A multiple-use facility in the form of a dome constructed of steel and concrete and covered with a stainless steel "dish". The retractable roof is supported by a cantilever frame which projects 250 feet over the auditorium. It is built on a 20 acre tract of land - most of which is given over to parking. The site is bounded by Centre Avenue and Bedford Avenue on the south and north and by Washington Place and Crawford Street on the west and east.
#27.

drawing boards was a large performing hall.
**Pennsylvania Historic Resource Survey Form — Data Sheet**

**Identification and Location**

- **Survey Code:**
- **Tax Parcel/Other No.:** 0002-C-00400-0000-00
- **County:** Allegheny
- **Municipality:** City of Pittsburgh 3rd Ward
- **Address:** 66 Mario Lemieux Place, Pittsburgh, PA 15219
- **Historic Name:** Civic Arena
- **Other Name:** Mellon Arena, The "T"Gloo", Civic Auditorium, "Wycis Arena Rehearsal"
- **Owner Name/Address:** Sports & Exhibition Authority (PO Box, PA) Regional Resource Center 425 Sixth Avenue
- **Owner Category:** Private
- **Resource Category:** Building
- **Number/Approximate Number of Resources Covered by This Form:** 1
- **USGS Quad:** Pittsburgh East Quadrangle
- **UTM Reference:** A. C. D.

**Historic and Current Functions**

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<td>C. (08) Recreation and Culture</td>
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**Current Function Category**

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**Physical Description**

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<td>D. Other</td>
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| Width | 417' E |
| Depth | 417' C |
| Stories/Height | 10 or More Stories (156) E |
**HISTORICAL INFORMATION**

Year Built: __C.1959__ to __C.1961__  
Additions/Alterations Dates: __C.__ __: __C.__

Basis for Dating: __X__ Documentary  ____Physical

Explain: Allegheny County Assessment Records, various newspaper accounts and Regional Asset District funding and designation of the Civic Arena

Cultural/Ethnic Affiliation: 1. **American**  2. 

Associated Individuals: 1. Wolk, W.A. (Judge)  2. Lawrence David L. (Mayor)

Associated Events: 1. Civic Light Opera  2. Stanley Cup Finals '91 & '92


**MAJOR BIBLIOGRAPHICAL REFERENCES**

See Exhibits 4B - Pittsburgh Chamber of Commerce, 4C - Pittsburgh Public Authority  
4D - Allegheny County Conference on Community Development  

**PREVIOUS SURVEY, DETERMINATIONS**

+ **EVALUATION** (Survey Director/Consultants Only)

Individual NR Potential: ____ Yes ____ No  
Context(s): 

Contributes to Potential District: ____ Yes ____ No  
District Name/Status: 

Explain:

**THREATS**

Threats:  
1. None  

Explain: *See Exhibit 4F "Threats of Demolition"*

**SURVEYOR INFORMATION**

Surveyor Name/Title: ___________________________  Date: ________________

Project Name: ___________________________  
Organization: ___________________________

Street and No.: ___________________________  
City, State: ___________________________  Zip Code: __________

Additional Survey Documentation: ___________________________

Associated Survey Codes: ___________________________
CIVIC ARENA: A multipurpose public auditorium built to accommodate conventions and expositions, stage productions, ceremonies, indoor sports of all types, concerts, circuses and rodeos. The air-conditioned exhibit hall comprises of 50,000 square feet in a semi-circular format. The public auditorium was originally built with five smaller meeting rooms of which some have been converted to offices and a restaurant, The Igloo Club.

WORLD'S LARGEST RETRACTABLE DOME: Unique feature of the Civic Arena is its vast stainless steel retractable roof, supported by a huge steel cantilever. The roof – which has no interior supports – is divided radially into eight leaves, two of which are stationary, six of which rotate about a pin at the top as they roll along curved rails laid on a reinforced concrete ring girder. The dome is constructed to open or close in 2 1/2 minutes. It is nearly circular in plan, 417 feet in diameter, at center 136 feet high.

LEAVES: Although the dome is divided radially into eight sections, the six movable leaves differ slightly in size so they may be nested. Sheets of 20- and 22-gauge stainless steel in trapezoidal shapes form the sheath. Approximately 170,000 square feet (about four acres) cover the eight leaves, in 7,800 separate pieces, weighing between 180 and 190 tons. There is approximately 2,950 tons of structural steel in the roof.

CANTILEVER: The cantilever frame is the support for the retracted leaves. Flanked by two permanent leaves, above which the other six leaves stack when nested, the cantilever rises 110 feet above its abutment and projects 205 feet. The 260-foot arching cantilever consists of a curved box girder approximately eight feet wide, 17’ 16” deep, with a system of tie-back anchorage members extending from the bottom of the anchorage point near the ground line almost to the top of the cantilever girder. The structural steel and cantilever box girder arm and the truss weigh about 1,400 tons.

MOTOR POWERING: There are two installations at the bottom of each of the main ribs. One is the brake and the other is the motor. Each one of the six movable leaves has live separate motors and brakes. The leaves are synchronized to move together – three on each side of the centerline. The topmost leaves will move at 4 feet a second, faster than the average passenger elevator in a 6 and 8 story apartment building. Complete opening or closing takes 2 1/2 minutes.

THE RING GIRDER is supported on 48 concrete A-frames and banked at a 13-degree angle to resist the thrust of the leaves. The inclined and vertical legs of the A-frames were formed at the same time as the girder. Drains will carry roof rainwater through the ring girder, conducting the water along the vertical columns of the A-frame to storm sewer.

THE BASE & FOUNDATION is made of concrete reinforced with steel made from local steel mills in Pittsburgh. Additionally, a steel girder in the rear of the facility arches over the dome supporting the retractable dome. This design eliminates interior support beams.

INTERIOR & INTEGRITY: The interior comprises of a concourse around the perimeter of seating area containing several food concessions, lavatory facilities and dining rooms. The original design accommodated 13,000 persons. Over the last 15 years, corporate super-boxes have been added to the east and west sides of the Arena while two balconies "E" & "F" were added to each of the north and south ends of the facility, increasing the seating capacity to 16,958 - 17,181 (standing room capacity). The structural integrity of the retractable stainless steel dome and identity is intact. The dome serves as a lasting tribute to Pittsburgh's steel heritage, technological contributions and ingenuity.
HISTORICAL NARRATIVE:

The Pittsburgh Town Hall Committee first proposed the idea of a public arena in 1925. Nearly two decades later, Allegheny County Orphan’s Court Judge, A.W. Wolk in 1944, came up with the idea for a moveable domed facility. During a series of newspaper articles, Judge Wolk proposed an open-air amphitheater. When asked by a reporter, “What will you do when it rains?” Wolk came up with the idea of having a moveable roof.

During its development, the public auditorium proposal was bestowed the title of the “Crown Jewel” of the lower Hill Redevelopment. The Auditorium was envisioned as a permanent part of Pittsburgh’s Renaissance. (Pittsburgh Press 3/10/57) Billed as a Renaissance Auditorium, the urban renewal project eliminated a blighted slum area, displacing thousands of people from the Lower Hill District. On April 26, 1959, ground was broken after much of the lower hill district was leveled in preparation for site development.

Construction of the structure ran into labor problems and cost over runs. In response, Mayor David L. Lawrence stated, “We should be very reluctant to surrender the idea of a moveable roof... It will be heralded the length and breadth of the world. We should not falter on this one item. The auditorium will stand as a symbol of an era here.” (Pittsburgh Press 9/15/86) The final cost came in at $22 million. The dedication of Arena took place on September 17, 1961.

The Public Auditorium became home to the Civic Light Opera and synonymous with its best-known name, the Civic Arena. The facility has also been called the “Wylie Avenue Roundhouse” and has become affectionately known as the “Igloo”. Currently, the facility is now called the Mellon Arena. The name was changed through corporate sponsorship fueled by sports owners’ lack of fiscal constraint on player salaries and greed. All of which was done without public debate or benefit.

The building will be an eloquent expression of the technological advances to which Pittsburgh industry and research have contributed so substantially. (Public Auditorium Authority Media Guide)

The Arena was the original home to Civic Light Opera, Pittsburgh Condors (AHL), Pittsburgh Hornets, Pittsburgh Rens (named for Renaissance) American Basketball League, Pittsburgh Pipers-ABA Basketball, Duquesne Basketball, Pittsburgh Penguins-NHL, Pittsburgh Spirit-MISL Soccer, Pittsburgh, Pittsburgh Stingers-Soccer, Pittsburgh Gladiators-Arena Football, Pittsburgh Bulls-MILL Lacrosse, Pittsburgh Phantoms-roller hockey and the Pittsburgh Triangles (Tennis).


The City Art Commission wanted to place the Civic Arena on the National Register of Historic building. The dome is one of Pittsburgh’s signatures, according to architect David Lewis. “The Arena is one of the country’s great technological marvels. Clearly, it was meant to project a 19th century city into the 21st century. It should be saved for future generations.” (Pittsburgh Press 3/10/87)

From 1961 to 1986, the City of Pittsburgh and Allegheny County contributions reached $25.2 million because of a capital improvement program. (Pittsburgh Press 9/15/86) The improvement program added the “E” Balcony to the North & South ends of the rink and corporate super boxes on the East side. In 1994, Penguins owner Howard Baldwin made improvements to the Arena by adding the “F” Balconies and additional super boxes and upgrading the “A” & “B” levels.

On August 1, 1996, Howard Baldwin seeks reimbursement on the Arena improvements. Two months later, Mr. Baldwin defaults on bonds used to upgrade building. In December, the Allegheny Regional Asset District classified the Civic Arena as a “Regional Asset”, and approved reimbursement to Mr. Baldwin, authorizing $10.5 million in RAD Funds for Civic Arena improvements. Currently, the Arena receives $3.2 million annually. This facility is a testament to an era of Pittsburgh’s Renaissance and an example of technological achievement that is unparalleled today. Clearly, the Civic Arena is a unique landmark that identifies Pittsburgh and its steel heritage, worthy of historic designation & preservation.
AN ALL-PURPOSE CIVIC AUDITORIUM
FOR THE NEW PITTSBURGH AND ALLEGHENY COUNTY
A GREAT REDEVELOPMENT PROJECT is now in progress in the Lower Hill, where land acquisition and clearance will pave the way for restoration and rebuilding, and the erection of a spectacular all-purpose civic auditorium. This unique structure will indeed take its place among the wonders of the world and will be a crowning accomplishment to the remarkable achievements of this present era of rebirth in Pittsburgh and Allegheny County.

DRAMATIC BUILDING

The auditorium, combining in one dramatic building a convention hall, open-air amphitheater, sports arena and exhibit center will be so flexible and adaptable that it will have year-round usage and an impressive earning potential.

The building will be an eloquent expression of the technological advances to which Pittsburgh industry and research have contributed so substantially. These contributions to 20th century progress have made possible the design and construction of a majestic dome-shaped roof of gleaming metal which can be opened to the stars.

For these reasons alone, it is logical and appropriate that this community should be the first to build such an advanced structure, expressing the present-day spirit of Pittsburgh in a superlative manner.

The responsibility for the construction and ultimate operation of this civic auditorium rests with the Public Auditorium Authority of Pittsburgh and Allegheny County, a joint City-County agency created in February, 1954.

CONVENTION HALL

Pittsburgh has lagged far behind in having facilities available to attract important business meetings, conventions and exhibits. The lack of such facilities has been a serious handicap.

The auditorium with its unusual stage, air-conditioning, sound and visual effects, complete facilities for televising and broadcasting, flexible seating, and its separate exhibit areas will give this region a superb structure for conventions and meetings of all kinds.

The seating arrangement in the circular auditorium will be adjustable, accommodating from 7,500 to 14,000 people—according to the event.
With this new facility, Pittsburgh can compete on equal terms with other cities for all except a very few of the largest conventions. It will make Pittsburgh among the leading convention cities in America—in facilities, number, importance and frequency.

EXHIBIT CENTER

Industry and business have never had a satisfactory place here to display their goods and products. Important industrial exhibits, educational and scientific expositions, trade shows and merchandising fairs by-pass Pittsburgh because of the lack of facilities.

The auditorium-arena-convention hall will contain in excess of 100,000 square feet of exhibit space, and will be more than adequate for most of the big conventions and exhibits.

More than 60,000 square feet of exhibit area will be separate and apart from the main auditorium, but under the same roof.

AMPHITHEATER

As an open-air amphitheater, the building will be unique. In the summertime under the stars with the elaborate stage in use, the auditorium will serve as the home for the civic light opera, with seats for 7,500. Other outdoor events of a patriotic, athletic, civic and entertainment nature can also be held here during the outdoor summer season.

SPORTS ARENA

People in western Pennsylvania have always been sports-minded, actively supporting professional and amateur teams in all the major categories of sports. Today the Pittsburgh area can boast of nothing but a converted, ancient car barn for a sports arena.

In the multi-purpose arena with its amazing flexibility, sports-loving Pittsburghers will have a modern, up-to-date arena for sports events of all kinds, from ice hockey to basketball. For ice hockey and ice shows and skating, the arena will seat 11,500; for boxing, wrestling and other ring events, 14,000; and for basketball, 13,000.

UNIQUE ROOF

The immense roof structure will be the largest dome in the world, with a diameter of 415 feet. In the summertime, with the roof open, the arena will be an open-air amphitheater; in the fall and winter the roof will be closed and fixed. In case of rain during the summer, the roof can be closed by pressing a button.

This metal roof will be composed of eight pie-shaped sectors. Six of the eight sectors will be movable, three on each side, and when the roof is opened they will move over the two fixed sectors. These two fixed sectors will be reinforced and supported by a huge steel arm which will be anchored at the rear of the auditorium, constituting a giant cantilever spanning to a central point.
over the amphitheater. The movable sectors will connect at the top to the central point and at the bottom will rest on wheel carriages, which move on tracks around the perimeter of the arena.

This unique structure will make Pittsburgh a center of architectural and engineering interest throughout the world.

LOWER HILL

The Lower Hill project—a land assemblage and redevelopment of 95.4 acres, bounded by Fifth, Sixth and Wylie Avenues, Tunnel Street, Bigelow Boulevard and Crawford Street—is a responsibility of the Urban Redevelopment Authority of Pittsburgh. It is one of the biggest and most dramatic redevelopment programs ever undertaken in this country. The civic auditorium is the key to the plan and without it the whole project could fail.

The auditorium, including the Mall and parking area, will occupy about 20 acres.

At the present time, this area is a welter of substandard housing, obsolete commercial structures and narrow, cobblestone streets and alleys. It is a blight upon our community, and nothing will do more to change the appearance and character of Pittsburgh than to replace this old, worn-out section with a park-like development, crowned with a great civic auditorium—and ultimately flanked with other modern structures.

Under an agreement with the Urban Redevelopment Authority, the Housing Authority of the City of Pittsburgh will assist in relocating the families who now live in this area.

ACTION

All the necessary steps to begin the Lower Hill redevelopment have been completed.
This project has involved the four levels of government. The three taxing bodies—the City of Pittsburgh, Allegheny County and the Pittsburgh School District—have agreed to convey to the Redevelopment Authority, without consideration, all their interests in any properties within the project area.

The Commonwealth of Pennsylvania has made a grant of $1,000,000 to the Redevelopment Authority, which will be used to acquire property in the Lower Hill.

The Redevelopment Proposal has been approved by the City Planning Commission and City Council. The Proposal has also been approved by the Federal Housing and Home Finance Agency, which is providing grants and loans to carry out the whole Lower Hill project.

Property acquisition will start in March, 1956, and land clearance will begin shortly thereafter.

OVER-ALL PLAN

In addition to the civic auditorium, the over-all plan envisages new residential and commercial development and a tract for future cultural purposes.

The site for the civic auditorium has been wisely chosen. It adjoins the Golden Triangle, and will extend the central area by almost one-third.

By virtue of the Crosstown Thorofare and its connections with the Penn-Lincoln Parkway and other major traffic arteries, the area will be easily accessible from any part of western Pennsylvania.

PARKING

Provision for adequate parking has been a primary consideration in the bold planning of the Lower Hill.

There will be approximately 1,300 car spaces around the arena; 1,400 additional within easy walking distance; and on the fringe another 1,000.

It will be possible to accommodate 40 buses and 60 taxis at one time at the loading docks under cover at the level of the main entrances.

COST AND FINANCING

The cost of the civic auditorium will be financed solely through a combination of public and private funds.

The structure, exclusive of the 20-acre site, is estimated to cost approximately $12,000,000, including the Mall, parking areas, architectural and engineering, and administration and financing costs during the period of construction.

Under a contract with the Urban Redevelopment Authority signed February 6, 1956, the Auditorium Authority has agreed to pay the Redevelopment agency $2,000,000 for the land. This sum will be financed on a long-term basis.

Already the City of Pittsburgh and Allegheny County
each have pledged $1,500,000 toward the civic auditorium. The Edgar J. Kaufmann Charitable Trust is giving $1,000,000.

FUND-RAISING CAMPAIGN

The immediate need is to raise $2,500,000 from corporate sources, foundations and trusts, and from the general public. Toward this goal, the Auditorium Authority is now engaged in a fund-raising campaign.

Pittsburgh's civic leadership is working on a compellingly tight schedule. Commitments for all capital funds must be pledged as quickly as possible.

Under a ruling of the U.S. Internal Revenue Service, dated June 8, 1954, contributions to the Auditorium Authority are deductible for Federal income and gift taxes under the provisions of the Internal Revenue Code.

The remaining financing, set forth in the summary, is contingent on a successful fund-raising campaign.

A forward-looking and progressive community like Pittsburgh urgently needs this all-purpose auditorium-arena-convention hall—for industry and business and for the leisure-time pleasure and enjoyment of the people who live and work here. Through the same partnership between private enterprise, local government and the civic-spirited public that has been responsible for Pittsburgh's Renaissance, this great project will be built.

FINANCIAL SUMMARY

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<td>Allegheny County</td>
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<td>Kaufmann Trust</td>
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<td>Land (long-term financing)</td>
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<tr>
<td>Total</td>
<td>$ 6,000,000</td>
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General Fund-raising Campaign 2,500,000

TOTAL COST OF CIVIC AUDITORIUM $14,000,000

(Less the above) 8,500,000

BALANCE TO BE FINANCED BY REVENUE BONDS $ 5,500,000

The balance of $5,500,000 can be financed through long-term revenue bonds, amortized from net earnings. An economic survey made by the City Investing Company of New York City indicates that this all-purpose facility possesses an impressive earning potential, sufficient to support adequately the annual debt service payments required to retire such a revenue bond issue.

The Auditorium Authority will be pleased to answer questions regarding the auditorium or the financing plan, and to furnish additional data and information, upon request.
CARNEGIE LIBRARY OF PITTSBURGH
PENNSYLVANIA DEPARTMENT

(The initial studies for the all-purpose Auditorium were prepared for the Allegheny Conference on Community Development by Mitchell & Ritchey, Architects. This firm was engaged by the Auditorium Authority to prepare the final plans and specifications for the construction of the project. The drawings in this folder illustrate its scope.)
Pens Hockey Set-up

Click on a section for the view from that seat.
### ALLEGHENY COUNTY CERTIFIED VALUES FOR 2001

**Last Update was Saturday, June 02, 2001**

#### OWNER GENERAL INFORMATION

- **Municipal Code:** 103 PITTSBURGH - 3RD WARD
- **Owner Name:** PUBLIC AUDITORIUM AUTHORITY
- **Property Location:** 66 MARIO LEMIEUX PLACE PITTSBURGH, PA 15219
- **Tax Code:** Exempt
- **Owner Code:** Corporation
- **State Code:** Government
- **Use Code:** OWNED BY MUNICIPALITY
- **Lot Front:** 0
- **Lot Area:** 809,083
- **Homestead:** No
- **Farmstead:** No

#### County Value

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#### Full Value

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<td>Total Market Value</td>
<td>$100,012,</td>
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#### Property Description

- **Land:** LAND - PRIMARY SITE (809083 SQFT).
- **Building:** 2 STY AUDITORIUM
  - W/ ESCALATOR 48" STAIR (2) AND FENCE, 4 FT. CHAIN LINK; FENCE, 6 FT. CHAIN LINK; FENCE, 6 FT. CONCRETE/CD; FENCE, TOP RAIL; PAVING, ASPHALT, W/LIGHTING; POLE BARN 3 SIDED CONC FLOOR (2).
  - 1 STY STORAGE.

#### Address Information

- **Tax Bill Mailing:**
  - REGIONAL RESOURCE CENTER
  - 425 SIXTH AVE
  - PITTSBURGH, PA 15219-0000

- **Change Notice Mailing:**
  - 00425 SIXTH AVE
  - PITTSBURGH, PA 15219-0000
THE CIVIC ARENA

One of the symbols of the Pittsburgh Renaissance, stands on a 20-acre tract of land less than a mile from the confluence of the Allegheny and Monongahela Rivers. It is the central structure in the redevelopment of 95 acres of Pittsburgh's Lower Hill district.

A unique feature of the Arena is its vast stainless steel retractable roof, supported by a huge steel cantilever. The roof—which has no interior supports—is divided radially into eight leaves, two of which are stationary, six of which rotate about a pin at the top as they roll along curved rails laid on a reinforced concrete ring girder.

Weather permitting, at many dates, a roof opening can be scheduled as part of an assembly program. At other times, convention groups can often enjoy this thrilling spectacle when attending other Arena events, such as the Pittsburgh Symphony Promenades.

The cost of the Arena was $22 million, financed by a combination of private and public funds including outright grants from the City of Pittsburgh and County of Allegheny; gifts secured from a general fund-raising campaign; a gift of $1 million from the Edgar J. Kaufmann Charitable Trust; and a bond issue.

The multi-purpose Civic Arena is of circular exterior, oval interior structure to accommodate conventions and expositions; stage productions; ceremonies; indoor sports of all types; indoor spectacles such as ballet, circuses, concerts, opera, massed bands, rodeos, and other events.
A permanent stage, 118 feet by 64 feet, housed beneath a section of seats which can be raised hydraulically, is dramatically effective for any presentation. There are two large team of chorus, 10 individual, and 11 auxiliary dressing rooms.

The Orchestra pit is 69 feet by 15 feet 8 inches and 2 feet 8 inches deep if desired.

The Exhibit Hall of 50,000 square feet is semi-circular in shape with a maximum width of 85 feet between parallel arc outside and inside wall. Used as exhibit space, meeting rooms A and B add 4,536 square feet. 80,000 to 90,000 square feet are available in the combination of Exhibit Hall, Arena and Main Stage. Ceiling height in the Exhibit Hall is 13 feet. Freight entrance is 13 feet high and 16 feet wide at each of three doors at the Arena and Exhibit Hall level.

Five permanent rooms ranging in size from 230 to 910 person capacity, and easily subdivided for small seatings are available.

The Civic Arena is fully air conditioned and provides all utilities.

ARCHITECT: Mitchell and Ritchen, Pittsburgh, Pa.
CONSULTING ENGINEERS: Amman & Whitney; Robert A. Zern; Carl J. Long; Dzubay & Bedsole; John W. Mullin; Simonds & Simonds

For further information contact: Public Auditorium Authority of Pittsburgh and Allegheny County
Civic Arean & Exhibit Hall, Auditorium
Place, Pittsburgh, Pa. 15219
Phone: (412) 391-4545
CIVIC ARENA--EXHIBIT HALL

CIVIC ARENA
FULLY AIR CONDITIONED

Unique multi-purpose, circular exterior, oval interior structure to accommodate conventions and expositions; stage productions and ceremonies; indoor sports of all types; indoor spectacles such as ballet, circuses, concerts, opera, massed bands, rodeos, etc.

<table>
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<tr>
<th>Event</th>
<th>Capacity</th>
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<tr>
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<td>Basketball</td>
<td>11,000</td>
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<tr>
<td>Boxing</td>
<td>12,600</td>
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<tr>
<td>Circus</td>
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<td>Hockey</td>
<td>10,700</td>
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<td>Ice Show</td>
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<tr>
<td>Concerts, theatricals using main stage</td>
<td>8,100</td>
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<tr>
<td>Civic Light Opera</td>
<td>6,700</td>
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MAIN STAGE
A permanent stage, 118 feet by 64 feet, housed beneath a section of seats which can be raised hydraulically, is dramatically effective for any presentation. Dressing rooms — 2 large team or chorus, 10 individual, 11 auxiliary. Orchestra pit 69 feet by 15 feet 8 inches and 2 feet 8 inches deep if desired.

EXHIBIT HALL
The Exhibit Hall of 50,000 square feet is semi-circular in shape with a maximum width of 85 feet between parallel arc outside and inside wall. Used as exhibit space, meeting rooms A and B add 4,536 square feet, 90,000 to 90,000 square feet are available in the combination of Exhibit Hall, Arena and Main Stage. Ceiling height in the Exhibit Hall is 13 feet. Freight entrance is 13 feet high and 16 feet wide at each of three doors at the Arena and Exhibit Hall level.

MEETING ROOMS
Five permanent rooms ranging in size from 230 to 910 person capacity, and easily subdivided for smaller settings. Comfortable chairs, built-in public address and audio-visual equipment connections.

SUMMARY OF SIZES AND CAPACITIES

<table>
<thead>
<tr>
<th>Room</th>
<th>Size</th>
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<tr>
<td>A</td>
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CIVIC ARENA & EXHIBIT HALL IN
THE NEW PITTSBURGH - - - THE RENAISSANCE
CITY OF AMERICA

Photo Courtesy of Robert E. Dick Studios

ROOF AND CANTILEVER

WORLD'S LARGEST RETRACTABLE DOME: Unique feature of the Civic Arena is its vast stainless steel retractable roof, supported by a huge steel cantilever. The roof — which has no interior supports — is divided radially into eight leaves, two of which are stationary, six of which rotate about a pin at the top as they roll along curved rails laid on a reinforced concrete ring girder. The dome is constructed to open or close in 2½ minutes. It is nearly circular in plan, 415 feet in diameter, at center 136 feet high.

LEAVES: Although the dome is divided radially into eight sections, the six movable leaves differ slightly in size so they may be nested. Sheets of 20- and 22-gauge stainless steel in trapezoidal shapes form the sheath. Approximately 170,000 square feet (about four acres) cover the eight leaves, in 7,800 separate pieces, weighing between 180 and 190 tons. There are approximately 2,950 tons of structural steel in the roof.

CANTILEVER: The cantilever frame is the support for the retracted leaves. Flanked by two permanent leaves, above which the other six leaves stack when nested, the cantilever rises 110 feet above its abutment and projects 205 feet. The 260-foot arching cantilever consists of a curved box girder approximately eight feet wide, 17' 16" deep, with a system of tie-back anchorage members extending from the bottom of the anchorage point near the ground line almost to the top of the cantilever girder. The structural steel and cantilever box girder arm and the truss weigh about 1,400 tons.

MOTOR POWERING: There are two installations at the bottom of each of the main ribs. One is the brake and the other is the motor. Each one of the six movable leaves has five separate motors and brakes. The leaves are synchronized to move together — three on each side of the center line. The topmost leaves will move at 4 feet a second, faster than the average passenger elevator in a 6 and 8 story apartment building. Complete opening or closing takes 2½ minutes.

THE RING GIRDER is supported on 48 concrete A-frames and banked at a 3°-degree angle to resist the thrust of the leaves. The inclined and vertical legs of the A-frames were formed at the same time as the girder. Drains will carry roof rainwater through the ring girder, conducting the water along the vertical columns of the A-frame to storm sewers.

COST: $22-million, financed by combination of private and public funds including outright grants from City of Pittsburgh and County of Allegheny; gifts secured from a general fund-raising campaign; a gift of $1-million from Edgar J. Kaufmann Charitable Trust and a bond issue of $15,000,000.

Public Auditorium Authority of Pittsburgh and Allegheny County
Philip Baskin, Chairman
Nicholas Stabille, Secretary-Treasurer
Dr. J. Huber Wagner, Vice Chairman
John J. Burns, Member

CIVIC ARENA
FULLY AIR CONDITIONED

Unique multi-purpose, circular exterior, oval interior structure to accommodate conventions and expositions; stage productions; ceremonies; indoor sports of all types; indoor spectaculars such as ballet, circuses, concerts, operas, masquerades, rodeos, etc.

Largest convention or rally seating..........................13,000
Basketball......................................................11,000
Boxing/Wrestling..............................................12,600
Circus ..........................................................11,000
Hockey ..........................................................10,700
Ice Show .......................................................10,000
Concerts, theatricals using main stage .......................8,100
Civic Light Opera ...............................................6,700

MAIN STAGE

A permanent stage, 118 feet by 64 feet, housed beneath a section of seats which can be raised hydraulically, is dramatically effective for any presentation. Dressing rooms — 2 large team or chorus, 10 individual. Orchestra pit 69 feet by 15 feet 8 inches and 2 feet 8 inches deep if desired.

EXHIBIT HALL

The Exhibit Hall of 50,000 square feet is semi-circular in shape with a maximum width of 83 feet between parallel arc outside and inside wall. Used as exhibit space, meeting rooms A and B add 4,356 square feet. 80,000 to 90,000 square feet are available in the combination of Exhibit Hall, Arena and Main Stage. Ceiling height in the Exhibit Hall is 13 feet. Freight entrances 13 feet high and 16 feet wide.

MEETING ROOMS

Five permanent rooms ranging in size from 230 to 910 person capacity, and easily subdivided for smaller settings. Comfortable chairs, built-in public address and audio visual equipment connections.

SUMMARY OF SIZES AND CAPACITIES

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