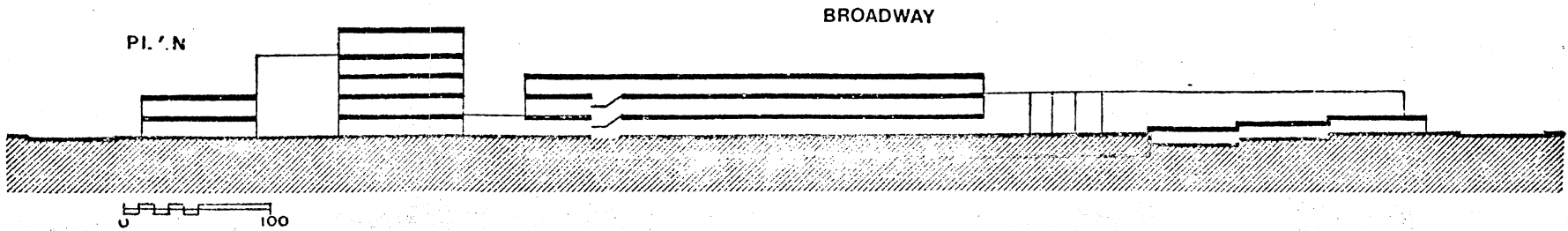
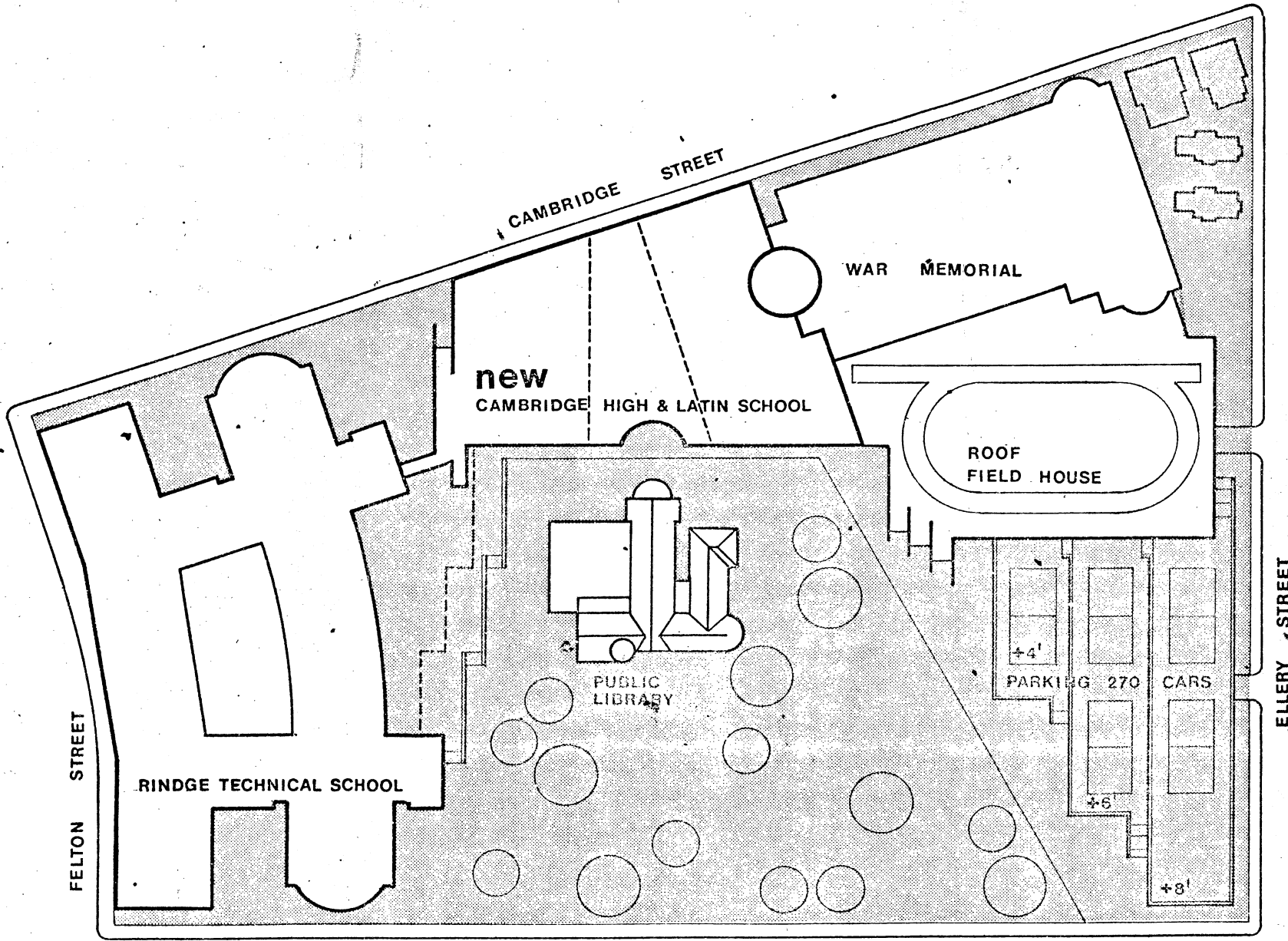


STUDY A 2

MODERNIZATION OF RINDGE  
NEW HIGH & LATIN SCHOOL



A REPORT TO THE SCHOOL COMMITTEE

This report has been prepared to provide members of the School Committee with information about the following options:

1. Modernization of Rindge and CHLS (1940 addition)  
Cost to City: \$ 6,027,478.50
  2. Modernization of Rindge and a new CHLS Building  
Cost to City: \$ 6,382,419.00
- Difference in cost in favor of 1: \$ 354,940.50

SUBJECTS FOR COMPARISON:

1. Education
2. State Approval
3. Scheduling of Classes
4. Schedule of construction
5. Construction cost
6. Taxes
7. Use of the land behind the Public Library
8. Site expansion
9. Conclusion

GENERAL

Since both options propose the modernization of Rindge, the following comments are confined to CHLS, modernized or new.

EDUCATION

1. A new School, because of its proposed physical connection to Rindge, will allow:

a. The unification of expensive facilities:

|                  |           |
|------------------|-----------|
| Media Center:    | 16,000 sf |
| Auditorium:      | 14,625 sf |
| Performing Arts: | 10,425 sf |
| Art Center:      | 8,525 sf  |
| Kitchen:         | 6,675 sf  |
| Net area         | 56,250 sf |
| Gross area 45%   | 25,312 sf |
| TOTAL            | 81,562 sf |

b. All weather circulation, the sharing of all programs and a relation to the War Memorial and the new Field House.

c. Educational integration. The proposed physical continuity allows better planning of the facilities. The flexibility offered by modern unrestrictive structures increases openness and the possibility of change. Large spaces will be possible for new career-vocational programs.

d. A functional relation between the auditorium stage and the programs of performing arts - impossible to achieve around Cleveland Auditorium.

Deficiencies of Cleveland Auditorium:

- Too large and inefficient to be economically and functionally modernized: Cost of modernization \$45/sf. Total cost: \$600,000.
- Too rigid in design to be subdivided into lecture halls as modern auditoriums allow. This limitation imposes the need for additional lecture halls at a cost of \$100,000.

- Poor access from the rest of the school. According to Mr. R. D'Arcy it takes 12 minutes to fill or evacuate the room.
  - Its illogical location interrupts the much needed continuity of circulation in the 4 floors of the classroom wings.
- e. Future expansion: 25%
  - f. Better interaction between programs and improved circulation. The new building can have 3 stories with continuous spaces, versus CHLS (1940) with 4 stories of discontinuous spaces.
  - g. Overall improvement of the physical environment since the interior planning is not restricted by the configuration of the present building.

STATE APPROVAL

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Based on the educational advantages listed above, in spite of only 5% of additional cost, State approval of the project is assured, contingent on their consent to preserve the School complex within its present location.

SCHEDULING OF CLASSES

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A new building will provide the following advantages:

1. The present CHLS - old, annex and addition - can continue in full operation during the construction of the new School. No double sessions are necessary.
2. In full operation it will be available to students from Rindge affected by its modernization.

SCHEDULING OF CONSTRUCTION

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|                                  |           |        |      |
|----------------------------------|-----------|--------|------|
| 1. Modernization of Rindge       | 1.8 years |        | 1977 |
| 2. Construction of new CHLS      | 2½ years  | Summer | 1977 |
| 3. Demolition of CHLS            | 2 months  | Summer | 1977 |
| 4. Completion of new Field House |           | Summer | 1978 |

NOTE: The modernization of Rindge, to be feasible, economical and accelerated, needs to be done in definite large vertical or horizontal sectors. The need to replace all the mechanical, electrical and plumbing systems while maintaining public safety makes it impossible to conduct a room by room operation.

CONSTRUCTION COST

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The small difference in construction cost between modernization of CHLS and a new building - 5% - is the result of the following factors:

1. Low design efficiency of CHLS. For every 100 sf of program needs there is a waste of 28 to 33 sf as compared to the efficiency of modern structures.  
Consequently in its 128,000 sf of "modernizable area" an average of 35,000 sf will be needlessly modernized.
2. Its physical separation from Rindge will not allow the unification of the programs described before, thus requiring an increase of area above that required in a program for unified buildings.
3. High modernization expenses in Cleveland Auditorium.
4. Heating Plant: a new heating plant is needed for the entire complex - Rindge, CHLS, Public Library and the War Memorial.  
A new building will allow the present plant to continue its operation and will avoid complex scheduling and problems of construction, operation and design.
5. Demolition of the Annex, located at the junction of two classroom wings in CHLS will interrupt a required circulation. To re-establish it will require the use of 8 classrooms - 2 per floor - for the construction of a temporary bridge on every floor across the corner of the inner court.
6. Larger insurance and contingency cost.
7. Restrictive schedule and zonification of work.
8. Smaller labor productivity.

## COMPARISON OF AREAS AND COST

|  | Modernization<br>of both<br>Schools | Modernization<br>of Rindge and<br>New CHLS |
|--|-------------------------------------|--|
| Const. Cost: Modernization,<br>furnishings and equipment   | 359,113 sf-\$30<br>\$10,773,390.00  | 231,062 sf-\$30<br>\$ 6,931,860.00         |
| Const. Cost: new bldgs/exp.,<br>furnishings and equipment  | 47,317 sf-\$48<br>\$ 2,271,216.00   | 145,027 sf-\$48<br>\$ 6,961,296.00         |
| Transportation Center<br>on Broadway                       | not<br>modernized                   | not<br>modernized                          |
| Field House  | 27,000 sf-\$35<br>\$ 945,000.00     | 27,000 sf-\$35<br>\$ 945,000.00            |
| Parking  | 200 cars/ gar.<br>\$ 700,000.00     | 200 cars/ gar.<br>\$ 700,000.00            |
| Tennis courts above parking                                | \$ 50,000.00                        | \$ 50,000.00                               |
| Athletic fields - 2 acres                                  | \$ 30,000.00                        | \$ 30,000.00                               |
| Demolition in purchased land                               | \$ 2,000.00                         | \$ 2,000.00                                |
| Demolition of CHLS   | \$ 110,000.00                       | \$ 220,000.00                              |
| War Memorial modernization                                 | \$ 200,000.00                       | \$ 200,000.00                              |
| Extra cost due to site restric.<br>& efficiency loss: 4-5% | \$ 600,000.00                       | \$ 600,000.00                              |
| Total Construction Cost                                    | \$15,681,160.00                     | \$16,620,156.00                            |
| Fees, cont., City expense: 8%                              | \$ 1,254,492.80                     | \$ 1,329,612.40                            |
| Total Building Cost  | \$16,935,653.40                     | \$17,949,768.40                            |
| Amt contributed by State 65%                               | \$11,008,174.00                     | \$11,667,349.00                            |
| Amt contributed by City 35%                                | \$ 5,927,478.50                     | \$ 6,282,419.40                            |
| Land acquisition by City 100%                              | \$ 100,000.00                       | \$ 100,000.00                              |
| COST OF PROJECT TO THE CITY                                | \$6,027,478.50                      | \$ 6,382,419.40                            |
| Difference in Cost   |                                     | \$ 354,940.50                              |
| Annual tax rate per \$1,000                                | -0.54                               | -0.47                                      |

## TAXES

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The building is to be financed by the new funds provided by the State as the result of new programs and facilities.

These funds, estimated at more than \$500,000 per year are above the ones presently received by the City, as confirmed by Mr. Brown, Assistant Superintendent of Schools, in a recent conversation with the Educational Planner, Dr. George Collins.

Such an amount will increase yearly as the result of a larger student enrollment in the new programs, as has happened in other communities, and because of inflation. These increases will have a positive effect since they will serve to finance a fixed construction expenditure.

Modernization of both schools

Annual tax rate decrease per \$1000: -0.54

Modernization of Rindge and new CHLS

Annual tax rate decrease per \$1000: -0.47

## USE OF THE LAND BEHIND THE PUBLIC LIBRARY

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The construction of the new School requires the use of the land behind the Public Library. This space will be compensated for by an equal amount of park left by the demolition of CHLS. Letters sent by the heirs of Frederick Rindge regarding the use of the site for a new school have been sent to Mr. Edward McCarthy, City Solicitor. His opinion has been forwarded to the School Committee on November 5, 1974.

## SITE EXPANSION

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The Plant Specialist of the School Building Assistance Bureau, Mr. Joseph Bishop, has made known, in a letter addressed to the Superintendent of Schools, his observations about the present site.

It is proposed in this report that the School Committee consider the acquisition of the site (0.75 acres) located across Cambridge and Ellery Streets on Howel Ave. Its acquisition cost has been included in the total construction and site cost.

7.

This site could be used for parking on grade - 100 cars - or for a two level parking garage with tennis or basketball courts and track on the roof. The roof could be elevated not more than 12 feet above street level.

If the first option is used, the City will reduce its total expenses by about \$250,000.

With this expansion, parking would not be necessary within the present site - thus enhancing the environment with the construction of an urban park.

#### CONCLUSION

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Because of its educational and economic significance, the option of modernization of Rindge and a new CHLS Building is recommended.

#### RECOMMENDED FUTURE ACTION

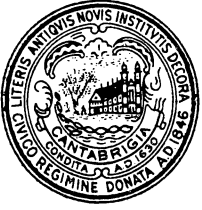
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1. Instruct Architect and Educational Planner to prepare the required information on general educational and architectural approach to the school renovations and on the site and its use and development for submission to the State School Building Assistance Bureau in order to receive official approval.
2. Upon such approval the School Committee needs:
  - a. To approve the Educational Program.
  - b. To request the City Council to appropriate funds for the preparation of schematic architectural plans and cost estimates to fulfill the needs of the Educational Program.
  - c. To submit such information to the many participating State Agencies prior to final approval by the State.

Respectfully submitted,

Eduardo Catalano

November 7, 1974



# CITY OF CAMBRIDGE

CAMBRIDGE, MASSACHUSETTS 02139  
Tel. 876-6800

EXECUTIVE DEPARTMENT  
JAMES L. SULLIVAN  
City Manager

November 25, 1974

To the Honorable, the City Council:

Enclosed for your information is a copy of the site and plan for a new high school facility which has been approved by the Cambridge School Committee.

Very truly yours,

James L. Sullivan  
City Manager

JLS/mbf  
Enc.

Agenda # 4 564

Site and Plan for a new High School.

In City Council,

November 25, 1974

11/25/74  
- Placed on File -