. This level is within acceptable comfort levels and will keep metal surfaces from rust and fabrics from mildewing.

4. Lighting: Even distribution at an intensity of 15 Fc. is desirable. White light is best and the house lights must be on a master dimmer switch. Aisle lights of low intensity should be provided at every other row of seats and at all intersecting aisles or at changes in the floor slope. Blue exit lights are still visible yet do not distract like the red and green exit lights.

5. Acoustics: The auditorium imposes the most exacting acoustical requirements of the facility. The audience must hear the show at 85% articulation without significant diminution in level, at uniform intensity throughout the house, and without change in quality.

   Floor: Quiet carpet in aisles. All the sound that gets to the audience must stop there. Floor and ceiling must not transmit sound.

   Wall: Shaped to avoid flutter and focusing. Back wall not concave. Sound absorbant surface where necessary to stop focus or echo and to achieve desired reverberation. Must not transmit sound.
The horizontal angle to the center line at which objects onstage, upstage of the curtain line, cease to bear the intended relationship to other objects onstage and to the background is approximately 60°. The horizontal angle to the projection screen at which distortion on the screen becomes substantially intolerable is 60°.

Ceiling: Designed to distribute sound evenly by reflection to all the audience. Hard and smooth. Well braced to avoid resonance.

Doors: Self-closing, quiet, tight.

Ducts: When air is moving, noise must not exceed design objectives.

Seats: Must absorb same amount of sound occupied as empty if reverberation time is to be independent of audience size.

6. Communication: A sound system must be employed for motion pictures.

E. Circulation and Frequency Pattern: 60% of the patrons leave seats at intermission. As the audience proceeds from seat to aisle, to lobby, to lounge and back again, paths of movement must not cross. There is mandatory concern for getting people to their seats expeditiously.

F. Location Priority: Adjacent to stage and lobbies. Must have direct exits to exterior.

G. View: If the patron is to see satisfactorily, plan and section must conform to a number of limitations which are set forth in the following list:

1. The horizontal angle of polychromatic vision (no eye movement) is approximately 40 degrees.

2. The horizontal angle to the center line at which objects onstage, upstage of the curtain line, cease to bear the intended relationship to other objects onstage and to the background is approximately 60 degrees.

3. The horizontal angle to a flat
projection sheet at which distortion on the screen becomes substantially intolerable is 60 degrees measured to the far side of the projected image.

4. Audiences will not choose locations beyond a line approximately 100 degrees to the center line of the curtain at the side of the proscenium.

5. The vertical angle beyond which ability to recognize standard shapes falls off very rapidly is approximately 30 degrees.

H. Special Considerations: While building codes have exacting limitations on aisle widths, seat spacing, and the number of seats between aisles, these limitations are legal minimums and do not provide maximum audience comfort.

Plan and elevation control rooms, the projection room equipped for teaching with slides and films.
PRODUCTION AREAS

I. Stage Area: Including traps, side stages, forestage/orchestra, scenery storage, prosценium and fly space.
   A. Description: 2800 sq. ft. that part of the theater where the performance takes place.
   B. Persons Served: Any theater artists performing at the theater and stage personnel.
   C. Equipment: Safety curtain, scenery suspension gear, side curtains and tracks, rostrums, stage cloth, projection screen, profile spots, fresnel spots, floods, follow spots, optical effects projectors, stage lighting control center, sound control center, orchestra lift equipment.
   D. Systems:
      1. Heating/Cooling: There is a great amount of latent heat gain from lights and electrical equipment. The stage area need never be heated to a temperature greater than 65 degrees, but cooling is critical.
      2. Ventilation: The stage areas must be vented, but the movement of air must be very slow as any breeze will cause scenery to flutter.
      3. Humidity: Relative humidity levels between 40 and 50% are required.
      4. Lighting: Light has a dramatic function in that it must reveal and conceal people and things and show them in many modes. For light to produce the enhancement of theatrical performance a theater lighting consultant must be retained.
5. Acoustics: The stage must be shaped and constructed of materials to project sound.

6. Communication: The stage manager must have direct communication with the general manager, green room, shops, orchestra pit, projection booth, lighting control room and lobby.

E. Circulation and Frequency Pattern: See Appendix I.

F. Location Priority: Adjacent to auditorium, shops, storage spaces, and dressing rooms.

G. View: The stage areas are positioned by the specifications of the auditorium. Distracting stage equipment should not be visible from the auditorium.

H. Special Considerations: The stage area, including the trap room must have a fire sprinkler system.

II. Work Shop
A. Description: 2600 sq. ft. with facilities for the design, construction, painting and storage of scenery and properties and the design, manufacture and storage of costumes.

B. Persons Served: Maintenance personnel, stage hands, and production personnel.

C. Equipment: Various hand and shop tools, spray booth, sewing machines, tool and parts storage, cloth storage, various work tables and benches.

D. Systems:
1. Heating/Cooling: General comfort levels.
2. Ventilation: The spray booth must be vented to the outside.
3. Humidity: General comfort level.
4. Lighting: General illumination levels with task lighting at large tools, work benches and sewing machines.
5. Acoustics: The shops must be acoustically separated from the stage and auditorium.
E. Circulation and Frequency Pattern: Constant use before but not during a performance.
F. Location Priority: Adjacent to stage, loading dock and stage managers office.
G. View: Possible but not mandatory.
H. Special Considerations: The shop areas must have a fire sprinkler system.

III. Stage Managers Office
A. Description: 300 sq. ft. A general office with facilities for drafting and the master house light and sound panels.
B. Persons Served: Stage manager, stage hands, and set designers.
C. Equipment: Desk, chairs, file cabinet, drafting table and equipment model table, control consoles.
D. Systems:
   1. Heating/Cooling: General comfort levels.
   3. Humidity: General comfort level.
   4. Lighting: General illumination level with task lighting at drafting table, model table and at control consoles.
   5. Acoustics: This area must be acoustically separated from the stage.
6. Communication: Telephone and communication with general manager, green room, shops, orchestra pit, projection room, and control room.

E. Circulation and Frequency Pattern: General office routine. This space also doubles as the control center for a performance.

F. Location Priority: Adjacent to shops and stage.

G. View: Visual control of shops and stage. An exterior view is not desirable.

H. Special Considerations: Provide for general comfort of users.

IV. Dressing Rooms

A. Description: Preparation space for theater artists, including two dressing rooms, one for each sex, at 400 sq. ft., with toilets at 150 sq. ft. and showers at 100 sq. ft. Two star dressing rooms at 100 sq. ft. each with toilet facilities.

B. Persons Served: Amateur or visiting professional theater artists.

C. Equipment: Chairs, lounges, make up counters, mirrors, clothes storage, lavatories, toilets, showers, ash trays, and waste receptacles.

D. Systems:
1. Heating/Cooling: General comfort levels.
3. Humidity: General comfort level.
4. Lighting: General illumination levels with task lighting at make up mirrors.
5. Acoustics: Not critical.
6. Communication: Telephones and communication with stage office and green room.
E. Circulation and Frequency Pattern:
Access to exterior and direct
access to stage via five foot cor-
ridor with no steps.

F. Location Priority: Adjacent to green-
room.

G. View: Not desirable.

H. Special Considerations: Provide for
maximum comfort and efficiency of
users.

V. Green Room
A. Description: 500 sq. ft. Basically
a lounge for theater artists.

B. Persons Served: All theater artists,
stage hands, and stage manager.

C. Equipment: Lounge furniture, tables,
ash trays, full length mirror,
water fountain, and lavatory.

D. Systems:
1. Heating/Cooling: General comfort
   levels.
3. Humidity: General comfort level
4. Lighting: General illumination
   level.
5. Acoustics: Not critical.
6. Communication: Call system from
   stage managers office, telephone,
   and monitor system loud-speaker.

E. Circulation and Frequency Pattern:
From this space theater artists go
to the stage and wait for next
entrances, Basically a waiting space,
strictly business.

F. Location Priority: Adjacent to dress-
ing rooms, stage, and trap room.

G. View: Not desirable.

H. Special Considerations: Provide for
maximum comfort for users.
VI. Rehearsal Room
A. Description: 1600 sq. ft. A space used for rehearsal while stage is used by other production departments.
B. Persons Served: All theater artists.
C. Equipment: 24-30 chairs, tables, and standard household furniture.
D. Systems:
   1. Heating/Cooling: General comfort levels.
   3. Humidity: General comfort level.
   4. Lighting: Glareless general illumination, 15 Fc. at floor.
   5. Acoustics: Good for voice.
E. Circulation and Frequency Pattern: Programmed use.
F. Location Priority: Adjacent to dressing rooms.
G. View: None desired.
H. Special Considerations: Low maintenance materials.

VII. Projection/Control Booth
A. Description: 450 sq. ft. Space for projection of motion pictures and for control of special stage lighting and sound systems.
B. Persons Served: Projectionists and stage hands.
C. Equipment: Film vault, various film projectors, rewind machine, pre-view machine, sound and light master consoles.
D. Systems:
   1. Heating/Cooling: General comfort levels.
   2. Ventilation: This space must be vented directly to exterior.
   3. Humidity: General Comfort level.
4. Lighting: General illumination levels with task lighting at all machines and consoles.
5. Acoustics: Use materials with high coefficient of absorption on floor and ceiling.
6. Communication: Direct communication to stage managers' office.

E. Circulation and Frequency Pattern: Programmed use.
F. Location Priority: Locate at back wall of auditorium.
G. View: Users must have a clear and unobstructed view of the stage area.
H. Special Considerations: Building codes define strict regulations for this space and must be consulted.

VIII. Kitchenette
A. Description: 250 sq. ft. Support area for refreshment bar. Service area for any catered social event.
B. Persons Served: Refreshment sales personnel and catering staff.
C. Equipment: Range, oven, sinks, disposal, refrigerator, freezer, general residential appliances, and equipment. Storage for food-stuffs, supplies, and equipment.
D. Systems:
   1. Heating/Cooling: General comfort levels.
   2. Ventilation: Kitchen must be well vented to exterior.
   3. Humidity: General comfort level.
   4. Lighting: General illumination levels.
   5. Acoustics: Acoustical separation from auditorium.
E. Circulation and Frequency Pattern: Programmed use.

F. Location Priority: Adjacent to refreshment bar and exterior.

G. View: Desirable but not critical.

H. Special Considerations: Plan for economy, safety, and efficiency of use.

IX. Janitor Closet

A. Description: 2 at 40 sq. ft. each. Storage and work room for janitor.

B. Persons Served: Janitorial staff.

C. Equipment: Storage shelves and slop sink.

D. Systems:
   1. Heating/Cooling: General comfort levels.
   3. Humidity: General comfort level.
   4. Lighting: General illumination levels.
   5. Acoustics: Not critical.
   6. Communication: None required.

E. Circulation and Frequency Pattern: General use.

F. Location Priority: Near back of auditorium at each level.

G. View: None required.

H. Special Considerations: Plan for economy, safety, and efficiency of use.
Minimum Required Areas

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<th>Additional Space Considerations</th>
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### SPACE RELATIONSHIP MATRIX

**Key:**
- **d** Direct Access
- **v** View
- **c** Communication
- **a** Acoustical Separation

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Growth and Change

It is important to realize that as technology advances and leisure time increases, people become more aware of the quality of life about them. The demand for better recreational and entertaining facilities is on the increase.

Theaters will provide a most important public service and must not be unsafe, overcrowded, technically obsolete, deteriorated, poorly equipped or poorly staffed.

Public parks and recreation areas are also important. They often provide areas for public assembly and athletic events. As people become more concerned with the conservation of natural resources, and the preservation of the environment, the demand for public spaces will increase rapidly.

Although no master plan exists for future use of Fairbanks Park, the immediate surrounding area suggests many and varied future uses. The construction of the proposed theater will have a profound impact on this area and will best serve if it is seen to be a vital and versatile portion of a lively urban space that is effectively catering for the greatest possible variety of leisure activities.

Examining existing linkages within the park and to other areas of the city are of prime importance in determining future park activities. The park must establish its presence through either physical or psychological linkages to the rest of the city.

The linkages existing within the park are weak. The Dresser House, Sunken Formal Gardens, Ampitheater, and River coexist with no discernible linkages. If the park is to become a vital urban space, these elements should not be seen as separate entities but rather as parts of a total urban space that reinforce each other in an orderly and rational flow of space.
Site Analysis
Site Analysis

Context: The Weldin Talley Memorial Community Theater is located in Terre Haute, Indiana. Terre Haute is located in the west central portion of the state and is 178 miles south of Chicago, 183 miles northwest of Cincinnati, and 168 miles east of St. Louis. Specifically its latitude is 39 degrees 28 minutes north, longitude 87 degrees 25 minutes west, and it is 498 feet above sea level. Currently the city has a population of 72,000, and a metropolitan population of 170,000.

Terre Haute is the county seat of Vigo county which is bounded by Vermillion and Parke counties to the north, Clay county to the east, Sullivan county to the south, and the state of Illinois to the west.

The present land use in Vigo County, Indiana is as follows:

<table>
<thead>
<tr>
<th>Developed Land</th>
<th>Acres</th>
<th>% Total</th>
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<tbody>
<tr>
<td>Residential</td>
<td>7404</td>
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<tr>
<td>Commercial</td>
<td>605</td>
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<tr>
<td>Industrial</td>
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<td>Recreational</td>
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<td>4050</td>
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<tr>
<td>Streets, Roads</td>
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<tr>
<td>Total Developed Land</td>
<td>46566</td>
<td>100.0</td>
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<table>
<thead>
<tr>
<th>Undeveloped Land</th>
<th>Acres</th>
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<tbody>
<tr>
<td>Rivers and Lakes</td>
<td>6414</td>
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<tr>
<td>Agriculture</td>
<td>135130</td>
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</table>

Undeveloped Land con't.

Conservation 16854
Total
Undeveloped Land 158389

Total Land in Vigo County 204,964 Acres

Site Description: Fairbanks Park is a 38 acre urban space bounded by the Wabash River to the west, Farrington Street to the south, First Street to the east, and Dresser Drive to the north. The park is owned by the City of Terre Haute and maintained by the City Park Department.

Zoning: The park is zoned as a special use district, Public Land, and as such its use is determined by the City of Terre Haute.

Utilities: All utility services run along First Street to the east of the park. A low voltage electrical service line on poles bisects the site from north to south and provides all electrical service for the park. Acquisition of temporary and permanent utility services should present no unusual problems.

Soil Conditions: There is one basic soil type within the park, Elston Sandy Loam with 2 to 6 percent slopes. The Elston series consists of deep, well drained, gently sloping soils. These soils formed in sandy glacial outwash are medium sands that are underlain by deposits of gravel. The native vegetation was mainly prairie grasses. In a representative profile the surface layer is about 20 inches of very dark
brown sandy loam. The subsoil, about 52 inches thick, is dark brown, very friable sandy loam. The underlying material is pale-brown medium sand. This soil type has moderate to low available water capacity, moderate to rapid permeability, and moderate to high bearing capacity.

Land Contours: Generally, the land in Fairbanks Park slopes downward from east to west at 2 to 6 percent slopes. The elevation at First Street is ±490 feet and the river bank is ±460 feet above sea level. The deviations from these general slopes are the mounding of the soil for an existing amphitheater, the sunken formal gardens, and a terracing of the landforms in the northwest area of the park. The entire park and surrounding area is out of the flood plain. When the river does flood, it floods the lowlands to the west.

Significant Features: The most significant historical feature of the park is the Dresser House. A state historic landmark, the house was the birthplace of Paul Dresser who wrote the state song, "On the Banks of the Wabash." Dresser's brother, Theodore Dreiser, was an author and playwright during the gay nineties. The house functions as a museum and is open to the public on a limited basis. The most significant architectural and visual feature is a colonade and Corinthian temple portico that crowns the upper rim of the amphitheater. This element was the entrance to an old U.S. Post Office and was moved to the park in 1926 when a new Post Office was constructed. Other significant features include a fountain that provides odorless mineral water. A sunken formal garden is also a significant feature. The garden is in rather poor condition but attempts to restore the area, including new concrete and brick walks and a new fountain, have recently been completed.

Existing Foliage: The vegetation as far as grass and shrubs in the park is either lacking or in need of care. There are sparsely scattered sycamore and walnut trees over the entire area. The tree trunks average 8 inches in diameter and most are about 35 to 50 feet tall. Landscaping will play an important role in the development of both interior and exterior spaces throughout the park.

Sensory Factors: The park is basically very quiet and serene. Although industrial areas exist to the north and south, little if any disturbing noise is generated. The most probable noise source will be an occasional siren from third street, two blocks to the east. The existing structures, foliage, and landforms are very effective in blocking other traffic sounds. Odors generated from a factory to the south will have to be dealt with. The odors are from chemical solvents, can be intense, and the probability of continuance is great. Excellent views exist up and down the river and to the woodlands to the west, and have a good reliability for continuance. To the north one has a very nice view of the county courthouse dome. Generally, the park has a very good sense of place and fine potential for recreational and aesthetic opportunities.
Existing Pedestrian Traffic on the Site:
Surprisingly enough, the park enjoys little use. The park has the least amount of vandalism of all city parks and is considered safe. The greatest pedestrian use occurs one week a year during the Banks of the Wabash Festival, but mostly an occasional jogger or fisherman are the only pedestrian users.

Existing Vehicular Traffic On or Arround the Site: Dresser Drive which curves through the park has very little use. The vast majority of people coming to the park use Third Street which is a combination of U.S. Highway 41 and State Highways 63 and 150. Third Street is a four lane divided thoroughfare that has moderate to heavy use at all times. First Street is a two lane city street that is divided by railroad tracks that serve the industrial areas to the north and south. First Street has moderate use during shift change hours.

Surrounding Physical Environment: Zoning to both the north and south is light industrial, to the northeast commercial, and to the south and southwest high-density residential. Across the river to the west is a 50 year flood plain. The profile is relatively low key in all directions. The highest structures in the area are the Indiana State University married student housing facilities, at four stories. The surrounding area has recently been redeveloped and care has been taken in most cases to provide vital and aesthetic urban spaces. There are no forms, natural or manmade, that restrict natural light or breezes within the park. The existing forms and textures within the park are mostly curvilinear and evoke a leisurely pace.

Surrounding Social Environment: The area surrounding the park is primarily commercial and light industrial land with two high density residential complexes bordering the park directly adjacent to the east. Young married couples, many of whom have children, occupy married student housing and a complex of 100 apartments are occupied by self sufficient elderly people. Both groups enjoy many programed activities within their respective complexes and both represent a good source of future theater patrons. The area has no dominant ethnic groups or values. The residential areas further to the east are mostly white and middle class family units.

Parking: One parking space for every three theater seats is a suggested minimum. The proposed facility will have 800 seats and should therefore have a minimum of 266 parking spaces. Assuming 300 square feet per space, which includes required circulation areas, parking will require 79,800 square feet or approximately 1.8 acres of park land. Access to the parking area(s) should be from Dresser Drive and a dropoff area at or under the theater marquee is mandatory. Pedestrian circulation to and from the parking area(s) should be pleasant, safe, and capable of handling handicapped persons. The areas should be surfaced, lighted, and planned to blend with the existing amenities of Fairbanks park.
URBAN CONTEXT

Key:
- Fairbanks Park
- Interstate 70
- Major Highways

TERRE HAUTE, INDIANA
Elderly Housing Complex

University Housing Complex

YWCA

Commercial Building
FAIRBANKS PARK

KEY:
1. Portico from Old Post Office
2. Amphitheater and Thrust Stage
3. Mineral Water Fountain
4. Sunken Formal Gardens
5. Paul Dresser House
6. First Street
7. Oak Street
8. Farrington Street
9. Dresser Drive
Climate; Terre Haute enjoys a full four-season climate with mild winters and summers and enjoyable springs and autumns. The average daily temperature is 54.2 degrees; the average maximum is 63.7 degrees; and the average minimum is 44.8 degrees. Highs in mid-summer are in the 90-degree range with humidity above normal comfort levels. Mid-winter lows reach down to below 0 degrees. Average annual precipitation is 32.8 inches. There is usually measurable but little snowfall in the winter with snow covering the ground approximately 8 weeks.
PRECIPITATION

Inches

- High
- Mean
- Low
### Wind Speed and Direction

**Miles per Hour**

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**NORTH**
RELATIVE HUMIDITY
SUN ANGLES

AZIMUTH

ALITUDE

June 21  March 21  September 21  December 21
Graphic Site Analysis

Site Context within the City of Terre Haute
Site Sections

Topography
Site Analysis

Synthesis
Conceptual Design
With the completion of the programming and site analysis stages of design, three concepts were developed. Each concept explores the juxtapositioning of the various elements of the theater, user movement within the theater and the spacial relationships of elements within the park.

The final building concept as well as the final master plan for the park represent a combination of what were considered to be the best elements of the three concepts.
Building Concept #2

Master Plan #2