DOWNTOWN DEVELOPMENT PROGRAM
MIDDLETOWN, CONNECTICUT

Report to the Municipal Development Committee
By Raymond, Parish and Pine, Inc.

March 1973

The preparation of this report was financially aided by a Federal grant from the Department of Housing and Urban Development under the Urban Planning Assistance Program authorized by S701 of the Housing Act of 1954, as amended, under the administration of the Connecticut Department of Community Affairs.
INTRODUCTION

We have completed the work program set forth in our agreement with the City including extensive graphic material. We are impressed with the boldness of Middletown's effort to develop and enhance its downtown and are pleased to be able to make a contribution to the Downtown Development Program. However, it must be stated that a great deal of work remains to be done. We have attempted, in a short time, to tie many existing plans and proposals together. More detailed study of certain elements is required, however, as are decisions by both public agencies and private individuals before a definitive development program is assured. In the remainder of this report, we have summarized the findings and recommendations developed during the study and have also identified the problems that remain to be resolved and decisions that are required.
REVIEW AND COORDINATION

As part of our work program we have reviewed all plans pertaining to downtown Middletown. Relevant aspects of these plans have been incorporated in the Downtown Development Program. Those instances where various plans conflict or where decisions or additional study beyond the scope of our work program is required have been identified.

Throughout the course of our work, we have coordinated our efforts with the Redevelopment Agency and have had meetings with architects and/or developers of proposals for redevelopment within the MetroSouth Renewal Project. Since the selection process of redevelopers was concurrent with the timing of our work program, it has been necessary, in some cases, for us to make assumptions or to use preliminary plans as the basis for our proposals. It can, therefore, be anticipated that modifications in the entire plan may develop as individual plans are refined.

Such modifications are a normal part of the process of translating general plans into actual development.
TRAFFIC CIRCULATION AND PARKING

Traffic Circulation

Many plans for improving traffic circulation to and within downtown Middletown have been developed over the past ten or fifteen years. All have been based on the concept of a "loop" around the retail core area and improvements to Route 9. We have reviewed all of the proposals, including the most recent ones by the Planning and Zoning Commission and Consultants to the Connecticut DOT, in an effort to reconcile the many alternates and to develop a circulation plan related to the downtown development program.

A major factor in the development of the circulation plan is the relative timing of various components. Although it will take three, or perhaps, four stages to complete all elements of the system, it must be able to function effectively at any point in its evolution. The various stages are as follows:

a. Improvements programmed as part of the MetroSouth Renewal Project will most likely occur first. These will include the connection of Church Street to Union Street and South Main Street to Broad Street as well as the extension of DeKoven Drive to Union Street. These improvements will complete an internal loop around the retail core south of Washington Street.

b. Upgrading of Route 9 to eliminate traffic signals and improve design standards has been under consideration for many years. Although no specific plans have received final approval, it must be assumed that this project will eventually be implemented. The final design of Route 9 will have a substantial impact on circulation in downtown. It is virtually certain that any design will eliminate the at-grade intersection at Washington Street. Therefore, access to downtown will depend on interchanges at the north and south ends of downtown. Furthermore, it is possible that these improvements may take place at separate times - the south end as one project, the north end as another.
c. Completion of the proposed downtown loop depends on several projects north of Washington Street which are outside of present urban renewal areas and not part of the state highway system. Therefore, they would have to be undertaken directly by the city. These projects are as follows:

(1) Extension of DeKoven Drive north to Kapelle Avenue and improvement of Rapallo Avenue to Main Street. Property acquisition as well as street construction would be necessary to complete this eastern leg of the loop. Although a substantial project, it appears that it could be accomplished by the city if carefully planned and budgeted.

(2) Extension of Broad Street north to Grand Street, improvement of Grand Street and realignment of its intersection with Main Street opposite Rapallo Avenue. In terms of construction, this project would be comparable with the previous one. The major obstacle, however, is the Mortimer Cemetery located between Washington and Liberty Streets, directly in the path of this leg of the loop. Although long recognized as an obstacle in completing the loop, no satisfactory alternative has yet been developed. Therefore, the northwestern portion of the loop must still be regarded as a very long-range, questionable component.

Short Range Program

The multi-phased and varied certainty of the many elements required to complete the circulation system pose difficulties in planning for the immediate elements of the Downtown Development Program. After several meetings, at which the many options were discussed, it was agreed that the development program should be based on those elements which were relatively certain and/or which could be achieved in the near future to the advantage of downtown development. The result
is the short-range circulation program described below (see Figure No. 1) which represents the first phase of the potential ultimate plan. The short range program includes the following components in addition to the existing street system.

a. The street improvements included in the MetroSouth Renewal Project.

b. A new exit ramp from Route 9 for northbound traffic connecting to River Road and an improved connection from River Road to Union Street. This improvement could proceed other changes in Route 9 and would enhance access to the southern end of downtown.

c. Extension of DeKoven Drive to Napallo Avenue.

d. Widening of Washington Street as included in the TOPICS program.

e. The short range program assumes that the remainder of Route 9 will continue to function as it now does, including the signalized intersection at Washington Street and the southbound exit ramp at William Street.

**Required Design Decisions**

Even to implement the short range program, several decisions as to street design and function must be resolved almost immediately. Since these designs will affect the ultimate plan as well, they should be the subject of detailed study beyond that which was possible within our work program to insure that decisions are based on the best available information.

As part of our preliminary traffic analysis, we did the following:

1. Using available traffic count data, developed a traffic volume map for the area;

2. Based on these counts, numbers of parking spaces, and the existing street pattern, made a series of assumptions of the travel paths of the major movements;

3. Established the new alternate street circulation systems, utilizing first clockwise, then counterclockwise, oneway circulation on Broad Street and DeKoven Drive;
4. Reassigned the traffic movements to the two alternate circulation plans; and
5. Identified the advantages and disadvantages of the two plans, based on various factors including street volumes, total turns, conflicting turning movements, possible signal requirements, access to and from Route 9, etc.

a. The Loop — Originally the downtown loop was conceived as two-way streets encircling the retail core. The plans for the MetroSouth Renewal Project were based on that assumption. The latest plan put forth by the Planning and Zoning Commission suggests that Broad Street function as a one-way street northbound and DeKoven Drive as a one-way street southbound, thereby creating a one-way loop operating in a clockwise direction. The clockwise pattern was apparently suggested to reduce conflict of entering and exiting traffic at parking lots fronting on the loop and because right turns around the loop would be easier than left turns.

We have serious reservations about the function of the one-way loop as proposed. The major difficulty results from the fact that all connections to the loop are via two-way streets and the north and south legs of the loop (for the short range) are also two-way streets. Therefore, the clockwise flow requires that all traffic entering the loop must cross that leaving the loop and vice-versa. Since these movements are likely to have the heaviest volumes, the potential for congestion at the intersections is increased.

Normally, the transition from a two-way to a one-way system is accomplished via a counter clockwise movement. In this manner, cross traffic at the transition point is eliminated, as shown on the attached diagram (Figure 2). For instance, the extension of DeKoven Drive to Rapallo Avenue, under a clockwise system, would require a left turn across Main Street to get on the loop with a counter clockwise flow traffic would make a right turn from Rapallo onto Main Street. Although
left turns are required to negotiate within the loop, since they take place on one-way streets conflict is not as great as would normally occur. Although traffic conflict at parking lots may be greater if a common exit-entrance is used, this problem can be avoided by separating exits and entrances and using side streets as shown in Figure 3.

Within the scope of our work program, we were only able to undertake very preliminary analysis of this problem. This analysis seems to indicate that a counter clockwise system would have advantage over the proposed clockwise plan. However, there are other considerations relating to existing and proposed treatment of Route 9 as well as other aspects of the circulation system that have a bearing on this problem. We believe that a thorough, detailed analysis of traffic flow as related to the loop and Route 9 is required before final decisions are made that will have long lasting effect on the circulation plan for downtown. In addition to the one-way loops, the use of two-way streets should also be evaluated.

b. **Main Street** - The design of Main Street between Washington Street and Union Street has been the subject of many varied proposals ranging from complete closing to creation of three moving lanes in either direction. It has been acknowledged for at least fifteen years that the present layout with angled parking is an inefficient, unsafe design. It is important that a plan be agreed upon soon for two reasons:

1. **Traffic plans must be based on a definite design for Main Street;**
2. **Development of parcels with Main Street frontage in the MetroSouth project will be affected by the design of Main Street.**

The problem with Main Street now is that it is used for two separate functions -- traffic movement and parking -- in such a way that it does neither well. The Planning and Zoning Commission's most recent plan
calls for this section of Main Street to be a parking lot with access prohibited at either end (although exits would be provided). This design would eliminate through traffic on Main Street between Washington Street and Union Street. Although curing Main Street’s “split personality”, we believe this solution may complicate traffic flow downtown. The one-way loop (in either direction) would require motorists to travel a very circuitous route to get to many destinations. For example, under the clockwise plan, a motorist coming from the south on Main Street Extension bound for the Skating Rink in Block 15 would have to go left on Union Street, right on Broad Street, right on College Street and right on DeKoven Drive to reach his destination. Since the purpose of an improved circulation system for downtown is to make the motorist’s trip easier, closing Main Street for even internal circulation may pose problems. On the other hand, designing Main Street to handle two, or even three, lanes of traffic in both directions tends to work at cross purposes with the concept of the loop and the objective of making Main Street more attractive to shoppers, since it will encourage its use.

Therefore, the appropriate solution seems to be one which permits Main Street to serve as both a component of the circulation system and a place for parking— but not to the extent of each as it does presently. The proposed downtown development program will work toward that objective. The completion of the loop south of Washington Street will provide suitable alternatives for at least some motorists who now use Main Street. Increased off-street parking will relieve some of the pressure to park on Main Street. If, as proposed, off-street parking is free, continued use of motors on Main Street would tend to confine its use for short term parking use. The design of such a solution should eliminate the conflict of angle parking – perhaps by use of dividing islands,
or by narrowing the pavement and allowing only parallel parking. The function and design of Main Street must be a product of the necessary downtown traffic study.

Off-Street Parking

Ample, easily accessible off-street parking is an essential component of the Downtown Development Program. Our work program included review and refinement of the parking program prepared by the City Plan staff for the Municipal Development Committee in December 1971 and the proposed immediate program to provide 500 parking spaces to serve the Activities Center and an additional 500 parking spaces to serve the remainder of downtown.

a. Total Parking Demand

We first attempted to refine the analysis of total parking demand which was included in the City Plan Commission study. On the basis of a rough computation for the entire urban area, the City Plan study projected a deficit of some 300 parking spaces. We re-evaluated this finding based on existing data as to present parking spaces and floor area utilization in downtown provided by the Municipal Development Committee staff. Existing parking in each block in the downtown was compared to demand on the basis of 3.5 spaces for each 1,000 square feet of floor area used for commercial or office purposes, considered to be a reasonable average demand level for the various type uses involved. The results were tabulated in the following table; (block letters refer to the map in Figure 4)
<table>
<thead>
<tr>
<th>Block</th>
<th>Floor Space (square feet)</th>
<th>Existing Parking Spaces (public and private)</th>
<th>Required Parking Spaces</th>
<th>Surplus (+) Deficit (-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>62,351</td>
<td>260</td>
<td>222</td>
<td>+ 38</td>
</tr>
<tr>
<td>B</td>
<td>134,501</td>
<td>260</td>
<td>471</td>
<td>- 211</td>
</tr>
<tr>
<td>C</td>
<td>61,791</td>
<td>85</td>
<td>216</td>
<td>- 131</td>
</tr>
<tr>
<td>D</td>
<td>16,586</td>
<td>20</td>
<td>58</td>
<td>- 38</td>
</tr>
<tr>
<td>E</td>
<td>4,918</td>
<td>55</td>
<td>18</td>
<td>+ 37</td>
</tr>
<tr>
<td>F</td>
<td>22,222</td>
<td>23</td>
<td>78</td>
<td>- 50</td>
</tr>
<tr>
<td>G</td>
<td>12,718</td>
<td>23</td>
<td>46</td>
<td>- 22</td>
</tr>
<tr>
<td>H</td>
<td>30,315</td>
<td>41</td>
<td>106</td>
<td>- 65</td>
</tr>
<tr>
<td>I</td>
<td>82,024</td>
<td>125</td>
<td>237</td>
<td>- 162</td>
</tr>
<tr>
<td>J</td>
<td>169,252</td>
<td>360</td>
<td>582</td>
<td>- 222</td>
</tr>
<tr>
<td>K</td>
<td>156,644</td>
<td>551</td>
<td>548</td>
<td>+ 3</td>
</tr>
</tbody>
</table>

TOTAL 754,322 1,808 2,631 - 823

As the table illustrates, the total deficit in parking spaces is approximately the same as computed by the City Plan staff. As might be expected the deficit is not evenly distributed - in fact some blocks have an apparent surplus. It is also obvious that parking in one block may serve uses in adjacent blocks. However, the overall deficit is substantial, and is particularly concentrated in the four quadrants of the Main Street - Washington Street intersection - blocks B, C, I and J.

The above analysis does not include demand that will be generated by the Activities Center components or by new development in the MetroSouth Renewal Project. These elements are discussed below.

b. Parking Program

The parking program for downtown Middletown can be divided into three parts:
(1) **Immediate Parking Program** - A plan to provide additional parking to serve the business area from College Street to Grand Street has been developed within the cost limits included in the proposed municipal bond issue - $2,500,000. On the basis of cost data included in the City Plan report, six new or expanded off-street parking lots have been identified. The cost of these lots includes land acquisition, relocation, demolition, paving of surface lots and related improvements. The results of the proposed plan are included in the following table:

(See Figure 1 for lot locations)

<table>
<thead>
<tr>
<th>Lot</th>
<th>Existing Spaces (public and private)</th>
<th>Proposed Spaces</th>
<th>Net Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>133</td>
<td>238</td>
<td>105</td>
</tr>
<tr>
<td>3</td>
<td>120</td>
<td>144</td>
<td>24</td>
</tr>
<tr>
<td>4</td>
<td>30</td>
<td>77</td>
<td>47</td>
</tr>
<tr>
<td>5</td>
<td>20</td>
<td>93</td>
<td>73</td>
</tr>
<tr>
<td>6</td>
<td>--</td>
<td>87</td>
<td>87</td>
</tr>
<tr>
<td>7</td>
<td>20</td>
<td>124</td>
<td>104</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>323</strong></td>
<td><strong>763</strong></td>
<td><strong>440</strong></td>
</tr>
</tbody>
</table>

(2) **Future Parking Needs** - The immediate parking program to be financed from the proposed bond issue will provide about half the spaces required to eliminate the computed total parking deficit. It will also provide the opportunity to meet the ultimate parking needs downtown. The immediate program will provide only surface parking. We do not believe, however, that additional valuable downtown property should be acquired for future parking. Rather, future parking needs should be met on existing parking lots through decking. Therefore, three of the most critically located lots (numbers 2, 3 and 7) are of a size and shape to allow decking in the future, at such time as demand requires and financing permits. A single deck over each of the three lots would
add approximately 400 parking spaces. At an average cost of about $3,500 per space, this would require an expenditure of about $1,400,000. However, each lot could be deeded individually and the costs spread over a longer period.

Parking for the Activities Center - It has been projected that the Activities Center components will generate a demand for about 500 parking spaces. To provide these spaces efficiently in close proximity to the Activities Center components, the plan provides spaces in two areas. Approximately 108 surface spaces will be provided adjacent to the Middlesex Theatre. A third deck with approximately 270 spaces will be added to the Riverview Center parking structure. Since the peak hours for use of the Activities Center components will often occur during the off-peak period for other downtown uses, other adjacent parking areas will also be available. Conversely, during off-peak periods for the Activities Center, the parking allocated to it will be available to meet the peak demands of the adjacent business area. The new development on Block 15 in the MetroSouth project will include its own parking and, therefore, be self-supporting. It is important that a careful plan for allocating and operating parking spaces in this area be developed to avoid potential conflicts.
THE ACTIVITIES CENTER

The basic components of the Activities Center were recommended in the Lillyman Report - an ice skating rink, an exhibition hall and rehabilitation of the Middlesex Theatre. Our work program was directed toward the development of a preliminary design concept for these elements and incorporating them into the proposed development plans for Block 15 and the theatre area in the MetroSouth Renewal Project.

The plan for the theatre area, naturally, involves the treatment of its immediate surroundings since the location is already fixed. The ice skating rink and exhibition hall, however, must be planned in close coordination with proposed private development on Block 15. To be most effective, in terms of complementing downtown activities, these elements should be an integral part of the major development proposed for this area. Therefore, a plan has been developed which integrates both buildings into the preliminary development proposal submitted by Carabetta Enterprises. This plan was developed after consultation with the architect who prepared the development proposal. However, it must be stated that no commitments to the plan were made by Carabetta Enterprises. Furthermore, it must be recognized that, due to the inter-relationships of the Activities Center elements and the private development, they must be designed concurrently. Consequently, if plans for the private development change as they are refined, the Activities Center plans will have to be modified accordingly.

1. The Theatre Area

The plan for the theatre area is aimed at providing an attractive setting for the restored Middlesex Theatre and improving its relationship to Main Street and the other two Activities Center components. A plaza is suggested at the corner of College Street and Main Street from which a new entry lobby would connect to the theatre and which would provide a visual link between the theatre and Block 15. Within the "opl" formed by the theatre on College Street, a small building, which might include shops and theatre related activities, would be located to form an enclosed court between the theatre and could also be used for outdoor exhibits. To the south of the theatre a surface parking lot is located with direct access to the theatre entrance.
2. The Skating Rink and Exhibit Hall

The development program proposed in the Lillyman Report called for a skating rink of sufficient size to include a full size hockey rink (200 by 85) and related facilities plus a 14,000 square foot exhibit hall. Furthermore, both elements were to be connected and the floor levels at the same elevation so they could be combined for single use as required. It was also suggested that the exhibit hall be located close to the proposed motor inn to create the opportunity for mutual sharing of facilities.

Based on this development program, a site plan was prepared to incorporate these elements into the plan submitted by Carabotta Enterprises in such a way as to require the minimum amount of change in that plan (See Figure 5). The skating rink and exhibition hall have been located on the south end of the major central plaza proposed for the Block 15 development in such a way as to have access and visibility from it without occupying very much valuable commercial frontage. The exhibition hall will be visible from two points on Main Street and is adjacent to the motor inn. The entrance to the ice skating rink is also from the plaza but the major bulk of this large building does not take up plaza frontage. The eastern end of the rink would be on DeKoven Drive with a second entrance for automobile or bus loading and unloading. Service to both elements would take place from a separate driveway on the south end of the complex.

Thus, the activities center components are an integral part of the entire proposed multi-use downtown complex but are also situated so they can function independently when necessary. A series of drawings was prepared to illustrate the design concepts. However, both engineering and architectural study must be undertaken before the actual design of these buildings can be determined. An aspect requiring particular attention for public as well as private development is the relationship of buildings at plaza level to the parking decks below. Since the skating rink is at the southern end of the main development area, it may be possible, through changes in levels, to build it on grade. If the basic premise on which the Carabotta proposal is based, parking under a plaza covering most of the site, is changed, many elements of the entire complex will undergo substantial modifications.
Proposed Middletown Activities Center
Middletown, Connecticut
prepared by the Municipal Development Committee
by Raymond Penix & Pines, Inc.

Middletown Activities Center
Ice Skating Rink & Activities Center
Proposed Middletown Activities Center
Middletown, Connecticut
Presented to the Municipal Development Committee
by Raymond Nash & Sons, Inc.

M.A.C. Entrance Plaza
3. Survey of Other Comparable Ice Skating Rinks

In order to gain a better understanding of space requirements and costs related to skating rinks we undertook a survey of other ice skating rinks in New England comparable to the facility proposed for Middletown.

The trade magazine, Audaren Stadium - Fall 1972, was used to gather information regarding skating facilities with regulation size rinks (200' x 85') and approximately 1,000 seats. Telephone calls were made to selected facilities listed in Audaren Stadium as well as other facilities known to the consultant. The attached list is not meant to be all inclusive, but is intended to provide a general overview of space needs and costs of skating facilities constructed in the area in recent years.

Initial Costs

Generally speaking, the current trend in the New England area tends to place construction costs for a standard 200' x 85' artificial ice skating rink with the usual supporting facilities at approximately one million dollars. This figure may fluctuate in relation to the subsurface soil conditions and the availability of the required facilities as well as the extent of equipment.

Operating Cost

Most public rinks try to operate under a "wash budget" that is, fee structures are set to equal annual operating expenses. West Hartford's rink, similar to the one proposed for Middletown, has a $160,000 annual budget and money collected from general admissions and ice rental offset this amount. West Hartford charges 50¢ per 2-1/2 hour session for resident children until 6 pm. Resident adults pay $1.00. After 6 pm children pay $1.00 and adults pay $1.50. Group rental rates average $40.00 per hour. The manager at the West Hartford rink mentioned that private rinks usually charge twice the amount West Hartford does.
Location of Facility

Towns have built ice rinks in many different locations. These communities, West Haven, East Haven, and Hamden have built them as additions to their schools. New Britain, West Haven, New Haven and Hartford have built rinks in the Central Business Districts. Private rinks are often located on heavily traveled roads which are usually commercial strips. One private rink in Westborough, Massachusetts, is located in an industrial park and the building is so designed that it could easily be converted to manufacturing, warehousing, or refrigeration storage. New Britain is hoping to avoid the costly problems of proper subsurface preparations by locating its rink in an above ground level of a parking garage.

Most managers the Consultants spoke with felt a downtown location for a rink would be satisfactory if soil conditions are adequate, land is not terribly expensive, the site is served with public transportation, adequate parking is provided, and the facility is readily accessible.

Parking

When asked, what is a reasonable parking standard for ice rinks, responses varied tremendously. One rink manager mentioned that during the daytime ice rinks do not usually require many parking spaces as youngsters without cars use the facility. Other managers disagreed claiming this is true only on weekends. They felt from 9 am in the morning until 3 pm in the afternoon adults with cars use the facility. From 3 pm to 8 pm youngsters use the rink. From 8 pm to midnight the adults are back. These managers have found that unless the rink is located on a bus route, youngsters generate as many cars as adults.

One manager said there should be one parking space for every three seats in the facility as the seats generate peak usage. However, seating in public ice rinks can range from 4,000 - 5,000 down to zero and in rinks with no seats there is obviously a need for parking spaces. Another way to calculate parking need would be to analyze the average number of people who might be using the building at one time.
In West Hartford's Public Rink, the maximum number of people who can be on the ice at one time is 525 as per order of the fire marshall. (Based on a standard of one person per every 30 sq.ft. of ice.) Parking standards could be developed from similar capacity capabilities.

The Middletown Zoning Code calls for one parking space for every seven seats in an arena, stadium or recreation complex. The Lillyman Report recommends that 1,000 fixed seats be installed in the Sports Center. If the Zoning Code is applied, the Sports Center will require 143 parking spaces.

In addition to the ice rink, the Middlesex Theater has 1,100 seats which would require 157 parking spaces. The Zoning Code also calls for one parking space for each 100 sq.ft. of floor area in buildings housing recreational establishments other than those covered above. Lillyman projected an Assembly Center of 14,000 sq.ft. The facility would require 140 parking spaces. The Zoning Code requires one parking space for every two employees. The Lillyman Report projects six full time employees for all three buildings with part time help as needed. If we assume eight employees as an average work force, four parking spaces would be needed. Thus, the Sports Center, Middlesex Theater and Assembly Center will require a minimum of 444 parking spaces.

Seasons in Use

Most private rinks are open all year. If the building has been built with an adequate air conditioning and refrigeration plant year-round, operation is no problem. West Hartford has tried year-round skating but found in the summer months operating costs go up while attendance concurrently declines. For this reason the season was shortened to September through April. From May to August the rink is converted into a youth center with ping-pong tables, game machines, pool tables, badminton, shuffle-board and juke boxes installed. Most managers feel that it is good to shut the rink for some period of time each year for general maintenance of the pipes, ice subsurface, etc.

Grants from State Board of Education

The State Board of Education through its Bureau of School Buildings makes available school construction grants to communities to build either new school facilities or make additions or alterations to existing structures.
Ice skating rinks are one of the facilities which are eligible under the grant program if the community can prove that skating will be a vital part of the educational program.

Grant Formula

a. **New Building**

The State Board of Education determines for purposes of state aid, the number of pupils a building or facility is designed to accommodate (pupil stations). The maximum number of students that the State would allow per skating rink is 100. The 100 students are multiplied by a base figure of $1,400 per pupil to arrive at a maximum grant of $140,000 for an ice rink in a new building.

b. **Addition to Existing Building**

If the ice rink is to be added to an existing educational building, the State will pay 50% of the total project cost.

It is obvious that if a community wishes to utilize State Board of Education construction grants to build an ice rink it would receive a much larger grant if the facility is added to an existing building. If, for example, the rink is to cost one million dollars, and if the rink is to be part of a new school building, the largest grant the community would receive is $140,000. If, however, the rink is added to an existing school building, the grant will be $500,000 or 50% of total project costs.
<table>
<thead>
<tr>
<th>Owner-Name &amp; Location</th>
<th>Year Built</th>
<th>Cost</th>
<th>Rink Size</th>
<th>Building Size</th>
<th>Seats</th>
<th>Other Facilities</th>
<th>Comments</th>
<th>Person Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Wesleyan Univ. Middletown, Ct.</td>
<td>1970</td>
<td>$1.35M</td>
<td>200x85</td>
<td>48,000 sq. ft.</td>
<td>2,000</td>
<td>2 locker-rooms, trainer's room, offices, storage room, first aid, 2 concessions, press box, meeting room</td>
<td>Garage doors for indoor-outdoor skating-350 cars</td>
<td>Mr. Mitchell 347-9411</td>
</tr>
<tr>
<td>Private Chico School Wellingford, Ct.</td>
<td>1964</td>
<td>$220,000</td>
<td>200x85</td>
<td>251x120</td>
<td>600</td>
<td>Separate machine room</td>
<td>Used to be open to public, had to close out public, open 5a.m.-11p.m. 7 days</td>
<td>Mr. Nuzzo Business Manager</td>
</tr>
<tr>
<td>Private Cheshire Skating Rink, Cheshire, Ct.</td>
<td>1973</td>
<td>$900,000</td>
<td>200x85</td>
<td>290x110 &amp; 85x50 ft.</td>
<td>800</td>
<td>Restaurant, Pro Shop, Snack Bar, Mezzanine, Offices</td>
<td>2 floors Mezzanine &amp; offices upstairs</td>
<td>Mr. Leech, Owner 272-7788</td>
</tr>
<tr>
<td>Private Amherst College Rink, Amherst, Mass.</td>
<td>1966</td>
<td>$400,000</td>
<td>200x85</td>
<td>280x130</td>
<td>1,400</td>
<td>2 locker-rooms, office, officials dressing room, area could be a pro or skate shop</td>
<td>Built in 2 stages 1955-outdoor 1966-indoor</td>
<td>Mr. McCaba, Director Athletics 413-542-2273</td>
</tr>
<tr>
<td>Public Springfield Park Dept., Springfield, Mass.</td>
<td>1972</td>
<td>$650,000</td>
<td>200x85</td>
<td>240x140</td>
<td>800</td>
<td>Lobby, changing room, office, bag room for shoes, pro shop, machine room, Zamboni Room</td>
<td>Massachusetts Grant Program-large operating expenses, i.e. patronage</td>
<td>Baldwin Lee 413-2181</td>
</tr>
<tr>
<td>Public West Haven High School, West Haven, Ct.</td>
<td>1968</td>
<td>$800,000</td>
<td>200x80</td>
<td></td>
<td>1,500</td>
<td>Locker-rooms, skate shop, food concession, mechanical storage room</td>
<td>Built with State Grant-only 50% because a separate building</td>
<td>Mr. Stevens 269-3244</td>
</tr>
<tr>
<td>Public East Haven Middle School, East Haven, Ct.</td>
<td>1973</td>
<td>$1M</td>
<td>200x85</td>
<td>240x138</td>
<td>600</td>
<td>2 team locker rooms, 2 box rooms, offices, first aid, lobby, toilets, Zamboni Room, food area</td>
<td></td>
<td>Mr. Stevens 269-3244</td>
</tr>
</tbody>
</table>

Built with State Board of Education Grants
<table>
<thead>
<tr>
<th>Name &amp; Location</th>
<th>Year</th>
<th>Built</th>
<th>Cost</th>
<th>Rink Size</th>
<th>Building Size</th>
<th>Seats</th>
<th>Other Facilities</th>
<th>Comments</th>
<th>Person Contacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Haven Redevelopment Area, West Haven, Ct.</td>
<td>1974</td>
<td>5M</td>
<td>$900,000</td>
<td>200x85</td>
<td>200x85</td>
<td>2000</td>
<td>8 tennis courts, handball courts, 2 squash courts, 2 platform tennis courts, health club, sauna bath, swimming pool, steam room, gym, 2 theaters, restaurant</td>
<td>Mr. Frank feels a decent rink will cost 1-1.5 M</td>
<td>Mr. Michael Frank</td>
</tr>
<tr>
<td>Williams College, Williamstown, Mass.</td>
<td>1953-1967</td>
<td>900,000</td>
<td>200x85</td>
<td>240x140</td>
<td>2000</td>
<td>4 team rooms, snack bar, lobby, Zamboni Room, artificial turf laid for 4 tennis courts</td>
<td>Mr. Wm. McCormick - Hockey Coach</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sudbury Ice Center, Sudbury, Mass.</td>
<td>1972</td>
<td>1.6M</td>
<td>$150,000</td>
<td>185x85</td>
<td>200x120</td>
<td>500</td>
<td>Lobby, pro shop, nursery, snack bar, offices, cocktail lounge, 2 locker rooms, sauna, 4 tennis courts</td>
<td>David Hurley, Owner</td>
<td></td>
</tr>
<tr>
<td>Ridge Line, Braintree, Mass.</td>
<td>1965</td>
<td>880,000</td>
<td>200x85</td>
<td>240x125</td>
<td>3000</td>
<td>Exhibit &amp; floor area over ice 17,000 sq. ft., portable stage</td>
<td>Parking 1250 cars</td>
<td>Mr. Ridge 617-813-9000</td>
<td></td>
</tr>
<tr>
<td>George Wallace Civic Center, Fitchburg, Mass.</td>
<td>1970</td>
<td>2.8M</td>
<td>$100,000</td>
<td>200x85</td>
<td>200x85</td>
<td>4500</td>
<td>Utility floor for basketball, concerts, parties, locker rooms, storage areas</td>
<td>Facility was donated to the Town</td>
<td>Manager 617-315-7593</td>
</tr>
<tr>
<td>Weymouth Skating Club, Weymouth, Mass.</td>
<td>1954</td>
<td>$740,000</td>
<td>200x85</td>
<td>240x126</td>
<td>1800</td>
<td>4 dressing rooms, snack bars, pro shop, skate shop</td>
<td>Parking 2000 cars</td>
<td>617-337-5300</td>
<td></td>
</tr>
<tr>
<td>West Suburban Arena, Natick, Mass.</td>
<td>1970</td>
<td>740,000</td>
<td>200x85</td>
<td>240x126</td>
<td>1800</td>
<td>8 locker rooms, first aid, 3 garages, 2 snack bars, pro shop, 2 offices, 1 machine room</td>
<td>Parking 288</td>
<td>Bill Chase, Owner 617-695-1014</td>
<td></td>
</tr>
<tr>
<td>North Shore Sports Center, Lynn, Mass.</td>
<td>1940</td>
<td>250,000</td>
<td>190x85</td>
<td>240x120</td>
<td>2000</td>
<td>Offices, meeting room, lockers, concession stand</td>
<td>Mr. Garren, Owner 617-588-2650</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name &amp; Location</td>
<td>Year</td>
<td>Cost</td>
<td>Rink Size</td>
<td>Building Size</td>
<td>Seats</td>
<td>Other Facilities</td>
<td>Comments</td>
<td>Person Contacted</td>
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<tr>
<td>Wochester County</td>
<td>1967</td>
<td>1.2M</td>
<td>200x85</td>
<td>200x85</td>
<td>800</td>
<td>1 rink concrete, 1 sand parking 450 cars</td>
<td>Located in an Industrial Park can be converted to a warehouse</td>
<td>Mr. Gunnar Jacobson Mer. Rink Managem Servicos Inc.</td>
<td></td>
</tr>
<tr>
<td>Hamden High School</td>
<td>1967</td>
<td>650,000</td>
<td>200x85</td>
<td>250x135</td>
<td>800</td>
<td>Lobby, skat room, warming room, 2 locker rooms, first aid room, custodians &amp; mechanical room</td>
<td>Mr. Carasone Asst. Superintenden 280-8473</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canton Ice Rink</td>
<td>1973</td>
<td>1.1M</td>
<td>185x80</td>
<td>225x120</td>
<td>1,800</td>
<td>4 locker rooms, showers, skate shop, snack bar, conference room, garage</td>
<td>2 floors</td>
<td>Mr. Catrel, Super. 617-824-4342</td>
<td></td>
</tr>
<tr>
<td>Wattham Ice Rink</td>
<td>1973</td>
<td>1M</td>
<td>200x85</td>
<td>240x120</td>
<td>none</td>
<td>Warming room, Zamboni Room, first aid, office</td>
<td>30 cars</td>
<td>617-893-9409</td>
<td></td>
</tr>
<tr>
<td>Somerville Ice Rink</td>
<td>1970</td>
<td>799,450</td>
<td>200x85</td>
<td>240x125</td>
<td>none</td>
<td>Lobby, skate shop, office, snack bar, office, employees room</td>
<td>Mr. George Hughes 617-625-9717</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arlington Ice Rink</td>
<td>1969</td>
<td>858,400</td>
<td>200x85</td>
<td>220x120</td>
<td>none</td>
<td>Skate shop, snack bar, warm-up room, office</td>
<td>Mr. Wm. Palasca 617-643-7866</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Veteran's Memorial</td>
<td>1968</td>
<td>618,000</td>
<td>185x80</td>
<td>220x125</td>
<td>600</td>
<td>2 locker rooms, showers, snack bar, pro shop, skate shop, pro lounge, Zamboni, Room, mech, rooms</td>
<td>Annual budget-operating of approx. $160,000, 3 full time men plus a part-time staff of guards, cashiers, etc., used in summer as youth center, 75 cars not enough, ice capacity-1 person per 30 sq.ft. of ice, (666 persons on a 200x85 rink)</td>
<td>Mr. Arndt, Manager 236-3231</td>
<td></td>
</tr>
</tbody>
</table>

Built with State Board of Education Grants.
PRELIMINARY COST ESTIMATES

A preliminary budget for the entire Activities Center/Off-Street Parking Program has been developed on the basis of data from a wide variety of sources. Since many of the estimates have been prepared without the benefit of specific plans, it must be recognized that they are quite tentative in nature. However, there are so many elements and so much potential flexibility included in the entire program that, with careful monitoring of costs, it should be possible to keep total expenditure within the projected budget of $7.1 million. To do so, however, may require reduction or elimination of certain elements of the combined program. Therefore, the next step should be a complete, more detailed analysis of all costs so that any necessary modifications can be made prior to any final commitments to specific activities.

The following table summarizes the preliminary budget. Footnotes to the table indicate the source of each cost estimate.

**Preliminary Budget Summary**

**Parking**

1. Activities Center
   - Third deck on Riverview\(^{(a)}\) $90,000
   - Theatre Lot \(^{(b)}\) 100,000
2. Other downtown lots \(^{(c)}\) 2,450,000
   **Total** $3,510,000

**Activities Center**

1. Theatre \(^{(d)}\) $900,000
2. Exhibit Hall \(^{(e)}\) 490,000
3. Skating Rink \(^{(f)}\) 1,000,000
   **Subtotal** $2,390,000

**Architecture and Engineering @ 10%** $590,000

**Contingencies @ 10%** $650,000

**Total** $7,150,000
Source of Cost Estimates

(a) 96,000 sq. ft. of deck @ $10/sq. ft. = $960,000
(b) 108 parking spaces @ 900/space + land = 100,000
(c) Estimate derived from costs included in the Parking Program prepared by the City Plan staff (includes all costs related to acquisition and development of surface lots 2-7 as indicated) = 2,450,000
(d) Cost estimated by T.J. Palmer = 900,000
(e) 14,000 square feet @ $35/sq. ft. = 490,000
(f) Based on survey of comparable rinks by RPP, including equipment = 1,000,000
OTHER PLAN ELEMENTS

1. The Waterfront

An improved connection from downtown to the Connecticut River has long been a planning objective in Middletown. As part of our work we have indicated a possible location for a pedestrian bridge over Route 9 to an improved waterfront park area utilizing two existing city owned buildings as a nucleus. As in the past, the cost of such a bridge is the major obstacle.

A connection to the river already exists at the tunnel behind the Municipal Building. Because of its location and design, however, it is little used. When Route 9 is improved, this tunnel will undoubtedly be eliminated or require major modification. We would suggest that at such time, the State DOT be requested to replace the existing connection to the river with a bridge at the suggested location. This would be a replacement of an existing facility and should be absorbed as part of the cost of highway construction.

2. The Historic South Green Area

When Church Street and Broad Street are realigned, the South Green will be modified as to shape and location, providing an opportunity to enhance its use and appearance. It will no longer be an island surrounded by heavy traffic, but will be directly related to the institutional uses on the northside of Church Street and much more accessible from Main Street.

The character of Main Street south of William Street will also change through the elimination of commercial uses and the restoration of historic buildings moved to the west side of Main Street, adjacent to the green.

Redesign of the green should be directed toward increasing its use as a place for sitting and passive recreation in contrast to the busy downtown activities to the north. Grass and landscaping should provide contrast to the pavement of downtown. The existing and relocated buildings around it should help create a more residential scale to demarcate the end of the business area.
Study Team

The study team for Raymond, Parish and Pine on this project is listed below:

   Supervising Principal - Samuel W. Pine, Senior Vice President
   Project Director - Daniel Shuster, Vice President
   Graphic Design and Illustrations - Anthony Camisa
   Design Coordinator - Casba Teglas
   Planning Analysis - Charles J. Gibbons, Jr.
   Traffic Circulation - John Sarna, Assistant Director,
                          Transportation Planning Group

Important contributions to this study were made by many city staff and officials, and in particular:

   William Kuehn, Development Coordinator
   Joseph Haze, Executive Director of the Middletown Redevelopment Agency