**Town of Reading**
**Reading Memorial High School Study and Schematic Design**
**FAI No. 2204.00**
**Work Plan - REVISED**

July 24, 2002

**Project Overview**
The purpose of the study is to explore the Town of Reading's options for accommodating the future High School educational program at the existing site.

The study will include a comprehensive review of existing building facility and systems, a review the High School program, development of the educational program, identification of building opportunities and deficiencies, and recommendations for improvements. Renovation alternatives will be evaluated, and a single option developed through schematic design. The specific scope and schedule for the project is outlined below.

- Meetings shall be bi-weekly, on Wednesdays, beginning July 20, 2002, through January 2003.
- An Architect's Report agenda will be prepared for each meeting by FAI and submitted through the Superintendent of Schools' office prior to the scheduled meeting.

**Task 1: Project Initiation & Work Plan**

- Visit Site with Consultants
- Establish Project Schedule
- Develop Work Plan (tasks to be performed; products; schedule; fee allocation)
- Initial Meeting with School Building Committee and Reading School Committee
- Initial Meeting with School Principal and School Superintendent
- Meet with Department Heads
- Gather available existing documentation

**Product:** Work Plan, Schedule

**Task 2: Existing Conditions Assessment** **June 10-July 29**

Using data from previously competed studies, other written and graphic information as well as information derived from field investigations, identify the following:

- General Building Data:
  a) Convert Existing Building Plans to CAD
  b) Develop a Chronology of Construction
  c) Chronology of Significant Maintenance Projects
  d) Total floor areas (gross and net) Develop Efficiency ratio
  e) General Building Description including organization and levels.

- Building Conditions Analysis: including the age, location, capacity, and condition of each system for the following building systems:
    a) Foundation
    b) Substructure
    c) Superstructure
    d) Exterior Closure (including exterior walls; doors; windows;
    e) Roofing
    f) Interior Construction (including floors, walls, ceilings, etc.)
    g) Casework and Equipment
    h) Doors and Hardware
    i) Signage
    j) Accessibility
    k) Food Service
    l) Conveying Systems
    l) Mechanical (including HVAC, water supply, sanitary, fire protection, gas), and Electrical (including fire alarm, power, lighting, security, and telecommunications) Systems.
    m) Technology Systems including both infrastructure and equipment.
    n) Miscellaneous Issues: special equipment, chemical and hazardous material storage and handling

- Existing Floor Plans and Elevations:, showing layout of rooms, walls and infrastructure. Plans of existing Structural, MEP, and Technology systems.

- Site Plan: Utilities (including electrical, steam, water, sewer, gas, and telephone/cable)

- Building Code Analysis:
    Code assessment and identification of current code compliance violations, based on continuation of occupancy and use, including egress, handicapped access, seismic, and new energy code issues. Specific code references to be identified. (780 CMR Massachusetts State Building Code, Massachusetts Electrical Code, BOCA National Mechanical Code, National Fire Protection Association, Regulations of the Massachusetts Architectural Access Board, The Americans with Disabilities Act, others as required)

**Product:** Existing building and systems condition report; code and egress assessment; plans of existing floors and site utility plan. Recommendations for any specialty testing or investigation to obtain more detailed information (water pressure, soil borings, access to inaccessible areas etc.). Building assessments will be supported with plans, finish schedules, equipment schedules, survey data sheets, photos, and diagrams.

**Task 3: Health, Safety, and Environmental Review** **July 1 – July 29**

- Hazardous Materials: Review the exiting hazardous materials documentation for thoroughness, accuracy, and conformance with current standards. Identify areas or issues which may require further investigation or testing.

- Life Safety Systems: Review the current egress and life safety systems for the existing school (this task is included in Task 3, Existing Conditions Assessment, above)

- Air Quality: Review air quality based on current HVAC components and their location. Consider air intake locations relative to air quality hazards such as parking, delivery, or trash. Review maintenance of components and their condition. Coordinate recommended air quality testing.

**Product:** Hazardous Materials Report, Air Quality Review and Recommendations

**Task 4: Program Analysis** **June 17 – Sept 16**

Using program and scheduling data provided by the school, information developed from meetings with school personnel, and information from previous studies to develop a program that meets current and anticipated educational needs.

- Existing Organization and Use: Identify and document the current programs, and program locations, within the school. Review proposed or anticipated educational programs and organizations with school personnel.

- Enrollment Projections: Review enrollment existing enrollments, compare those with previous projections. Develop enrollment projections through 2014 based on available data.

- Future Needs: Meet with Superintendent, Principal, and Department Heads to outline anticipated organizational and space needs.

- Space Requirements: Develop a tabulated list of spaces including both quantitative and qualitative descriptions.

- Building Capacity: Establish the capacity of the existing building.

**Product:** Program analysis; Plans of Existing Uses, Enrollment Projections, Educational Specifications per SBA standards, Program descriptions and room performance criteria.

**Task 5: Options** **July 22 – September 23**

- Program Alternatives: Develop space allocation alternates as appropriate. Develop expansion options, as appropriate.

- Plan Alternatives: Develop floor plans indicating walls, and department locations. Identify specific programs and departments through color.

- Site Plan Alternatives: Develop site plans indicating major areas of parking and activities, indicate major traffic patterns, playing fields, and major utility infrastructure.

- Building Improvements: Identify the building improvements necessary for continued occupancy. Prioritize these improvements based on the severity of the repair, determine the costs for the improvements, and develop spending alternatives based on the funding available.

- Scope of Work: Develop scope of work for alternatives, identifying significant areas of work by building system.

- Preliminary Cost Estimates: Develop cost estimates with an independent estimator assessing the costs of each alternative. The estimated cost will include contractor's overhead and profit, design contingency (for details of scope not identified at this level), escalation, and premiums for phased construction.

- Phasing Alternatives: Floor Plans and Site plans describing a phasing plan and the impacts / restrictions imposed on the on-going functions of the existing facility.

**Product:** Floor Plans and Site Plans, Preliminary Cost Estimates, Scope of Work Outline, Phasing Plans indicating site and building access conditions at each proposed phase.

**Task 6: Presentation and Recommendations** **September 24, 2002**

- Present the alternatives to the School Committee, and key personnel in the School System to review conceptual design alternatives, scopes of construction and corresponding phasing / occupancy considerations.

- Provide Recommendations based on providing for Educational Program, Title IX Considerations, Accessibility, Building Function and Building Performance.

- Determine the preferred option to be developed for inclusion in the final Study Report.

**Product:** Narrative of Recommended Alternatives, Meeting Notes, Summary of Task 4 Options

**Task 7: Community Review** **Sept 30 – Oct 21**

- Meet with parents, community groups, and others identified by the committee. Present the Options, receive and respond to comments, and document the meetings.

- Product: Power Point Presentation, Meeting Notes

**Task 8: Schematic Design, Chosen Option** **Oct 28 – Jan, 2003**

- Floor Plans: Develop Floor Plans indicating walls, doors, windows, stairs, and significant equipment for chosen alternatives. Indicate each room by color. Tabulate the full program with actual net square footage.

- Site Plans: Develop site plans indicating areas of parking and quantity, traffic patterns, pedestrian patterns, individual playing fields, utility infrastructure, and site amenities.

- Elevations: Develop preliminary building elevations for each alternative.

- Perspective Views: Develop perspective views of the proposed schematic design, describing significant exterior or interior components.

- Building Systems: Develop one line plan diagrams, to scale, of structural, mechanical, electrical, and technology systems

- Scope of Work / Outline Specification: Develop a construction scope narrative based on a CSI format, divisions 2 through 16, for the chosen alternative.

- Construction Cost Estimate: Develop an estimated construction cost, through an independent professional estimator, for the proposed scheme. The estimate shall be in Uniformat (systems based) and shall include escalation, premiums for phasing, a 15% Design Contingency, as well as Contractor Overhead and Profit.

- Preliminary Project Budget: Develop a project budget, to include all anticipated construction costs, contingencies, fees and other items for the design and construction of the project.

**Product:** Plans, Sections, and Elevations, Phasing Plans, Perspective Vignettes, Scope Narrative, Cost Estimate, Project Budget

**Task #9: Final Study Report** **Jan, 2003**

- Prepare draft report and submit it to School Building Committee for review and comment. This report will include all information developed through the study

- Incorporate required revisions into the report, prepare and submit the final Study Report.

**Product:** Study Report in Paper and Digital Form