



Owner: Mark Morris
1602 Mark Morris Court
Longview, WA 98632

Engineers Estimate:

Low Bid:

Construction Cost: \$ 32,000.00

Completion Date: August 2003

Owner's Rep: Bob Pierce
Longview School District
2080 38th Avenue
Longview, WA 98611
Tel: 360.575.7854

Work Included: Mechanical Engineering design services for the replacement of the aging domestic cold water piping. The design included the replacement and insulation of cold water piping and insulation of hot and hot water re-circulating piping. The circulating pump was also replaced in this project. Two alternates will be included in the project for the replacement of two column showers and a floor drain upgrade in the rehab room. Mechanical design and construction observation services will be provided for this scope.

Project Personnel: Rod Roche, P.E. Project Manager, Electrical Lead
Henry Romer, Ph.D., P.E. Mechanical Lead
Kimberly Adamson Mechanical Engineer

Mark Morris High School





Owner: Boston Harbor Elementary
7300 Zangle Road NE
Olympia, WA 98501

Engineers Estimate: \$28,000.00

Low Bid:

Construction Cost: \$38,898.00

Completion Date: August 1998

Owner's Rep: Robert Wolpert
Olympia School District
1113 Legion Way SE
Olympia, WA 98501
Tel: 360.753.0164

Work Included: Provided budget estimate for removal of direct fired furnace burner and replacing it with duct furnaces. Provided documentation of the size of duct furnace, number of duct furnaces required, and budget estimates.

Project Personnel: Rod Roche, P.E. Project Manager, Electrical Lead
Henry Romer, Ph.D., P.E. Mechanical Lead

***Boston Harbor
Elementary School***





Owner: Hansen Elementary School
1919 Road Sixty-Five NW
Olympia, WA 98502
360-596-7400

Engineers Estimate:

Low Bid:

Construction Cost: \$38,898.

Completion Date: August 1998

Owner's Rep: Robert Wolpert
Olympia School District
1113 Legion Way SE
Olympia, WA 98501
Tel: 360.753.0164

Work Included: Provided budget estimate for removal of direct fired furnace burner and replacing it with duct furnaces. Provided documentation of the size of duct furnace, number of duct furnaces required, and budget estimates.

Project Personnel: Rod Roche, P.E. Project Manager, Electrical Lead

Henry Romer, Ph.D., P.E. Mechanical Lead

Kimberly Adamson Mechanical Engineer

***Hansen Elementary
School***





Pioneer Elementary



Owner: Pioneer Elementary
1655 Carlyon Avenue SE
Olympia, WA 98501

Engineers Estimate:

Low Bid:

Construction Cost: \$215,000.

Completion Date: August 1998

Owner's Rep: Robert Wolpert
Olympia School District
1113 Legion Way SE
Olympia, WA 98501
Tel: 360.753.0164

Work Included: Provided mechanical services and replaced existing controls and equipment from the roof into the electrical closets. Installed electrical circuits through the curb penetrations in to the new equipment. Relocated existing electrical panels and equipment from the roof into the electrical closets. Installed electrical circuits through he curb penetrations into the new equipment.

Project Personnel: Rod Roche, P.E. Project Manager, Electrical Lead
Henry Romer, Ph.D., P.E. Mechanical Lead
Kimberly Adamson Mechanical Engineer



**Castle Rock
Elementary School**



Owner: Castle Rock Elementary
700 Huntington Avenue South
Castle Rock, WA 98611

Engineer Estimate: \$3,929,000.00

Low Bid: \$3,900,000.00

Construction Cost: \$3,972,634.00

Completion Date: September 1999

Owner's Rep: Castle Rock School District No. 401
600 Huntington Avenue South
Castle Rock, WA 98611
Tel: 360.274.8311

Architect: Jimmy Luey
LRS Architects
1121 SW Salmon Street
Suite 100
Portland, OR 97205
Tel: 503.221.1121

Work Included: This project included both mechanical and electrical engineering design for a complete building modernization and addition. Modernization included removal of existing fan coil units, heat exchange units, boilers and chiller. Also removed all plumbing fixtures and accessible domestic piping. Disposed of existing boiler and piping and removed existing electrical service, accessible building wiring, and all panel boards.

Provided new boilers and hydronic piping, (3) new air handling units in fan rooms and new VAV boxes with hydronic reheat for each zone. Provided new supply, return, and exhaust ductwork including grilles and diffusers. Provided new DDC system, saw cut slab and provided new building waste piping. Provided new plumbing fixtures, domestic water piping from water meter, new water heaters and circulation pumps for domestic supply including new fire protection system. Provided new gas piping from meter to all water heaters and kitchen equipment.

Project Personnel:
Henry Romer, Ph.D., P.E. Project Manager, Mechanical Lead
Kim Adamson Mechanical Engineer



Owner: Pierce College
9401 Farwest Drive SW
Lakewood, WA 98498

Engineers Estimate: \$55,383

Low Bid: \$71,250

Construction Cost: 79,832.62

Completion Date: 1999

Owner's Rep: Al Downs
Pierce College
9401 Farwest Drive SW
Lakewood, WA 98498
Tel: 253.964.6588

Work Included: Evaluated exiting HVAC and provided full engineering design for new HVAC for the campus bookstore, including construction and closeout.

Project Personnel: Kim Adamson Project Manager, Mechanical Lead

***Pierce College
Bookstore HVAC
Upgrade***



Owner: Washougal High School
2349 B Street
Washougal, WA 98671

Engineer Estimate: \$3,016,004.00

Low Bid: \$3,188,700.00

Construction Cost: \$15,204,000.00 (Total)
\$3,149,004.00 (RAE)

Completion Date: September 2001

Owner's Rep: Bob Donaldson
Washougal School District
1201 39th Street
Washougal, WA 98671
Tel: 360.954.3100

Architect: JFC Architects
7510 NE Vancouver Mall Drive, Suite 200
Vancouver, WA 98671
Contact: John Crook

Work Included: Mechanical design for modernization and addition to a 145,000 square foot high school and stadium. Additions include gym, choir and science spaces. Provided new HVAC, plumbing, DDC controls and fire sprinkler. Special phasing was required to allow for operation of the existing boiler and heating water systems during construction. Phasing details were carefully developed to assure that spaces were not "orphaned" by demolition or new construction blocking access to ventilation openings. Existing below grade piping was maintained until all new piping was installed. All of the phasing efforts allowed for this extensive project to take place while the building was still in use for education purposes.

Project Personnel: Henry Romer, P.E. Project Manager, Mechanical Lead
Kim Adamson Mechanical Engineer

**Washougal High
School**





**Cape Horn Skye
Elementary**



Owner: Cape Horn Skye Elementary
9731 Washougal River Road
Washougal, WA 98671

Engineer Estimate: \$2,276,718.00

Low Bid: \$2,190,605

Construction Cost: \$9,800,000.00

Completion Date: September 2001

Owner's Rep: Bob Donaldson
Washougal School District
2349 B Street
Washougal, WA 98671
Tel. 360.954.3100

Architect: Bill Conboy
JFC Architects
7510 NE Vancouver Mall Drive
Suite 200
Vancouver, WA 98662
Tel. 360.833.2820

Work Included: Provided mechanical and electrical services for the modernization and addition of a 95,980 square foot elementary school. Provided new HVAC, plumbing, DDC controls and fire sprinkler. Mechanical designs permitted operation of existing boiler and heating water systems while new systems were constructed. New over-roof areas were used to extend new HVAC systems to completed as existing areas continued to be used. Existing plumbing fixtures and domestic piping were utilized until all new domestic piping was installed and ready for use.

Project Personnel:

Henry M. Romer, Ph.D, P.E. Project Manager, Mechanical Lead

Rod Roche, P.E. Electrical Lead



Owner: Mt. Solo New Middle School
2210 Olympia Way
Longview, WA 98632

Engineers Estimate: \$15,000,000.00

Low Bid: \$13,192,135.00

Construction Cost: \$15,000,000 (Total)
\$3,500,000 (RAE)

Completion Date: May 2003

Owner's Rep: Bob Pierce
Longview School District
2715 Lilac Street
Longview, WA 98632
Tel: 360.575.7854

Architect: Northwest Architectural Co.
2201 Sixth Avenue, Suite 1405
Seattle, WA 98121
Contact: Malcolm Jollie

Work Included: Mechanical and electrical design for a new 80,000-sq. ft. middle school. Mechanical design included four-pipe fan coil system with (2) boilers, chiller and heat exchange units for increased building efficiency. Design also included domestic water system including all fixtures and the building fire sprinkler system. A DDC system provided control and monitoring for mechanical and electrical equipment.

Electrical design included interior and exterior building lighting, power, communications and fire alarm. Design also included CCTV/CATV and security systems. Offsite electrical design included street lighting, electronic sensor crosswalk system and a sewage lift station.

Project Personnel: Henry Romer, P.E. Project Manager, Mechanical Lead
Rod Roche, P.E. Electrical Lead
Dan Fox Mechanical Engineer
Jeryl Stevenson Electrical Designer

Mt. Solo Middle School





RA Long High School



Owner: RA Long High School
2903 Nichols Boulevard
Longview, WA 98632

Engineers Estimate:

Low Bid:

Construction Cost: \$219,279.0

Completion Date:

Owner's Rep: Bob Pierce
Longview School District
2715 Lilac Street
Longview, WA 98632
Tel: 360.575.7156

Work Included: Replaced domestic piping in RA Long High School Science wing. Added wash stations in labs and replaced sink taps and faucets.

Project Personnel: Henry Romer, Ph.D., P.E. Mechanical Lead
Kimberly Adamson Mechanical Engineer



Owner: Olympic Elementary School
1324 30th Avenue
Longview, WA 98632

Engineer Estimate: \$1,089,000.00

Low Bid: \$1,026,000.00

Construction Cost: \$1,153,134.00

Completion Date: September 2003

Owner's Rep: Bob Pierce
Longview School District
2080 38th Avenue
Longview, WA 98611
Tel: 360.575.7854

Work Included: Mechanical design for HVAC system replacement and electrical upgrade. Project Scope included new fan coil units, heat exchange units, hydronic piping, boilers and chillers. Also provided electrical design for DDC controls, and upgrades to electrical switchboards and classroom receptacle power. Challenges included completing all the work in this project over a 2-½ month construction period (summer break). In addition, separate projects were taking place in the building to replace carpeting, doors, windows and paint the entire facility. This required close coordination between the individual projects.

Project Personnel: Rod Roche, P.E. Project Manager, Electrical Lead
Henry Romer, Ph.D., P.E. Mechanical Lead

Olympic Elementary School





Owner: Northlake Elementary School
2210 Olympia Way
Longview, WA 98632

Engineers Estimate: \$925,000.00

Low Bid:

Construction Cost: \$995,000.00

Completion Date: 2005

Owner's Rep: Bob Pierce
Longview School District
2715 Lilac Street
Longview, WA 98632
Tel: 360.575.7854

Work Included: Mechanical and Electrical design for HVAC and electrical upgrade of existing school. Mechanical design includes replacement of existing steam convector system with new hydronic system including boilers, chiller, fan coil units, and heat exchangers. Electrical design includes replacement of building electrical service, switchboard, feeders and all panel boards. Additional power receptacles will be added in all classrooms to accommodate the increased needs of technology programs (personal computers, large video displays, VCR's, etc.). Classrooms are located in the main building, the annex building and three separate "portable" classrooms. Project challenges included the compressed construction period. All construction will take place over the 2-½ month summer break.

Project Personnel: Rod Roche, P.E. Project Manager, Electrical Lead

Henry Romer, Ph.D., P.E. Mechanical Lead

***Northlake Elementary
School***





Owner: Monticello Middle School
28th and Hemlock
Longview, WA 98632

Engineers Estimate: \$7,290,000.00

Low Bid: \$8,344,000.00

Construction Cost: \$8,344,000.00
(RAE, \$3,995,464.00)

Completion Date: 2004

Owner's Rep: Bob Pierce
Longview School District
2715 Lilac Street
Longview, WA 98632
Tel: 360.575.7854

Work Included: Modernization and addition to existing 100,000 square foot middle school. Replaced existing gas and electric boilers with two new 1,300 MBH gas boilers. Provided pumps and all new hydronic equipment for this project. Provided complete HVAC system including four pipe fan coil units, heat exchange units and chiller. Project also included new DDC system, plumbing fixtures and new fire sprinkler protection system.

Electrical design included replacement of entire lighting and power distribution systems including new building service, switchboard and panelboards throughout. Design also provided for new telecommunications, fire alarm, intercom, CCTV/ CATV and security systems.

Project Personnel: Rod Roche, P.E. Project Manager, Electrical Lead
Henry Romer, P.E. Mechanical Lead

Monticello Middle School

