

# Resident Cottage HVAC and Hot Water Upgrades Project No. 2022-453

## MECHANICAL & ELECTRICAL ENGINEERING

**DSHS - Fircrest School**

**Statement of Qualifications**





June 10, 2022

Department of Social and Health Services  
dean.heglund@dshs.wa.gov  
kari.robecker@dshs.wa.gov

Attention: Dean Heglund & Kari Robecker

Subject: Fircrest School | Resident Cottage HVAC and Hot Water Upgrades  
Project No. 2022-453

To Whom It May Concern:

We appreciate this opportunity to submit our qualifications for your review. We would like to be considered for Fircrest School's Resident Cottage HVAC and Hot Water Upgrades.

Hultz|BHU Engineers provides the knowledge, skill and capacity to complete the engineering needs for the HVAC and Hot Water Upgrades at the Fircrest School. Our firm has provided the same system replacements for buildings similar to this, including healthcare facilities, psychiatric hospitals, jails, and correctional facilities.

Our many years of experience designing mechanical and electrical systems also includes working extensively on the Fircrest School campus. This experience makes our firm familiar with the staff and the special security procedures involved in these types of occupied facilities. We understand the expected requirements to successfully and thoroughly complete this project.

We specialize in the design of heating, ventilation, air conditioning, plumbing, and exhaust systems; as well as power/lighting, low voltage, fire alarms, data, intercom/public address systems.

Hultz|BHU Engineers is committed to working in partnership with DSHS and Fircrest School staff in order to meet all design needs and overcome any challenges to ensure your satisfaction.

We thank you for your consideration and hope we have the opportunity to continue working with you.

Sincerely,  
Hultz|BHU Engineers, Inc.

Rick Hultz, PE  
President



**STATE OF WASHINGTON**  
**DEPARTMENT OF ENTERPRISE SERVICES**

*1500 Jefferson St. SE, Olympia, WA 98501  
 PO Box 41476, Olympia, WA 98504-1476*

**Designated Point of Contact for Statement of Qualifications**

Point of Contact Name and Title	Rick Hultz, President		
Firm Name	Hultz BHU Engineers		
Address	1111 Fawcett Avenue, Suite 100		
City	Tacoma	State	Washington Zip 98402
Telephone	253.383.3257	Email	rickh@hultzbhu.com

**Addresses of multiple office locations of firm (if applicable)**

Address	
City	Phone
Address	
City	Phone
Address	
City	Phone
Address	
City	Phone

**Diverse Business Certifications (if applicable)**

***Certification issued by the Washington State Office of Minority and Women’s Business Enterprise (OMWBE)***

- Minority Business Enterprise (MBE)
- Woman Business Enterprise (WBE)
- Minority Women Business Enterprise (MWBE)

***Certification issued through the Washington State Department of Veteran’s Affairs***

- Veteran Owned Business

***Certification issued through Washington Electronic Business Solution (WEBS)***

- Small Business Enterprise (SBE)

# COVID-19 Vaccine Requirements

21-14.1 - Proclamation by the Governor

***Consultant confirms they have reviewed and understands the requirements of the Governors 21-14.1 COVID-19 Vaccine proclamation. <https://www.governor.wa.gov/sites/default/files/proclamations/21-14.1%20-%20COVID-19%20Vax%20Washington%20Amendment.pdf>***

Confirm reviewed and understand

***Consultant has completed and attached COVID-19 Vaccine Verification Declaration form dated September 17, 2021 to this document.***

***<https://www.des.wa.gov/sites/default/files/public/documents/Facilities/EAS/Forms/PW->***

***[Contractor COVID19-VacVerificationDecCert\\_9-17-2021.pdf?=&=3541a](https://www.des.wa.gov/sites/default/files/public/documents/Facilities/EAS/Forms/PW-Contractor_COVID19-VacVerificationDecCert_9-17-2021.pdf?=&=3541a). Failure to attach COVID-19 Vaccine Verification Declaration will result in disqualifying submittal.***

Declaration form completed and attached.



**PROCLAMATION BY THE GOVERNOR**

**21-14.1- COVID-19 VACCINATION REQUIREMENT**

**COVID-19 VACCINATION VERIFICATION DECLARATION FORM**

**AGENCY AGREEMENTS AND PUBLIC WORKS CONTRACTS**

Contract No.:	2022-453
Project Name:	Fircrest School – Resident Cottage HVAC and Hot Water Upgrades
Consultant or Contractor Name:	Hultz/BHU Engineers, Inc.

*To reduce the spread of COVID-19, Washington state Governor Jay Inslee, pursuant to emergency powers authorized in [RCW 43.06.220](#), issued [Proclamation 21-14 – COVID-19 Vaccination Requirement](#) (dated August 9, 2021), as amended by [Proclamation 21-14.1 – COVID-19 Vaccination Requirement](#) (dated August 20, 2021) and as may be amended thereafter. The Proclamation requires consultants or contractors who provide goods and services or perform public works with a Washington state agency to ensure that their personnel (including subconsultants and subcontractors) who perform contract activities on-site comply with the COVID-19 vaccination requirements, unless exempted as prescribed by the Proclamation.*

I hereby certify, on behalf of the consultant or contractor identified above, as follows (check one):

**CONSULTANT OR CONTRACTOR HAS IMPLEMENTED A COVID-19 CONTRACTOR VACCINATION VERIFICATION PLAN THAT COMPLIES WITH THE VACCINATION REQUIREMENTS OUTLINED BY PROCLAMATION 21-14.1.**

The consultant or contractor:

- Has reviewed and understands the consultant’s or contractor’s obligations as set forth in [Proclamation 21-14 – COVID-19 Vaccination Requirement](#) (dated August 9, 2021), as amended by [Proclamation 21-14.1 – COVID-19 Vaccination Requirement](#) (dated August 20, 2021);
- Has implemented and agrees to update a COVID-19 Vaccination Verification Plan for its personnel that complies with Proclamation 21-14.1, and further:
  - Has required its subconsultants and subcontractors at every tier to develop, keep updated, and implement a COVID-19 Vaccination Verification Plan for their personnel, and has the subconsultant or subcontractor to prepare, submit and update (as necessary) a **COVID-19 VACCINATION VERIFICATION DECLARATION FORM(S)** from each subconsultant and subcontractor at every tier for the contract-referenced above, and agrees to make said **COVID-19 VACCINATION VERIFICATION DECLARATION FORM(S)** available for inspection upon the Agency’s request; **and/or**
  - Has obtained a copy or visually observed proof of full vaccination against COVID-19 for the consultant’s or contractor’s personnel and has required its subconsultants and

subcontractors at every tier to do the same for all individuals subject to the vaccination requirement in Proclamation 21-14.1;

- Complies with the requirements for granting disability and religious accommodations for the consultant's or contractor's personnel (including the personnel of subconsultants or subcontractors), who are subject to the vaccination requirement in Proclamation 21-14.1;
- Has operational procedures in place to ensure that any contract activities that occur in person and on-site at Owner/Agency premises will be performed by personnel who are fully vaccinated or properly exempted as required by Proclamation 21-14.1 (including the personnel of its subconsultants or subcontractors), except for those contract activities performed for a short period of time during a given day and where moments of close proximity to others on-site will be fleeting – e.g., a few minutes for deliveries;
- Has operational procedures in place to enable consultant's or contractor's personnel (including subconsultants and subcontractors) who perform contract activities on-site and at Agency premises to provide compliance documentation that such personnel remain in compliance with Proclamation 21-14.1 and all applicable health and safety regulations, standards guidelines, etc.;
- Agrees to provide copies of COVID-19 Vaccination Verification Plans and related records within 24 hours of the Owner/Agency's request, except as may be prohibited by law. The consultant or contractor further agrees to cooperate with any investigation or inquiry by the Owner/Agency pertaining to the compliance of the vaccination requirements as outlined by Proclamation 21-14.1.

**OR**

- CONSULTANT OR CONTRACTOR DOES NOT HAVE AND/OR CANNOT IMPLEMENT A COVID-19 CONTRACTOR VACCINATION VERIFICATION PLAN.** The consultant or contractor does not have and/or cannot implement a current COVID-19 Contractor Vaccination Verification Plan, and the consultant or contractor is not able to develop or provide a COVID-19 Contractor Vaccination Verification Plan or documentation demonstrating its personnel meet the COVID-19 vaccination requirements as set forth in Proclamation 21-14.1 and provide the same to the Owner/Agency on or before October 18, 2021. [Note: Compliance with Proclamation 21-14.1 is mandatory for on-site contract activities performed by the personnel of consultants or contractors at every tier as prescribed by the Proclamation.]

I hereby certify, under penalty of perjury under the laws of the State of Washington, that the certifications herein are true and correct and that I am authorized to make these certifications on behalf of the firm listed herein.

By: Richard Hultz Richard Hultz  
Signature of authorized person Print Name of person making certifications

Title: President Place: Tacoma, WA  
Title of person signing certificate Print city and state where signed

Date: June 10, 2022

**Return this COVID-19 Vaccination Verification Certification to the assigned DES Project Manager.**

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Hultz|BHU Engineers is a mechanical/electrical engineering consulting firm, located in Tacoma, Washington. Established in 1990, Hultz|BHU Engineers has been providing innovative, sustainable, and quality engineering for decades. Hultz|BHU Engineers is especially experienced in handling difficult projects involving phased construction, alterations to existing facilities, and work in occupied buildings.

We specialize primarily in medical care facilities, where we are working with long term facilities, and often those with limited budgets; requiring careful planning and efficient solutions. We understand that the choices we make, and the designs we create, will be with Owners long into the future. So we evaluate carefully our decisions and work closely with Owners and their staff.

Our work includes all types of building mechanical and electrical systems, life cycle cost analysis, building assessments, cost estimating, and commissioning work for all types of public facilities. Our projects have included pre-design studies, remodels, additions, miscellaneous mechanical and electrical repairs, as well as new facilities. We have a high degree of proficiency in evaluating field conditions and designing project remodels and system replacements. Our designs are innovative, but also practical, and are created to suit each client's unique situation and budget.

We have worked on the majority of the DSHS campus facilities, including Fircrest School, Rainier School, Western State Hospital, Yakima Valley School, CSTC, Green Hill School, Echo Glen Children's Center, Naselle Youth Camp, and the Maple Lane School. We have also provided specific system upgrades on the Fircrest School campus which include, HVAC replacements, chiller/boiler replacements, electrical upgrades, and roof replacements.



### SERVICES PERFORMED:

- Sustainable Design
- Commissioning
- Value Analysis
- Value Engineering
- Constructability Review
- Energy Audits & Modeling
- Life Cycle Cost Analysis
- Phasing Coordination
- Infrastructure Planning
- LEED® Coordination
- Feasibility Studies
- Energy Code Compliance
- Project Management
- Cost Estimating
- Construction Administration
- Existing Conditions Assessment
- Bid Phase Services
- Schematic Design
- Code Review & Analysis

### MECHANICAL ENGINEERING:

- Heating, Ventilation, and Air Conditioning Systems (HVAC)
- Fire Sprinkler & Suppression Systems
- Controls
- Boiler & Chiller Plant Systems
- Hydronic
- Plumbing System Design
- Specialized Exhaust Systems
- Heat Recovery
- Indoor Air Quality
- Shop Piping Systems
- Fuel Piping
- Domestic Water Service & Distribution
- Energy Management Control Systems (EMCS)
- Utility Rebate Coordination

### ELECTRICAL ENGINEERING:

- Electrical Power Distribution Systems
- Generator Systems
- Photovoltaic Systems
- Site Power & Signal Utilities
- Interior/Exterior Lighting Design
- Interior/Exterior Lighting Analysis
- Communication Systems: Voice/Data Signaling (Telephone, Fiber Optics, Ethernet, LAN Systems)
- Fire Alarm System Planning & Design
- Lighting Controls
- Security & Access Control Systems
- Closed Circuit Television Systems
- Intercom & Clock Program Systems

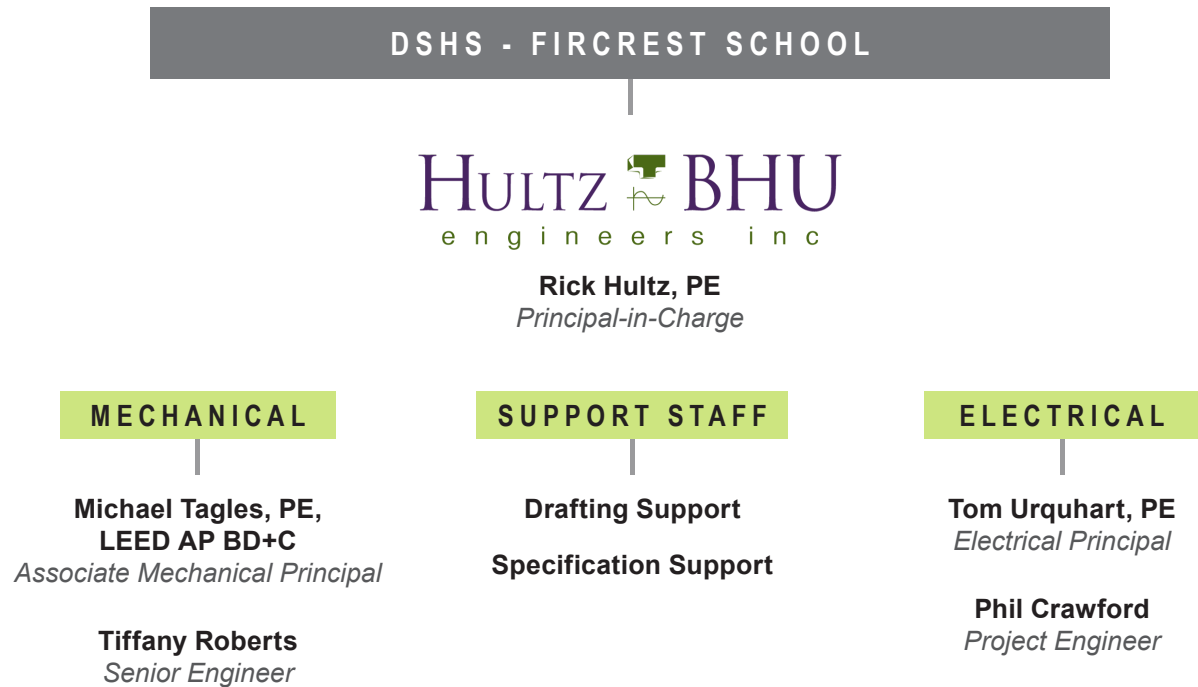


Hultz|BHU Engineers has had the opportunity to work with the Department of Social & Health Services for over 20 years. We have extensive experience working inside most of the healthcare facilities in Washington, some of which include: Fircrest School, Rainier School, Western State Hospital, Green Hill School, and the Child Study & Treatment Center. These various levels of working relationships have provided us with exposure to all types of secured healthcare/psychiatric facilities and the governmental requirements and procedures required.

Some of our healthcare/psychiatric clients have included:

- Fircrest School
- Western State Hospital
- Green Hill School
- Child Study & Treatment Center
- Rainier School
- Maple Lane School
- Echo Glen Children's Center
- Naselle Youth Camp
- Oakridge Group Home
- Yakima Valley School
- Transitional Care Center of Seattle
- Kitsap Mental Health
- Veterans Affairs
- Thurston-Mason County Mental Health
- Multicare Medical Center
- Allenmore Hospital
- Good Samaritan Hospital
- Grays Harbor Medical Center
- Providence Medical Center
- Special Commitment Center | King County Secure Community Transition Facility
- Fresenius Health Centers
- Valley View Health Centers





Hultz|BHU Engineers will be acting as the Prime Consultant on the Resident Cottage HVAC and Hot Water Upgrades. Over the years, we have been involved in the mechanical and electrical remodels, replacements, repairs, and upgrades to numerous buildings on the Fircrest School campus. These various levels of working relationships have provided us with exposure to all types of project requirements and procedures, providing consistent and strong mechanical systems that fit Fircrest School's needs.

As the Principal-in-Charge, Rick Hultz will oversee and manage all personnel throughout the project. Having over 35 years of experience in project management, designing mechanical systems, and building studies for healthcare facilities, Rick is a critical asset to our team.

Our proposed Mechanical team includes Michael Tagles and Tiffany Roberts. They will be responsible for the specific design of this project's HVAC system, working closely with the Fircrest School staff. Both team members have extensive experience with Fircrest School facilities, and understand the unique needs that occupied facilities like the buildings on campus require. Our team also includes, Tom Urquhart, as our Electrical Principal and Phil Crawford as the Electrical Engineer. Tom and Phil will be responsible for support of the Cottage upgrades. All of our team members have completed numerous projects like this in the past, and with our team "In-House", we are easily able to coordinate any findings and recommendations we may have for upgrades to the system.

By organizing our team in this manner, we are able to provide Fircrest School with the experience required for this type of project. With our team "In-House", we can establish constant communication within our firm, and are able to successfully complete this project in a timely manner. Our team provides the knowledge, skill, and capacity to complete these HVAC and Hot Water Upgrades for DSHS and the Fircrest School. Years of experience, an extensive number of successful similar healthcare projects, as well as the knowledge of these types of system replacements is what we will bring to this project.



### **Rick Hultz, PE** *Principal-in-Charge*

Rick Hultz has been active in the design of mechanical systems for more than forty years, working as principal engineer for Hultz & Associates and Hultz|BHU Engineers for the last thirty-one years, and prior to that as lead mechanical engineer for another local architectural/engineering firm.

Rick's experience includes the design of building HVAC systems, exhaust systems, boiler/chiller plants, plumbing systems, fire protection systems, and controls. In addition, he provides energy studies, cost estimating, and construction reviews. His projects have ranged from as large as 500,000 square feet, involving multiple buildings with phased construction, as well as numerous remodels and additions.

Throughout the many years of working with DSHS and DES, Rick has successfully completed numerous remodels, additions, and upgrades to numerous health facilities throughout Washington. He is familiar with the State Contracting that each of these projects require. Rick has committed 20% of his time towards the success of this project.

### **RELEVANT PROJECT EXPERIENCE**

- DSHS | Fircrest School | Duplex Building 311/312 | Mechanical Improvements
- DSHS | Fircrest School | Activities Building | Air Conditioning Addition
- DSHS | Fircrest School | Kitchen Freezer Repairs
- DSHS | Fircrest School | Elevator Modernization
- DSHS | Fircrest School | Activities Building | Boiler Replacement
- DSHS | Fircrest School | Building 65 | Roof Replacement
- DSHS | Fircrest School | Kitchen Plumbing Repairs
- DSHS | Fircrest School | Y Buildings | Boiler Replacement
- DSHS | Yakima Valley School | HVAC Replacement & Repairs
- DSHS | Rainier School | Central Kitchen | HVAC Replacement
- DSHS | Green Hill School | Building A | HVAC Upgrades
- DSHS | Seattle Nursing Facility | Water System Improvements
- DSHS | Rainier School | Residence Units | Study & Air Conditioning Addition
- DSHS | Green Hill School | Recreation Building | HVAC Upgrades
- DSHS | Maple Lane School | HVAC Review
- DSHS | Western State Hospital | Central Boiler Plant | New Steam Boilers
- DSHS | Rainier School | Water Main Replacement
- DSHS | Child Study & Treatment Center | Ketron Cottage | Remodel & Addition
- DSHS | Western State Hospital | New Kitchen/Commissary & Pre-design
- DSHS | Rainier School | Cottages | Remodel
- DSHS | Western State Hospital | Campus Steam Repairs
- DSHS | Special Commitment Center | King County Secure Community Transition Facility | Expansion
- DSHS | Western State Hospital | Forensic Services Center | Two Wards Addition
- Veterans Affairs | WA Soldiers Home | Nursing Care | Air Conditioning Addition

### **EDUCATION/REGISTRATION**

B.S., Mechanical Engineering,  
University of Washington, 1981

Professional Mechanical Engineer:  
WA 1985, OR 1988, CO 1999, IL  
2000, CA 2005, FL 2017, HI 2017,  
TX 2018, Arizona 2019, Idaho 2020,  
New Mexico 2021, Nevada 2021

### **PROFESSIONAL ASSOCIATIONS**

Member, National Society of  
Professional Engineers (NSPE)

Member, American Society of  
Mechanical Engineers (ASME)

Member, American Society of  
Heating, Refrigeration, and Air  
Conditioning Engineers (ASHRAE)

Member, Society of Fire Protection  
Engineers (SFPE)



### **Michael Tagles, PE, LEED AP BD+C**

#### ***Associate Mechanical Principal***

Michael Tagles has worked on the design of a variety of building mechanical systems for over twenty-eight years. His designs have included heating, ventilation, air conditioning, plumbing, specialized exhaust systems, and associated engineering analyses. Michael is a LEED® Accredited Professional, and has worked on a number of projects that have received high LEED certification status.

Michael has experience that includes working directly for a Contractor as the on-site engineer to ensure project compliance with project documents, and also as part of the Owner's A/E Team in preparing complete plans and specifications for bidding. He routinely works with the appropriate utility providers in order to improve the energy efficiency of each project.

Michael has worked on numerous State health facility campuses, providing him with the knowledge of the unique requirements these facilities require. Michael has committed 20% of his time towards the success of this project.

#### **RELEVANT PROJECT EXPERIENCE**

- DSHS | Fircrest School | Building 65/66 | Renovation
- DSHS | Transitional Care Center of Seattle | Water System Review
- DSHS | Naselle Youth Camp | Visitors Center | Heating System Replacement
- DSHS | Echo Glen Children's Center | Cottages | HVAC Control Upgrades
- DSHS | Child Study & Treatment Center | Administration | Boiler Replacement
- DSHS | Echo Glen Children's Center | Cottages | Cooling Upgrades
- DSHS | Green Hill School | Building A | HVAC Upgrades
- DSHS | Echo Glen Children's Center | Cottage 4 | Pre-Design Study
- DSHS | Green Hill School | Baker Cottage | Pre-Design
- DSHS | Naselle Youth Camp | Moolock Lodge | Pre-Design
- DSHS | Yakima Valley School | Cottage | Fire Sprinkler Replacement
- DSHS | Child Study & Treatment Center | Camano | Boiler Replacement
- DSHS | Naselle Youth Camp | Domestic Water Heater Replacement
- St. Michael's Medical Center | Domestic HW System Replacement
- Providence St. Peter Hospital | Professional Building | HVAC Replacement
- Allenmore Hospital | Emergency Department | Expansion
- Life Care Center of Cottesmore | Skilled Nursing & Rehabilitation Center
- Lea Hill Rehabilitation & Care Center
- Horizon House | Memory Care Expansion
- Life Care Center of Federal Way | Skilled Nursing & Rehabilitation Center
- Panorama Assisted Living Facility | Expansion
- Avalon Senior Care Facility of Pullman
- Life Care Center of Mt. Vernon | Skilled Nursing & Rehabilitation Center Remodel
- Capitol Campus | WSDOT Building | Water System Improvements
- Forks Hospital | HVAC Improvements

#### **EDUCATION/REGISTRATION**

B.S., Mechanical Engineering,  
University of Washington, 1994

Professional Mechanical Engineer:  
Washington 2011, Georgia 2021

#### **PROFESSIONAL ASSOCIATIONS**

Member, National Fire Protection  
Agency (NFPA)

Member, American Society of  
Mechanical Engineers (ASME)

Member, American Society of  
Heating, Refrigeration, and Air  
Conditioning Engineers (ASHRAE)

LEED® Accredited Design  
Professional, BD+C



### **Tom Urquhart, PE**

#### ***Electrical Principal***

Tom Urquhart has more than forty years of experience as an electrical design and consulting engineer. His experience includes condition assessment, cost estimating, specification writing, project document preparation, design, and construction administration for small, medium, and large projects involving electrical work covered under Divisions 26, 27, and 28 of the Construction Specification Institute Manual of Practice.

After serving four years with the U.S. Air Force as an officer attached to a Civil Engineering Squadron, Tom has since been with Hultz|BHU Engineers. He has performed studies, code analysis, cost estimating, planning and design of renovations, upgrades, and new construction for electrical systems that include lighting, power distribution (above and below 600 volts), structured cabling, security, and life safety systems.

Tom has been the electrical engineer of record for numerous DSHS and DES projects. Tom has allotted 20% of his time to working on this project.

#### **RELEVANT PROJECT EXPERIENCE**

- DSHS | Fircrest School | Activities Building | Air Conditioning Addition
- DSHS | Fircrest School | Duplex Building 49 | Electrical Improvements
- DSHS | Fircrest School | Campus Electrical Study
- DSHS | Fircrest School | Building 65/66 | Renovation
- DSHS | Rainier School | Residence Units | Study & Air Conditioning Addition
- DSHS | Yakima Valley School | HVAC Replacement & Repairs
- DSHS | Rainier School | Central Kitchen | HVAC Replacement
- DSHS | Child Study & Treatment Center | Orcas Cottage | Addition
- DSHS | Naselle Youth Camp | Visitors Center | Heating System Replacement
- DSHS | Western State Hospital | Forensic Services Center | Two Wards Addition
- DSHS | Rainier School | Cottages | Remodel & Renovation
- DSHS | Green Hill School | Intensive Management Unit
- DSHS | Western State Hospital | New Kitchen/Commissary
- DSHS | Rainier School | Medium Voltage Improvements
- DSHS | Green Hill School | Residential Mental Health Unit
- DSHS | Naselle Youth Camp | Kitchen Improvements
- Horizon House | Senior Memory Care Facility | Expansion
- Life Care Center of Cottesmore | Skilled Nursing & Rehabilitation Center
- Allenmore Hospital | Emergency Department Expansion
- Rainier Vista Care Center | HVAC Upgrades
- Ollala Recovery Center | Mechanical & Electrical Remodel
- Life Care Center of Federal Way | Skilled Nursing & Rehabilitation Center
- Panorama Assisted Living Facility | Expansion
- Emerald City Enhanced Services | Nursing Care Facility | Electrical Upgrades
- Jefferson House | Memory Care Facility
- Life Care Center of Mt. Vernon | Skilled Nursing & Rehabilitation Center Remodel

#### **EDUCATION/REGISTRATION**

B.S., Electrical Engineering, Virginia Military Institute, 1972

Professional Electrical Engineer: Washington 1979, Oregon 1983, Colorado 1995, Arizona 1997, Illinois 1999, Texas 2002, North Carolina 2007, Florida 2012, New Mexico 2021, California 2021

#### **PROFESSIONAL ASSOCIATIONS**

Member, National Society of Professional Engineers (NSPE)

Member, National Fire Protection Agency (NFPA)



### DSHS | WESTERN STATE HOSPITAL | TWO WARDS ADDITION

Role: *Mechanical & Electrical Engineer*

Delivery Method: *Design-Bid-Build*

Budget: *\$4.5 million (M&E)*

Completed Cost: *\$4.9 million (M&E)*

Description: *New 41,000 square foot, 2-story ward addition to Building 28 (Forensic Services Center) at Western State Hospital. Project includes 62 bedrooms, day rooms, nurse stations, offices, and associated support spaces (i.e. kitchen, laundry, calm room, storage, etc.). Work includes new pre-action fire sprinkler system using institutional type sprinkler heads, multiple shower stations and anti-ligature components matching the Hospital's latest standards.*

Reference: *Nick Munch, nmunch@generalmechanical.com, 253.627.8155*

### DSHS | RAINIER SCHOOL STUDY & AIR CONDITIONING ADDITION TO RESIDENCE UNITS

Role: *Mechanical & Electrical Engineer*

Delivery Method: *Design-Bid-Build*

Budget: *\$360,000 (M&E)*

Completed Cost: *\$500,000 (M&E)*

Description: *Project included adding air conditioning to skilled nursing buildings at the DSHS Rainier School campus in Buckley. Work included study of options and life cycle analysis to select new air conditioning systems at campus residences. Work included an analysis of the campus electrical systems to select lowest cost units to implement cooling in first, and added costs/work for electrical infrastructure improvements to allow air conditioning to all buildings.*

*The buildings original HVAC systems used constant volume heating off the central steam plant. The new residence systems use a high efficiency VRF (variable refrigerant flow) system with a DOAS (dedicated outside air system) with energy recovery for fresh air.*

Reference: *Dean Heglund, dean.heglund@dshs.wa.gov, 360.902.8158*



### ALLENMORE HOSPITAL | EMERGENCY DEPARTMENT EXPANSION

Role: *Mechanical & Electrical Engineer*

Delivery Method: *Design-Build*

Budget: *\$15 million (Total)*

Completed Cost: *\$15 million (Total)*

Description: *Expansion of the 15,438 square foot emergency medical department at Allenmore Hospital in Tacoma. Expansion includes multiple triage rooms, patient care rooms, exam rooms, nurse stations, decontamination areas, resuscitation rooms, and support areas.*

*Plumbing systems include expanded vacuum, oxygen, and medical air gases to patient care areas. New HVAC systems include custom rooftop air handlers with a high efficiency VAV (variable air volume) distribution, connected to the Hospital's central chilled water plant and heating plant systems using DDC controls. Electrical design includes LED light fixtures, and connections to the Hospitals' central UPS and generator systems. The work was phased and done with the main hospital fully occupied and the existing emergency department kept operational.*

Reference: *Nick Munch, nmunch@generalmechanical.com, 253.627.8155*



### DSHS | FIRCREST SCHOOL | Y BUILDINGS | BOILER REPLACEMENT

Role: *Mechanical Engineer*

Delivery Method: *Design-Bid-Build*

Budget: *\$540,000 (M&E)*

Completed Cost: *\$530,000 (M&E)*

Description: *Project consisted of replacement of the existing boilers at four of the six Y Buildings on the Fircrest School campus. Existing gas fired boilers were replaced with new condensing type in four buildings: Cherry, Elm, Hickory and Aspen. New flues, combustion air ducts, piping, controls, and associated electrical work was provided.*

Reference: *Casey Moore, moorecn@dshs.wa.gov, 360.664.6181*

### DOC | STAFFORD CREEK CORRECTIONAL CENTER HVAC REPLACEMENT

Role: *Mechanical & Electrical Engineer*

Delivery Method: *Design-Bid-Build*

Budget: *\$1.2 million (M&E)*

Completed Cost: *\$1.3 million (M&E)*

Description: *Replacement of HVAC central equipment at two 50,000 square foot occupied jail buildings at the Stafford Creek Correctional Center. Work involved new central gas boilers in each building, hot water heating piping, natural gas distribution, HVAC unit coils, ductwork, and associated controls. The work was phased and the changeover to the new systems was done with minimal downtime as the facility was fully occupied.*

Reference: *Richard Howerton, rehowerton@doc1.wa.gov, 360.725.8358*



### PIERCE COUNTY | 950 FAWCETT BUILDING | HVAC REPLACEMENT

Role: *Mechanical & Electrical Engineer*

Delivery Method: *Design-Bid-Build*

Budget: *\$1.5 million (M&E)*

Completed Cost: *\$1.65 million (M&E)*

Description: *Project involved a complete new HVAC system for this three-story office building in downtown Tacoma, Washington. The building was occupied during the project with construction phased through each floor of the building. The new mechanical system uses a high efficiency VRF (variable refrigerant flow) system with a DOAS (dedicated outside air system) with energy recovery for fresh air. Project included added rooftop steel supporting structure to accommodate new rooftop air cooled condensers and the DOAS air handler.*

Reference: *Tim Chan, tim.chan@piercecountywa.gov, 253.798.6702*

### PROVIDENCE ST. PETER HOSPITAL | PROFESSIONAL BUILDING HVAC REPLACEMENT

Role: *Mechanical Engineer*

Delivery Method: *Design-Bid-Build*

Budget: *\$540,000 (M&E)*

Completed Cost: *\$550,000 (M&E)*

Description: *Project involves replacement of HVAC equipment for this approximate 30,000 square foot two story building in Olympia. The building was occupied during the project, with construction phased and occurring off normal work hours to avoid disruptions.*

*The new mechanical system uses high efficiency packaged rooftop equipment, reconnected to existing HVAC ducts systems with new controls installed.*

Reference: *Casey Moore, moorecn@dshs.wa.gov, 360.664.6181*





**DSHS | NASELLE YOUTH CAMP | VISITORS CENTER HVAC**

Role: *Mechanical & Electrical Engineer*

Delivery Method: *Design-Bid-Build*

Budget: *\$72,000 (M&E)*

Completed Cost: *\$81,000 (M&E)*

Description: *Replacement of the existing electric resistance heating system with a Variable Refrigerant Flow heating and cooling system. Project started with a review of options for replacement, and Hultz|BHU calculated an attractive payback for the high efficiency option. New system provides large energy cost savings and a significant increase in comfort. System controls were integrated into the campus DDC system.*

*Hultz|BHU Engineers also provided electrical design support for connecting the new HVAC equipment that included circuiting and Code required convenience outlets for outdoor equipment.*

*Hultz|BHU Engineers was the prime consultant, and coordinated the installation of the system to be sensitive to aesthetics.*

Reference: *Aaron Martinez, martial@dshs.wa.gov, 360.902.8325*

**MASON COUNTY | EVALUATION & TREATMENT TRIAGE FACILITY**

Role: *Mechanical & Electrical Engineer*

Delivery Method: *Design-Bid-Build*

Budget: *\$350,000 (M&E)*

Completed Cost: *\$375,000 (M&E)*

Description: *Remodel of an existing 14,000 square foot two-story building for use as a mental health facility. The main floor includes 12 bedrooms, activity area, seclusion room, kitchen, laundry, and office/support areas. Mechanical system uses a high-efficiency variable-refrigerant-flow (VRF) heat pump system; with dedicated units for each area. Lighting system use LED type fixtures with daylight dimming and occupancy sensors. All fixtures are the anti-ligature type.*

Reference: *Ron Wright, rwright@rwaa.com, 206.728.4248*



**DSHS | RAINIER SCHOOL | COTTAGES REMODEL**

Role: *Mechanical & Electrical Engineer*

Delivery Method: *Design-Bid-Build*

Budget: *\$685,000 (M&E)*

Completed Cost: *\$590,000 (M&E)*

Description: *Project consisted of the remodel of all core areas in seven residential cottages to include kitchens, restrooms, medical rooms, laundry rooms, bathing areas and activity spaces.*

*Mechanical systems include all new plumbing fixtures including therapy baths. New exhaust fans were provided for improved ventilation and infrared heat was utilized in all bathing areas.*

*The electrical system involved the replacement of light fixtures in core areas and the introduction of new LED fixtures. Replacement of receptacles with new tamper resistant. A new emergency response system to pinpoint exact location and nature of incident type with future campus wide expansion.*

Reference: *Aaron Martinez, martial@dshs.wa.gov, 360.902.8325*



We know that it takes a team effort to achieve success, and having the right team with the right project approach really matters. Our project approach will be to establish a detail work breakdown structure and implement Project Controls to meet the goal of the project. This project is unique because the system improvements and repairs must be performed with minimum impact to occupant usage and facility operations.

### **1. SCHEDULE AND SEQUENCING APPROACH AND IMPACTS:**

We will work collaboratively with DSHS and Fircrest School staff to develop the scheduling methodology, scheduling tools, and how to integrate with the entire project. We will develop a detailed schedule, including a detailed list activities, activity durations, define dependencies, and identify the critical path (and near critical paths).

The schedule will include all deliverables, and dates for all project tasks. Monthly schedule reports would be submitted to Fircrest School staff, which will summarize work accomplished, work planned, actual expenditures, and planned expenditures. Weekly design team meetings would review design work progress of each consultant, discuss schedule, impacts, and resolve design and schedule issues. If during the design, the schedule “slips”, we will propose strategies to get the project back on schedule.

Strategies would include expediting upcoming work, reviewing methods to reduce time for various activities (accelerate the design), change items that were in series to parallel, remove a specific work item that is severely impacting the overall project schedule.

### **2. DESIGN APPROACH AND IMPACTS:**

Some of the key items we see to making a project successful include:

- Proper project management and scheduling is a key part of a project. We have experience with managing projects of your type.
- A concept/kick-off meeting is important as it will identify (and allow discussion for) project goals, concepts for the alternatives analysis, design criteria, budget, project management techniques/tools, schedule, and allow for an interaction and forming of a cooperative team. This meeting would also be used to begin discussions on facility operations and concerns.
- A field assessment of the existing conditions and a review of as-built documentation is another important activity. This will allow us to form concepts on how systems can remain operational while new systems are installed.
- Analyzing alternatives will be an important activity to confirm the design direction and if other options present any advantages. We have performed numerous life cycle cost analysis (LCCA) and our experienced in evaluating the associated first costs, maintenance cost, replacement costs, energy costs, and discount factors for healthcare facility projects.
- Since the decisions reached on this project will be long lasting, we will be reviewing green building concepts as part of our LCCA work, and on-going throughout the project.
- Project controls would be utilized to keep the project in scope, budget and on schedule. To ensure the design meets your requirements, a design quality control manager will be assigned and a Design Quality Control (DQC) plan shall be developed. The plan will require an independent technical review (ITR) of each category of the scope of work. The ITR staff will perform a detail examination of plans, specifications and cost estimates. The ITR will recommend improvements to the design to ensure the scope of work is being met in a manner that can be bid and constructed. The DQC will then ensure back-checks are implemented to insure the ITR comments are addressed. ITR will be included in the schedule.

### **3. GC/CM DELIVERY:**

We have worked on numerous projects in a GC/CM arrangement. Our success has been working closely with the GC/CM and the project sub-contractors to review the project scope, schedule, costs, and related key elements. Communication with them throughout is critical. The GC/CM process will allow for a smooth integrated project and has our full support.



**4. IDENTIFYING POTENTIAL CONFLICTS & DISRUPTIONS TO THE AFFECTED FACILITY OPERATIONS:**

We understand that most facilities are occupied, and operations cannot be interrupted. There may need to be “work-around solutions” in place to keep the facility functional. Disruptions which could occur due to project work on equipment or facilities must be prevented or mitigated.

There are a number of ways that we will handle these concerns:

- Prepare and review project schedule, weekly schedule, and daily work tasks with Contractor and staff to fully understand work being accomplished and possible impacts.
- Prepare a design that allows existing system to remain in place (i.e. operational) while new are installed parallel to existing (to the greatest extent possible).
- Have pre-construction, weekly, and (as needed) daily meetings with the Contractor and staff to confirm work scope and potential impacts to facility.
- Review “what-if” scenarios with work-around solutions in place to resolve issues.
- Coordinate with Fircrest School staff for communication to facility workers so there is an awareness of the project, potential interruptions, how to communicate when they occur and the plans in place to resolve
- Confirm with Contractor that all materials are on hand for critical equipment and critical installation periodically.

**5. PERMITS, REGULATORY COMPLIANCE & PROJECT CHALLENGES:**

We are experienced in working in all of the jurisdictions involved in these types of projects and are familiar with their code, and submittal procedures. We will establish as part of our design reports the governing codes and standards and review those with Fircrest School staff. We also propose to have pre-submittal meeting with local jurisdictions to confirm an understanding of the project scope and verify their concerns will be handled.

We feel that the largest challenge to the project is working in an occupied facility, and one that cannot have operations disrupted. We have a long list of experience in working such projects in essential facilities which has included State prisons, county jails, hospitals, and 911 emergency centers. Other projects have included public utility buildings, transit facilities, office buildings, maintenance shops, and schools. We think an essential element in handling these is having very explicit phasing plans that clearly indicate how new work is phase in and old is phased out. We think that for a number of the systems they can be installed while the existing systems are left in place. Allowing for the new system to be installed and operational prior to the existing system being demolished.



### QUALITY ASSURANCE/QUALITY CONTROL METHODS

Hultz|BHU Engineers has developed a successful in-house quality control program that is applied to each project. Quality Assurance/Quality Control (QA/QC) is a continuous process of improvement and prevention. Each staff member is given a clear understanding of the standards required by their firm and each client. These standards are implemented into each stage in the project. Inspections of their work is continuous, providing a consistent level of workmanship, and ensuring correct key aspects of the project.

In order to adequately implement our firm's QA/QC program, reviews are conducted at each submittal phase, and includes the use of specified in-house resources. These include: detailed checklists, coordination with each discipline by providing overlays of the work to review for conflicts, a specifications/drawing coordination checklist, and standardized take-off sheet to compare with project cost estimates. This also includes day to day inspections of each individual's work, to catch any mistakes or issues early on. By maintaining the standards set forth for each project, this eliminates all unsatisfactory work, ensuring a successful project and satisfied client.

Throughout the project's duration, we continually maintain communication with our client either in person or over the phone. We discuss with our client any quality issues that arise and any changes to the project such as the schedule and budget. All involved in the project are aware of the project's status and progress in order to guarantee timely and professional work.

By implementing these procedures throughout our firm, we are able to ensure that quality is a priority in the completion of each task set before us. Our long history of low change orders for our projects confirms the success of our QA/QC program. Our firm is dedicated to providing DSHS and Fircrest School with quality services, including detailed follow-through on all of our projects.

# ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

Project No. 2022-453

## PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (or Branch Office) NAME <i>Hultz/BHU Engineers, Inc.</i>			3. YEAR ESTABLISHED <i>1971</i>	4. UNIQUE ENTITY IDENTIFIER <i>FLDGCF7JW4Q4</i>
2b. STREET <i>1111 Fawcett Avenue, Suite 100</i>			5. OWNERSHIP	
2c. CITY <i>Tacoma</i>	2d. STATE <i>WA</i>	2e. ZIP CODE <i>98402</i>	a. TYPE <i>Corporation</i>	
6a. POINT OF CONTACT NAME AND TITLE <i>Rick Hultz, President</i>			b. SMALL BUSINESS STATUS <i>N/A</i>	
6b. TELEPHONE NUMBER <i>253.383.3257</i>		6c. EMAIL ADDRESS <i>rickh@hultzbhu.com</i>		
8a. FORMER FIRM NAME(S) (If any) <i>(1) Blunt &amp; Hamm Engineers; (2) Blunt, Hamm, &amp; Urquhart Engineers; (3) Hultz &amp; Associates; (4) Hultz/BHU Engineers, Inc.</i>			8b. YEAR ESTABLISHED <i>(1) 1971; (2) 1985; (3) 1990; (4) 1998</i>	8c. UNIQUE ENTITY IDENTIFIER <i>FLDGCF7JW4Q4</i>

### 9. EMPLOYEES BY DISCIPLINE

### 10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Function Code	b. Discipline	c. Number of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
02	Administrative	2		A11	Auditoriums & Theaters	1
08	CADD Technician	7		A12	Automation; Controls; Instrumentation	3
21	Electrical Engineer	2		B01	Barracks; Dormitories	2
42	Mechanical Engineer	4		E02	Educational Facilities; Classrooms	6
48	Project Manager	4		E05	Elevators; Escalators; People Movers	3
				G02	Gas Systems (Propane; Natural, Etc.)	5
				H04	Heating; Ventilating; Air Conditioning	6
				H07	Highway; Street; Airfield Paving; Parking Lot	1
				H09	Hospitals & Medical Facilities	2
				H11	Housing (Residential, Apartments, Condos)	2
				L05	Lighting (Interior; Display; Theater, Etc.)	3
				L06	Lighting (Exterior; Streets, Athletic Fields)	6
				O01	Office Buildings; Industrial Parks	2
				P08	Plumbing & Piping	6
				R04	Recreation Facilities Parks, Marinas)	1
				R06	Rehabilitation (Buildings; Structures,	1
				V01	Value Analysis; Life Cycle Costing	3
	Other Employees					
	<b>Total</b>	19				

### 11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS (Insert revenue index number shown at right)

### PROFESSIONAL SERVICES REVENUE INDEX NUMBER

a. Federal Work	3
b. Non-Federal Work	6
<b>c. Total Work</b>	<b>6</b>

- |   |   |
|---|---|
| 1. Less than \$100,000                  | 6. \$2 million to less than \$5 million   |
| 2. \$100,000 to less than \$250,000     | 7. \$5 million to less than \$10 million  |
| 3. \$250,000 to less than \$500,000     | 8. \$10 million to less than \$25 million |
| 4. \$500,000 to less than \$1 million   | 9. \$25 million to less than \$50 million |
| 5. \$1 million to less than \$2 million | 10. \$50 million or greater               |

### 12. AUTHORIZED REPRESENTATIVE

*The foregoing is a statement of facts.*

a. SIGNATURE 	b. DATE <i>June 10, 2022</i>
c. NAME AND TITLE <i>Rick Hultz, President</i>	