

ULINE ARENA
(Washington Coliseum)
Corner of M and 2nd streets, NE, with entrance building at 1140 3rd
Street, NE
Washington
District of Columbia

HAER DC-63
DC-63

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

FIELD RECORDS

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240-0001

HISTORIC AMERICAN ENGINEERING RECORD

ULINE ARENA (Washington Coliseum)

HAER No. DC-63

Location: Arena located at corner of M and 2nd streets, NE; entrance building located at 1140 3rd Street, NE, Washington, DC

UTM Coordinate: 18 326326.44E, 4308138.82N
The coordinate represents the approximate center of the building. It was derived from Google Earth Pro v5 on December 10, 2010. The imagery dates from August 29, 2010.

Present Owner: Douglas Development Corporation, Washington, DC

Present Use: Vacant; arena is used for public parking

Significance: The Uline Arena is significant for both its design and for its role in the social history of Washington, DC. The concrete barrel roof with exterior ribs and was built according to the principles of the Zeiss-Dywidag system, developed in the 1920s and 1930s by German engineers and disseminated in the United States by Anton Tedesko of Roberts & Schaefer Company in Chicago. The Uline Arena played a significant role in the mid-twentieth-century social history of Washington, DC, due to its central role in protests over segregation in the 1940s. The facility was an important entertainment venue in the city as well, hosting the Beatle's first U.S. concert, basketball and hockey games, boxing matches, a speech by Elijah Muhammad, the Ice Capades, and many other events.

Historian: Justine Christianson, HAER Historian, 2003, updated 2010

Project Information: The Historic American Engineering (HAER) is a long-range program to document historically significant engineering, industrial, and maritime works in the United States. The HAER program is part of the Heritage Documentation Programs, a division of the National Park Service, Department of the Interior, Richard O'Connor, Manager.

For additional information, see the Uline Ice Plant, HAER No. DC-66, which stands adjacent to the Uline Arena.

Part I. Historical Information

A. Physical History:

1. Dates of Construction: 1940-1941

2. Architect/Engineer: Architect Joseph (Joe) Harry Lapish of Washington, DC, was associated with the design and construction of the Uline Arena. Biographical information on Lapish is scarce, but an obituary published in 1948 following Lapish's death after a brief illness describes him as a "prominent Washington architect." The obituary reveals that Lapish attended The George Washington University in Washington, DC, and the Ecole des Beaux Artes in Fontainebleau, France. He served briefly in the U.S. Army towards the end of World War I before starting his architectural practice in Washington, DC, in 1927 after marrying Edith Porter. He was a registered architect and reportedly a member of the American Institute of Architects (AIA), but his name could not be found in the AIA membership lists from the 1940s. In addition to his work designing numerous houses in the Washington, DC, metropolitan area, Lapish was proclaimed a "master of the unusual shell concrete construction" as seen in his involvement with the design and construction of army hangars in Puerto Rico and two navy hangars in San Diego dating to the same time period as the Uline Arena.¹ The navy hangars in San Diego also utilized the Zeiss-Dywidag system. Built for the Bureau of Yards and Docks at a San Diego naval base in 1941, the hangars were located adjacent to one another with office and shop space between them. The hangars were designed with the ribs on the exterior of the structure, like the Uline Arena.² The reason for this design decision was that it "permitted a simplification of the scaffolding and shell forms, so that no extensive rebuilding of forms was necessary in connection with decentering; the forms could be merely lowered a few inches by means of screw jacks, and the scaffolding then rolled ahead in the next section, where the forms could be jacked back into position."³

Eric C. Molke of the Eastern Branch Office of Roberts & Schaefer, located on Connecticut Avenue, NW, in Washington, DC, was the engineer involved in the design of the arena.⁴

¹ Obituary, *Star* [Washington, DC], February 8, 1948, p. A24.

² Carl Condit briefly mentions the U.S. Navy hangars in *American Building Art: The Twentieth Century*, but he does not attribute them to Lapish. Instead, he credits the Roberts & Schaefer Company, perhaps because the company held patents on the ZD system. See Carl Condit, *American Building Art: The Twentieth Century* (New York: Oxford University Press, 1961), p. 183. For a description of the hangars, see Anton Tedesko, "Wide-Span Hangars for the U.S. Navy," *Civil Engineering*, 11, no. 12 (December 1941): pp. 65-66.

³ "Navy Builds Concrete Hangars at San Diego," *Engineering News-Record* 127, no. 23 (December 4, 1941): p. 64.

⁴ Little is known about Eric C. Molke, but he did publish an article with J.E. Kalinka (Vice President of Roberts & Schaefer) entitled "Principles of Concrete Shell Dome Design" in the *Journal of the American Concrete Institute*, 34 (May-June 1938): pp. 649-707.

3. Builder: White Construction Company of 95 Madison Avenue, New York, with R.L. Bertin as chief engineer and Harry E. Tear as general superintendent, built the Uline Arena. White Construction Company was experienced in concrete shell construction having built a Zeiss-Dywidag dome for the Hayden Planetarium in New York in 1934.⁵

4. Original Plans: The arena's original general floor plan and details about its construction can be gleaned from a Sanborn Map, which indicates the arena was of fire-proof construction, specifically cement block with a brick face. The map indicates that concrete risers encircled the rink, which was centered in the building. An entrance building is depicted as extending from about the center of the east façade of the building to 3rd Street, NE. The ice plant was adjacent to the arena at the northeast corner of the lot.⁶

The rink, measuring 88' x 218', was reported to have the "largest ice area of its type east of St. Louis."⁷ The arena was planned to seat 6,000 for ice hockey games, 8,500 for basketball, and 10,000 for boxing, with 35,000 square feet available for conventions and exhibits. The actual capacity seems to have been less based on later reports.⁸ A 1949 floor plan of the arena reveals the interior configuration of space. The building measured approximately 324'-2" x 164'-8" and had a slightly irregular shape because the corners were chamfered due to lot restrictions. Located at the center of the arena was the rink, which was approximately 187' long x 87'-6" wide. The plan depicts various rooms encircling the rink, consisting of various sized storage spaces, a pump room, multiple dressing rooms, and a concessions area, as well as a hallway that was of various widths ranging from 13' along one side to 5'-9" on the other. Along the perimeter of the building were other rooms and storage spaces, including women's and men's toilets, concessions, dressing rooms with showers and toilets, and the boiler room, as well as two exits.⁹

5. Alterations and Additions: Uline initiated a number of improvements and alterations to the building during his ownership. Building permits indicate the removal of windows on the west (2nd Street) side of the arena and closure with bricks in 1944, which was due to the noise and smell from the railroad tracks across the street from the building. The following year, a building permit was granted for the removal of additional windows and closure of the openings with

⁵ The Hayden Planetarium has the distinction of being the "first full-scale American thin concrete shell." See Eric M. Hines and David P. Billington, "Anton Tedesco and the Introduction of Thin Shell Concrete Roofs in the United States," *Journal of Structural Engineering* 130, no. 11 (November 2004): p. 1643.

⁶ Sanborn Map, Volume 4, 1928 – December 4, 1959, Sheet 438.

⁷ R.L. Bertin, "Barrel Shell Roof for an Ice Arena," *Engineering News-Record* 126, no. 21 (May 22, 1941): p. 46.

⁸ "Sports Arena to Seat 10,000, Cost \$300,000, Planned Here," *Washington Post*, January 18, 1939, p. X1.

⁹ Ground floor plan with handwritten note, "Convention Facilities," Washington Board of Trade, 1949, in Washington Coliseum vertical file, Washingtoniana Division, Martin Luther King, Jr. Memorial Library, Washington, DC, hereafter cited as vertical file. A copy of this floor plan is in the field record accompanying this report.

brick and cinder block; the location of these windows was not indicated on the permit. The alterations resulted in a battle between Uline and the DC government. The DC Health Department refused to grant Uline a license in 1951 because of the bricked-in windows, charging that the lack of windows meant the arena was not properly ventilated, especially during midget car races, rodeos, and circuses. Dr. Frederick Golman of the Heath Department noted that the arena had only about a quarter of the necessary fresh air. This was in direct opposition to the opinion of William W. Karsunky, the engineer consulted for the initial removal of the windows in 1944, who had concluded that the proposed alteration would not negatively impact the building's ventilation since there were four 42" exhaust fans on the north and south walls. Furthermore, the building permit noted, the windows proposed for removal were generally kept closed and covered with heavy curtains to muffle the noise from the nearby railroad tracks, making their removal of little consequence.¹⁰ Uline took his complaints about the license denial to the District License Board where the Deputy Director of Inspection informed him that no permits had been issued for the closure of the windows in the rooms under the stands. Uline's attorney, Edmund D. Campbell, rebutted that Uline would remedy the problem by installing a new ventilation system. In addition, never one to submit quietly, Uline filed a suit to reverse the decision and charged that government officials had asked for free tickets in exchange for ignoring the bricked-in windows. The matter was eventually resolved.¹¹

In May 1945, Uline applied for a building permit to construct a balcony at the north end of the building at a cost of \$5,000, which necessitated blocking in two exits and cutting open a new one.¹² This was followed by several months of additional improvements to the arena beginning in September 1945. The first was for additional seating at the south end of the arena in the form of a reinforced concrete balcony.¹³ Other work that month included installation of a concrete press balcony and a soft drink bar.¹⁴ In October, further improvements were carried out in the lobby at a cost of \$600, resulting in construction of a popcorn and peanut stand. This was augmented in November by the installation of a soda bar, built of plaster and glass blocks, as well as the replacement of a soft drink

¹⁰ "DC Agencies in Conflict Over Arena," *Washington Post*, April 21, 1951, vertical file; "Uline Says He'll Sue to Thwart Action by DC License Board," *Star* [Washington, DC], May 8, 1951, vertical file; Building Permit No. 271611, July 25, 1944; Building Permit No. 281947, December 19, 1945.

¹¹ "District Officials Demanded Free Tickets, Uline Testifies," *Washington Post*, May 8, 1951; Jack Walsh, "Uline Again Threatens to Close in Armory Row," newspaper unknown, October 31, 1951, both in vertical file.

¹² Building Permit No. 277831, May 22, 1945, was for the balcony. The engineer was W.L. Hechmer, and the contractor was Mohler Construction of 1223 Connecticut Avenue, Washington, DC. Building Permit No. 279690, August 22, 1945, was for the alterations to the exits.

¹³ Building Permit No. 279957, September 6, 1945. W.L. Hechmer and Mohler Construction were again listed as the contractors.

¹⁴ Building Permit No. 280189, September 19, 1945; Building Permit No. 280260, September 24, 1945. Mohler Construction was the contractor for both jobs.

stand in the basement.¹⁵ In 1946, a permit was granted for a one-story brick, cinder block, and concrete addition to be located on the east façade north of the arena's entrance. The nearly 9' x 6' addition had a flat concrete roof. Its purpose is unknown.¹⁶

In 1961, owner Harry Lynn had a new electric exterior sign consisting of a lighted model of the Washington Monument above the words "Washington Coliseum" installed over the main entrance. According to Lynn, the sign was put up to "make people forget the objections against 'Uline Arena' accumulated over the years." Lynn also undertook a \$100,000 rehabilitation of the arena's interior that involved repainting the walls, trim, and ceiling, and painting chairs and refurbishing the upholstered ones. He also had a ticket counter and concessions area installed in the lobby that was decorated with a lighted glass ceiling, walnut-paneled walls, pillars, and a tile floor and was equipped with sound amplifiers.¹⁷

A temporary stage was erected in the arena in 1963 to accommodate dance performances. The reported dimensions of this stage were 60' across x 40' deep, and it stood 5' above the main floor at the front and 6-1/2' at the back. The orchestra was located on the floor of the arena at the front of the stage. Its construction reduced the capacity of the arena to 5,800. An article in the *Washington Post and Times-Herald* detailing the stage's construction skeptically questioned if the "new stage at the Coliseum will suffice to satisfy Washington for the five or many more years before we have a cultural center," hinting at the unsuitability of the space for theatrical events.¹⁸

B. Historical Context:

Mike Uline, DC's "Fiery Impresario"

Migiel Uihlein immigrated to the United States from his birthplace of Noord Brabant, Netherlands, at the age of 16 with his family after flooding financially devastated them. His name was eventually Americanized to "Michael Uline" (sometimes he was even referred to as "Uncle Mike"), illustrating his transformation from immigrant to American businessman. In fact, his biography reads like a classic American success story. By the age of 21, he had managed to work his way up from a stone digger in a Cleveland, Ohio, quarry to a business owner with the purchase of his first ice plant. Eventually, he would own more than thirty ice plants in Ohio, including ones in Cleveland, Toledo, and Warren. Uline was also an inventor who held nearly seventy patents, many of which were related to the ice-making industry. His patents included an ice conveyor, both a

¹⁵ Building Permit No. 280747, October 16, 1945; Building Permit No. 281203, November 8, 1945; Building Permit No. 281583, November 28, 1945. John Zimmer of Mohler Construction designed the refreshment stands.

¹⁶ Building Permit No. 287713, August 2, 1946. Marcus Hallett is listed as the designer.

¹⁷ Dave Brady, "Uline's Gets New Name, Face-Lifting: 'Coliseum' Suitable Name," *Washington Post and Times-Herald*, September 12, 1961, p. A16.

¹⁸ Jean Battey, "New Hall for Dance Promised by October: Tuning Up," *Washington Post and Times-Herald*, August 11, 1963, p. G1.

process and a machine for making clear, oblong blocks of ice, a drain fixture for refrigerators, and an ice cutting machine. Other patents were for a “tamper-proof pocket autographic register” that kept a carbon copy of a sales receipt locked within the body of the device. After his marriage to his first wife Caroline (also spelled Carolyn in some accounts) fell apart, Uline moved to Washington, DC, in 1931 and established first an ice plant and later an arena.¹⁹ He also engaged in charitable work in the District, including providing buses for transporting local children to parades and other outings. He served as the first president of the District of Columbia Society for Crippled Children and Adults. Uline died in 1958 at the age of 83 from “acute coronary occlusion” after a five year period of decline stemming from a fall on the ice that left him a semi-invalid and nearly blind.²⁰

¹⁹ Uline’s personal life was a bit of a mess and added to his notoriety. In 1952, the nearly 80-year-old Uline was granted an absolute divorce from his first wife, Mrs. Caroline (also Carolyn) Eierman Uline, whom he had married in 1895. Two years earlier, he had obtained a divorce from Caroline and married his second wife, the former Mrs. Elva Houseman, on the same day in Juarez, Mexico. Caroline claimed that she had tried to reconcile with him every year at Christmas from 1935 to 1949 by letter, but Uline argued he had not heard from her since 1933. A year after the absolute divorce decree, however, the United States Court of Appeals sent the case back to the District Court on the grounds that the District Court’s findings were not specific enough. The legal wrangling would continue after Uline’s death as his third (and last) will and codicil caused additional problems. His second wife, Elva, requested that a court-appointed collector operate his business until the validity of the will and codicil could be determined. This will gave 1/3 of the estate to Elva (the legal minimum) and \$10,000 to Elizabeth Stine, the executive vice-president of the company. The rest of Uline’s estate was placed in a trust fund for Caroline from which she could draw \$700 a month and for his two daughters with Caroline. After fifteen years, or the death of Caroline, the trust would be equally divided between the two daughters. A codicil dating to December 1957, however, revoked the section of the will that gave his personal property to Elva and provided payments for their home. Eventually the matter was settled, but no newspapers accounts were found describing the resolution. See “Mike Uline, Ill at Home, Wins Divorce,” *Washington Post*, December 11, 1952, p. 27; “Uline Divorce Suit Remanded by Court,” *Washington Post*, May 22, 1953, p. 20; “Mike Uline’s Widow Attacks His Will Which Reduced her Legal Third,” *Washington Post and Times-Herald*, March 27, 1958, p. A1; “Probate Sought for Will Fought by Uline Widow,” *Washington Post and Times-Herald*, March 29, 1958, p. D2.

²⁰ For biographical information on Uline, see Al Costello, “They Talked of an Arena, He Built One,” *Washington Star*, January 25, 1970, vertical file; Dave Brady, “Uline Played Host to Big-Time Sports,” *Washington Post*, February 23, 1958, vertical file; Linton Weeks, “Ice in His Veins,” *Washington Post Magazine*, November 17, 1991, p. 7; Gordon Brown, “Uline Arena: Stellar Past, Uncertain Future,” *Voice of the Hill*, August 2003, p. 10; “‘Mike’ Uline Dies at 83; Ice Executive, Sportsman,” *Washington Post and Times-Herald*, February 23, 1958, p. B2. The patents are available on the U.S. Patent Office website, <http://patents.uspto.gov/>, by number. Patents held by Uline include: Ice Conveyor, Patent Number 1,789,504, patented January 20, 1931; Method and Apparatus for Manufacturing Oblong Blocks of Clear Ice, Patent Number 2,082,665, patented June 1, 1937; Drain Fixture for Refrigerators, Patent Number 2,089,231, patented August 10, 1937; Machine for Cutting Ice, Patent Number 2,107,968, February 8, 1938; Tamper-Proof Pocket Autographic Register, Patent Number 2,622,898, December 23, 1952; Portable Pocket Carrying Tamper-Proof Autographic Register, Patent Number 2,707,644, May 3, 1955. Uline’s personal life was a bit of a mess and added to his notoriety. In 1952, the nearly 80-year-old Uline was granted an absolute divorce from his first wife, Mrs. Caroline (also Carolyn) Eierman Uline, whom he had married in 1895. Two years earlier, he had obtained a divorce from his wife and married his second wife, the former Mrs. Elva Houseman, the same day in Juarez, Mexico. His first wife claimed that she had tried to reconcile with him every year at Christmas from 1935 to 1949 by letter, but Uline argued he had not heard from her since 1933. A year later, however, the United States Court of Appeals sent the case back to the District Court on the grounds that the District Court’s findings were not specific enough. The dispute between the first and second wives would continue after Uline’s death. Uline’s third (and last) will and codicil caused additional friction between the two women. His second wife, Elva, requested that a court-appointed collector operate his business until the validity of the will and codicil could be determined. This will gave 1/3 of the estate to Elva (the legal minimum) and \$10,000 to Elizabeth

Uline established his Washington, DC, ice plant on the 1100 block of 3rd Street, NE. (See HAER No. DC-66 for additional information.) By the late 1930s, Uline had either decided or been convinced to branch out from the ice manufacturing business and engage in other ventures. He claims he was not interested in sports but that newspapers in town convinced him to build an arena. He also was quoted as stating “I had a playground for the kids near my ice plant, and thought about converting it to a skating rink. But the train tracks were so close to the plant cinders would fall and stick on the ice. So I decided I might as well put a roof over it.”²¹ Regardless of the motivation, Uline was a savvy businessman who could not have helped but recognize the boom in popularity of ice skating and hockey in the late 1930s that resulted in the establishment of two ice rinks in Washington, DC: Riverside Stadium and Chevy Chase Ice Palace.²²

The press had also picked up on the growing interest in hockey. A March 1939 *Washington Post* article pointed out after 6,500 people turned out to watch a hockey match at Riverside Stadium that an astute sports promoter could gain from this interest. By October 1939, Riverside Stadium was home to the Washington Eagles of the Eastern Amateur Hockey League, which included teams from Baltimore, New York, Riverdale (New Jersey), and Atlantic City. The interest in hockey was so great that Jack Munhall, a writer for the *Washington Post* stated it “has captured this city more completely than any other athletic innovation with the exception of professional football” as evidenced by the attendance numbers of hockey games at the Riverside Stadium. The stadium also hosted college ice hockey matches and ice shows like the Ice Follies.²³

Uline incorporated with Frederick H. Bucholtz (a former DC Boxing Commissioner and owner and manager of the Occidental Hotel and Restaurant) and James Colliflower

Stine, the executive vice-president of the company. The rest of his estate was placed in a trust fund for his divorced wife from which she could draw \$700 a month and for his two daughters with Caroline. After fifteen years, or the death of Caroline, the trust would be equally divided between the two daughters. A codicil dating to December 1957, however, revoked the section of the will that gave his personal property to Elva and provided payments for their home. Eventually the matter was settled, but no newspapers accounts were found describing the resolution. See “Mike Uline, Ill at Home, Wins Divorce,” *Washington Post*, December 11, 1952, p. 27; “Uline Divorce Suit Remanded by Court,” *Washington Post*, May 22, 1953, p. 20; “Mike Uline’s Widow Attacks His Will Which Reduced her Legal Third,” *Washington Post and Times-Herald*, March 27, 1958, p. A1; “Probate Sought for Will Fought by Uline Widow,” *Washington Post and Times-Herald*, March 29, 1958, p. D2.

²¹ Jerry Davis, “Mike Uline Misses His Reading,” *Washington Post and Times-Herald*, May 1, 1955, p. C6.

²² Riverside Stadium sat alongside the Potomac River near Twenty-Sixth and D streets, NW. It dated to the late 1930s, as well, and was originally uncovered. The Chevy Chase Ice Palace was located on the second floor of a building on Connecticut Avenue and touted itself in a 1939 ad in the *Washington Post* as “Washington’s Only Indoor Rink” (March 26, 1939, Sports Section, p. 3). It was home to the Washington Figure Skating Club until 1950, when the building was converted into a television studio.

²³ Quote from Jack Munhall, “Ice Hockey Gains Popularity as Distinct Sport,” *Washington Post*, December 24, 1939, p. 8. See also, “Opportunity on Ice,” *Washington Post*, March 10, 1939, p. 10; “Alvis to Run Fight Club Here, Seeks Rover-Oriole Rematch, Hockey Promoter Wants Clubs to Return to Riverside Rink Next Tuesday,” *Washington Post*, March 10, 1939, p. 25; “Veteran Sea Gull’s Hockey Mentor to Coach DC Team,” *Washington Post*, October 3, 1939, p. 17; “Free Hockey Clinic Scheduled Tonight at Riverside Rink,” *Washington Post*, December 10, 1939, p. X5; “Georgetown’s Ice Hockey Team in Debut: Meets Loyola of Baltimore at Riverside Stadium,” *Washington Post*, February 11, 1940, p. X2.

(secretary of the Washington Board of Trade) as Capitol Garden, Inc. around 1939-40. The group planned to erect a \$300,000 sports center that could accommodate ice hockey, basketball, boxing, and indoor tennis. As their attorney, Cornelius Doherty, stated, the group hoped to “elevate Washington to the stature of a major sports city” with the construction of their sports center.²⁴ With the decision to construct the arena made, Capitol Garden, Inc. had to obtain funding in a depressed economy. Varying accounts are given of the actual cost of the structure, as well as the financing. The building permit lists the cost as \$240,000, while other sources respectively state it was a \$300,000 and \$700,000 project. Doherty stated that \$225,000 worth of stocks was sold to the directors and their friends to finance construction. Funds may also have been obtained from the Reconstruction Finance Corporation, a government program designed to boost the economy by providing construction funds. Uline is reported to have borrowed approximately \$450,000 from the Reconstruction Finance Corporation.²⁵ Another source reports that he borrowed \$600,000 against the ice company and provided an additional \$150,000 when construction costs rose.²⁶ Regardless, Uline was able to obtain the funding necessary to build the arena.

Design and Construction of the Uline Arena

The idea for the design of the arena stemmed from a visit made by Uline, Bucholtz, and Colliflower to the Hershey Sports Arena in Pennsylvania, which had opened on December 19, 1936. The Hershey Sports Arena was built of reinforced concrete and utilized the Zeiss-Dywidag system, resulting in a thin (only 3-1/2” thick), concrete barrel roof with interior ribs that was erected in five units. It seated 7,104 for hockey matches, and the rink could be covered with a wooden floor if necessary, allowing seating for 10,000.²⁷ In addition to the similarity in form, the Hershey Sports Arena was also initially built for use by a hockey team, appropriately called the “B’ars” but later changed to the “Bears” when it became part of the American Hockey League. The arena gradually became host to other amusements, including the Ice Capades (not surprising given the fact that one of the founders of the show was Hershey Arena Manager John Sollenberger) and various concerts.

²⁴ “Sports Arena to Seat 10,000,” pp. X1, 15; quote from p. 15.

²⁵ Davis, “Mike Uline Misses His Reading,” p. C6 reports he borrowed \$447,000 from the Reconstruction Finance Corporation in Richmond while Brown, “Uline Arena,” p. 10, and Weeks, “Ice in His Veins,” p. 7, state it was \$450,000.

²⁶ This figure comes from Patrick T. Hand, “The Red Zone,” *Washington City Paper*, March 22-28, 2002, online at www.washingtoncitypaper.com, accessed July 30, 2003. The final \$150,000 figure comes from Costello, “They Talked of an Arena.”

²⁷ A complete description of the Hershey Arena is provided in “D.C. Garden Heads Like Hershey Plan: Local Officers Inspect Ultra-Modern Sports Plant,” *Washington Post*, March 6, 1938, p. X2. The arena measured 232’ wide x 362’ long. The interior ceilings and end walls were clad in cork to absorb sound, while the 200’ x 85’ rink was illuminated by 23’-diameter light fixtures comprised of forty-seven searchlights. The ice for the rink was made by an attached plant with a 90-ton capacity, and a series of pipes and valves circulated the brine. For the construction sequence of the Hershey Arena, as well as details about its erection, see Anton Tedesko, “Large Concrete Shell Roof Covers Ice Arena,” *Engineering News-Record*, 118, no. 14 (April 8, 1937): pp. 505-510.

Preparation for the construction of the arena began with Uline filing building permits throughout spring and summer 1940 for the erection of temporary storage sheds to hold materials, excavation of footings, and underpinning of adjoining buildings.²⁸

Construction of the arena itself began in August 1940 with the foundation. Once that had been completed, White Construction Company, the contractor, could focus on erecting the formwork and pouring the concrete for the barrel roof. The foundation and walls were built of concrete block with brick facing while the barrel roof was concrete. White Construction Company used 749,000 bricks and premixed concrete (Lone Star cement brand) in the construction of the building.²⁹ A steel smoke stack measuring 50-1/2" in diameter and 88' high was erected in December 1940.³⁰

Zeiss-Dywidag System

The Uline Arena's concrete barrel roof with regularly spaced exterior stiffening ribs stood in marked contrast to the federal buildings and row houses that characterized the built environment of Washington, DC. The arena's design was a result of advances in engineering technology, in this case the Zeiss-Dywidag system (sometimes shortened to ZD), which made possible by 1940 the construction of a large concrete arena with an interior clear space uninterrupted by columns or other supports. In 1922, Franz Dischinger and Walter Bauersfield collaborated on a concrete planetarium dome.³¹ They patented their work on thin shell concrete structures as the Zeiss-Dywidag system. This patent was disseminated in the United States by Anton Tedesko with Roberts & Schaefer Company of Chicago.³² These German engineers "proved convincingly that thin surfaces in artificial stone could be economically built and would safely stand."³³ The basic premise of the ZD system was

that a thin curved concrete shell can be given load-carrying capacity by providing it with stiffening ribs. Such a shell, in its major portion, is subjected to direct tensile, compressive, and shear stresses and not to transverse bending moments. A thin reinforced section is strong enough to take care of these stresses: the roof loads are transferred to the stiffening arches by tangential shear.³⁴

These very thin concrete domes or barrel vaults with stiffening ribs on either the interior or exterior resulted in a large, uninterrupted clear span with great height that lent itself to multiple possibilities of use. The ZD system enhanced the use of concrete in buildings

²⁸ Building Permit No. 230286, March 11, 1940; Building Permit No. 230287, March 14, 1940; Building Permit No. 230288, March 11, 1940; Building Permit No. 230523, March 18, 1940; Building Permit No. 233965, June 26, 1940; Building Permit No. 234781, July 22, 1940.

²⁹ Building dimensions were listed as width: 52'-2" and 164'-8", length: 116'-2" and 342'-2", and height: 65'.

³⁰ Building Permit No. 236082, August 30, 1940; Building Permit No. 239018, December 3, 1940.

³¹ Dischinger worked for Dyckerhoff and Widmann, A.G., who had established itself as a leader in reinforced concrete construction while Bauersfield was associated with the Zeiss Optical Firm.

³² For more information on Anton Tedesko and his work in the United States, see Hines and Billington, "Anton Tedesko and the Introduction of Thin Shell Concrete Roofs," pp. 1639-1650.

³³ David P. Billington, *The Tower and the Bridge: The New Art of Structural Engineering* (New York: Basic Books, Inc., 1983), pp. 174-175.

³⁴ Tedesko, "Large Concrete Shell Roof Covers Ice Arena," p. 505.

because it rectified some of the associated problems with concrete construction. For example, the high cost of formwork could be lowered if the same form was used in each section without variation. The stiffening ribs eliminated the need for abutments or tie rods. The Uline Arena, therefore, is representative of early experimentation with concrete shell construction.³⁵

As noted earlier, after the development of the ZD system in Germany, Anton Tedesko became its representative in the United States with Roberts & Schaefer Company of Chicago and was associated with every building using this system.³⁶ One of the first U.S. experiments with thin concrete shells was at the World's Fair of 1933-1934 in the Brook Hill Farm Dairy Exhibit; the building was later demolished. The Hayden Planetarium in New York, constructed in 1934, was another one of its first uses.³⁷ The major turning point came in 1937 with the construction of the Hershey Ice Rink because the "great size, the extreme thinness, and the impressively short completion time all served to demonstrate that concrete shells could be built in the U.S."³⁸ The attractions of the system were numerous, including the small amount of reinforcing steel used, the decrease in necessary substructure due to the lightweight nature of the roof, and the relative ease of construction once the system had been perfected. Technology and economy had been united, an attractive proposition to American engineers slowly beginning to discover the marvels of thin shell concrete construction. Use of the ZD system increased for a time after the erection of the Hershey Ice Rink, during which time the Uline Arena was built along with several military hangars and skating rinks.³⁹ Its use waned again with the onset of World War II as building not connected with the war movement ceased.

Events at the Uline

Uline described his new facility as "America's Most Beautiful Arena." While such a claim was an obvious attempt at boosterism, Uline's arena did hold the distinction of being one of the largest in the eastern United States at the time, after the Hershey Sports Arena. Uline hosted a wide range of events as well as various sports teams at the arena in

³⁵ Molke and Kalinka, "Principles of Concrete Shell Dome Design," p. 697; Billington, *Tower and the Bridge*, pp. 172-174; "Thin Concrete Shells for Domes and Barrel Vault Roofs," *Engineering News-Record* 108, no. 15 (April 14, 1932): p. 537.

³⁶ Structural Shell Designs Inc. of Chicago is sometimes designated as the licensor, but most sources credit Roberts & Schaefer as the actual holders of the U.S. patent.

³⁷ For more information on the ZD system, see "Thin Concrete Shells," 537-538; Molke, "Principles of Concrete," pp. 649-707; Anton Tedesko, "Large Concrete Shell Roof Covers Ice Arena," *Engineering News-Record* 118, no. 14 (April 8, 1937): pp. 505-510; and Hines and Billington, "Anton Tedesko and the Introduction of Thin Shell Concrete Roofs," pp. 1639-1650.

³⁸ David P. Billington, *Thin Shell Concrete Construction* (New York: McGraw-Hill Book Company, 1982), pp. 17-18.

³⁹ Anton Tedesko wrote about an Ardmore, Pennsylvania, skating rink built in 1939 for the Philadelphia Skating Club and Humane Society that used the ZD system. The shell was built in four sections, each of which was equipped with two arched reinforced ribs. Cork was placed on the formwork, and the concrete was poured on top; the cork provided insulation while also absorbing sound. The barrel shell exhibited the thinness that was the hallmark of the ZD system, measuring 2-5/8" at the crown and 4-1/2" thick at the spring line. See Tedesko, "Thin Concrete Shell Roof for Ice Skating Arena," *Engineering News-Record* 122, no. 7 (February 16, 1939): p. 54. Another later example of a ZD barrel shell is the Arch Hangar at Loring Air Force Base, see HAER No. ME-64-B.

an effort to book as many nights as possible and make the arena profitable. The operational history of the facility is fraught with controversy, as well as attempts to make it a profitable enterprise.⁴⁰

The primary intent behind the arena's construction was to establish an ice rink for hockey and figure skating shows in response to increasing public interest in such activities. The American Hockey League granted Uline a hockey franchise in early 1941. The team was to be called the Washington Ulines (although that name seems to have been short-lived and the team is generally referred to as the Washington Lions), which put the Uline Arena in direct competition with Riverside Stadium, home of the Washington Eagles of the Eastern Amateur Hockey League. Uline's hockey team played on Wednesdays and Saturdays, and ticket prices were slightly higher than those charged by Riverside Stadium. Although hockey was undoubtedly popular in the city, there was skepticism about whether there was enough interest to support two teams. Promoter Joe Turner was quoted as saying "Washington demands a winner in any sport and I believe the team that provides the best hockey and the best accommodations for its fans is the team which will survive."⁴¹ Max Farrington, director of athletics at The George Washington University, remarked "fans have never been turned away at Riverside Stadium where the Eagles play. When you start having those fans divided in partisanship between two teams, then it is likely that one will not profit."⁴² The Washington Eagles ended up being the unprofitable team and folded in 1942. The Washington Lions, on the other hand, played at the Uline Arena at various times from 1941 to 1957 and achieved some success, winning the Eastern Amateur Hockey League championship in 1954 and 1955. After the Lions' departure, Uline managed to lure the Washington Presidents to DC, but the team left the city in 1960.⁴³

To further increase the bookings at his arena, Uline purchased a Basketball Association of America (BAA) franchise. The Washington Capitols, coached by legendary Red Auerbach, played in Washington from 1946 to 1952. During the Capitols first season, the team led the league by fourteen games but lost the championship to the Chicago Stags. In 1949, the team redeemed itself and won the league championship. Auerbach left the team shortly afterwards, and it broke up in the middle of the 1951-52 season.⁴⁴ Auerbach later reminisced about the arena: "we kept the buildings going. In other words, if you got a building like Uline, you might have a tennis match, a couple of preachers come in, or stuff like that—little ice show, minor-league hockey. There were a

⁴⁰ Dave Brady, "Uline Played Host to Big-Time Sports," *The Washington Post*, February 23, 1958; "Uline to Close His Arena in May, Break Up Hockey, Cage Teams," *Star* [Washington, DC], December 4, 1947, both in vertical file.

⁴¹ J.H.M., "D.C. Gets American Hockey League Berth: Uline Officially Granted Franchise for Next Season," *Washington Post*, January 25, 1941, p. 16.

⁴² Associated Press, "D.C. Gets American Hockey League Berth," *Washington Post*, January 25, 1941, pp. 16, 19.

⁴³ Andy Pollin and Leonard Shapiro, *The Great Book of Washington, DC, Sports Lists* (Philadelphia: Running Press Book Publishers, 2008), p. 218; Weeks, "Ice in His Veins," p. 7.

⁴⁴ Auerbach took the position of assistant coach with Duke during the 1950-51 season, but soon left for the Tri-Cities Blackhawks. Auerbach finally ended up with the Celtics where he coached the team to eight National Basketball Association titles in a row.

lot of open dates. [The BAA] was a way to fill the building and sell hot dogs and peanuts, and all that kind of junk.”⁴⁵ While this may have been the case during Auerbach’s tenure in DC, by January 1952, Uline had given up trying to bolster attendance at basketball games. He stated “I’ve tried harder than many realize to keep pro basketball here, but a lack of attendance and apparent interest make further effort on my part impractical” after a January 2, 1952, game in which only 128 fans were in attendance. Uline decided that in order for the team to stay at the arena, 1,100 fans would have to attend the January 5 home game. More than 1,300 were in attendance, but this number declined precipitously at the following game to 550. Uline then struck a deal with the coach and eleven players that involved them taking over the financial obligations while Uline granted rent-free access to the building. For some reason, he withdrew his proposal, however, and put the team out of business instead.⁴⁶

The Capitols were notable for having an integrated team (even though the Uline Arena was segregated). Capitols player Earl Lloyd was the second African-American to be drafted and integrated the sport in his first game against the Rochester Royals on October 31, 1950. Lloyd also had a later illustrious career as a coach and earned the distinction of being the first African-American assistant coach with the Pistons (1968-70) and second African-American head coach, also with the Pistons.⁴⁷ After the Capitols disbanded, there was not another professional basketball team in the city until 1960 when the Washington Tapers played part of the 1960-61 season at the arena before moving to New York. During the 1969-71 season, Earl Foreman brought the Oakland Oaks to the city and renamed the team the Washington Capitols. After one season, the Capitols moved to Norfolk, Virginia, and became the Virginia Squires.⁴⁸

Boxing matches were frequently held at the arena, although Uline was often in the midst of disputes with the District Boxing Commission. One such conflict arose in December 1942. A boxing ring had been set up in the middle of the rink with seats around it, but the commission would not let the fight begin, citing issues of audience health. As spectators began showing up for the scheduled fight, a standoff ensued. The Boxing Commission asserted that promoter Goldie Ahearn had been specifically told that setting up three rows of seats ringside violated the agreement that the only seats set up on the floor would be for commission officials and reporters. Uline, in typically stubborn fashion, refused to move the seats. The fight did eventually begin, but Uline hired attorney Denny Hughes to file a suit against the commission for “alleged damages,” presumably referring to lost revenue.⁴⁹ When Jack Espey, who became the general

⁴⁵ Hand, “The Red Zone.”

⁴⁶ Jack Walsh, “Mike Uline Claims It’s ‘Impractical’ to Continue,” *Washington Post*, January 15, 1952, p. 15.

⁴⁷ After playing with the Capitols, Lloyd went on to play with the Syracuse Nationals (1952-58) and the Detroit Pistons (1958-60). He was the first African American to win an NBA championship, which happened in 1955 with the Syracuse Nationals. For more information, see “Earl Lloyd, Basketball Hall of Famers,” available at http://www.hoophall.com/halloffamers/lloyd_earl.htm, accessed October 8, 2004.

⁴⁸ Pollin and Shapiro, *Sports Lists*, p. 218.

⁴⁹ “Uline Arena in Turmoil at Off-Again On-Again Fight Show,” *Washington Post*, December 9, 1942; Al Costello, “Customers Locked Out at Uline’s,” *Washington Post*, December 9, 1942; Al Costello, “Body Erred in Uline Row,

manager for Uline for a three-year term, took over in 1943, he intimated that he would take over promoting fights or would find a New York promoter because the profits were marginal. As Al Costello caustically wrote in the *Washington Post*, Espey “believes boxing is in for one of its greatest money years in history and sees no reason why Uline Arena should not be there when the melons are sliced.”⁵⁰ By October, Uline had declared that because of the District Boxing Commission’s policy of allowing the other promoter in the District, Joe Turner, to hold fights on Monday nights at a different venue, he would not continue promoting fights. Uline believed that this policy was hurting his profits because Mondays were the only days not booked at his own arena.⁵¹

Sporting events were not the only attractions the Uline Arena hosted. In fact, the grand opening of the arena on January 29, 1941, was an Ice Capades performance. A newspaper article reported that 4,000 people turned out to see the show, which was heralded as “the biggest opening night in years.”⁵² In order to attract a large audience, Uline reportedly had a “corps of comely, red headed usherettes” under the direction of his granddaughter, Patricia Uline Hill. She even designed their “emerald-green military uniforms.”⁵³ The recent completion of the concrete work and erection of the steel roof months before created some hazardous conditions as skaters slipped on ice coated with a thin film of construction dust.⁵⁴

Newspaper articles illustrate the wide array of events held at the arena through the 1940s, many of which were not suited to the space. One such example was the June 1941 “Water Follies” show consisted of a 25’ x 75’ tank holding 80,000 gallons of water in which a “shapely chorus of 16 girls” performed.⁵⁵ In 1942, Uline decided to hold a beer garden in the arena. The *Washington Daily News* reported that Uline was simply trying “to turn a white elephant into a concrete piggy bank” with this scheme, going on to state that Uline evidently thought selling alcohol would “bring in some of the prosperity that was always around the corner but never at his ticket window.”⁵⁶ Throughout the 1940s,

Says Official,” *Washington Post*, December 12, 1942; “Uline Granted Hearing while Ahearn Fires at Boxing Board,” *Star* [Washington, DC], January 4, 1943, all in vertical file.

⁵⁰ Al Costello, “Espey Plans New Deal for Uline Boxing,” *Washington Post*, April 22, 1943, vertical file.

⁵¹ “Monday Dates Refused, Uline Loses Interest in Fistic Game,” *Star* [Washington, DC], October 21, 1943, vertical file. Jack Espey held various positions in the Washington, DC, sports world. He was a sports writer for the *Washington Post* from 1929 to 1932 and director of sports publicity at The George Washington University from 1932 to 1936. He also worked for the Washington Redskins football team for six years before accepting the position as general manager of the Uline Arena. He quit shortly afterward, for unknown reasons, and went to the *Washington Times-Herald* where he was the promotions manager. For more information, see “Jack Espey Quits Redskins for Uline Post,” *Washington Post*, March 23, 1943; “Espey in Debut as Uline Boss,” paper unknown, April 13, 1943; “Espey Quits Uline, Goes Back to News Field,” *Star* [Washington, DC], September 20, 1943, all in vertical file.

⁵² “4000 Here Applaud Ice Capades Opening,” *Washington Post*, February 1, 1941, vertical file.

⁵³ Vincent X. Flaherty, “Straight from the Shoulder,” *Times-Herald* [Washington, DC], January 28, 1941, vertical file.

⁵⁴ Brown, “Uline Arena,” p. 10. Brown also states that only 3,000 tickets were sold as opposed to the 4,000 reported in the *Washington Post*.

⁵⁵ “‘Water Follies of 1941’ Brings First Aquacade to Capital,” *Washington Post*, June 22, 1941, vertical file.

⁵⁶ “Uline’s Arena Open as Huge Beer Garden,” *Washington Daily News*, July 18, 1942, vertical file.

rodeos were held at the arena, although the ice rink below caused some problems as evidenced in April 1944 when the clay placed on top of the rink stayed damp. Roy Rogers and Trigger, as well as the contestants, had to be cautious on the resulting slippery surface.⁵⁷ Perhaps one of the oddest uses of the arena was for “midget car” racing, which must have created extremely unpleasant conditions due to the noise and exhaust fumes. A tenth of a mile of track was laid out in the arena, complete with a 35’-wide straightaway and 45’-wide turns. The car racing completed the full winter schedule for 1948: the arena was not booked on Sundays, wrestling was on Mondays, professional hockey games were on Tuesdays and Fridays, professional basketball games were on Wednesdays and Saturdays, and midget car racing was on Thursdays. If the arena was not booked, it was open for public ice skating.⁵⁸

Uline faced competition from the DC Armory, built for the National Guard around the same time as his arena. In 1947, National Guard commander Brig. Gen. Albert L. Cox charged 15 percent of the gate sales for rental of the facility, which was evidently less than that charged by Uline. In addition, college basketball teams like those from George Washington and Georgetown universities had ceased renting the arena for their home basketball games, citing the Uline Arena’s overpriced rental fees as the factor. Rather than lowering his rates to more competitive levels or looking for ways to attract even more business, Uline made his frustration public, stating “my Arena is dark three nights a week and I am not going to continue to lose money.” He also expressed frustration with being a small business owner forced to compete with the government (i.e. the armory). He threatened to close his arena and convert it into a cold storage facility because the arena was costing him business. In February 1948, Uline announced the arena was for sale after determining the cost of conversion to a cold storage facility would be too great. He claimed to be in negotiations with a group who planned to purchase the facility and demolish it. As was typical of Uline’s bluster, nothing came of these threats.⁵⁹

Segregation

The greatest controversy during Uline’s management of the arena centered on his segregated admission policies, which justifiably aroused the anger of Washington, DC’s African-American community. Uline claimed that he allowed each promoter to set his own attendance policy but failed to mention he was generally the promoter. Typically African Americans were able to attend boxing matches at the arena, but they could not purchase tickets for hockey games, figure skating shows, and cultural events. Uline’s

⁵⁷ “Rodeo Handicapped at Start, Is Well Received by 3000,” *Star* [Washington, DC], April 25, 1944, vertical file. As if the first rodeo was not problematic enough, a rodeo held in 1947 had ticketing problems; see, “Rodeo Mixup Makes Uline Arena Decide to Handle Own Tickets,” *Star* [Washington, DC], October 12, 1947, vertical file.

⁵⁸ “Midget Cars to Race in Uline’s Weekly,” *Star*, October, day obscured, 1948, vertical file.

⁵⁹ Quote from “‘For Sale’ Sign Goes on Uline Arena,” *Washington Post*, February 14, 1948, p. 14; “Ban-lift Futile, D.C. Arena Owner Will Quit,” *Afro-American*, February 21, 1948, p. 16; “Armory Use to Close His Arena, Says Uline,” *Washington Daily News*, December 4, 1947, vertical file; “Uline to Close His Arena in May, Break Up Hockey, Cage Teams,” *Star* [Washington, DC], December 4, 1947, vertical file; Sam Zagona, “Uline to Close Arena if Armory Police Stands,” *Washington Post*, December 5, 1947, vertical file; Morris Siegel, “Uline Threat Won’t Alter Armory Plans,” *Washington Post*, December 5, 1947, vertical file; “Uline Rants at Armory but Won’t Close Arena,” *Times-Herald*, December 5, 1947, vertical file.

segregation policy seems to have stemmed from fears about interracial sexual attraction as well as beliefs that African Americans did not possess the intellectual capability to attend cultural events. As David Wiggins describes, “holding fast to the belief that African Americans were a dehumanized race incapable of appreciating higher forms of art and always a threat to exercise sexual powers over whites, Uline established an unwritten policy allowing African Americans to attend boxing, wrestling, and other ‘low cultural’ events but barring them from basketball games, ice hockey shows, and the Ice Capades, where scantily dressed white women performed.”⁶⁰

The NAACP had received complaints from African Americans about not being able to purchase tickets to the Ice Capades soon after the arena’s opening. In fact, the discriminatory ticket selling had not been made a secret even by management.⁶¹ This made the events surrounding the 1941 Paul Robeson concert all the more interesting. The Daughters of the American Revolution (DAR) refused to let African-American singer Paul Robeson perform in concert at their Constitution Hall, even though it was for a benefit. Cornelia Pinchot, whose husband Gifford was the chief forester for President Theodore Roosevelt, arranged with Uline to have the concert at his arena with an open admittance policy allowing African Americans to sit anywhere in the building.⁶² Controversy over the concert continued after the issue of the venue had been settled. The sponsors, Eleanor Roosevelt, Cornelia Pinchot, and Dr. Hu Shih (the Chinese ambassador) all withdrew their support after discovering that the concert proceeds were earmarked not only for the China Relief Society but also for the National Negro Congress. The three likened this development to fraud since the division of funds had not initially been made public. Pinchot also blamed their withdrawal of sponsorship on Uline’s admission policy, although it had been clearly stated from the opening of the arena. The National Negro Congress planned to use its portion of the concert proceeds to obtain 7,000 jobs for African-American workers at the Glenn Martin Aircraft Company in Baltimore, Maryland, and to fight the admission policy at the Uline Arena. The congress offered to terminate the contract if Uline agreed to permanently change his admission policy, which he, of course, declined to do.⁶³

The segregated admission policy prompted E.B. Henderson, a civil rights activist, to spearhead boycotts of the Uline Arena. Henderson was a Washington native who attended the Harvard Summer School of Physical Education, which was a prestigious

⁶⁰ David K. Wiggins, “Edwin Bancroft Henderson: Physical Education Civil Rights Activist, and Chronicler of African American Athletes,” *Research Quarter for Exercise and Sport* 70, no. 2 (June 1999). The digital edition of this journal was used in this report, and it is not paginated.

⁶¹ “NAACP Fights Color Ban at D.C.’s Uline Arena,” *Afro-American*, March 8, 1941, p. 19; “Paul Robeson Concert Shifted from DAR Hall to Uline Arena,” *Washington Tribune*, March 29, 1941, vertical file.

⁶² “Paul Robeson Concert Shifted”; Dixon Donnelly, “Paul Robeson Sings to a Grateful Race,” *Washington Daily News*, April 26, 1941, vertical file. The inadequacies of the Uline Arena as a concert venue were highlighted during this concert as sound echoed off the concrete walls and the noise of passing trains marred Robeson’s singing.

⁶³ “Stymie Robeson Concert,” *Philadelphia Tribune*, April 17, 1941, p. 14; “Mrs. Roosevelt Quits as Sponsor Over Snub,” *New York Amsterdam Star-News*, April 19, 1941, p. 2; “NNC Head Denies Group Had Ulterior Motives in Backing Aid Concert,” *Philadelphia Tribune*, April 24, 1941, p. 12; and “6,000 Hail Paul Robeson’s Patriotic Song Program,” *The Chicago Defender*, May 3, 1941, p. 20.

school for physical education training. After completing the program, he returned to DC where he taught physical education and organized and coached athletic teams, including the Inter-Scholastic Athletic Association of Middle Atlantic States (ISAA). Henderson was a proponent of encouraging physical education among African Americans as a way to address racial prejudice and encourage assimilation while also engendering respect. After marrying Mary Ellen Meriweather, a fellow teacher, in 1910, the Hendersons moved to Falls Church, Virginia, where they were members of upper class African-American society. Henderson became involved with the Falls Church National Association for the Advancement of Colored People (NAACP), and in this capacity began protesting the policies at the Uline Arena. He and his wife eventually retired to Tuskegee, Alabama, in 1965, and Henderson died in 1977 at the age of 93.⁶⁴

Boycotts of the Uline Arena took place in 1943 when the *Washington Tribune* urged African Americans to not attend the physical fitness demonstrations scheduled for the arena that day. At the heart of the problem, the article noted, was Uline's desire to make money from African Americans but not grant them the same privileges as whites, stating Uline "makes his living selling ice to many Negroes and whites who cannot afford refrigerators" while at the same barring "Negroes from his arena when he stages his ice shows."⁶⁵ In October 1946, a performance of "Carmen Jones" was canceled after the People's Action Committee threatened to picket. The owner of the show consequently canceled the performance.⁶⁶

In 1944, Henderson set up a meeting with Uline, G. Howland Shaw (a community leader and former Assistant Secretary of State), Frederick Reissig (from the Federation of Churches), and Oscar Chapman (who would later become Secretary of the Interior under Harry Truman) to discuss the inconsistent attendance policies. Henderson's ideas about sport and African-American participation undoubtedly contributed to his zeal to change the admission policies at the Uline Arena. Henderson organized a public boycott under the Citizen's Committee Against Segregation in Recreation (CASR), which had been organized in June 1945 by the Recreation Committee of District of Columbia, NAACP. This interracial committee consisted of such groups as the Brotherhood of Sleeping Car Porters, B'Nai Brith, the Washington Council of Social Workers, and others; it dissolved in 1948. The group began issuing public position statements, writing letters to the editor, and picketing.⁶⁷

In addition to the pressure of civil rights groups, actions by boxing organizations in the city forced Uline to change his ticketing policy. In 1947, the Golden Gloves Boxing Tournament allowed African Americans to box for the first time. Henderson pressured Eleanor Patterson, sponsor of the tournament and editor of the *Washington Times Herald*, and she eventually withdrew sponsorship after the rival *Washington Post* publicized its

⁶⁴ For more information on Henderson and his ideology, see David K. Wiggins, *Glory Bound: Black Athletes in White America* (Syracuse: Syracuse University Press, 1997), and Wiggins, "Edwin Bancroft Henderson."

⁶⁵ "Stay Away from the Uline Arena May 14," *Washington Tribune*, May 8, 1943, vertical file.

⁶⁶ "Picket Threats Cancel 'Carmen Jones' in DC," *Afro-American*, October 19, 1946, p. 6.

⁶⁷ Wiggins, "Edward Bancroft Henderson."

decision to no longer support segregated boxing in the city. Even though the tournament allowed African Americans to box, Henderson urged African Americans not to attend matches. Uline had to capitulate and change his admission policy in 1948 after a promoter threatened to book the tournament elsewhere. In typically stubborn fashion, Uline stated to the *Washington Post* that he had been ready to do so for some time but was waiting for the public outcry to die down.⁶⁸

Washington Coliseum

Migiel Uline died in February 1958 at the age of 83; his daughter, Jean Paul Pratt, became president of the Uline Ice Company and the Uline Arena the following year. She vowed to keep the business going in Uline's memory and hinted that new attractions and renovations had been planned for that spring.⁶⁹ The circumstances surrounding the sale of the company and arena for \$1 million to Harry G. Lynn in 1959 are not known. Lynn, who had been the vice president of Fairfax Distributing Company, a wholesale jewelry distributor, vowed to maintain the arena as a sports venue and to bring in new sports organizations.⁷⁰

In an effort to upgrade the arena's image and erase its earlier troubled history, Lynn renamed it the Washington Coliseum in 1960. Various physical improvements totaling \$100,000 were undertaken as well prior to its reopening in 1961. These included the installation of a new electric sign in the shape of the Washington Monument with "Washington Coliseum" written underneath at the entrance, as well as repainting and refurbishing the chairs and ticket and concession area. The lack of air conditioning and its location hampered these modernization efforts. The last street car ran in DC in 1962, and the movement of residents to the suburbs resulted in a potential audience far outside the neighborhood. Consequently, parking was a serious issue. There was a parking lot for 500 cars as well as another at 1st and M streets for another 300 cars. These lots plus street parking resulted in an estimated 1,000 spaces, far below the facility's capacity.⁷¹

While Lynn certainly wanted to book sporting events at the facility, the lack of a sports team in the city stymied that plan. As the *Washington Post and Times-Herald* noted in 1963, "the Washington theater situation is desperate," and Lynn attempted to fill that need by booking various theatrical performances despite their incompatibility with the space. Performances by the Leningrad Ballet, the British Royal Ballet, Harry Belafonte, and the Lipizzaner Stallions of Vienna were a far cry from the Ice Capades, hockey, and boxing matches that had frequently been held in the facility under Uline's management. The performance by the Bolshoi Ballet at the coliseum exemplifies Lynn's problems.

⁶⁸ Mike Livingston, "As Decades Pass, A Coliseum's Glory Days go to Waste," *Washington Business Journal*, April 16, 2001, available online at <http://washington.biz.journals.com>; see also "Uline Long Fight Terminated," *Washington Afro-American*, January 24, 1948, vertical file.

⁶⁹ George Minot, "Mike Uline's Daughter Plans to Pep Up Arena," *Washington Post and Times-Herald*, February 1, 1959, p. B4.

⁷⁰ S. Oliver Goodman, "Coliseum to Get New Owner," *Washington Post*, August 13, 1959, p. B7; "Uline's New Owner Must Feel His Way," *Star* [Washington, DC], December 18, 1959, vertical file.

⁷¹ Dave Brady, "Uline's Gets New Name, Face-Lifting: 'Coliseum' Suitable Name," *Washington Post*, September 12, 1961, p. A16.

Lynn spent \$6,000 to build a stage at one end of the arena, contracted George Bardyquine (who did work at Madison Square Garden) to design the set, took out 1,100 seats, and painted the orchestra seats gold. Despite these improvements, the press was duly outraged at the conditions under which the Bolshoi had to perform.⁷² Richard L. Coe wrote in the *Washington Post* that “the Bolshoi Ballet took the only stage it could get in the U.S. Capitol—a converted ice rink.” Coe went on to decry the makeshift stage with its spots that echoed “like a kettle drum,” as well as the coliseum’s “seedy location, miserable traffic arrangements and muddy paths.”⁷³ John McKelway wrote in the *Star* that the Washington Coliseum was a “Grand Barn” that suffered from a lack of air conditioning. He also pointed out that the gold paint rubbed off onto the guests’ clothing. The negative publicity began to affect Lynn’s bookings, prompting him to complain that he had “lost...three perspective shows because promoters were afraid of the coliseum’s reputation.”⁷⁴

Although the facility was clearly not suitable for hosting ballet companies, Lynn leased it to the Royal Ballet in 1965. Maxine Cheshire noted in the *Washington Post* the next day that “a lot of Washingtonians who suffered sublimely through the Royal Ballet last night decided they had better get themselves into fitter condition before they endure the arduous physical demands of another cultural event at the Washington Coliseum.” She too complained about the lack of air conditioning and that guests had to “hike up to the marquee...because traffic had jammed the narrow streets.”⁷⁵ The opening of the John F. Kennedy Center for the Performing Arts in 1971 obviated the need to outfit the coliseum as a theater space. Myra McPherson wrote of the opening in the *Washington Post*,

for years, listening to music from Washington’s inadequate stages was like hearing the latest stereo record on a crank-up victrola. Hand-me-down auditoriums left audiences with vivid, if hardly glorious, memories—orchestras and singers suffering in a Constitution Hall built, not for them, but for the 1930 DAR convention...the Kirov or Royal Danish Ballet trooping across Uline Arena’s hockey and wrestling emporium...Margot Fonteyn taking a pratfall on the unsuitable Constitution Hall stage in her debut before President Harry Truman.⁷⁶

Perhaps the most famous event to take place at the Washington Coliseum was the February 11, 1964, concert by the Beatles, their first in the United States. The audience of 8,092, predominantly made up of teenage girls, surrounded the converted stage set up on a boxing ring in the middle of the arena. Tommy Roe and the Chiffons each sang two

⁷² John McKelway, “Rambler...Hears a Sad Tale,” *Star* [Washington, DC], October 23, 1963, vertical file.

⁷³ Richard L. Coe, “A Sports Palace No Place for Arts,” *Washington Post*, October 13, 1963, vertical file.

⁷⁴ McKelway, “Rambler.”

⁷⁵ Maxine Cheshire, “Great Society Legs Way to Coliseum,” *Washington Post*, May 22, 1965, vertical file. The “great society” hiking to the performance included Defense Secretary Robert McNamara, Treasury Secretary Henry Fowler, Peace Corps Director R. Sargent Shriver and his wife Eunice, and Sen. and Mrs. Edward Kennedy.

⁷⁶ Myra McPherson, “At Last—A Center Stage for the Arts in Washington,” *Washington Post and Times-Herald*, September 5, 1971, p. F1.

songs as the opening act. Lynn had added them to the show because he was concerned that he would not sell enough tickets to recoup the \$10,000 booking fee if the Beatles alone played. The Beatles played twelve songs, accompanied by deafening screams from the audience and flying jelly beans, peanuts, and burned-out flashbulbs. When the Beatles had finished their final number, "Long Tall Sally," they ran up one of the aisles and exited the coliseum.⁷⁷

A 1967 Temptations concert signaled the rapid decline of the venue. The night ended in a riot in which five attendees were injured and six were arrested. Numerous store and car windows were also broken throughout the neighborhood. Two newspapers provided differing accounts of the cause of the violence. The *Washington Afro-American* reported on November 4, 1967, that concertgoers rushed the stage for photographs and autographs of the members of the Temptations. A loud noise during this commotion caused panic, and the 7,000 audience members began heading for the exits. The *Star*, on the other hand, attributed the outbreak of violence to a "District youth clean-up corps" called 50 Pride who had been invited to attend the concert. Evidently there was confusion about how many members were supposed to be admitted to the concert, and all 250 corps member tried to gain entrance to the building. A special duty police officer named Robert Edward Atkins reportedly fired two shots into the air because, the *Star* was careful to note, he was afraid of being trampled. This may have been the loud noise reported in the *Washington Afro-American* that caused the panic. Regardless of its cause, the violence led to the canceling of concerts at the coliseum.⁷⁸

By 1969, Lynn had evidently given up on making the venue profitable. The *Washington Post* reported that Publishers Company, Inc., parent company to Washington's printing firms, would purchase the coliseum and ice plant, and Lynn would remain as the manager.⁷⁹ While the tumultuous concerts of the 1960s marked the decline of the arena, the opening of the Capital Centre in nearby Largo, Maryland, in the early 1970s was the final blow. The cost of constructing a large arena was prohibitive and risky, but millionaire Abe Pollin had the funds to invest in a new stadium. His Capital Centre soon attracted professional basketball and hockey teams, in addition to booking other events like the Ice Capades, which had been a mainstay of the Uline Arena/Washington Coliseum. The Capital Centre was enticing for a number of reasons. It could seat 17,500 as compared to the coliseum's 6,000 seat capacity and the Armory's 11,000 seats. Secondly its suburban location was attractive, partly because of the nearby H Street riots

⁷⁷ The set list included "Roll Over Beethoven," "From Me to You," "I Saw Her Standing Her There," "This Boy," "All My Loving," "I Wanna Be Your Man," "Please Please Me," "Till There Was You," "She Loves You," "I Want To Hold Your Hand," "Twist and Shout," and "Long Tall Sally." Richard Harrington, "We Saw Them Standing There," *Washington Post Weekend*, January 30, 2004, pp. 30-34. This article also includes photographs of the concert and of the exterior of the coliseum.

⁷⁸ "Rock and Roll Banned: Fight Cancels 3 Shows," *Washington Afro-American*, November 4, 1967, vertical file.

⁷⁹ Goodman, "Coliseum to Get New Owner," p. B7; Walter Gold, "Melee Halts Coliseum Show," *Star* [Washington, DC], October 30, 1967, vertical file.

in 1968 after the assassination of Dr. Martin Luther King Jr. and partly because of the parking it provided for an automobile-reliant public.⁸⁰

During the 1970s, the coliseum continued to host events. These included a few basketball games played by the Washington Capitols, as well as a concert by Joan Baez and another featuring Leadhead, Ohio Players, Funkadelics, and Rare Earth. Promoters had sold 7,000 tickets to that concert and that number coupled with possible gate crashers caused a crush at the entrances. An article in the *Star* reported that tear gas, rocks, and bottles were thrown during the resulting altercation, which ended up with four police cars being set on fire. Eventually, the concert went on, but not without the continued destruction of area businesses. In 1978, the coliseum was sold for \$880,000 to an unnamed partnership and continued to be used as a concert and sporting event venue, hosting boxing matches, wrestling, derbies, evangelical meetings, and go-go concerts, which were wildly popular because of the venue's size, economical rental fees, and its location. The rough nature of the shows coupled with the increasing deterioration of the building led to growing neighborhood dissatisfaction with the coliseum.⁸¹

Later Use of the Coliseum

Alvin Jones and his wife Martha had founded the Takoma Park Christian Faith Center in their home in 1981; they also broadcast a radio/TV show called "Successful Living" in Washington, DC, and Dallas, Texas. After seeing DC-based churches move to the suburbs, Jones decided to establish his church in the city. He and his wife embarked on a \$6.5 million renovation to the adjacent ice plant and arena that included creating an indoor prayer garden, Christian bookstore, and administrative offices, and refurbishing the coliseum by increasing the seating to 8,600 and improving the acoustics. Jones planned to hold the Faith Center services for the 700-person congregation in a smaller room while the arena would be available for use by religious groups and television ministers. Long-term plans by Jones included building a private K-12 school and minister training school and buying additional land for parking. Jones estimated this work would cost \$17.5 million and expected that some funding would come from donations. These plans for the center never materialized.⁸²

LG Industries (who later merged with USA Waste and again with Sanifill to become Waste Management) purchased the building in May 1994. The former arena was then used as an illegal trash transfer station. The operation was finally closed down, and the building stood vacant until 2002 when Douglas Development Corporation purchased it. The former arena now stands vacant and is currently used as a parking garage. Redevelopment plans remain unknown as of 2010.

⁸⁰ Phil Casey, "Can the Coliseum Live with Centre?" *Washington Post and Times-Herald*, December 25, 1973, p. B9.

⁸¹ Brown, "Uline," 12; "Concert Melee," *Star* [Washington, DC], October 16, 1973, vertical file; Richard O'Connor, "Remembering the Washington Coliseum," *TMOTTGo Go Magazine*, available at <http://www.tmottgogo.com/coliseum.html>, accessed July 2003; Sandra Saperstein, "Coliseum to be Reborn," *Washington Post*, December 8, 1986, pp. B1, B10.

⁸² Saperstein, "Coliseum to be Reborn," pp. B1, B10.

Part II. Structural/Design Information

A. General Description: The Uline Arena runs parallel to 2nd Street, NE, while the entrance building extends east with the entrance doors opening to 3rd Street, NE. The concrete-block arena features a concrete barrel roof with concrete ribs protruding at regular intervals and is flanked on either side by one-story rectangular wings that run the length of the building on the west side and a portion of the east side. The building is clad in common-bond brick. The north end wall faces M Street, NE, and stands about three stories tall. It features three roll-up garage doors on the ground floor and five window openings of graduated height on the upper floor that have been closed in with bricks and are equipped with vents. Additional window and door openings on the ground floor have also been closed in with bricks. The only decorative elements are a double-row horizontal belt course on the upper floor and a horizontal belt course below. The arena has a chamfered corner at M and 2nd streets, NE, with an opening that has been closed in with concrete blocks and a smaller door.

The 2nd Street façade stands two stories tall and features eight door openings on the ground floor that have been closed in with concrete blocks and seven windows openings filled in with bricks. The second floor also originally had seven windows that were later removed and filled in with bricks and vents. Decorative elements consist of a double-row horizontal belt course on the second story and a single belt course on the ground floor.

The southeast corner of the arena is chamfered like the northeast one. The original opening has been modified to accommodate a roll-up garage door. An opening filled with concrete blocks is located to the west of this garage door. The south end wall of the arena is not accessible but the visible portion reveals that it was left unfinished with exposed concrete block since it abutted buildings. A smoke stack on a brick platform is located at the west end of this wall.

Entrance to the arena was originally made from the one-story brick entrance building extending east from the arena with entrance doors on 3rd Street, NE. The entrance building had a flat roof and a stepped parapet on the front façade. The recessed entryway has five sets of double glass doors protected by wrought-iron grillwork that opened to the arena's lobby. Narrow windows filled with glass block flanked the entranceway. Supports for the original sign are also evident.

The arena has suffered from its long period of abandonment, but there are remnants of its former use. The concrete risers and some seating remain on the south end wall and parts of the east and west walls. The press box is also extant on the west wall. The building's basement and entrance building were not accessible at the time of the fieldwork.

1. Character: Although it is no longer in use and the signage is gone, the original form of the building remains.

2. Condition of Fabric: The building is deteriorating due to a long period of neglect and abandonment.

B. Construction: Chief Engineer R.L. Bertin of White Construction Company, the contractor, described the construction of the building in an article for the *Engineering News-Record*. The first phase of construction above ground involved building the bleachers, followed by the walls and brackets for the ribs of the roof. A complex, but effective, trestle system for pouring the roof was devised next, which Bertin described in great detail. Two trestles with tracks were constructed along the length of the building. Roof Structures Inc. then built five timber trestles of 2" x 4" and 3" x 4" lumber bent to form an arch that could be reused in each section. A crawler crane lifted the towers onto the track so they could then be moved systematically down the length of the building with no rebuilding necessary. Once the forms were in place, jacks raised the trusses to the appropriate height, and the concrete was poured. A mixer truck delivered the Lone Star-brand concrete to the site. A "hoisting tower" then lifted the concrete to the arch, where the "concrete was buggied and deposited by chute" into the formwork. The concrete was poured continuously and evenly up the sides of the 72' section. Bertin reported that with forty men on crew, the process took about nine hours. After a section had been poured, the crew covered the underside with tarpaulins and used salamanders to keep the concrete from freezing.⁸³

White Construction Company sent in samples of the concrete from the roof slab of section #4, the second arch rib on the south end, and the bleacher seats, among other spots, to the Washington Test Lab. On November 18, 1940, Eric Molke of Roberts & Schaefer Company wrote to the D.C. Building Inspector that "we have investigated the concrete used for the first roof section of the Uline Skating Rink by cylinder and by beam tests both as to strength and as to Modules of Elasticity, and we are fully satisfied that the first roof section can safely be decentered tomorrow, Wednesday, November 13, 1940."⁸⁴ To remove the forms, the jacks were lowered, and the trusses were dropped down to the tracks. The form was then set up in the adjacent section by "four hand winches pulling on a 3/8-in. steel cable fastened to the end of the trestle through a system of blocks."⁸⁵

The completed roof slab measured 3-5/8" thick "mid-span between ribs," gradually expanding at the supports to 5-1/4". Four expansion joints divided the roof into sections. The end sections were 54', while the middle three measured 72' wide. The ribs themselves were 18" wide and 5' deep at the top, increasing to a "horizontal dimension" of 16'-4" at the wall.⁸⁶

⁸³ R.L. Bertin, "Barrel Shell Roof for an Ice Arena," *Engineering News-Record* 126, no. 21 (May 22, 1941): pp. 46-49. See also Building Permit No. 235114, August 1, 1940. The estimated cost of constructing the pedestals, arches, and bleachers was \$125,000. Unfortunately, no plans were included with the permit.

⁸⁴ Building Permit No. 236082, August 30, 1940, contains a copy of this letter.

⁸⁵ Bertin, "Barrel Shell Roof," p. 49.

⁸⁶ Bertin, "Barrel Shell Roof," p. 47.

C. Mechanicals/Operation: Since the arena was constructed next to Uline's ice plant, White Construction Company did not have to install any refrigeration equipment. The company followed the specifications of M.R. Carpenter and built a "floating floor of the center trench type." A 5-3/4" layer of concrete was laid on an 8"-thick bed of sand. Pipes, reinforcing bars, and other equipment were laid into the concrete, according to Bertin's article. Uline had the Heffron Company install a Class D refrigeration system in the arena that consisted of a Frigidaire model with one motor and one compressor with 3/4 horsepower. The compressor was to be located on the ground floor of the arena. No other information has been found to date describing how the ice was manufactured for the rink.⁸⁷

D. Site Information: The arena is located at the corner of M and 2nd streets, NE, across the street from railroad tracks. The entrance building extends to the east and fronts 3rd Street, NE. The adjacent ice plant is located east of the arena and north of the entrance building, at M and 3rd streets, NE.⁸⁸

Part III. Sources of Information

A. Primary Sources:

"6,000 Hail Paul Robeson's Patriotic Song Program." *The Chicago Defender*, May 3, 1941, p. 20.

Ad. *Washington Post*, March 26, 1939, p. 3.

"Alvis to Run Fight Club Here, Seeks Rover-Oriole Rematch, Hockey Promoter Wants Clubs to Return to Riverside Rink Next Tuesday." *Washington Post*, March 10, 1939, p. 25.

Associated Press. "D.C. Gets American Hockey League Berth." *Washington Post*, January 25, 1941, pp. 16, 19.

Baist Map, Volume 2, Plan 12, 1938 and 1945. Maps are available at Washingtoniana Division, Martin Luther King, Jr. Memorial Library, Washington, DC. Copies of these maps are included in the field record accompanying this report.

"Ban-Lift Futile, D.C. Area Owner Will Quit." *Afro-American*, February 21, 1948, p. 16.

Batthey, Jean. "New Hall for Dance Promised by October: Tuning Up." *Washington Post and Times-Herald*, August 11, 1963, p. G1.

⁸⁷ Bertin, "Barrel Shell Roof," p. 46; Building Permit No. 240304, January 29, 1941.

⁸⁸ The development of the site can be seen in the Baist maps, including Baist Map, Vol. 2, Plan 12 from 1938 and 1945.

Bertin, R.L. "Barrel Shell Roof for an Ice Arena." *Engineering News-Record* 126, no. 21 (May 22, 1941): 46-49.

Brady, Dave. "Uline's Gets New Name, Face-Lifting: 'Coliseum' Suitable Name." *Washington Post*, September 12, 1961, p. A16.

Casey, Phil. "Can the Coliseum Live with Centre?" *Washington Post and Times Herald*, December 25, 1973, p. B9.

"Chrysler Aide Lauds District Auto Show: Special Events Being Scheduled Besides the Daily Programs." *Washington Post*, October 24, 1939, p. 28.

Collins, Denis. "Coliseum: Landmark Fades into Obscurity." *Washington Post*, July 7, 1976, p. D1.

"Concrete Barrel Shell and Arched Ribs are Features of Skating Rink." *Concrete* 47, no. 9 (September 1939): pp. 3-4.

Davis, Jerry. "Mike Uline Misses His Reading." *Washington Post and Times-Herald*, May 1, 1955, p. C6.

"D.C. Garden Heads Like Hershey Plan: Local Officers Inspect Ultra-Modern Sports Plant." *Washington Post*, March 6, 1938, p. X2.

"DC to See its First Ice Carnival: Rehearsals for Big Show Begun as Skating Enthusiasm Reaches New High." *Washington Post*, March 17, 1940, p. F5.

"Georgetown's Ice Hockey Team in Debut: Meets Loyola of Baltimore at Riverside Stadium." *Washington Post*, February 11, 1940, p. X2.

Goodman, S. Oliver. "Coliseum to Get New Owner." *Washington Post and Times-Herald*, August 13, 1969, p. B7.

"'For Sale' Sign Goes on Uline Arena." *Washington Post*, February 14, 1948, p. 14.

"Free Hockey Clinic Scheduled Tonight at Riverside Rink." *Washington Post*, December 10, 1939, p. X5.

J.H.M. "D.C. Gets American Hockey League Berth: Uline Officially Granted Franchise for Next Season." *Washington Post*, January 25, 1941, pp. 16, 19.

McPherson, Myra. "At Last—A Center Stage for the Arts in Washington." *Washington Post and Times-Herald*, September 5, 1971, p. F1.

“ ‘Mike’ Uline Dies at 83; Ice Executive, Sportsman.” *Washington Post and Times-Herald*, February 23, 1958, p. B2.

Minot, George. “Mike Uline’s Daughter Plans to Pep Up Arena.” *Washington Post and Times-Herald*, February 1, 1959, p. B4.

Molke, Eric C. and J.E. Kalinka. “Principles of Concrete Shell Dome Design.” *Journal of the American Concrete Institute* 34 (May-June 1934): pp. 649-707.

Munhall, Jack. “Crack Figure Skaters Thrill Fans Here: Eleanor O’Meara and Robin Lee Among Artists Who Exhibit Technique at Riverside Stadium Rink.” *Washington Post*, March 20, 1939, p. 16.

_____. “Ice Hockey Gains Popularity as Distinct Sport.” *Washington Post*, December 24, 1939, p. 8.

“Mrs. Roosevelt Quits as Sponsor Over Snub.” *New York Amsterdam Star-News*, April 19, 1941, p. 2.

“NAACP Fights Color Ban at D.C.’s Uline Arena.” *Afro-American*, March 8, 1941, p. 19.

“Navy Builds Concrete Hangars at San Diego.” *Engineering News-Record* 127, no. 23 (December 4, 1941): pp. 64-66.

“NNC Head Denies Group Had Ulterior Motives in Backing Aid Concert.” *Philadelphia Tribune*, April 24, 1941, p. 12.

“Notables to See Ice Follies.” *Washington Post*, November 2, 1939, p. 14.

Obituary. *Star* [Washington, DC], February 8, 1948, p. A24.

“Opportunity on Ice.” *Washington Post*, March 10, 1939, p. 10.

“Picket Threats Cancel ‘Carmen Jones’ in DC.” *Afro-American*, October 19, 1946, p. 6.

R.L.C. “ ‘Ice Follies’ Dazzles Thru Second Week: Spectacular Novelty Puts Flashing Revue on Steel Blades.” *Washington Post*, November 13, 1939, p. 16.

Sanborn Map, Volume 4, 1928—December 4, 1959, Sheet 438.

Saperstein, Sandra. “Coliseum to be Reborn.” *Washington Post*, December 8, 1986, pp. B1, B10.

“Sports Arena to Seat 10,000, Cost \$300,000, Planned Here.” *Washington Post*, January 18, 1939, pp. X1, 15.

“Stymie Robeson Concert.” *Philadelphia Tribune*, April 17, 1941, p. 14.

Tedesko, Anton. “Large Concrete Shell Roof Covers Ice Arena.” *Engineering News-Record* 118, no. 14 (April 8, 1937): pp. 505-510.

_____. “Wide-Span Hangars for the U.S. Navy.” *Civil Engineering* 11, no. 12 (December 1941): pp. 697-700.

_____. “Thin Concrete Shell Roof for Ice Skating Arena.” *Engineering News-Record* 122, no. 7 (February 16, 1939): p. 54.

“Thin Concrete Shells for Dome and Barrel Vault Roofs.” *Engineering News-Record* 108, no. 15 (April 14, 1932): pp. 537-538.

“Veteran Sea Gull’s Hockey Mentor to Coach DC Team.” *Washington Post*, October 3, 1939, p. 17.

Walsh, Jack. “Mike Uline Claims It’s ‘Impractical’ to Continue,” *Washington Post*, January 15, 1952, p. 15.

Washington Coliseum, Vertical File, located in Washingtoniana Division, Martin Luther King, Jr. Memorial Library, Washington, DC. Contains newspaper clippings about the coliseum from the *Washington Post*, *Star* (Washington, DC), *Washington Afro-American*, *Washington Tribune*, *Pittsburgh Review*, *Washington Daily News*, *Washington Tribune-Herald*. List of contents below:

“4,000 Here Applaud Ice Capades Opening.” *Washington Post*, February 1, 1941.

“9,000 Fill Arena to See and Hear ‘Fun to be Free’.” *Star* [Washington, DC], November 5, 1941.

“Armory Use to Close His Arena, Says Uline.” *Washington Daily News*, December 4, 1947.

Brady, Dave. “Uline Played Host to Big-Time Sports.” *Washington Post*, February 23, 1958.

Cheshire, Maxine. “Great Society Legs Way to Coliseum.” *Washington Post*, May 22, 1965.

Coe, Richard L. “A Sports Palace No Place for Arts.” *Washington Post*, October 13, 1963.

“Concert Melee.” *Star* [Washington, DC], October 16, 1973.

Costello, Al. “Body Erred in Uline Row, Says Official.” *Washington Post*, December 12, 1942.

_____. “Customers Locked Out at Uline’s.” *Washington Post*, December 9, 1942.

_____. “Espey Plans New Deal for Uline Boxing.” *Washington Post*, April 22, 1943.

Costello, Al. “They Talked of an Arena, He Built One.” *Washington Star*, January 25, 1970.

“DC Agencies in Conflict Over Arena.” *Washington Post*, April 21, 1951.

“District Officials Demanded Free Tickets, Uline Testifies.” *Washington Post*, May 8, 1951.

Donnelly, Dixon. “Paul Robeson Sings to a Grateful Race.” *Washington Daily News*, April 26, 1941.

“Espey in Debut as Uline Boss.” Newspaper unknown, April 13, 1943.

“Espey Quits Uline, Goes Back to News Field.” *Star* [Washington, DC], September 20, 1943.

Flaherty, Vincent X. “Straight from the Shoulder.” *Times-Herald* [Washington, DC], January 28, 1941.

Flinn, Sarah. “Uline Arena Offers 572 Beds for Servicemen Visiting DC.” *Star* [Washington, DC], September 17, 1944.

Gold, Walter. “Melee Halts Coliseum Show.” *Star* [Washington, DC], October 30, 1967.

Ground floor plan with handwritten note, “Convention Facilities,” Washington Board of Trade, 1949. Copy included in the field record accompanying this report.

“Jack Espey Quits Redskins for Uline Post.” *Washington Post*, March 23, 1932.

McKelway, John. “Rambler...Hears a Sad Tale.” *Star* [Washington, DC], October 23, 1963.

“Midget Cars to Race in Uline’s Weekly.” *Star* [Washington, DC], October (day obscured), 1948.

“Monday Dates Refused, Uline Loses Interest in Fistic Game.” *Star* [Washington, DC], October 21, 1943.

“NAACP Letter Urges Complete Uline Boycott.” *Pittsburgh Review*, n.d.

“Paul Robeson Concert Shifted from DAR Hall to Uline Arena.” *Washington Tribune*, March 29, 1941.

“Paul Robeson Sings to a Grateful Race.” *Washington Daily News*, April 26, 1941.

“Rock and Roll Banned: Fight Cancels 3 Shows.” *Washington Afro-American*, November 4, 1967.

“Rodeo Handicapped at Start, Is Well Received by 3000.” *Star* [Washington, DC], April 25, 1944.

“Rodeo Mixup Makes Uline Arena Decide to Handle Own Tickets.” *Star* [Washington, DC], October 12, 1947.

Siegel, Morris. “Uline Threat Won’t Alter Armory Plans.” *Washington Post*, December 5, 1947.

“Stay Away from the Uline Arena May 14.” *Washington Tribune*, May 8, 1943.

“Uline Arena in Turmoil at Off-Again On-Again Fight Show.” *Washington Post*, December 9, 1942.

“Uline to Close His Arena in May, Break Up Hockey, Cage Teams.” *Star* [Washington, DC], December 4, 1947.

“Uline Granted Hearing while Ahearn Fires at Boxing Board.” *Star* [Washington, DC], January 4, 1943.

“Uline Long Fight Terminated.” *Washington Afro-American*, January 24, 1928.

“Uline Rants at Armory but Won’t Close Arena.” *Times-Herald* [Washington, DC], December 5, 1947.

“Uline Says He’ll Sue to Thwart Action by DC License Board.” *Star* [Washington, DC], May 8, 1951.

“Uline’s Arena Open as Huge Beer Garden.” *Washington Daily News*, July 18, 1942.

“Uline’s New Owner Must Feel his Way.” *Star* [Washington, DC], December 18, 1959.

Walsh, Jack. “Uline Again Threatens to Close in Armory Row.” Newspaper unknown, October 31, 1951.

“ ‘Water Follies of 1941’ Brings First Aquacade to Capital.” *Washington Post*, June 22, 1941.

Zagona, Sam. “Uline to Close Arena if Armory Policy Stands.” *Washington Post*, December 5, 1947.

Building Permits:

Building Permit No. 230286, March 11, 1940
Building Permit No. 230288, March 11, 1940
Building Permit No. 230287, March 14, 1940
Building Permit No. 230523, March 18, 1940
Building Permit No. 233965, June 26, 1940
Building Permit No. 234781, July 22, 1940
Building Permit No. 235114, August 1, 1940
Building Permit No. 236082, August 30, 1940
Building Permit No. 239018, December 3, 1940
Building Permit No. 240304, January 29, 1941
Building Permit No. 271611, July 25, 1944
Building Permit No. 277831, May 22, 1945
Building Permit No. 279690, August 22, 1945
Building Permit No. 279957, September 6, 1945
Building Permit No. 280189, September 19, 1945
Building Permit No. 280260, September 24, 1945
Building Permit No. 280747, October 16, 1945
Building Permit No. 281203, November 8, 1945
Building Permit No. 281583, November 28, 1945
Building Permit No. 281947, December 19, 1945
Building Permit No. 287713, August 2, 1946

B. Secondary Sources

Billington, David P. *Thin Shell Concrete Construction*. New York: McGraw-Hill Book Co., 1982.

_____. *The Tower and the Bridge: The New Art of Structural Engineering*. New York: Basic Books, Inc., 1983.

Brown, Gordon. "Uline Arena: Stellar Past, Uncertain Future." *Voice of the Hill*, August 2003, p. 10.

Christianson, Justine. "The Uline Arena/Washington Coliseum: The Rise and Fall of a Washington Institution." *Washington History* 16, no. 1 (Spring/Summer 2004): pp. 16-35.

Condit, Carl. *American Building Art: The Twentieth Century*. New York: Oxford University Press, 1961.

Farnham, Kate. District of Columbia Determination of Eligibility Form, M.J. Uline Ice Company Complex. July 22, 2002.

Hand, Patrick T. "The Red Zone." *The Washington City Paper*, March 22-28, 2002. Available at www.washingtoncitypaper.com.

Harrington, Richard. "We Saw Them Standing There." *Washington Post Weekend*, January 30, 2004, pp. 30-34.

Hines, Eric M. and David P. Billington. "Anton Tedesko and the Introduction of Thin Shell Concrete Roofs in the United States." *Journal of Structural Engineering* 130, no. 11 (November 2004): pp. 1639-1650.

Livingston, Mike. "As Decades Pass, A Coliseum's Glory Days Go to Waste." *Washington Business Journal*. May 16, 2001. Available at <http://washington.biz.journals.com>.

Lyman, Richard, ed. Historic Preservation Review Board Application for Historic Landmark or Historic District Designation, M.J. Uline Ice Company and Arena Complex (Washington Coliseum). June 11, 2003.

O'Connor, Richard. "Remembering the Washington Coliseum." *TMOTTGo Go Magazine*. Available at <http://www.tmottgogo.com/coliseum.html>, accessed July 2003.

Pollin, Andy and Leonard Shapiro. *The Great Book of Washington, DC, Sports Lists*. Philadelphia: Running Press Book Publishers, 2008.

Weeks, Linton. "Ice in His Veins." *Washington Post Magazine*, November 17, 1991, p. 7.

Wiggins, David K. *Glory Bound: Black Athletes in White America*. Syracuse: Syracuse University Press, 1997.

_____. "Edwin Bancroft Henderson: Physical Educator, Civil Rights Activist, and Chronicler of African American Athletes." *Research Quarterly for Exercise and Sport*. 70, no. 2 (June 1999).

C. Likely Sources Not Yet Investigated

For more information about Edwin Bancroft Henderson, see the Edwin B. Henderson Papers in Moorland Spingarn Research Center, Howard University, Washington, DC.

Appendix A: Field Photographs



Image 1: North end wall of Uline Arena with ice plant in background. Photograph taken by Justine Christianson, 2004.

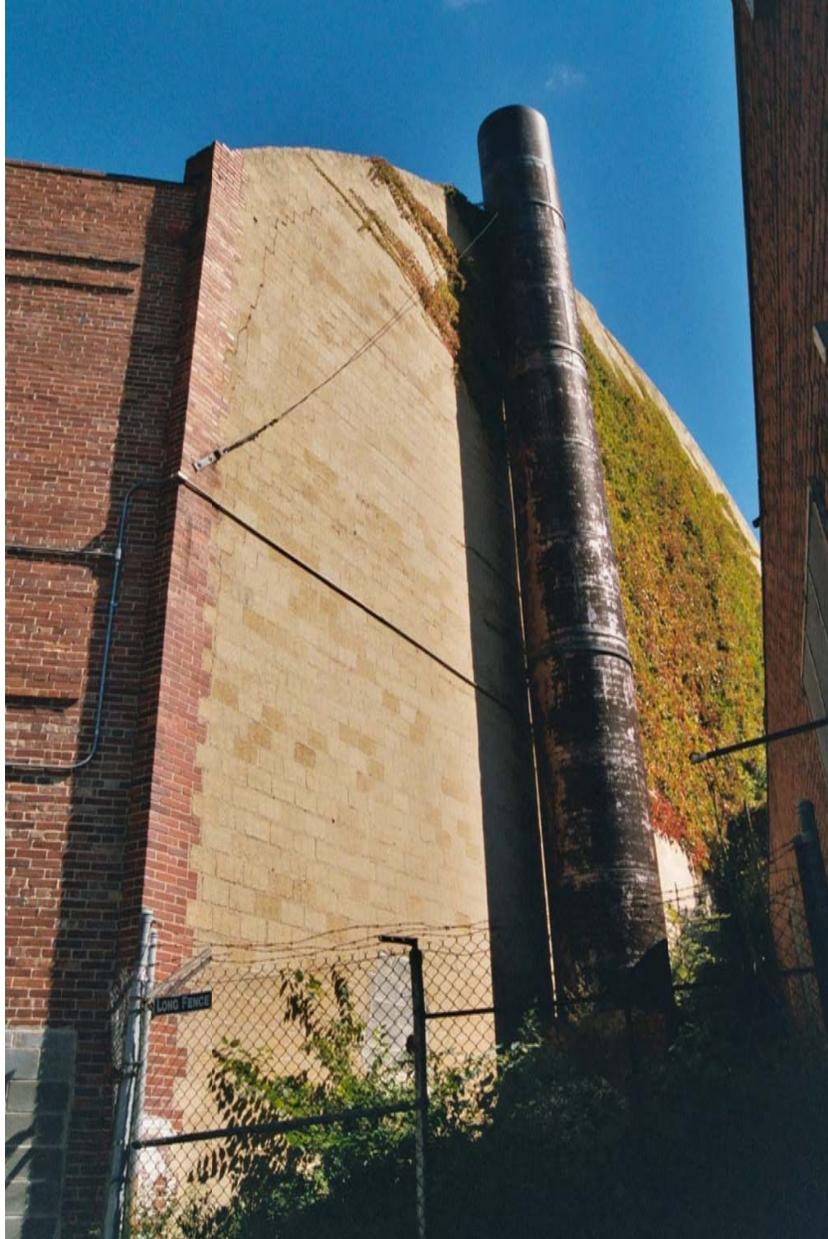


Image 2: South end wall of arena with smokestack. Photograph taken by Justine Christianson, 2004.



Image 3: Entrance building. Photograph taken by Justine Christianson, 2004.