

Ronald W. Hoepfner Jr.

Architectural Thesis 1989-1990

ARROW FIELD

A Baseball Stadium for the City of Indianapolis

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PROJECT TEAM

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THESIS TOPIC

During the Spring semester of 1989-90 I have undertaken the design of a sports facility, a baseball stadium, for the city of Indianapolis.

Indianapolis has been billing itself as the "amateur sports capital of the world" and this statement alone should strongly support the building of such a facility. A professional baseball stadium will not only bring in revenue to the city and stimulate development in the Southside industrial area but will also strengthen the network of existing sports facilities within the metropolitan area. Besides baseball and the national coverage that goes along with it, the facility would also support many other activities which do not yet have a proper venue in the city. In the project design I have concentrated on the stadium's impact on Indianapolis from a human/local perspective and have expanded it to a national perspective.

The revitalization of Indianapolis' downtown has added a new dimension to the city. New hotels, new shopping areas, new museums, new restaurants, even a new zoo have all enhanced the quality of life in downtown Indy. I encourage you to take every opportunity to explore the many points of interest found throughout the City. Chances are you will be able to catch either a professional or amateur sporting event at one of our world class facilities.

William H. Hudnut, III

A baseball stadium will have a large impact on the downtown area. If the facility is only for baseball then that impact will be positive during the baseball season when there will be many people going to the games, and negative during the off season when it could be as bad as a boarded up warehouse. The facility will then need to have activities that will keep people going there throughout the year. I propose to have retail shops, restaurants, offices, a health club, a hotel, and research laboratories for sports related business. The field area will also need to be enclosed during adverse weather so that sports activities can be programmed throughout the year.

DESIGN OBJECTIVES

The design of a baseball/athletics stadium in the downtown area of Indianapolis, the layout of the retail and commercial areas accompanying the stadium, the design of the parking structures needed for the stadium, the design of the external public areas surrounding the stadium, and a public plaza between the stadium and the Circle. The overall design will also include a plan for commercial redevelopment in the Southside industrial area, rezoning of the surrounding area, and a traffic plan for the surrounding area.

Major objectives for the stadium design:

The procession of the spectators as they enter into the stadium should heighten their anticipation and excitement toward the event. This should be done with changes in scale of spaces, scale and texture of material.

The scale of the outdoor spaces should be very much on a human scale with a slight hint as to what the size of the space inside the stadium.

The facility is to be programmed to be in use throughout the year and by a wide range of people.

The spectators should be accommodated in every way possible to increase their enjoyment of the competition.

We're in the business of sports entertainment. Baseball isn't a game to which your individuals come alone just to watch the game. They come for social enjoyment. They like to entertain and be entertained at the ballpark.

Roger Angel, "The Summer Game"

The players should be accommodated in every way possible to increase their playing potential.

CONTEXT ANALYSIS

Indianapolis has been trying to revive the downtown area and the addition of a baseball/athletics stadium will be a major step in this revival. The stadium will only be two blocks from Market Square Arena, four blocks from the Circle, and five blocks from the Hoosier Dome. The proximity of the stadium to the downtown area will greatly increase the market value of the surrounding land and will increase development in the areas surrounding it.

Other athletic facilities in the downtown area include:

Pan Am Ice Rink
Tennis Stadium
Track and Field Stadium
Training Center
Natatorium

The stadium has also traditionally been a focal point within the community, in which strangers discover at least a temporary bond with their neighbors. Every stadium at one time was located in the city, often in a residential area, and fans walked or took public transportation to reach it.

Michael V. Oriard

Indianapolis has for some time been trying to bring more people into the downtown area. The existing downtown sports facilities will be complemented with the addition of a baseball stadium and the chances to bring another major sporting competition to Indianapolis, like the Pan Am Games, will be increased.

BUILDING PROGRAM

Site Description:

The site is located in the downtown area of Indianapolis, Indiana. It is bounded on the North by Maryland St., on the West by Delaware St., on the South by South St., and on the East by East St. Present on the site at this time are; refueling facilities for the Indianapolis Police, the downtown heliport, elevated parking lots, abandoned warehouse buildings, scrap metal facilities, elevated railroad tracks and commercial/industrial buildings.

Site Choice:

The reasons for choosing this site are as follows:

The site had to be in the downtown area to bring more people to the downtown; helping to stimulate growth of the retail and commercial sectors of the city.

The site had to be in the downtown area to strengthen the network of existing sports facilities already in the downtown area and to increase the possibility of bringing major sports competition to the city.

The site that I chose is presently very costly to the city because it is high value land (due to its proximity to the circle) that is being used for a low value activity (surface parking).

The present condition of the site, with the abandoned rail yard turned into a parking lot, is one that is creating a large hinderance to surrounding development. Because of the high cost of developing the site, a private venture is almost impossible because of better space being available elsewhere. If the city doesn't produce funding for a municipal project such as the stadium then it is very likely that the site will continue to be an eyesore and a dead spot in the downtown development.

With the stadium sitting on the chosen site, there will be a very positive relationship created between the stadium and the Hoosier Dome, the stadium and Market Square Arena, and the stadium and the circle.

SITE DEVELOPMENT

Relocation of existing functions on site.

Parking for police vehicles to be relocated to the parking lot East of present jail facility and South of Washington Street until the time when all of the jail and police activities are removed to a location outside the immediate downtown area. There is also a parking garage planned for the immediate North side of the jail.

Police fuel station - to be relocated to the parking lot East of present jail facility and South of Washington Street until the jail facilities can be relocated elsewhere.

Railroad tracks - to be relocated South of present location and built on an overpass-type structure to allow pedestrians free movement on the street level.

Plan for entrance/exit from the site.

Pedestrian. The major areas from which pedestrian traffic will come to the site are as follows:

Downtown core/circle traffic to arrive through the Virginia Avenue plaza from the Northwest, along Maryland Street from the West and along Delaware Street from the North.

Union Station area traffic to arrive from the West along Georgia Street.

Market Square area traffic to arrive from the North along Alabama Street.

Lily area traffic to arrive from the South along Alabama Street.

Fletcher residential area traffic to arrive from the Southeast along Virginia Avenue.

East side traffic to arrive along Georgia Street.

Private automobile - out-of-city traffic. The major directions and arteries on which automobile traffic will enter the area from outside the city are as follows:

North. Traffic on 31 South, 37 South, 69 South and 67 South will travel Southeast on 465 and then proceed West on 70 into the city. Traffic on 421 South and 65 South will use 65 South to enter the city.

West. Traffic on 74 East, 36 East, 40 East and 70 East will travel South on 465 and then proceed East on 70 into the city.

South. Traffic on 67 North will travel North on 465 and then proceed East on 70 into the city. Traffic on 37 North, 135 North, 31

North and 65 North will travel East on 465 and then proceed North on 65 into the city.

East. Traffic on 74 West and 52 West will travel South on 465 and then proceed North on 65 into the city. Traffic on 40 West and 70 West will proceed on 70 West into the city.

Private automobile - in-city traffic. The major arteries on which automobiles will arrive at the site are: (see appendix XXXXXX for location of various off ramps from the interstate.

Note: Traffic using 65 South and 70 West into the city will use Ohio Street, Fletcher Avenue and East Street exits. Traffic using 65 North can proceed North to the Market Street exit or West on 70 to the Meridian Street exit. Traffic using 70 East will use the Illinois Street and Meridian Street exit.

Public transportation. Drop-off points located along Delaware Street and Maryland Street and a drop-off loop located on Georgia Street and Maryland Street on the Southeast side of the stadium.

Charter. Drop-off along the East side of the stadium and parking in the East lot.

Services. Entry to the site off of East Street and through the parking area. Service vehicles can enter the stadium through the service tunnel on the East side of the stadium and exit by means of a tunnel on the South side of the stadium.

Athletes. Entry off of East Street onto a private parking level from which they can enter the lower level of the stadium.

Media. Entry off of East Street into a private parking lot with unimpeded airspace for satellite transmission vehicles.

Site activities:

Sports:

Professional baseball games.

Dimensions: 330' both foul lines.

380' both power alleys.

405' center field.

60' foul territory behind home plate.

Professional soccer games. 345' x 223' + safety zones.

Amateur baseball games.

Amateur soccer games. 345' x 223' + safety zones.

Live musical concerts.

Ceremonies.

Local sports competitions.

Large convention activities.

Softball

Field hockey. 300' x 180' + 10' safety zone all sides.

Team handball. 131'-3" x 65'-8" + 6' safety zone all sides.

Lacrosse. 330' x 180' + 20' safety zone all sides.

Rugby. 450' x 210' + 10' safety zone all sides.

Health club - Located on the East side of the stadium with direct connections to the entry and second level concourses, the hotel salon and the upper level running track.

Weights.

Aerobics.

Swimming. The pool will be located on the South side of the railroad tracks and on the lower level of the stadium. The separation of the pool from the rest of the health club is to isolate the humid and chlorine laden air.

Running track located on an upper level and is accessed through the health club. The track is laid out around the perimeter of the stadium roof so that the runners can look out onto a 360 degree panorama of the downtown area. The track distance is approximately two-fifths of a mile. Located on the inside of the track will be twenty-one activity areas that the runners can utilize as an exercise trail.

Rock climbing practice wall. The wall will be an artificial cliff built in the main atrium of the health club. It will have ascent routes for various skill levels.

Raquetball.
Handball.
Tennis.

Business:

Hotel adjoining the stadium facility. The hotel is incorporated into the facility planning in such a way that the entry level and club level concourses are have access to the main atrium space of the hotel. The lobby of the hotel will be located on the sixth floor creating a sky lobby. Located on the third level will be a salon that can be used by the hotel guests, the general public and the members of the health club. The hotel structure is incorporated into the structural system of the stadium roof. This allows the hotel to cantilever over the seats and creates several reception rooms and many hotel rooms with dramatic views into the stadium.

Research offices - sports equipment companies.

Retail space - sports equipment companies.

Retail space - souvenirs.

Retail space - general.

Restaurants. There will be restaurants located on each level of the stadium. These are to serve the general public, the shoppers at the stadium facility, and to replace the concession stands found at most stadia. The restaurants will mostly be fast food with the exception of two first class restaurants; one located within the hotel and one located next to the main atrium which is on axis with the Virginia Avenue plaza.

Night clubs. Located on the suite level. The club will be directly across the main atrium space from the club restaurant and connected to it by a skywalk.

Sports information center. Located on the ground floor of the office tower. The center will supply information to the general public about upcoming activities in and around the city, about organizations in various sports in which individuals can join, and about sports competitions around the country. The center will also be a source for press releases concerning activities within the city and will keep updates on high school, college and pro sports' scores.

Museum of sports history. Located on the second and third floors of the office tower. The museum will contain exhibits on the origins of many sports and changing exhibits that focus on individual

competitors or competitions.

Future subway station. To be located under Delaware Street and the adjacent sidewalk on the West side of the stadium with access from inside the stadium off of the lower level concourse.

Facility Accommodations:

Playing field - change from baseball to rectangular field sports.

-Accommodated by moveable seats.

Spectator seating. To be colored in alternating colors so that the empty seats will better blend in with the colors of the spectators clothing so that the players will not be able to easily see empty seats.

Storage for artificial turf. Located behind the outfield wall and including storage for the equipment used for the movement of the turf.

Storage for home-run fence. Located behind the outfield wall.

Storage for practice equipment.

Backstop net. Can be raised up to the underside of the roof when not needed.

Service ring. Located around the perimeter of the roof opening. It is hollow and used not only as a compression ring for the roof structure but will also be used by service personell to maintain the ligh arrays located under the roof. The service ring is also the attatchment point and storage for the temporary roof.

Suspended fabric roof, cable supported. 0.8 mm. fiber glass cloth coated with tetrafluoroethylene resin supported by 80 mm. diameter cables running two directions. The roof will be 180' above the infield when in place. Storage for the roof is located under the cantilevered roof and inside the extended service ring.

Locker/shower facilities for all participants.

4 private clubhouses for the major teams. (field level)

8 general male/female locker rooms. (field level)

4 male/female dressing rooms for performing artists. (field level)

Private training room for the home teams located next to the clubhouses on the field level.

Indoor batting cages located near the clubhouse on the field level.

Repair shop for athletic equipment located on the field level.

Player lounge.

Press lounge.

Employee dressing rooms.

Vendors.

Ticket takers.

Ushers and Usherettes.

Concession facilities. Snack bars. (each level) These will be satellite

restaurants run by national chains or local enterprise. The spaces will be leased to bring year round revenue to the stadium.

Storage depots for vendors. (each level)

Food and beverage concession warehouse. (lower level) The warehouse is to be used by the restaurants within the facility so that each outlet does not need to have as much capacity.

Handicapped access. The seats accessed by the entry level will have areas designed to accomodate the handicapped. The levels of retail stores and offices are accessed by elevators.

Parking facilities.

Spectators. On site and in immediate area. (auto, busses, RVs)

Participants. Private parking and entrance.

Media. Private parking and entrance.

Dignitaries. Private parking and private entrance.

Mechanical equipment rooms. (main room on lower level) Major air handling rooms that are needed when the roof is in place are located on the fifth floor, under the highest bank of seats.

Maintenance workshop. Located on the lower level, the workshop will be used to construct and repair equipment and specialty devices used throughout the stadium.

Storage for retail outlets is located on the lower level. Each store would have its own room so that it does not need to have as much storage within the store.

Major reception rooms. Located on the suite level. The rooms will be rented out to groups who wish to gather before or after events or during the off-times. The reception rooms can be catered on arrangement by any of the restaurants in the facility.

Telephone installation room. Located on the field level.

Electronic video display board(s). Scoreboards. Sound system.

Public restrooms. (each level)

Suites. Private boxes. Lounges. Suites can have food delivered from select restaurants within the facility.

First aid station including a medical facility on the field level for x-ray and diagnosis of possible injuries. Treatment facilities such as wirlpool are to be included. Also to be used by the users of the health club.

Circulation corridors. The concourses on the lower, entry, and club levels are accessible by the general public during all business hours.

Officials' locker room, lounge. Located on the field level.

Security services. Office located on the entry level with a lounge and locker facilities on the field level.

Emergency generators. (perimeter of site)

Fire safety equipment room. (each level)

Ticket outlets. (entry level, subway level, train level)

Escalators. Ramps. Stairs.

Passenger elevators. Located at the Southwest and Northeast corners of the stadium.

Freight elevator. Located near the food and beverage warehouse to distribute goods go vendors on each level.

Loading docks. Located on the field level and accessible by ramps from the parking lot on the East side of the stadium. The docks are capable of handling four semi trailers and twelve delivery trucks. These will serve the deliveries for the stadium, the shops and restaurants and the museum. There is also access to the field for delivery of equipment for special events.

Garbage services are located on the field level adjacent to the loading docks.

FACILITY OFFICES

Owner of the stadium.

Director of stadium services.

Media Services:

Radio office. Announcers. (2)

Flagship station.

Television office. Announcers. (5)

Flagship station.

Television transmission rooms.

Media facilities. Video control room. (Pressbox level)

Team Offices, Baseball:

Ownership, Management.

Team owner.

President.

Board of directors. (conference room)

Vice Presidents:

Business Affairs.

Administrative Personnel.

Finance.

Sales.

Team counsel.

General Administration:

Public relations director.

Assistant public relations director.

Director of publications.

Community relations director.

Assistant community relations director.

Travelling secretary.

Director of spring training operations.

Club physicians. (2)

Trainers. (2)

Strength and conditioning coach.

Major League Staff:

Manager.

Coaches. (5)

Baseball Operations:

Vice President, baseball operations.

Assistant to the Vice President.

Player personnel director.

Assistant scouting/player development director.

Community coordinator/baseball operations.

Special projects/baseball operations.

Statistician/baseball operations.

Director of field operations/instruction.

Camp coordinator.

Field and facilities.

Roving instructor. (2)

Scouting:

Scouting director.

Assistant scouting director.

Scouting supervisor.(2)

Advance scout.

Major league scouts.(3)

Scouts.(20 - a shared secretary for scouts throughout the country)

CITY PLAN

Street plan changes:

0-99 block of Virginia Avenue to be closed off to traffic and redesigned as a pedestrian plaza.

100 and 200 blocks of Virginia Avenue to be removed for the placement of the baseball stadium.

300 block of Virginia Avenue to be closed off and redesigned into an entry plaza to the stadium and for the use by the persons employed at the commercial space in the area.

400+ blocks of Virginia Avenue to remain as a two-way artery. Inbound traffic on Virginia Avenue will turn onto South Street or East Street. As an overall planning strategy, North, South, East and West Streets will be the inner-city loop.

Georgia Street between Capitol Avenue and Delaware Street to remain as a two-way street with improvements made to widen the sidewalks to handle the anticipated pedestrian flow from the West side of the downtown.

Maryland Street to remain one-way.

South Street to remain as a two-way artery.

Delaware Street to remain one-way North.

East Street to be converted to two-way between South Street and North Street.

Development of Surrounding Areas:

Develop the remaining block of Virginia Avenue (0-99 block) as a pedestrian plaza. The plaza will be used by the general public and as a site of special outdoor events before and after activities at the stadium. The existing bank plaza will be incorporated in the planning to make an effective pedestrian space and a link between the stadium and the circle area.

Develop retail shops facing Virginia Avenue plaza. The parking areas facing the plaza will be developed for retail shops facing the plaza.

Develop Georgia Street as a pedestrian linkage between the baseball stadium and the Hoosier Dome with the removal of the elevated parking lot retaining wall on the South side of the street and the addition of trees and planters. The entrance to the Hoosier Dome

and the stadium will act as the terminators of this link.

Develop Alabama Street as a pedestrian linkage between the baseball stadium and Market Square Arena.

Reuse existing warehouse/commercial buildings on site for commercial development. This is already underway by Manserd Development.

Develop new commercial, office and retail space on Southeast portion of site. The addition of commercial space will increase the number of persons in the immediate area and strengthen the retail shops and restaurants within the stadium facility.

Future relocation and reuse of existing jail facility. The jail functions will be located out of the downtown core because of a need to expand and because of the rising land cost at the present site. The jail structure could be demolished or renovated into a retail/commercial/housing facility.

CONSTRUCTION INFORMATION

Site preparation:

The site will undergo massive reshaping before the construction can begin. The area that the structure for the elevated railway will run on will be excavated to allow for the construction of the relocated rail lines without disturbing the present rail traffic. Once the new lines are put in and the rail traffic has been diverted onto them, the elevated parking lots will be excavated down below street level to the proper elevation. The material will be hauled to two landfill locations on Bluff Road about 4 miles South of the site. One is on the Northeast corner of Troy Road and Bluff Road. The other is located on the Southwest corner of Southern Street and Bluff Road.

ANALYSIS OF PRECEDENTS

Precedents for a baseball stadium reach far back into recorded history. The Greeks and Romans popularized the stadium and similar structures such as amphitheaters, circuses, and coliseums. The basic form of the stadium has not changed a great deal even when considering the modern baseball built in America starting at the end of the 19th century.

Chichester Cathedral - England. Analysed as a precedent to the creation of a large congregational space wrapped by smaller shops.

Coliseum - Rome.

Circus Maximus

Wrigley Field - Chicago.

Yankee Stadium - New York.

Olympic stadium - Berlin. 1936

Astrodome - Houston.

Riverfront Stadium - Cincinnati.

Market Square Arena - Indianapolis.

Hoosier Dome - Indianapolis.

Olympic Stadium - Montreal.

Tokyo Dome.

Toronto Dome.

Dinner theater.

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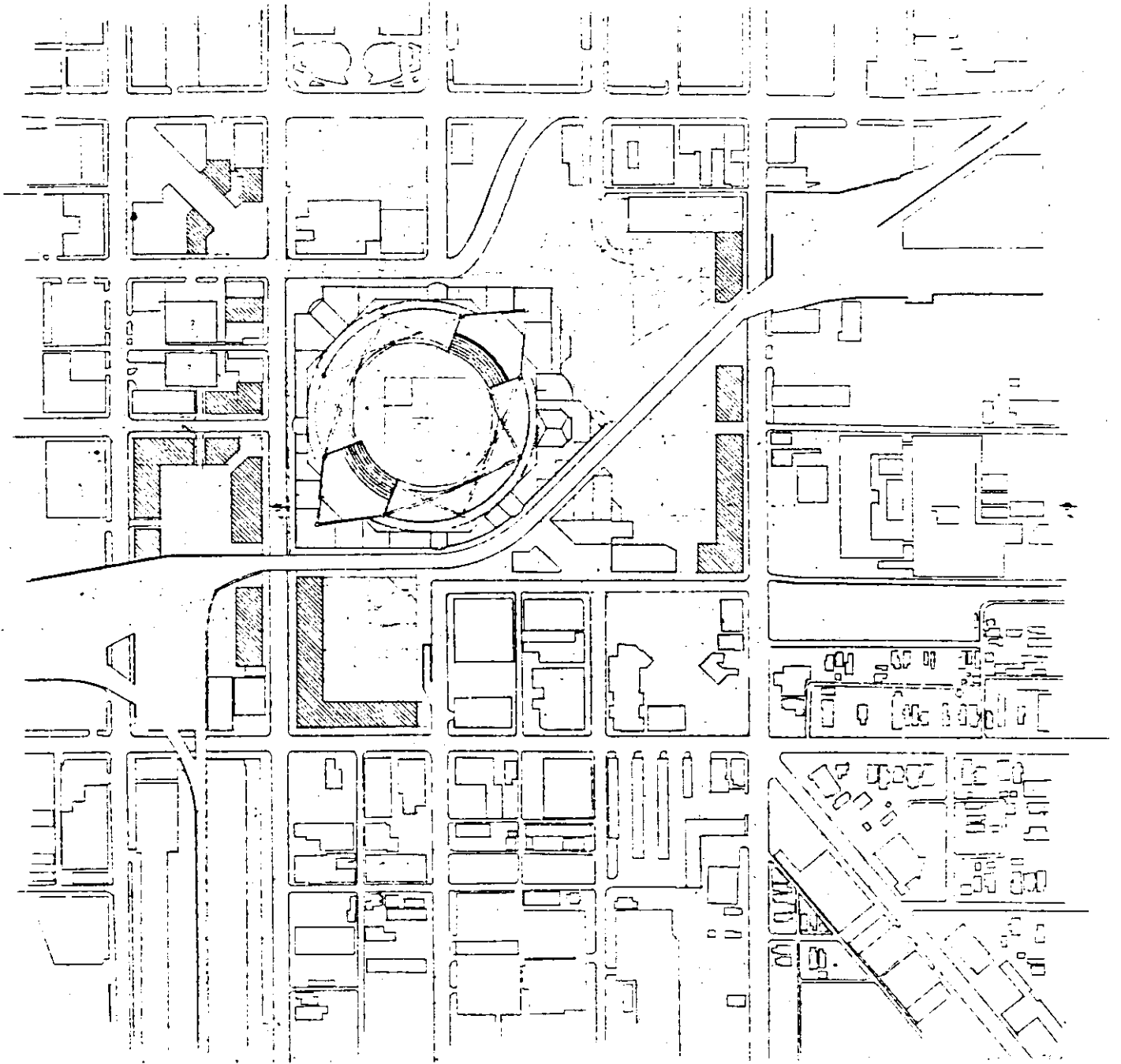
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SITE PLAN