

Re-Opening the 1924 Academy School: the Need/The Project** (9/6/07)

JCJ's rendering of Academy School with Four Classroom Addition & Elevator Tower



Work Needed to Re-Open Academy School

1. **Rebuild Septic System:** Original undersized and aging septic tank in an enclosed interior courtyard.
2. **Update Electrical System:** No significant electrical upgrades have been completed since building opened; current program use of technology not supported.
3. **Update building mechanicals system:** Modernize HVAC systems and replace aging boiler; install a new hot water baseboard heating system.
4. **ADA Compliance:** Add exterior elevator tower to access lower level, entrance level, main floor and upper floor in oldest building section. Add a ramp and/or lift to access other interior areas accessed now by steps including the stage and the 2nd floor Special Education (SPED) Study Center. Add handicapped-accessible bathrooms.
5. **Other Project Code & State Rule Issues**
 - New life safety code provisions would require sprinklers be added in occupied lower level areas.
 - No earthquake strengthening is required if Academy remains a school; major structural work would be needed if the building were converted to another use.
 - Potential air quality and ADA-compliance issues complicate re-opening program spaces in the second lower level (formerly used for music and art classes).
 - New state rules for school projects include the need to add security and LEED-Silver features to buildings.

Why Add Four Classrooms to Academy?

1. **Program Needs of a Grade 1-4 School:** 16 Core Classrooms, 5 Specials Rooms (art, music, computer, special education, reading), 1 library, 1 gymnasium, 1 cafeteria, nurse's office, and smaller spaces for special education (for occupational & physical therapy, one-on-one tutoring and ABA work); Academy is the only Grade 1-4 elementary school with fewer than the minimum 21 classrooms; Jeffrey, Island (count includes modulars) and Ryerson all have at least 16 core classrooms and 5 specials rooms.
2. **Current Academy Facility Spaces (without a Four-Classroom Addition or new Exterior Elevator Tower)**
 - **Lower Level 1:** Art, Cafeteria, Music (Future availability of the Lower Level 2 program rooms uncertain; more investigation needed to assess costs and ability to address air quality/ADA issues in LL2)
 - **Main Floor (6 steps up from entrance level):** 6 Core Classrooms, Library/Media Center, Gymnasium, Main Administrative Office, Nurse's Office
 - **Upper Floor:** 6 Core Classrooms, 1 large SPED Study Center, 1 smaller non-standard sized room for reading, 1 Computer Laboratory
 - **Throughout:** Lacks compliance with ADA Rules
3. **Without the 4 Room Addition, What's Missing?**

The building now has 12 core classrooms for a capacity of 250-260 students; needs **four more core classrooms** to achieve a capacity of 330-350 students.

**** Estimated Project Costs:** a June 5, 2007, renovation study by JCJ Architects (under the direction of the Board of Selectmen) estimated gross costs of this project at about \$11 million (see reverse side)

OPTION A2: RENOVATION, 350 Students*

*(Updated from the 2004 addition/renovation study)

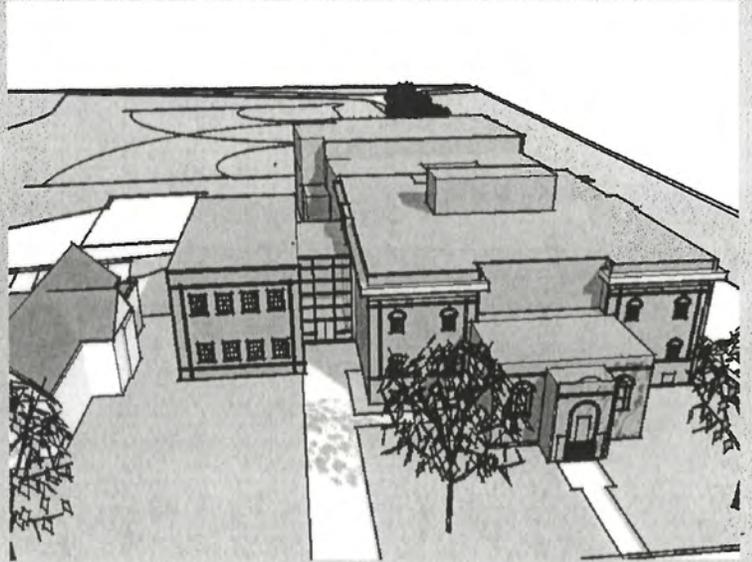
June 5, 2007

CONCEPTUAL ESTIMATE OF PROBABLE COSTS

Summary

The following represents an order of magnitude estimate of total project costs for construction, sitework, and other associated costs for Academy Elementary School Renovations to be used for general planning and budgetary purposes only.

Building System Reactivation/Testing			\$100,000	\$100,000	0.0%	\$0	
CONSTRUCTION COSTS (January 2007)				\$7,505,000			reimbursible \$3,786,400
SITE DEVELOPMENT							
Site Utilities & Improvements	2 Acres	\$150,000	\$300,000		75.0%	\$225,000	
Septic System Repairs/ New Tank	1 Allow	\$250,000	\$250,000		20.0%	\$50,000	\$3,243,25
BUILDING							
Demolition of Existing	1 ls	\$50,000	\$50,000		100.0%	\$50,000	\$6,514,00
New Construction/ Elevator	6,630 sf	\$300	\$1,989,000		100.0%	\$1,989,000	49.8
ADA	1 ls		\$150,000		100.0%	\$150,000	
Building Construction/ Repairs	40,780 ls	\$25	\$1,020,000		0.0%	\$0	
Building Finishes/Code	40,780 sf	\$30	\$1,223,000		25.0%	\$305,750	
Roof Replacement	19,300 sf	\$15	\$290,000		100.0%	\$290,000	
MEP Minimal Repair Allowance	40,780 sf	\$10	\$408,000		0.0%	\$0	
Boiler Replacement	40,780 sf	\$18	\$734,000		25.0%	\$183,500	
Subtotal Construction			\$6,414,000				
Program/Design Contingency	5%		\$321,000		49.8%	\$159,822	
Construction Contingency	12%		\$770,000		49.8%	\$383,375	
CONSTRUCTION COSTS ESCALATION (Spring 2008)				\$1,130,000			\$562,615
Escalation to mid-point of Construction	10.0%	1.5 yrs	\$1,130,000		49.8%		
CONSTRUCTION PROJECT COSTS				\$604,000			\$300,725
CM Fees	7%		\$604,000		49.8%		
TOTAL CONSTRUCTION COST				\$9,339,000			\$4,649,787
EQUIPMENT							
Technology Program	88 students	\$1,500.00	\$132,000		49.8%		\$290,668
Existing Building Technology	40,780 sf	\$10.00	\$407,800				
Fixtures, Furnishings & Equipment	4 CR	\$10,000.00	\$40,000				
FFE/Technology Contingency			\$4,000				
PROJECT DEVELOPMENT							
Site Acquisition			\$0		49.8%		\$474,986
Architectural/ Engineering Fees	allow		\$700,000				
Other Professional Fees/Expenses							
Traffic Study			\$0				
Food Service Consultant			\$0				
FFE Design			\$4,000				
Technology Infrastructure			\$40,000				
Technology Equipment			\$40,000				
Acoustical Consultant			\$0				
Security/Hardware			\$0				
A/E Full-Time Representation			\$0				
Soils/Geotechnical Report			\$5,000				
Hazmat Survey/Documents			\$20,000				
Special Inspections/Testing			\$5,000				
Material Testing			\$10,000				
Legal, Bonding, Insurance			\$0	TBD by Owner			
Printing, Mailing, Advertising, Misc.			\$0	TBD by Owner			
Moving Expenses, Temp. Storage			\$0	TBD by Owner			
Reimbursable Expense			\$30,000				
Haz Mat Remediation Allowance			\$100,000				
Project Contingency				\$160,000	49.8%		\$79,662
TOTAL PROJECT COST				\$11,000,000		total reimb basis	\$5,500,000 50.0%
						adjusted reimb basis	0.0%
						reimb rate for Madison	28.0%
						effective reimbursible	14.0%
						area/pupil	124
						number of pupils	350
						max facility area allowed	43,400
						facility area built	4,138
						% of area reimbursible	104.9%
						anticipated state reimb	\$1,620,000 14.7%



Academy Elementary School
ADDITIONS & RENOVATIONS
MADISON PUBLIC SCHOOLS
Jeter, Cook & Jepsen Architects, Inc.

1. INTRODUCTION

1.1 General

Jeter, Cook & Jepson Architects, Inc. (JCJ) has been retained to study the potential of a four classroom addition and specific building renovations for the Academy Elementary School. The results of this work are meant to integrate with the August 15, 2003 Academy School 504/ADA Compliance Report by Pierz Associates (Appendix 1). The 504/ADA report and estimate examine the current facility condition and proposed elevator additions for the Academy School. The intent of this study is to include those findings as they relate to the overall building addition/renovation program whose specific scope is:

- Develop four standard classrooms building addition
- Incorporate specific ADA recommendations (Pierz report) as appropriate
- Review condition and make recommendations to the replacement or upgrade of the heating system
- Review condition and make recommendation to the replacement or upgrade of the septic system
- Review and comment regarding other Building Code issues that would need to be addressed under this plan
- Provide timeline and cost estimate for project

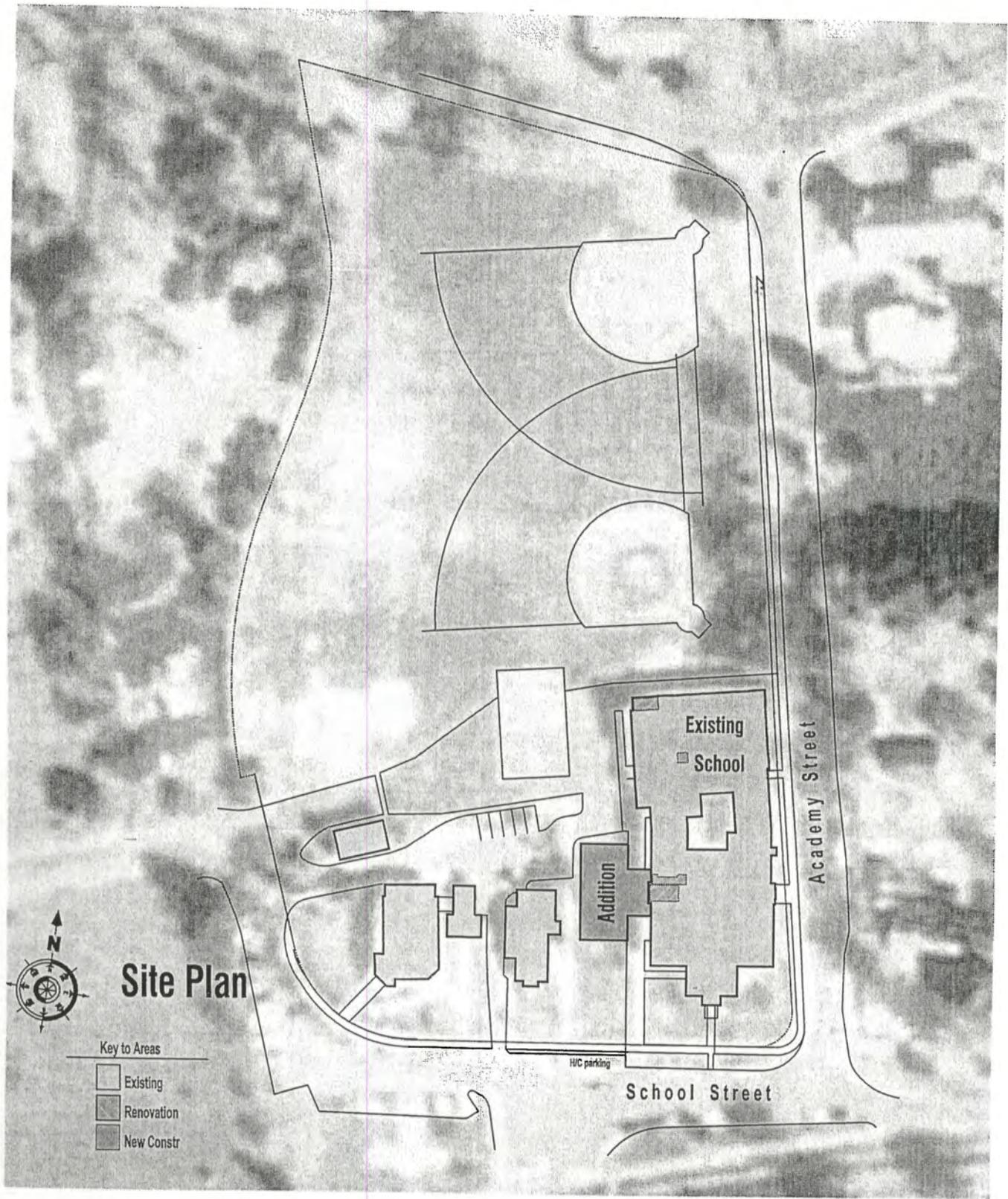
This report is formatted in sections to allow review of the individual elements of the study beginning with an executive summary. The second section contains the proposed four classroom addition. The third section provides the existing heating system analysis and recommendations including electrical, plumbing, and fire detection. The fourth section includes the septic system analysis and remedial recommendations. The fifth section contains an estimate of project costs, as well as a preliminary project timeline assuming the project proceeds this spring and is funded via local (town) dollars. The State of Connecticut State Department of Education Form ED049 is contained in Section Six.

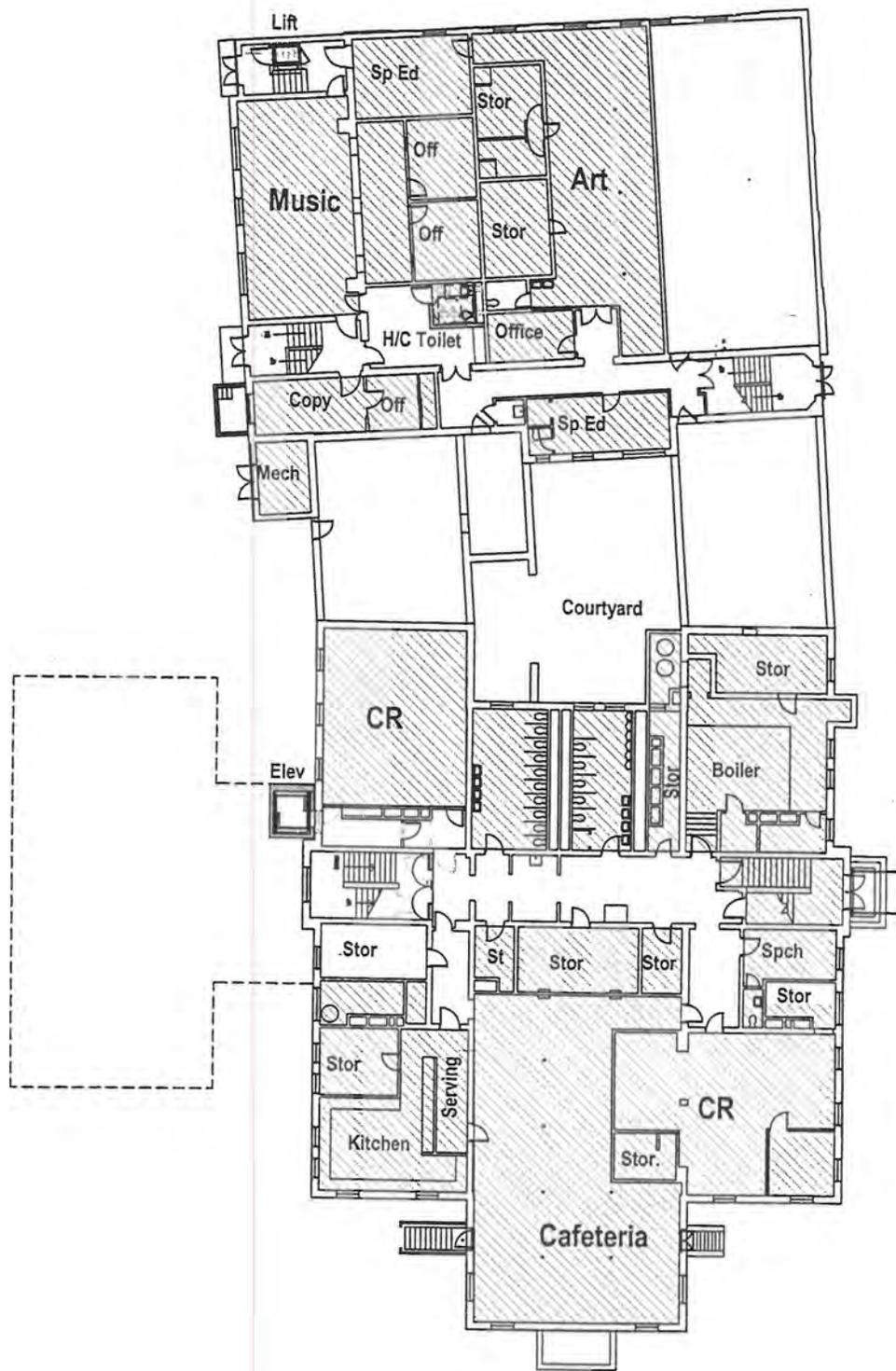
ACADEMY ELEMENTARY SCHOOL ADDITION/RENOVATION STUDY

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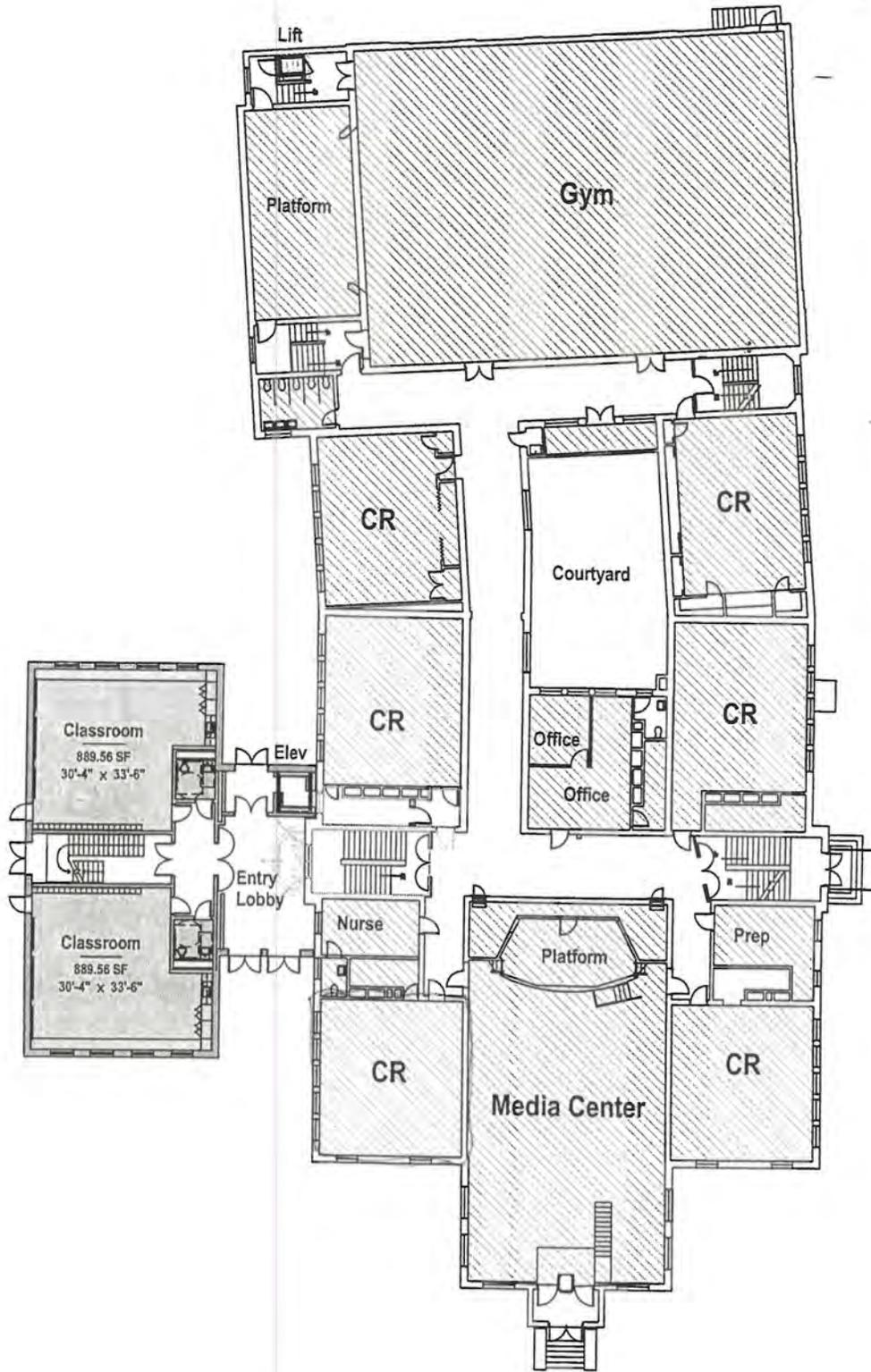
Section 1:	Executive Summary
Section 2:	Academy School Classroom Addition Design
Section 3:	Academy School Heating System Analysis
Section 4:	Academy School Septic System Analysis
Section 5:	Project Timeline and Budget
Section 6:	State of Connecticut Department of Education Form ED049
Appendix 1:	ADA Compliance Report by Pierz Associates

**Academy Elementary School Addition/Renovation Design and
Analysis**

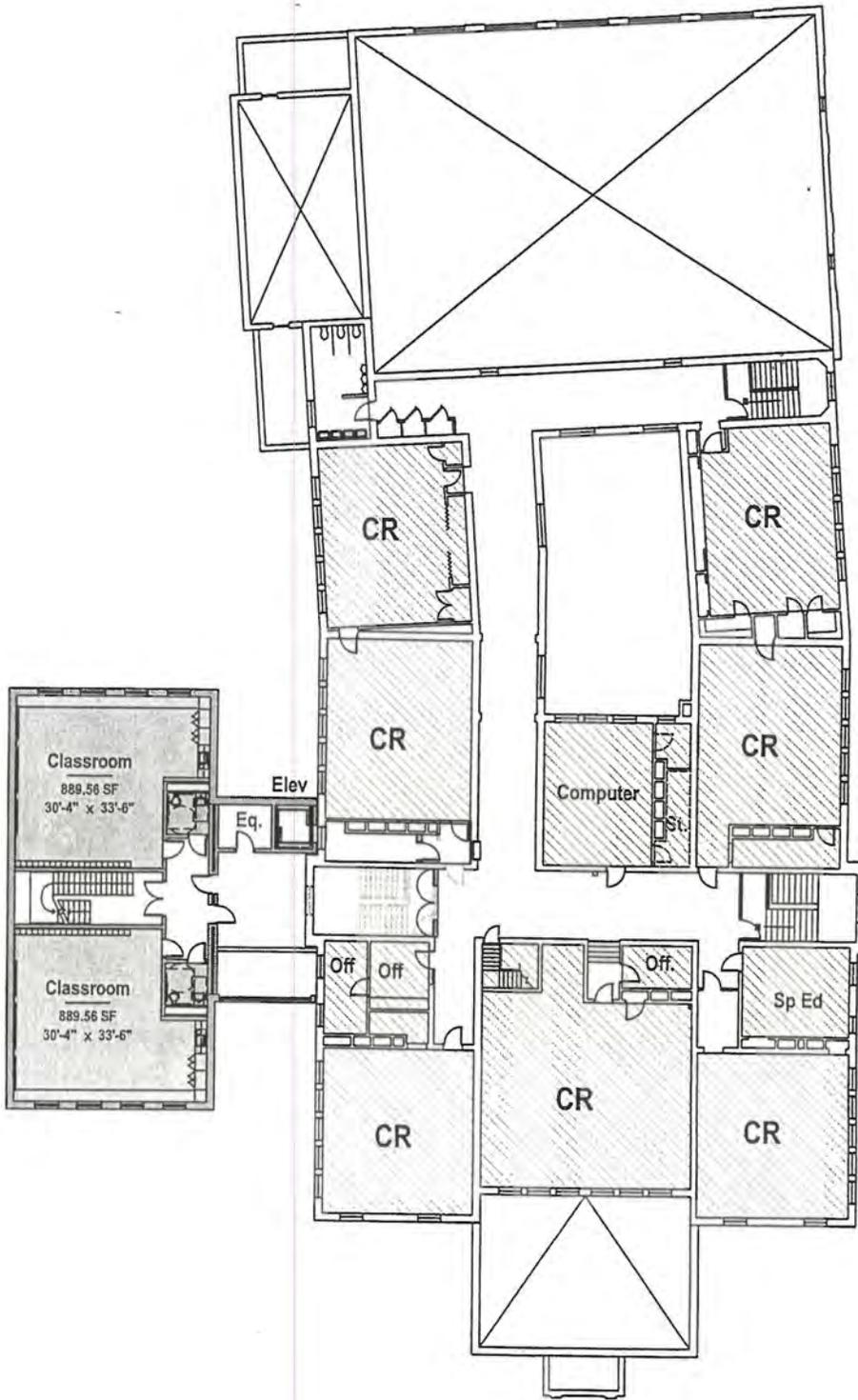




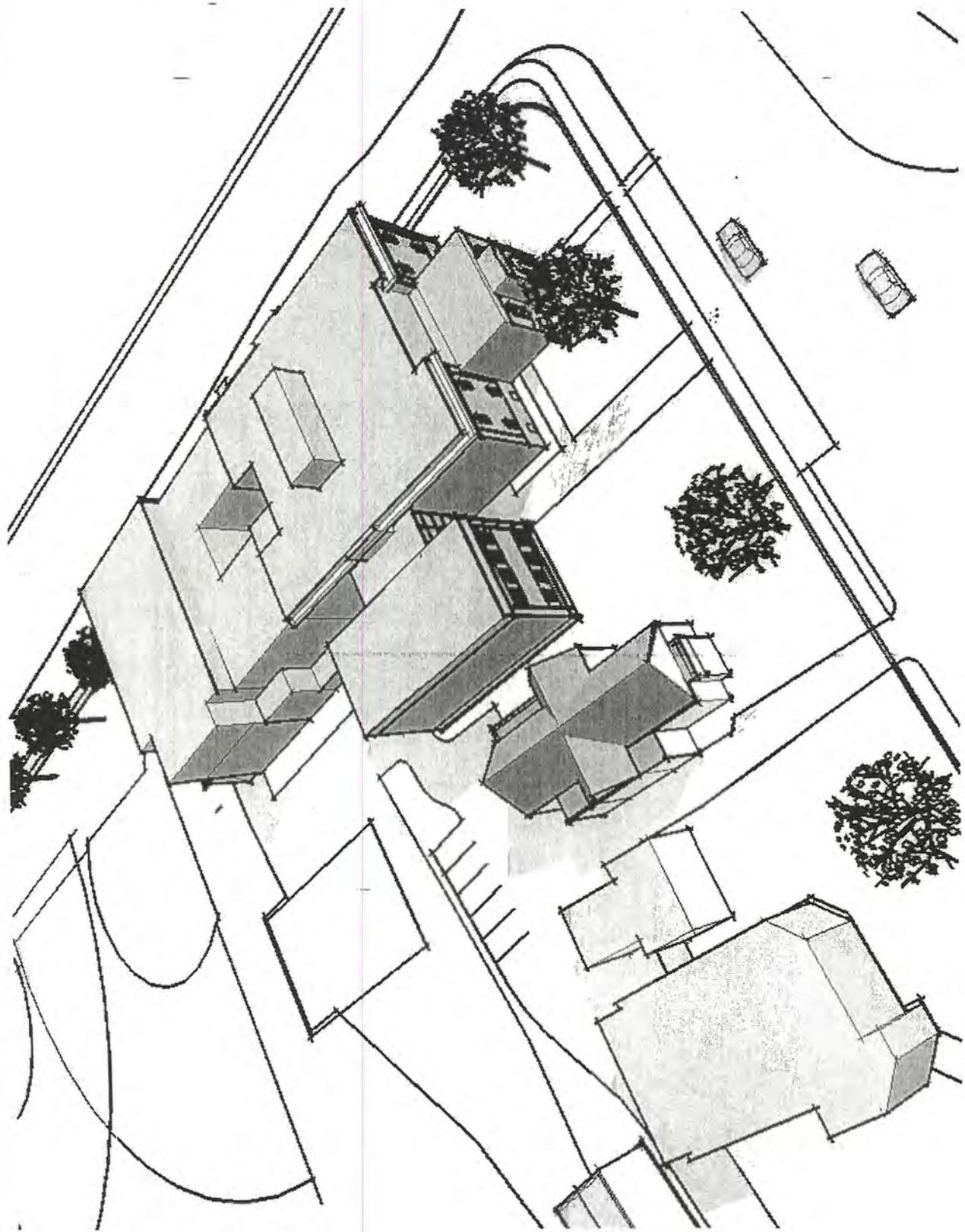
Lower Level

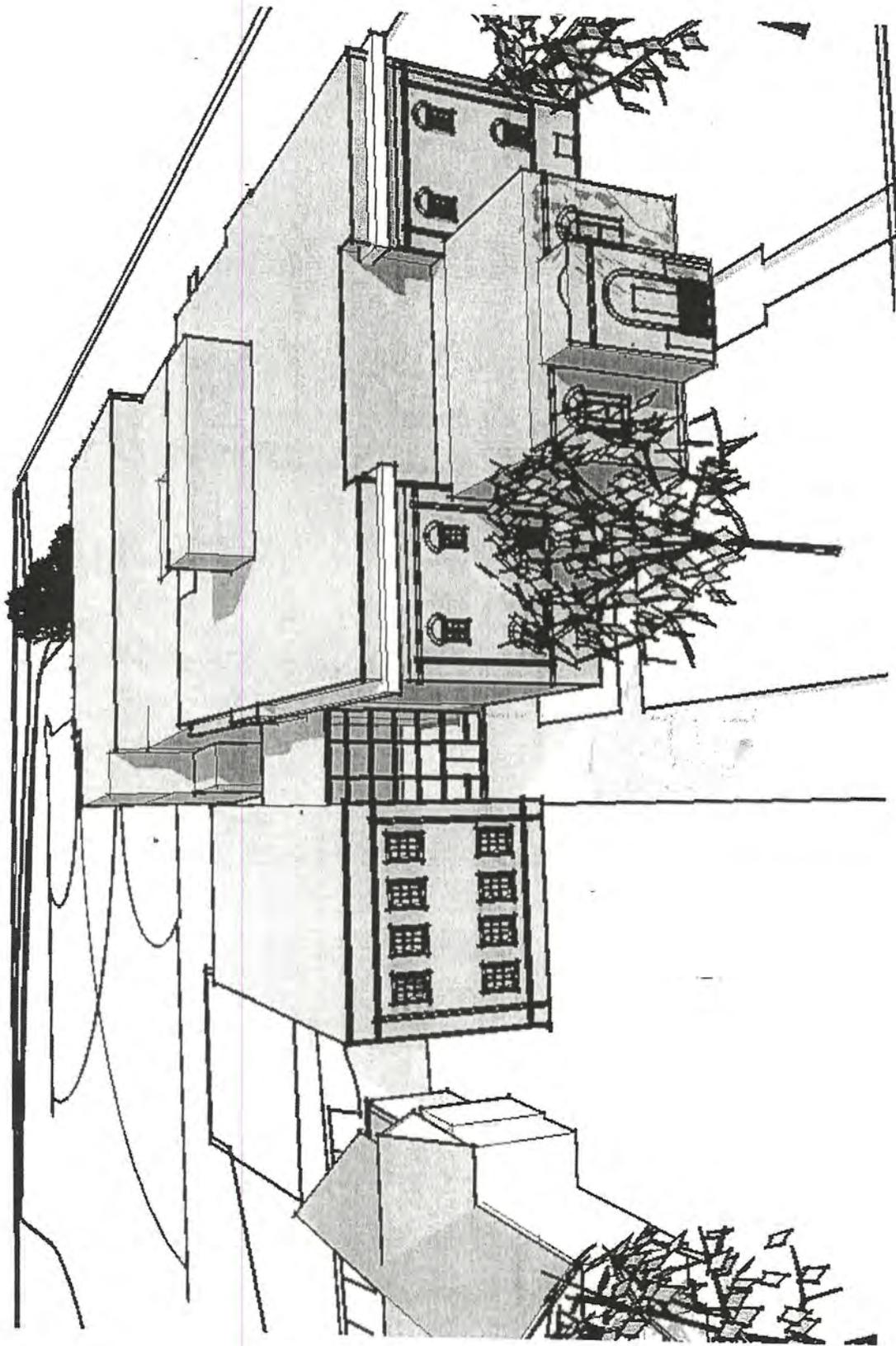


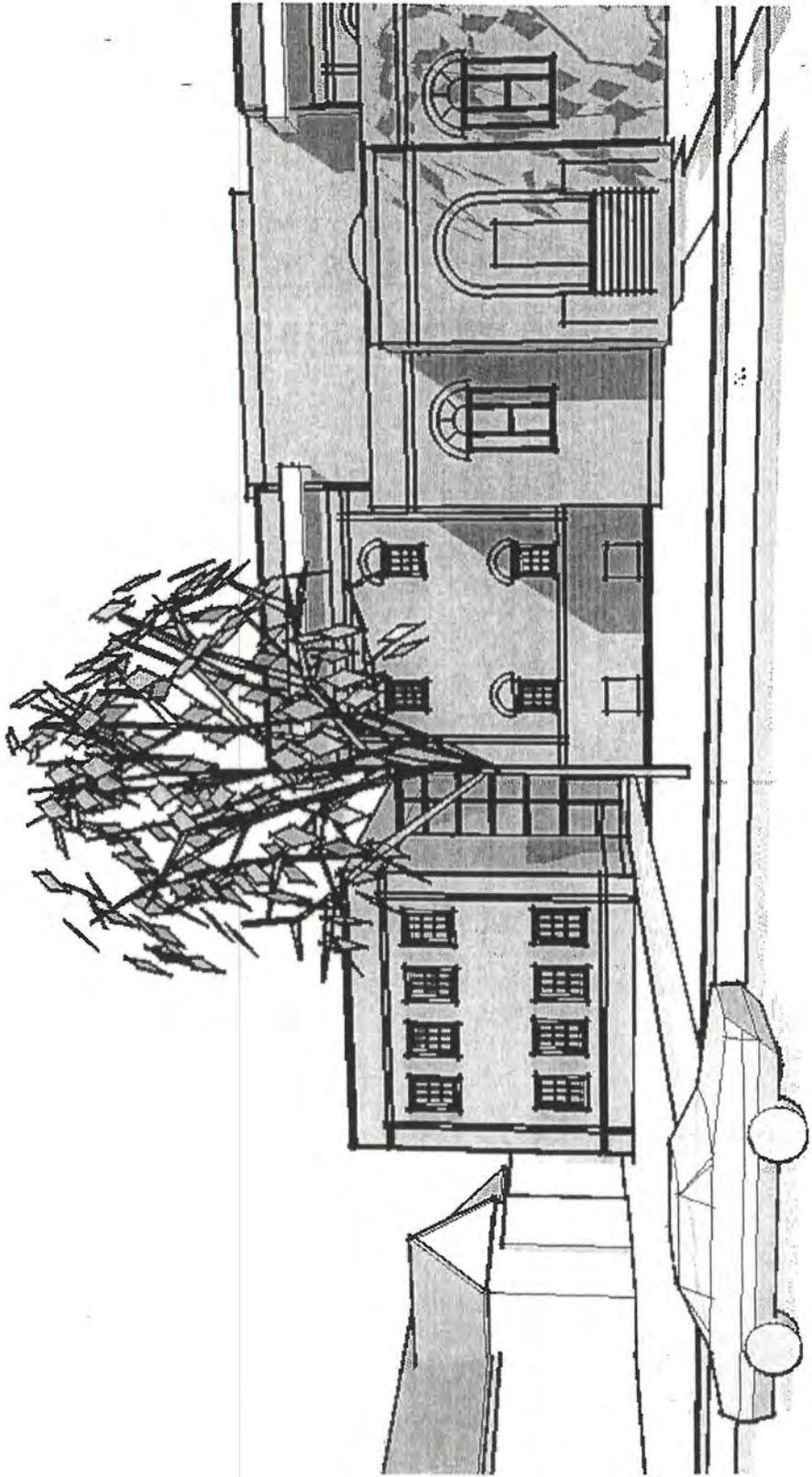
First Floor



Second Floor







Mechanical and Electrical Systems
Schematic Design Narrative

Academy School
Madison, CT

February 13, 2004
(Revised March 8, 2004)

Prepared by:
Consulting Engineering Services, Inc.
811 Middle Street, Middletown, Connecticut, 06457
CES PN 24014.00

OVERVIEW:

This report will address issues relative to the existing heating system and upgrades to existing mechanical systems. The report will also include schematic design narratives for the mechanical, electrical and plumbing systems associated with the proposed new 2-story classroom addition.

EXISTING BUILDING OVERVIEW:

The existing Academy School is located at the intersection of School Street and Academy Street in Madison, CT., and is a 2-story facility with a full basement. The existing area of the facility is approximately 55,400 square feet.

The Town of Madison reports the existing student enrolment to be approximately 300 students and does not anticipate this number to increase.

The existing windows at the facility have been recently replaced with operable, energy efficient windows. There are no plans to air condition this facility.

PLUMBING SYSTEMS:

Domestic Water

1. The existing building is currently served by a 2-inch domestic water service. The existing water service equipment shall remain and new 1 1/2" domestic water piping be extended from the existing service location to serve the plumbing fixtures in the new addition.

Plumbing Fixtures and Specialties

1. New plumbing fixtures shall be provided as follows:
 - Water closets and urinals shall be wall hung, vitreous china, manufactured by American Standard or approved equal, Sloan or approved equal electronic, battery operated, low consumption flush valves shall be installed to serve these fixtures.
 - Lavatories shall be wall hung, vitreous china, manufactured by American Standard or approved equal. Chicago or approved equal electronic, battery operated, ADA compliant, sensor type faucets.
 - Wall hangers for water closets, urinals and lavatories shall be J.R. Smith or approved equal, heavy duty, adjustable height type installed within chase spaces provided behind fixture groups.
 - Electric water coolers shall be Elkay, stainless steel, semi-recessed, two-tier, ADA compliant and vandal resistant.
 - Classroom sinks (if required) shall be Elkay or approved equal, stainless steel, provided with offset drain fittings, and Chicago or approved equal single lever faucets with gooseneck spouts or approved equal and shall conform to ADA regulations.
 - Cast iron floor drains shall be installed at the toilet rooms within the addition. Floor drains shall be J.R. Smith or approved equal. Trap primers shall be installed at all floor drains to maintain trap seal.

- Primary and secondary emergency overflow roof drains shall be J.R. Smith, cast iron, with dome strainer or approved equal.
- Wall hydrants shall be Woodford, freeze-proof, backflow protected, or approved equal, and shall be installed on the exterior of the building addition within lockable boxes.

Plumbing and Piping Systems

1. The existing waste, vent, and storm piping shall remain. New piping shall be provided as described below:
 - Storm and sanitary waste and vent piping shall be plain end cast iron with stainless steel clamp and shield assemblies conforming to ASTM B 42 for above ground piping. Buried piping shall be push on hub and spigot conforming to ASTM 74. All storm, sanitary waste and vent piping shall be concealed within chases and walls where ever possible. Storm and waste services shall exit the building below slab at locations to be coordinated with the civil engineer. A secondary storm system consisting of overflow roof drains or roof scuppers shall be provided in the event that the primary roof drain system is blocked. The secondary system shall be separate from the primary system and shall discharge above grade at a visible location. Vent piping shall exit the building through the roof with a 4" diameter pipe and shall extending a minimum of 12" above the finished roofline.
 - Domestic hot water, cold water and recirculating hot water piping shall be Type L copper conforming to ASTM B 88 with sweat fittings using 95/5 solder. All domestic water piping shall be insulated with rigid molded, noncombustible glass fiber insulation conforming to ASTM C335. All domestic water piping throughout the building shall be installed above ceilings and concealed within wall cavities. All piping shall be installed in accordance with the International Plumbing Code.

Hot Water Systems

1. Water heaters shall be provided to serve the addition only. The existing hot water systems throughout the existing facility shall remain.
 - A single 30-gallon electric water heater shall be installed in the existing lower level Storage Room adjacent to the addition. The water heater shall be ASTM labeled and shall be as manufactured by A.O. Smith, or approved equal.

MECHANICAL SYSTEMS:

Boiler Plant

1. The existing oil fired boiler plant is a steam unit and is approximately 35-40 years old. Although the Town of Madison has maintained this unit, the unit is at the end of its expected life and should be replaced. We would recommend that the existing boiler be removed and replaced with (2) 1-MBH cast iron, oil fired boilers. The (2) units to provide redundancy in the event of one unit failing.
2. The Town of Madison has also requested that the entire facility be converted from steam to hot water. All of the existing steam and condensate piping will be replaced. In addition, most of the existing radiators shall be removed and replaced with baseboard radiation. In areas where baseboard radiation is not practical, another type of heating equipment shall be provided.

3. Hot water radiant ceiling panels and hot water heating coils shall be provided for heat in the new addition.
 - The boilers will be by H.B. Smith, Burnham or Weil-McLain.
 - A boiler control system shall stage boilers based on the outside air temperature and demand. This setup increases the efficiency of the heating plant, by not using an oversized boiler to heat during transitional times.
 - The boilers shall be connected to the existing chimney using UL listed breeching.
 - The hot water pumping system shall incorporate base-mounted circulating pumps. A second pump shall serve as a redundant pump.
 - Fuel oil shall be supplied by the existing underground, double wall 10,000-gallon tank. New double wall supply and return piping shall be provided within the boiler room to serve the new boilers.

Heating and Ventilating

1. A roof mounted heat recovery heating and ventilation unit shall be provided to provide heat and ventilation air to the new addition. Duct mounted hot water coils shall be provided above the new ceiling to eliminate the need for freeze protection.
2. DX type air conditioning shall be provided in the new addition.
3. General and toilet exhaust systems will include roof mounted exhaust fans, ductwork, grilles, and controls.

Building Management System

1. The existing temperature control system within the existing building shall remain. Individual controls shall be provided within the addition.

Code Compliance

1. All systems will be designed to code compliance for percentage of outside (fresh) air and will meet or exceed requirements stated in ASHRAE 90.1, International Mechanical Code, as well as ASHRAE 62.

Materials and Methods

1. Include the following basic materials and methods of construction:
 - All motors provided shall be high efficiency or better.
 - All ductwork and accessories shall meet SMACNA standards.
 - Provide all HVAC equipment with extra set of filters.
 - Seismic restraints shall be installed as required per State of Connecticut Building Code and Fire Safety Code. This includes piping, ductwork, equipment, and equipment bases.

- Provide glass fiber insulation for all hydronic piping and ductwork. Insulation shall be installed to meet the Energy Code.
- Provide firestopping around mechanical penetrations in accordance with firestopping requirements. System shall be capable of maintaining against flame and gases. System shall be UL listed and comply with ASTM E814.
- Provide mechanical identification for mechanical systems. Identification shall comply with ANSI A13.1.
- All pipe connections shall be installed to allow for freedom of movement of the piping during expansion and contraction without springing. Swing joints, expansion loops and expansion joints with proper anchors and guides shall be provided by the Contractor where necessary and/or where shown.
- Provide vibration isolation for hydronic piping, ductwork, and equipment.
- Hydronic piping 2-inch and smaller shall be Type L copper. 2 ½-inch and larger shall be carbon steel.
- All equipment served by hydronic piping shall have ball-type isolation valves on the supply and return lines.
- A chemical water treatment system shall be provided for hydronic loops.

ELECTRICAL SYSTEMS

Main Service and Distribution

1. The existing electrical service to the building is rated at 400amperes, 208volts, 3-phase, 4-wire. The electrical service equipment is approx. 40years old and in poor condition.

Based on the existing building footprint of approximately 55,400 square feet, this represents a capacity of approx. 2.6watts per square foot. Although the building is functioning at this capacity, the electric service is undersized for the size of the building. Based on the existing capacity, age and condition of the existing electrical service and equipment, we recommend that it be replaced.

2. The building shall be provided with a new 1000A, 208/120V, 3-phase, 4-wire, main electrical service with circuit breaker distribution, CT compartment and integral TVSS. Include the following;
 - Primary electrical service including conduits from an utility company pole for installation of the primary electrical cable. The primary electrical cable shall be provided by the local utility company.
 - A concrete transformer pad for a utility company owned pad mounted transformer located on the site.
 - Ground pad mounted transformer per CL&P requirements.
 - Weatherproof meter socket with 2”C and wiring to main switchboard CT compartment per utility company requirements.
 - All conductors shall be copper.

- Run (4) sets of 4-250KCMIL, 2 1/2-inch conduit from the transformer pad to the main switch.
 - Run 1#4/0, 1 1/4-inch conduit from the main switch to the water main.
 - Run 1#4/0 copper from the main switch enclosure to (3) 3/4"x10' ground rods driven at the exterior of the building.
 - 1000A 208/120V, 3-phase, 4-wire, main distribution panelboard to replace the existing distribution panel in the basement. New circuit breakers shall be provided to match the existing and the existing feeders reconnected to the new panelboard. A new 225amp, 208/120volt, 3-phase, 4-wire panelboard and feeder shall be provided for the addition.
3. Branch circuits shall be installed in EMT conduit. Type MC cable shall be limited to concealed spaces above finished ceilings in classrooms or drywall type partitions. EMT conduit shall be used to the first device in a branch circuit and shall be used in all masonry or CMU partitions.
- (8) Duplex receptacles per classroom, (2) circuits per classroom.
 - Circuits for all HVAC equipment as required.
 - Circuits for all plumbing equipment.
 - Circuits for the Fire Alarm Equipment and Sound Equipment as required.
 - Boiler emergency shutdown buttons located at the door(s) to the boiler room.

Low Voltage Systems

1. The building will provided with the following Tele/data and television raceways:
- Data outlet back-box and raceway in each classroom.
 - Voice/data outlet back-box and raceway in each classroom.
 - Television outlet back-box and raceway in each classroom.
 - Pull strings shall be provided in each raceway.
 - Quantities shall be verified during design development phase.
2. The existing fire alarm system is manufactured by Notifier and shall remain. This system shall be expanded to serve the new addition. The equipment shall be as manufactured by Notifier and include the following:
- (1) Horn/15 candela strobe in all classrooms.
 - Horn/30 candela strobes within the corridors, 100 feet on center.
 - (2) Duct smoke detectors for each air-handling unit, (1) in the supply, and (1) in the return duct.
 - Smoke detectors shall be provided within all areas to be occupied by Pre-K students.

- Magnetic door hold-open devices at all required corridor doors, connected to the FACP.
- Smoke detector within five feet of both sides of the corridor doors with magnetic hold-opens, where required by building-fire separation.
- All fire alarm system wiring shall be plenum rated fire alarm MC cable where concealed and EMT conduit with type THHN wire where exposed.

3. A clock/speaker shall be provided within each new classroom

Lighting Systems

1. The following fixtures will be provided:

- 2x4, three lamp, T-8, recessed parabolic recessed fixtures for all areas of the new addition.
- LED exit signs at all exterior doors, and on each side of corridor doors.
- Occupancy sensor switches in all classrooms, bathrooms and storage rooms for all light fixtures.
- All fluorescent fixtures shall be provided with T8, lamps and electronic ballasts.

Materials and Methods

1. Include the following basic materials and methods of construction:

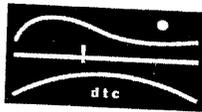
- Wiring shall be THHN/THWN copper, installed in EMT conduit for most circuits.
- Type MC cable shall be used as prescribed in sections above.
- Devices shall be specification grade, NEMA 5-20R etc.
- Disconnect switches shall be fusible heavy-duty type. NEMA 1 or 3R as required for locations installed.
- Circuit breakers shall be fixed element, thermal magnetic type.
- Panelboards shall be copper bus, with hinged door-in-door trim.
- Branch circuit breakers shall be bolt-on.
- All conduits, circuits and devices shall be labeled.
- Conduits below slabs shall be schedule 40 PVC, with rigid steel conduit sweeps.

2. Include the following miscellaneous items:

- Emergency call light/bell mounted above the doors and associated call switches shall be provided at the accessible, single occupant toilet rooms, with associated call switches.
- 250-watt metal halide fixtures mounted on the perimeter of the exterior of the addition.
- All HID fixtures shall be provided with high power factor ballasts.

Energy Conservation

1. All new equipment specified, shall be designed per the 2003 International Energy Conservation Code.



M E M O R A N D U M

**Academy School
Academy Street
Madison, Connecticut**

Septic System Analysis

The Academy School is served by an on-site sewage disposal system and a Connecticut Water Company water service. The water meter readings for the highest quarter of the year resulted in total of nearly 78,000 gallons of water being consumed or roughly 1300 gallons per day consumed based on a 5-day school week. The water consumption readings were taken in the August 2003 to November 2003.

The existing on-site septic tanks, effluent dosing and leaching fields appear to be designed and constructed around 1936, some 68 years ago.

There appears to be two leaching fields associated with Academy School, one to the west of the school and one to the north of the school. Both systems appear to be placed under an athletic field or lawn area. The leaching field to the north of the school appears to be served by a septic tank and dosing system north of the school adjacent to an athletic field. It is not clear if the western leaching field is still in service.

The dimensions on the 1936 design plans of the leaching field trenches are 16 inches wide by 16 inches high. The trenches are spaced about 10 feet apart. The total length of the trenches is 3900 linear feet (1800lf on the north system & 2100lf on the west system) resulting in an effective leaching area of over 7800 square feet.

The site soils based on United States Department of Agriculture Soil Conservation Service documentation appear to be a Hinckley (HkA) soil. The Hinckley (HkA) soil is a gravelly sandy loam with slopes ranging from 0 to 3 percent. The Hinckley (HkA) soil is excessively drained and the United States Department of Agriculture Soil Conservation Service documentation notes that this soil type pollute groundwater due its rapid permeability.

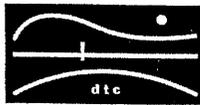
The proposed improvements to the Academy School should include at a minimum a new septic tank, a new grease interceptor to collect greases from the kitchen area, and a new effluent dosing system. The new septic tank, a new grease interceptor, and a new effluent dosing system should be design in accordance with the 2004 Department of Public Health Regulations and Technical Standards for Subsurface Sewage Disposal Systems as well as the Town of Madison Health Department requirements.

Based on the metered flow data and applying the Department of Public Health design flow factor of safety the existing leaching trenches on the north side of the building would be more than adequately sized to accommodate the proposed improvements assuming no increase in student enrollment. However, we would recommend performing test pits to determine the existing conditions of the existing distribution boxes and leaching trenches to ensure they are still functioning properly. Additionally we recommend performing a push test to simulate peak flow rates of the proposed improvement to determine if the existing leaching trenches on the north side of the building would adequately accept septic tank effluent.

An order of magnitude cost for draining building addition to new septic tank, abandonment of old septic tank in courtyard, abandonment of old pumping system in the boiler room, constructing new septic tank, a new grease interceptor, and a new dosing system is approximately \$150,000. A premium is placed on the work in the interior courtyard work since it will required a sequence of construction based on building occupancy, require small equipment, and require significant handwork. Additionally a premium is placed on the work associated with the

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M E M O R A N D U M

abandonment of the old pumping system in the boiler room since it will require deep excavations adjacent to buildings and utilities. The MEP consultant will need to ensure the building drains to the exterior septic tank and dosing system.

If the existing conditions of the existing leaching trenches upon inspection prove the system has failed and replacement is required we estimate an effective leaching area of 1300 square feet will be required resulting in approximately 900 linear feet of 18 inch wide leaching field trench. This could be easily accommodated to the west of the existing leaching field.

If you have any question please do not hesitate to call me at

Sincerely,

Ray Gradwell, P.E.
Project Manager Site Engineering

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March 9, 2004

CONCEPTUAL ESTIMATE OF PROBABLE COSTS

Summary

The following represents an order of magnitude estimate of total project costs for construction, sitework, and other associated costs for renovations and additions to Academy Elementary School to be used for general planning and budgetary purposes only.

CONSTRUCTION COSTS (March 2004) \$653,000

SITE DEVELOPMENT

Site Parking/Signage 1 ls \$5,000

BUILDING

Elevator 1 ls \$105,000
 Renovation 1,300 sf \$140.00 \$182,000
 Toilet Room Renovations 1 ls \$96,000
 Elevator Enclosure 280 sf \$100,000
 Wheelchair Lift 1 ls \$80,000

Subtotal Construction \$568,000

Program/Design Contingency 5% \$28,000

Construction Contingency 10% \$57,000

CONSTRUCTION COSTS ESCALATION (July 2006) \$40,000

Escalation to mid-point of Construction 3.0% 2.0 yrs \$40,000

CONSTRUCTION PROJECT COSTS \$45,710

CM or GC Fees 7% ls \$45,710

TOTAL CONSTRUCTION COST \$740,000

EQUIPMENT \$0

Technology Program \$0
 Fixtures, Furnishings & Equipment \$0
 FFE/Technology Contingency \$0

PROJECT DEVELOPMENT \$100,000

Site Acquisition \$0

Architectural/ Engineering Fees (Allow) \$70,000

Other Professional Fees/Expenses

Traffic Study \$0

Food Service Consultant \$0

FFE Design \$0

Technology \$0

Acoustical Consultant \$0

Security/Hardware \$5,000

Soils/Geotechnical Report \$5,000

Hazmat Survey/Documents \$0 TBD by Owner

Special Inspections/Testing \$5,000

Material Testing \$5,000

Legal, Bonding, Insurance \$0 TBD by Owner

Printing, Mailing, Advertising, Misc. \$0 TBD by Owner

Moving Expenses, Temp. Storage \$0 TBD by Owner

Reimbursable Expense \$10,000

Project Contingency \$110,000

TOTAL PROJECT COST \$1,000,000

March 9, 2004

CONCEPTUAL ESTIMATE OF PROBABLE COSTS

Summary

The following represents an order of magnitude estimate of total project costs for construction, sitework, and other associated costs for renovations and additions to Academy Elementary School to be used for general planning and budgetary purposes only.

CONSTRUCTION COSTS (March 2004) \$1,110,000

SITE DEVELOPMENT		
Site Utilities & Improvements	1 LS	\$50,000
BUILDING		
New Boilers	1 ls	\$275,000
New Heating Loop Piping	1 ls	\$480,000
New Plumbing(Water line)	1 ls	\$8,000
New Electric Service/Panel	1 ls	\$112,000
Subtotal Construction		\$925,000
Program/Design Contingency	5%	\$46,000
Construction Contingency	15%	\$139,000

CONSTRUCTION COSTS ESCALATION (July 2006) \$70,000

Escalation to mid-point of Construction	3.0%	2.0 yrs	\$70,000
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CONSTRUCTION PROJECT COSTS \$77,700

CM or GC Fees	7% ls	\$77,700
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TOTAL CONSTRUCTION COST \$1,260,000

EQUIPMENT \$0

Technology Program	\$0
Fixtures, Furnishings & Equipment	\$0
FFE/Technology Contingency	\$0

PROJECT DEVELOPMENT \$140,000

Site Acquisition	\$0
Architectural/ Engineering Fees(Allow)	\$120,000
Other Professional Fees/Expenses	
Traffic Study	\$0
Food Service Consultant	\$0
FFE Design	\$0
Technology	\$0
Acoustical Consultant	\$0
Security/Hardware	\$0
Soils/Geotechnical Report	\$0
Hazmat Survey/Documents	\$0 TBD by Owner
Special Inspections/Testing	\$5,000
Material Testing	\$5,000
Legal, Bonding, Insurance	\$0 TBD by Owner
Printing, Mailing, Advertising, Misc.	\$0 TBD by Owner
Moving Expenses, Temp. Storage	\$0 TBD by Owner
Reimbursable Expense	\$10,000
Project Contingency	\$180,000

TOTAL PROJECT COST \$1,600,000

March 9, 2004

CONCEPTUAL ESTIMATE OF PROBABLE COSTS

Summary

The following represents an order of magnitude estimate of total project costs for construction, sitework, and other associated costs for renovations and additions to Academy Elementary School to be used for general planning and budgetary purposes only.

CONSTRUCTION COSTS (March 2004) \$1,975,000

SITE DEVELOPMENT			
Site Utilities & Improvements(septic)	1 ls		\$150,000
Septic System	1 ls		\$65,000
Building Piping Renovation	1 ls		\$85,000
BUILDING			
Elevator	1 ls		\$105,000
Renovation	1,300 sf	\$140.00	\$182,000
New Construction	6,630 sf	\$170.00	\$1,130,000
Subtotal Construction			\$1,717,000
Program/Design Contingency	5%		\$86,000
Construction Contingency	10%		\$172,000

CONSTRUCTION COSTS ESCALATION (July 2006) \$120,000

Escalation to mid-point of Construction	3.0%	2.0 yrs	\$120,000
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CONSTRUCTION PROJECT COSTS \$138,250

CM or GC Fees	7% ls		\$138,250
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TOTAL CONSTRUCTION COST \$2,230,000

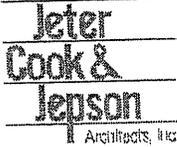
EQUIPMENT \$150,000

Technology Program	88 students	\$1,200.00	\$105,600
Fixtures, Furnishings & Equipment	4 CR	\$10,000.00	\$40,000
FFE/Technology Contingency			\$4,400

PROJECT DEVELOPMENT \$290,000

Site Acquisition			\$0
Architectural/ Engineering Fees(Allow)			\$212,000
Other Professional Fees/Expenses			
Traffic Study			\$0
Food Service Consultant			\$0
FFE Design			\$5,000
Technology			\$10,000
Acoustical Consultant			\$0
Security/Hardware			\$5,000
Soils/Geotechnical Report			\$5,000
Hazmat Survey/Documents			\$0 TBD by Owner
Special Inspections/Testing			\$5,000
Material Testing			\$30,000
Legal, Bonding, Insurance			\$0 TBD by Owner
Printing, Mailing, Advertising, Misc.			\$0 TBD by Owner
Moving Expenses, Temp. Storage			\$0 TBD by Owner
Reimbursable Expense			\$15,000
Project Contingency			\$270,000

TOTAL PROJECT COST \$2,900,000



**Addition & Renovations to Academy School
Madison, CT**

CONCEPTUAL ESTIMATE OF PROBABLE COSTS

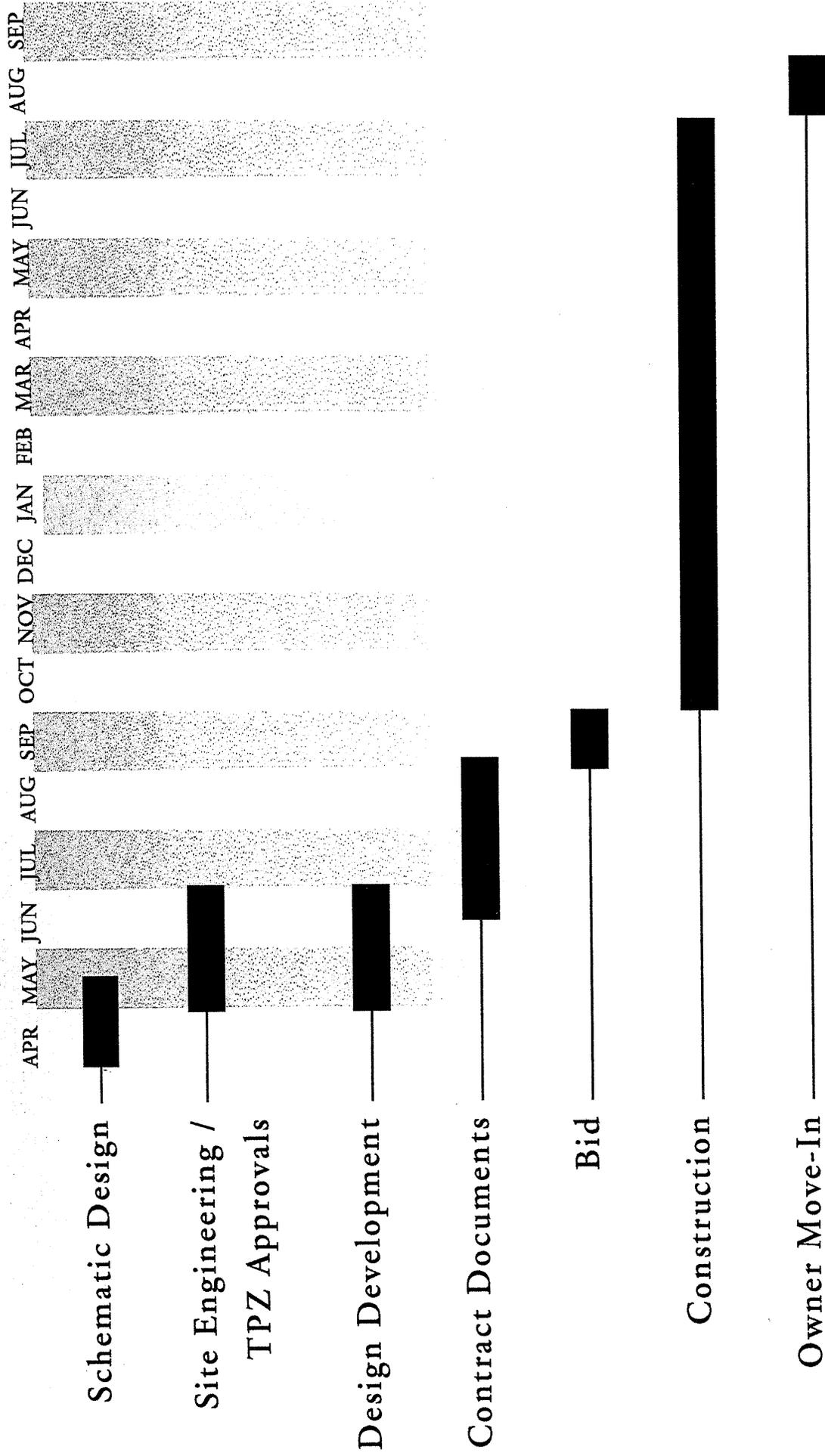
March 9, 2004

Summary

The following represents an order of magnitude estimate of total project costs for construction, sitework, and other associated costs for renovations and additions to Academy Elementary School to be used for general planning and budgetary purposes only.

CONSTRUCTION COSTS (March 2004)				\$3,102,000
SITE DEVELOPMENT				
Site Utilities & Improvements(septic)	1	ls		\$150,000
Septic System	1	ls		\$65,000
Waste Piping/ Septic Tank Renovation	1	ls		\$85,000
BUILDING				
Elevator(4 stop)	1	ls		\$105,000
Renovation	1,300	sf	\$140.00	\$182,000
New Construction	6,630	sf	\$170.00	\$1,130,000
Mechanical/Electrical	1	ls		\$870,000
ADA	1	ls		\$110,000
Subtotal Construction				\$2,697,000
Program/Design Contingency	5%			\$135,000
Construction Contingency	10%			\$270,000
CONSTRUCTION COSTS ESCALATION (July 2006)				\$190,000
Escalation to mid-point of Construction	3.0%	2.0 yrs		\$190,000
CONSTRUCTION PROJECT COSTS				\$217,140
CM or GC Fees	7%	ls		\$217,140
TOTAL CONSTRUCTION COST				\$3,514,000
EQUIPMENT				\$150,000
Technology Program	88	students	\$1,200.00	\$105,600
Fixtures,Furnishings & Equipment	4	CR	\$10,000.00	\$40,000
FFE/Technology Contingency				\$4,400
PROJECT DEVELOPMENT				\$440,000
Site Acquisition				\$0
Architectural/ Engineering Fees(Allow)				\$333,000
Other Professional Fees/Expenses				\$0
Traffic Study				\$0
Food Service Consultant				\$5,000
FFE Design				\$15,000
Technology				\$0
Acoustical Consultant				\$5,000
Security/Hardware				\$5,000
Soils/Geotechnical Report				\$0
Hazmat Survey/Documents				\$0 TBD by Owner
Special Inspections/Testing				\$10,000
Material Testing				\$40,000
Legal, Bonding, Insurance				\$0 TBD by Owner
Printing,Mailing, Advertising, Misc.				\$0 TBD by Owner
Moving Expenses, Temp. Storage				\$0 TBD by Owner
Reimbursable Expense				\$25,000
Project Contingency				\$310,000
TOTAL PROJECT COST				\$4,400,000

PRELIMINARY PROJECT SCHEDULE



Academy Elementary School
ADDITIONS & RENOVATION
MADISON PUBLIC SCHOOLS
 Jeter, Cook & Jepson Architects, Inc.