



**PROJECT NO. 2025-085 | WA STATE DEPT. OF CHILDREN, YOUTH & FAMILIES (DCYF)  
GREEN HILL SCHOOL CAMPUS HVAC IMPROVEMENTS**





STATE OF WASHINGTON  
DEPARTMENT OF ENTERPRISE SERVICES

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

Consultant Selection Contact Form

Designated Point of Contact for Statement of Qualifications  
For Design Bid Build, Design Build, Progressive Design Build, GC/CM & Job Order Contracting  
(JOC) Selections

Firm Name: <a href="#">Hargis Engineers</a>		
Point of Contact Name & Title: <a href="#">Ron Eliason, Principal</a>		
Email: <a href="mailto:ron.eliason@hargis.biz">ron.eliason@hargis.biz</a>	Telephone: <a href="tel:206.436.0444">206.436.0444</a>	
Address: <a href="#">1201 Third Avenue, Suite 600</a>		
City: <a href="#">Seattle</a>	State: <a href="#">WA</a>	Zip: <a href="#">98101</a>

Consultant Selection Contact Form



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August 26, 2024

State of Washington  
Department of Enterprise Services  
Facility Professional Services  
Olympia, WA

ATTN: Rafael Urena, DES Project Manager  
Jacob Simmons, DCYF Project Manager

RE: DCYF Project No. 2025-087:  
2025-087 Green Hill School (GHS) CAMPUS HVAC IMPROVEMENTS

Washington State Department of Child, Youth & Family (DCYF) is among the few statewide enterprises that deliver human services in fixed assets. As one of several complexities the agency must comply with, the progressive Washington State Energy Code and Clean Buildings Act add another layer of requirements. We are well-versed in each and have a portfolio of experience that sets us apart.

We offer a unique perspective to delivering projects of this complexity. Our twenty years of working with two of the largest statewide agencies – DSHS and DOC – have translated into multiple capital projects completed within operational, access-controlled campuses. More importantly, as systems have aged and programs migrated within these enterprise environments, we have effectively worked with stakeholders to plan and execute projects over multiple biennia. What sets us apart for this program is that the team we have assembled has actively supported other projects of this nature at the Green Hill School - as well as shares our history in serving other state healthcare agencies.

The projects featured as relevant experiences exemplifies our technical, planning, and political fortitude. We knew some of the potential obstacles associated with each project and defined a pathway forward. We addressed those and, in the process, clearly articulated the challenges of the baseline project, providing options and contingencies to help owners obtain the best value for the funds available. Under past performance, we illustrate our process for delivering on program success.

We believe this experience, coupled with our extensive experience in leading prime projects, will realize the intent of this investment. We are committing the team that has delivered cohesive solutions and has the local relationships to move the project forward. Likewise, they have relationships with peers who understand the unique nature of DCYF's operating environment and are eager to serve. Together, we embrace this opportunity to serve the DES/DCYF team again.



**RON ELIASON, PE, PMP**  
Principal, Mechanical  
Program Manager



**JARED ROBILLARD, PE, LEED® AP**  
Principal, Mechanical  
Co-Program Manager/ Quality Assurance



**RON ELIASON**  
PE, PMP  
**PRINCIPAL, MECHANICAL**  
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**JARED ROBILLARD**  
PE, LEED® AP  
**PRINCIPAL, MECHANICAL**  
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C 206.402.9807  
E jared.robillard@hargis.biz

**H A R G I S**  
1201 Third Avenue, Ste. 600  
Seattle, WA 98101

# EXECUTIVE SUMMARY

The scope of this project bridges technical aptitude with consultancy acumen. As an initiative that will address occupant comfort, improved system performance and the agency's electrification goals, its success hinges upon a consulting team's ability to develop feasible options to meet the program's intent. Over the past twenty-plus years, we have invested in such a team and developed peer relationships that have delivered well-coordinated solutions for Washington state agencies (page 8).

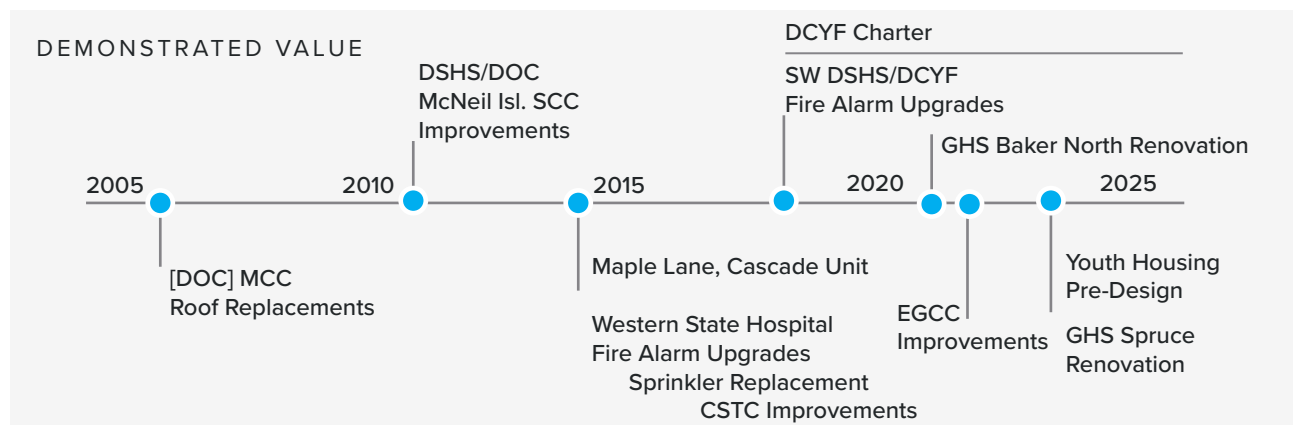
We were introduced to Washington State's behavioral and rehabilitation programs through our work with the Department of Corrections (DOC) and Department of Social & Health Services in 2007 and 2012 respectively. Leading discreet upgrades and supporting capital improvements within these access-controlled environments, we became intimately familiar with the technical, operational, and programmatic requirements of these unique facilities. Bringing that experience forward to serve the Department of Child, Youth & Families, we have supported the agency's mission and capital investments under phased and accelerated schedules.

As we approach this initiative, we understand stakeholders expect the program to balance scope with available resources. Key to realizing that objective will be developing a phasing plan that mitigates scope creep, addresses housing displaced residents, identifying a

viable system that will provide cooling, improve zone controls, replace damaged diffusers, unite the campus through an EMS system, and ultimately decommission the central plant's three boilers. As we develop this plan, we will be applying our experience (pages 9-13) to lead the programming and technical attributes. Joining us in this endeavor is a team of specialists with a proven track record for successful outcomes.

For more than 35 years, KMB has provided design and planning services to meet the needs of Washington State's secure facilities. Their expertise in designing for discreet scopes of work, specifically HVAC replacements, roof repairs and replacements, and tenant improvements allows them a comprehensive understanding of the construction process, translating to a well-coordinated design. Coupled with their experience leading the Spruce and Baker North renovations at Green Hill School, they have developed a rapport with local stakeholders and third-party contributors who will influence the project's outcome.

JB Iringan has provided cost estimating for a wide variety of publicly funded projects for over 30 years. Partnering with us on several system-driven upgrades over the past decade, he understands the unique conditions and considerations associated with access-controlled, phased projects.



**01 CONTINUITY IS KEY**  
Where commitment and tenure meet, programs excel. Our team averages **23 years** of experience and have served Hargis clients consistently for an average of **15 years**.

**02 INDUSTRY LEADERSHIP**  
Personally invested in industry advancements, our team has **provided technical consultancy** to governing bodies to support the built environment.

**03 EFFICIENCY BY DESIGN**  
Well-executed designs stem from well-defined plans crafted by **experienced professionals** who can effectively navigate the technical and non-technical elements of a project.

**04 ENTERPRISE VERSED**  
Serving **enterprise programs for over 40 years**, our methods are tested and proven on scalable projects.

**05 CLIENT ADVOCATE**  
We invest resources to serve clients beyond the project, bringing forth ideas to improve and enhancement through project delivery and facility operations...**a value that is realized long after project closeout.**

**When experience matters, clients turn to us for consistency, quality and thought leadership.**

## KEY PERSONNEL

# KEY PERSONNEL

The team we have committed to the program have the technical acumen and project management skills to meet stakeholders' objectives. They have demonstrated their ability to deliver discreet scopes of work within active, access-controlled environments that have benefited Washington state's departments of Children, Youth & Family Services, Social & Health Services, and Corrections. As members of a collective team that values tenure and continuity of services to clients, they are continuing a **22-year tradition** of serving the state's most secured and vulnerable populations.

Leading the team are **Ron Eliason** and **Jared Robillard**. Ron, as the principal-in-charge, will be responsible for the overall program: contracts, staffing, quality of deliverables, and technical leadership. Jared will lead the quality assurance/control reviews and serve as a backup to Ron for times of planned and unforeseen unavailability.

Ron will work closely with project manager **Matt Strain** and the architectural specialist, **James Hill**, to develop a program plan that aligns with campus operations and DCYF's goals. As well as structural engineer, **Ken Leland**, to identify structural modifications required to support the equipment and any structural modifications. The plan will be based on system options developed by the team and modeled by **Michael Baranick** (energy) and **Juan Iringan** (cost estimating). Options will be based upon a phasing strategy, funding cycles, and the best-use of resources available for the scope of work. *[continued]*

## PROGRAM & PROJECT LEADERSHIP

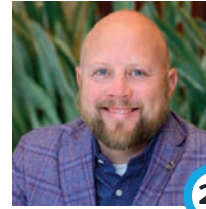


35

**RON ELIASON**

PE, PMP®

PRINCIPAL, MECHANICAL  
PROGRAM MANGER

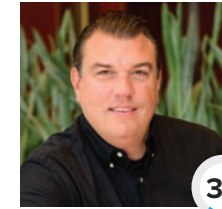


20

**JARED ROBILLARD**

PE, LEED®, AP

PRINCIPAL, MECHANICAL  
CO-PROGRAM MGR & QA/QC



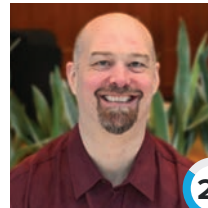
30

**MATT STRAIN**

PE, LEED® AP

SR ASSOCIATE, MECHANICAL  
PROJECT MANAGER

## TECHNICAL LEADERSHIP



27

**ANDREW CLAGETT**

PE, LEED® AP

ASSOCIATE, MECHANICAL

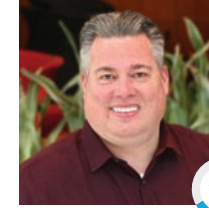


19

**JON BEADE**

PE

ASSOCIATE, ELECTRICAL



15

**BEN HELMS**

PE, RCDD

ASSOCIATE, TELECOM/ SECURITY



20

**MIKE BARANICK**

PE, CEM®, CMVP®

SENIOR ASSOCIATE  
ENERGY/CBPS

## ARCHITECTURE

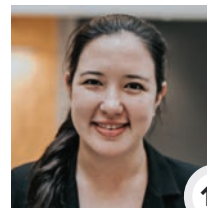


18

**JAMES HILL**

RA, AIA

PRINCIPAL-IN-CHARGE



10

**AMANDA CANO**

DESIGNER



26

**KEN LELAND**

PE, SE

PRINCIPAL/ PROJECT MANAGER



31

**JUAN IRINGAN**

COST ESTIMATING, LEAD

YEARS OF EXPERIENCE

with firm  
industry

With an adopted plan in place, project manager, **Matt Strain**, will serve as the primary day-to-day point of contact. He will apply the adopted direction to guide the design and construction activities. Matt will spearhead team coordination of the project deliverables, track, monitor, and report project fiscal and milestone progress and communicate project information to the team. He will be responsible for conducting on-site surveys, leading project meetings, leading construction administration activities and driving project closeout

**Andrew Clagett** will provide a second layer of technical and engineering support, alongside the technical and architectural specialists committed to this project.



**RON ELIASON, PE, PMP®**  
PRINCIPAL, MECHANICAL, PRINCIPAL-IN-CHARGE

Equally skilled at traditional and alternative project delivery methods, Ron has a talent for grasping client goals and translating them into mechanical engineering solutions. He effectively implements management approaches and design options that foster joint efforts amongst diverse teams serving municipal projects. Ron's technical focus and collaborative style promotes communication within project teams and offers systems tailored to succeed.

**INVESTED**  
35 Years - Industry • 19 Years - Hargis

**EDUCATE**  
University of Washington  
BS Mechanical Engineering

**EXPERIENCED**  
WA DCYF, Green Hill, Spruce P2 | Chehalis, WA  
WA DCYF, North Baker Renovation | Chehalis, WA  
WA DSHS, McNeil Island SCC Power House | McNeil Island, WA  
WA DSHS, McNeil Island SCC Kitchen Upgrades | McNeil Island, WA  
WA DSHS, Echo Glen Infrastructure Upgrades | Snoqualmie, WA  
WA DSHS, WSH Fire Sprinkler Upgrades | Lakewood, WA  
WA DOC, MCC Fieldhouse Roof Rplmnt. | Monroe, WA  
WA DOC MCC WSRU and TRU Roof Rplmnt. | Monroe, WA  
King Co. Metro, Base Mechanical Upgrades (5) | Countywide, WA  
UW, Chiller Replacements | Seattle, WA



**JARED ROBILLARD, PE, LEED AP®**  
PRINCIPAL, MECHANICAL, QA/QC

Versed in system upgrades, Jared blends his technical knowledge to deliver systems that align with desired outcomes. Versed in legacy and modern-day system technologies, he blends his technical knowledge to deliver systems that align with desired outcomes. Experienced with live, continuous operating campus environments, he is versed in collaborating with stakeholders, professional peers and tradespersons to plan, design and execute system upgrades.

**INVESTED**  
20 Years - Industry • 19 Years - Hargis

**EDUCATE**  
University of Washington  
BS Mechanical Engineering

**EXPERIENCED**  
WA DSHS, Maple Lane School, Cascade Unit Renovation | Rochester, WA  
WA DSHS, WSH Fire Sprinkler Upgrade, Phase 1 | Lakewood, WA  
WA DOC, WCCW Building AA Chiller Rplmnt. | Gig Harbor, WA  
WA DOC, MCC WSR Dialysis | Monroe, WA  
WA DOC, WCC Security Video Upgrade | Shelton, WA  
WA DOC, CBCC Security Video Upgrade | Forks, WA  
King Co. Metro, North Base Mechanical Upgrades | Shoreline, WA  
Cascade Behavioral Health Facility Renovations | Tukwila, WA  
Kindred Hospital, Acute Care MEP Upgrades | Seattle, WA





**MATT STRAIN, PE, LEED® AP**  
SENIOR ASSOCIATE, MECHANICAL

Matt serves 24/7 operating campus environments through his extensive experience assessing and developing infrastructure solutions to support continuous operating spaces. His ability to identify and execute scopes of work enables him to offer a full range of technical leadership and engineering services. His understanding of the system interdependencies serving these spaces enables him to engage those with the expertise to properly support the scope of work.

**INVESTED**

30 Years - Industry • 18 Years - Hargis

**EDUCATED**

University of Washington  
BS Mechanical Engineering

**EXPERIENCED**

WA DCYF, Green Hill, Spruce P2 | Chehalis, WA  
WA DCYF, North Baker Renovation | Chehalis, WA  
WA DSHS, WSH Fire Sprinkler Upgrades | Lakewood, WA  
WA DSHS, SCC King Hall AHU Rplmnt. | McNeil Isl., WA  
WA DOC, MCC Fieldhouse Roof Rplmnt. | Monroe, WA  
WA DOC, WCCW Fire Alarm Rplmnt. | Gig Harbor, WA  
King Co. Metro, Base Mechanical Upgrades | King Co., WA  
UW, Chiller Replacements | Seattle, WA  
ValleyComm 911, Data Center Upgrades | Kent, WA



**ANDREW CLAGETT, PE**  
ASSOCIATE, MECHANICAL

As a detailed engineer and an active project manager, Andrew focuses on the technical needs of Hargis' clients. He supports project teams by providing calculations, design work, analyses for heating and cooling loads and life cycle costs, and producing performance-based specifications. His project management duties span schematic development through construction administration and closeout, collaborating throughout each phase with diverse teams to guide projects towards final completion.

**INVESTED**

27 Years - Industry • 23 Years - Hargis

**EDUCATED**

Colorado State University  
BS Mechanical Engineering

**EXPERIENCED**

King Co. Metro, Base Mechanical Upgrades | King Co., WA  
UW, Chiller Replacement Program | Seattle, WA  
UWMC, Mechanical Upgrades | Seattle, WA  
UWMC, BB1552 3-Phased Renovation | Seattle, WA  
UWMC, Office Conversion | Seattle, WA  
UWMC, Vascular Lab 2-Phased Renovation | Seattle, WA  
UWMC, BB Tower Power, Emergency Repair | Seattle, WA  
WA Patrol, Bow Lake Weigh Station HVAC | Skagit Co., WA



**MICHAEL BARANICK, PE, CEM®**  
SENIOR ASSOCIATE, ENERGY SERVICES

Mike utilizes his understanding of mechanical systems, energy efficiency measures, sustainable approaches and facility utilization to develop conservation strategies that balance owner considerations. His ability to discern client objectives, collect meaningful data and translate it into measurable outcomes upholds operational and conservation expectations.

**INVESTED**

20 Years - Industry • 12 Years - Hargis

**EDUCATED**

Seattle University, Masters Business Administration  
Santa Clara University, BS Mechanical Engineering

**EXPERIENCED**

City of Bellevue, Energy Code Reviewer | Bellevue, WA  
Pierce Co., CBPS Consulting | Pierce Co., WA  
Port of Bellingham, CBPS Consulting | Bellingham, WA  
Bellevue College, CBPS Consulting | Bellevue, WA  
King Co. Metro, Bases Energy Modeling | King Co., WA  
Snohomish Co. PUD, Energy Modeling | Everett, WA  
ValleyComm 911, Data Center Upgrades | Kent, WA  
WA State LCCA Reviewer, 12 Years | Statewide, WA



**JONATHAN BEADE, PE**  
ASSOCIATE, ELECTRICAL

An ambitious consultant, Jonathan brings forth a knowledge base in power distribution and lighting design. Balancing enterprise standards with project objectives, his experience addresses the programmatic and operational needs. Applying his ability to discern options and uphold stakeholder standards, Jonathan’s engaging project management style and strong desire to promote client objectives through responsive services. His willingness to take on new projects complements his technical skill set as a dedicated and thorough electrical consulting engineer.

**INVESTED**

19 Years - Industry • 15 Years - Hargis

**EDUCATED**

Gonzaga University  
BS Electrical Engineering & MBA

**EXPERIENCED**

- WA DCYF, North Baker Renovation | Chehalis, WA
- WA DSHS Lakeland Village, Fire Alarm Rplmnt. | Medical Lake, WA
- WA DSHS EGCC, Fire Alarm Rplmnt. | Snoqualmie, WA
- WA Military Dept, Generator Installation | Moses Lake, WA
- WA CSTC Admin. Fire Alarm Rplmnt. | Lakewood, WA
- Yakima Valley Farm Workers, Clinic Remodel/ Add. | Yakima, WA



**BEN HELMS, PE, RCDD**  
ASSOCIATE, TELECOM • SECURITY

Ben’s experience serving enterprise clients brings forth an understanding of campus operations, aging infrastructures and the integration of converged technologies to support the deployment of system solutions. His ability to scope large-scale projects and design to target value aids clients in moving complex, communications infrastructure intensive projects forward. Coupled with his approachable demeanor and proactive communication style, he is able to connect with individuals with various technical backgrounds to build consensus and garner buy-in.

**INVESTED**

15 Years - Industry • 5 Years - Hargis

**EDUCATED**

Eastern Washington University  
BS Electrical Engineering

**EXPERIENCED**

- WA DCYF, North Baker Renovation | Chehalis, WA
- WA DCYF, Residential Mental Health Unit | Chehalis, WA\*
- WA DSHS/DCYF SW Fire Alarm Rplmnt. (5) | Statewide, WA
- WA DSHS Network Infrastructure Assessments | Statewide, WA
- WA State DSHS Western State Hospital | Lakewood, WA
- » CSTC Patient Door Alarm System
- » Building 28: Safety & Security Repairs
- » CSTC Patient Door Alarm System
- Mason Co., Community Justice Center Pre-Design
- \* prior to joining Hargis*



**KEN LELAND, PE, SE**  
PRINCIPAL, STRUCTURAL ENGINEER

Ken is deeply familiar with working alongside the Washington State Department of Children, Youth, and Families (DCYF) to serve the residential needs at the Green Hill School. Ken’s expertise in renovated facilities is proven across several publicly funded correctional facilities, behavioral health treatment centers, and education facilities. He is well-versed in sustainable design and supporting projects governed by the Clean Buildings Performance Standard.

**INVESTED**

26 Years - Industry • 26 Years - AHBL

**EDUCATED**

University of Washington  
BS Civil Engineering - Structural Concentration

**EXPERIENCED**

- WA DCYF, Green Hill School | Chehalis, WA
- » Baker North Renovation
- » Spruce Living Unit Renovation
- » Willow Living Unit Outdoor Recreation Roof
- WA DSHS, Maple Lane Expansion | Rochester, WA
- WA DSHS, CSTC Ketron Housing Add. | Lakewood, WA
- Pierce County, Jail Generator Rplmnt. | Tacoma, WA
- JBLM Bldg. 2081, 2084, 2089, & 2090 HVAC Upgrades
- JBLM, 3rd Brigade HVAC Facility Assessment



## JAMES HILL

RA, AIA

PARTNER-IN-CHARGE, ARCHITECT

Process-oriented and a clear communicator, James excels at providing comprehensive solutions, establishing trust, and delivering projects efficiently. James' years of hands on experience in designing secure environments with a focus on youth, and passion for tailoring facility design solutions to the client's unique project specific goals and needs are ideally suited for this project. His passion for quality assurance and quality control ensures contract documents are comprehensive, well coordinated, clear, and communicative.

### INVESTED

18 Years - Industry  
10 Years - KMB

### EDUCATED

Washington State University,  
BS Architectural Studies & Master of Architecture

### EXPERIENCED

WA DCYF, Green Hill School | Chehalis, WA

- » Baker North Renovation
- » Baker South Renovation
- » Spruce Living Unit Renovation
- » Willow Cottage

DCYF, Statewide Master Plan | Multiple Locations, WA  
WA DCYF, Naselle Youth Camp, Mainer Lodge | Naselle, WA  
WA DCYF Green Hill Willow Living Unit, Outdoor Recreation Roof | Chehalis, WA



## AMANDA CANO

ARCHITECTURAL DESIGNER

Amanda is an emerging leader at KMB who is drawn to finding balance in her work between design and project management; the program and the budget; function and form. Through the rare combination of big-picture perspective and attention-to-detail, Amanda offers a comprehensive design approach that prioritizes client satisfaction. She takes the time required to properly sequence and prioritize project needs, with a keen eye for coordination that ensures supportive relationships between team members and that project goals are accomplished.

### INVESTED

10 Years - Industry  
6 Years - KMB

### EDUCATED

Kansas State University  
Bachelor & Masters in Architecture

### EXPERIENCED

WA DCYF, Green Hill, Willow Cottage | Chehalis, WA  
WA DCYF, Spruce Living Unit Renovation | Chehalis, WA  
WA DCYF, EGCC Facility/System Upgrades | Snoqualmie, WA  
WA DCYF, Olympic Heritage Behavioral Health, Main Facility Upgrades | Snoqualmie, WA



## JUAN IRINGAN

JB IRINGAN CONSULTING, COST ESTIMATING

Juan has more than 30 years of experience in all phases of cost estimating, cost control, value engineering and scheduling. He offers individualized service tailored to the Department of Social & Health Services' needs. His cost experience includes, assessment of existing facilities, feasibility studies, budget analysis, parametric evaluations, change order evaluations, and LCCA.

### INVESTED

31 Years - Industry  
19 Years - JB Iringan Consulting

### EDUCATED

University of Washington  
BS Civil Engineering & Economics

### EXPERIENCED

WA DSHS, Green Hill School Expansion | Chehalis, WA  
WA DSHS Rainier School Fire Alarm Rplmnt. | Buckley, WA  
WA DCYF EGCC Fire Alarm Upgrade | Snoqualmie, WA  
WA State DSHS Western State Hospital | Lakewood, WA  
» CSTC Orcas Cottage Addition  
» Fire Alarm Upgrade  
KC Maleng Roof Replacement | Kent, WA

### Hargis-led Projects

WA DSHS Fire Alarm Upgrades, 5 Campuses  
WA DOC, MCC, Fire Sprinkler Upgrade | Monroe, WA  
WA DOC, WCCW Fire Sprinkler Upgrade | Gig Harbor, WA

## RELEVANT EXPERIENCE

# RELEVANT EXPERIENCE

Our ability to scope, scale and execute projects of this nature accentuate our technical aptitude to delivering solutions that align with stakeholder objectives - whether as the prime or sub-consultant. Demonstrated repeatedly over the past two decades, we have a proven formula for providing value to state's capital investments.

## HARGIS PROJECTS

	Prime Consultant	Active/ Occupied Site	Healthcare/ Rehabilitative Program	Access Controlled	Publicly Funded	Phased Funding	Conservation Strategies	Delivery Method
WA DCYF Green Hill School, Spruce Living Unit Renovation	KMB	●	●	●	●		●	DBB
WA DCYF Green Hill School, Baker North Remodel & Expansion	KMB	●	●	●	●		●	DBB
WA DCYF Green Hill School, Camera & Telecommunications Infrastructure Upgrades	Hargis	●	●	●	●			DBB
WA DCYF Green Hill School, Electrical Upgrades	Hargis	●	●	●	●			DBB
WA DCYF Youth Housing Pre-design	KMB		●	●	●		●	
WA SW DSHS/DCYF Fire Alarm Replacements	Hargis	●	●	●	●			DBB
WA DSHS/ DOC Cascade Cottage Unit Emergency Renovation	KMB	●	●	●	●			DBB
WA DSHS Western State Hospital, Fire Sprinkler Upgrades	Hargis	●	●	●	●			JOC
WA DSHS Western State Hospital, Buildings 9 & 20 Fire Alarm Upgrades	Hargis	●	●	●	●			DBB
WA DSHS Western State Hospital, Unified Communication System Upgrade	Hargis	●	●	●	●			DBB
WA DSHS, Western State Hospital, Bldg 29 New Entry		●	●	●	●			DBB
WA DSHS, Child Study and Treatment Center Upgrades		●	●	●	●			DBB
WA DOC Maple Lane Campus Planning	KMB	●	●	●	●			DBB
WA DOC MCCCW Boiler Replacement	Hargis	●	●	●	●		●	DBB
WA DOC WCCW Building AA-Emergency Chiller Replacement Project	Hargis	●	●	●	●			JOC
WSP Fire Training Academy Dormitory Upgrade		●		●	●			DBB
University of Washington, Mechanical Upgrades	Hargis	●			●	●		DB
King County Metro Transit Division, HVAC Upgrades (4 Bases)	Hargis	●			●	●	●	DBB/MCCM
ValleyComm, 911 Data Center Mechanical Upgrades	Hargis	●		●	●	●	●	DBB

Hargis
  KMB





# CAMPUS EXPERIENCE

## GREEN HILL SCHOOL

### BAKER NORTH

The Baker cottage serves two distinct populations of male youths housed within the north and south wings, totaling 18,200 sf. The vacant 7,800 sf North Cottage was recently remodeled and expanded by 500 sf to serve individuals 21-25 years of age. The capital improvements provide program space for family visitation, independent educational work, group activities, and life skills training.

The mental health unit housed in the south wing's occupied status added to the complexity of the project. The team surgically planned and programmed system upgrades to integrate the HVAC, plumbing, electrical, lighting, life-safety, and security systems into the building and campus architecture without triggering major code changes.

BUDGET: \$4.38M // ACTUAL: \$3.78M

### SPRUCE LIVING UNIT

The Spruce building is a four-winged facility that serves individuals 16-25 through residential care, treatment, educational, and vocational training. As an occupied living facility with systems at the end of their useful life, the full building systems renovation optimized existing components as much as possible to align the budget for the partial living quarters' renovation.

BUDGET: \$6M // In Design

### ELECTRICAL SYSTEMS UPGRADE

The building's electrical distribution equipment had reached the end of its useful life; branch circuit breakers had started to fail and the existing equipment grounding electrode system has started to deteriorate. New distribution equipment and equipment ground connections needed to be installed. To increase the number of electric circuits to accommodate both the existing loads and provide flexibility for future technology implementation, six panel boards and associated feeders were replaced.

BUDGET: \$124,110 // BID: \$97,241

### REFERENCE

TRENT PHILLIPS  
trent.phillips@dcyf.wa.gov  
(360) 764-0177

# JOINT INITIATIVES

DSHS/DCYF

## YOUTH HOUSING PREDESIGN

Legislative bills SB6260 and E2SHB 1646 codified an alternate path to rehabilitating and serving offenders 25 years and younger. In 2019, it was forecasted that placing these individuals under the guidance of the Department of Children, Youth, and Families (DCYF) would increase the agency's population by 125 to 150 people by 2027. As a newly formulated agency, building capacity, location, and population configuration needed to be addressed in a statewide pre-design. The KMB/ Hargis team evaluated 10 sites for viability to serve the program's needs, with three options evaluated in detail for viability to fulfill DCYF's mission. Alternate 2: \$23.7M, Alternate 3: \$23M, Alternate 4: \$18.3M

## REFERENCE

LARRY COVEY

[larry.covey@dshs.wa.gov](mailto:larry.covey@dshs.wa.gov), (360) 628-6662

## SW FIRE ALARM UPGRADES

This five-campus fire alarm improvement project encompasses 150+ buildings across five state facilities with legacy technology ranging from 10-40+ years old. To achieve this project's scope and poise each campus for future modernizations Hargis developed an initial scope of work in collaboration with key project stakeholders. The adopted scope prioritized the needs at each campus to optimize current funding. Selective upgrades to the campus fire alarm systems have been identified as replacement of system networks, building panels, detection and notification devices, wiring, and system components. This project represents significant improvements to life safety across five facilities, improved fire alarm communications, reduced response times, replacement of outdated systems, and reduced maintenance costs.

The project received an additional \$5M funding to optimize the 2019-2021 \$8M funding allocation.

PHASE 1 \$8 million (MACC/actual) // PHASE 2 \$5 million (MACC, complete March 2025)

## REFERENCE

AARON YOUNG

[aaron.young@dshs.wa.gov](mailto:aaron.young@dshs.wa.gov), (360) 489-5880



# PUBLIC HEALTHCARE

## DOC/ DSHS MAPLE LANE, CASCADE COTTAGE UNIT EMERGENCY RENOVATION

Collaborating with the two agencies to reprogram the minimum-security facilities within the dormant Maple Lane campus, the team commenced with a fast-tracked renovation to integrate private consultation, review, and temporary housing for detainees. The team coordinated equipment replacement, ductwork additions, fire suppression and plumbing revisions.

BUDGET \$3.5M // ACTUAL \$3.7M

### REFERENCE

PENNY KOAL (retired)

HELLEN ZHARSKA, current campus PM

hellen.zharska@dshs.wa.gov, (360) 819-7674

## DSHS DIVERSION & RECOVERY PROGRAM PREDESIGN

An assessment of facilities in eastern and western Washington to serve the agency's Behavioral Health Programs, which are designed to divert, treat, and recover repeat users of the criminal justice, acute care medical, and mental health systems. The program focuses on individuals with serious mental health and substance illnesses. In working with stakeholders, a \$63 million facility was conceptualized to meet the state's needs.

## DSHS CHILD STUDY & TREATMENT CENTER LAKEWOOD, WA

A conceptual analysis to segregate CSTC's campus (seven buildings, 100,000 sf) emergency generator and associated power distribution systems from the Western State Hospital campus systems. The necessary associated improvements to accommodate two future 12,000 sf residential cottages were also examined. The assessment included an evaluation of the systems' code compliancy, capacity and remaining life span with a ROM for recommended upgrades and replacements.

## WESTERN STATE HOSPITAL

### Fire Sprinkler

An analysis of the 1970's to 1990's constructed campus fire protection system was conducted to identify deficiencies and develop recommendations for upgrades. The analysis focused on incomplete systems in three buildings [6, 10, 16], and head-ends in another ten buildings [9, 17, 18, 19, 20, 21, 26, 27, 28, and 29] for possible replacement. The fire protection system is served by two water towers and distribution pumps that move water from the campus-owned wells to the towers to create a gravity-fed system. Limited funding source required stringent target value design practices to meet the full replacement scope of work.

BUDGET \$1,020,623 // ACTUAL \$1,040,640

### Anti-Ligature Standardization

From the sprinkler project, another initiative emerged: to assess exposed components in unsupervised settings for high-risk ligature and develop a standard. Spaces in buildings 18-20 and 28 and 29 were reviewed, with a second review for all potential components, which is currently underway.

BUDGET P2 \$2.3M // ACTUAL P1 \$1.1M, P2 in process

### REFERENCE

ADRIAN HINOJOS

adrian.hinojos@dshs.wa.gov, (564) 200-2456

### Campus Infrastructure Upgrades

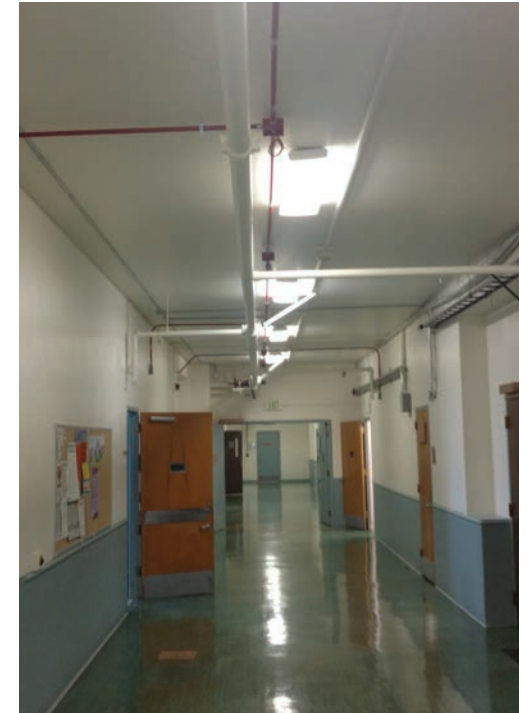
WSH's aging and expanding campus has taxed the campus infrastructure. Under our on-call contract we were engaged to resolve a system failure in proximity to Building 4 – a hub that serves [~1M sf/38 buildings on the main WSH campus as well as CSTC campus] of the campus. We worked with stakeholder to develop a plan to mitigate risk and replace the critical infrastructure in alignment with their funding cycle and operational needs.

COST OPINION: \$1.455M // LOW BID: \$935k; MEDIAN BID: \$1.141M

### REFERENCE

AARÓN MARTÍNEZ

aaron.martinez@dshs.wa.gov, (360) 902-8325

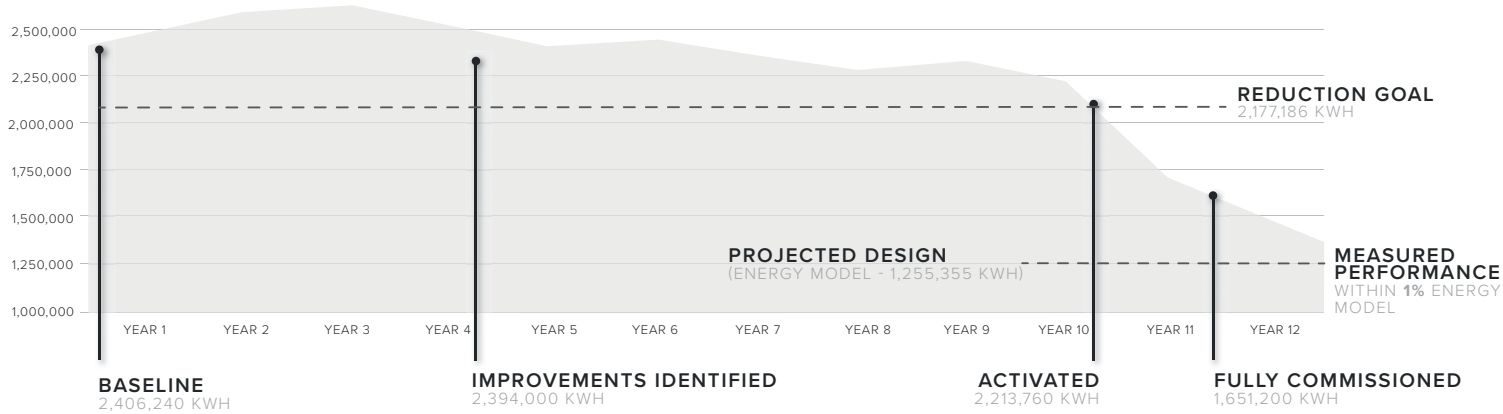


### ADDITIONAL PROJECTS

- » WSH & CSTC Campus Network Infrastructure Assessment & Upgrades
- » WSH Bldgs 9 & 20 Fire Alarm Upgrades
- » WSH Bldg 10 Renovations
- » WSH Campus Generator Study & Upgrade
- » WSH Fire Sprinkler Upgrade
- » WSH Laundry Building Electrical Panel Replacement
- » WSH Unified Communications System Upgrade



## 24/7 OPERATING CENTER ENERGY PROFILE



# ENTERPRISE PROJECTS

## KING COUNTY METRO, HVAC & ELECTRICAL UPGRADES

Establishing the technical, conservation and project implementation for the division, we have continued to support the operational efficiency of the enterprise.

### NORTH BASE

Establishing the technical, conservation and project implementation for the division, we have supported the operational efficiency of the enterprise. The agency turned to us develop the approaches to improving the system performance across its mid- to late 1980's constructed facilities representing administrative, vehicle maintenance, and critical communications. The first in the series of projects was the North Base, a 3-building, 24/7 campus with 76,500 square feet of occupied space. Occupant comfort was a key driver in the admin building's upgrades, as was the intent to achieve LEED® silver or better by design. The team incorporated five conservation strategies that have proven to reduce the energy consumption by 42% (within 1% of Hargis' energy model), improved occupant satisfaction and secured \$285,000 in energy grants and rebates.

BUDGET/ ACTUAL  
\$6,629,340 / \$7,744,452

### REGIONAL BASE HVAC UPGRADES

Modeled after Hargis' successful North Base replacement effort, the Atlantic, South and East bases, as well as the South Facilities, received HVAC upgrades. We lead the project scoping, planning and integration with current capital improvements to poise the remaining four facilities, totaling 294,800 sf, for continued operations as the agency addresses increased demands and aging infrastructure.

Utilizing the ESCO contracting mechanism, the owner on-boarded a mechanical contractor to complete the system installation just prior to COVID. The heightened awareness of indoor air quality (IAQ) and increased fan energy demand to improve IAQ, we worked closely with the stakeholders and contractor to modify the enterprise standard and uphold the project objectives.

BUDGET/ ACTUAL  
\$33,000,000 / ESCO guaranteed



### REFERENCE

BRIAN BERARD  
bberard@kingcounty.gov  
(206) 263-4160





**1** LABORATORY  
22T Chiller Replacement  
DX Cooling Coil

**2** LABORATORY  
52T Chiller Replacement  
Chilled Water Pumps & Controls

**3** LABORATORY  
90T Cooling Tower Demo  
Fan Coil & Condensing Unit  
Replacement

**4** LABORATORY (NPS)  
Chiller Replacement  
VFD (chilled water pump)

**5** LABORATORY  
Retrofit Support

■ facilities served by our team outside chiller replacement efforts

4

# MECHANICAL UPGRADES

## UNIVERSITY OF WASHINGTON

### CHILLER REPLACEMENT

As the on-call consultant, we addressed various system deficiencies across multiple buildings under a phased upgrade program that encompassed pumps, chillers, and energy efficiency goals to varying degrees. Bid alternate were identified early and designed to accommodate a 24-month schedule.

Redundant pumps were introduced to five buildings, with cooling tower replacements and new water-to-water heat exchangers that redirected the cooling load to the central campus water system. In another application, a 60-ton air-cooled chiller and pump system was replaced with new modular chillers and pumps. We also replaced a direct-expansion condensing unit and associated air-handler mounted cooling coil, along with a single chilled water and condensing water pumps.

BUDGET \$796,000 // ACTUAL \$846,700

### REFERENCE

YANNICK MATHEWS  
ymathews@uw.edu, (206) 221-8988

# CONSERVATION CONSULTING

Over the past 15 years, resource conservation and sustainability have been at the forefront of system planning and design. The topic has taken on different threads of conversation around what is being conserved (energy, money, time, staffing, etc.) and what is sustainable (environmental, operational, training and financial). Code and legislative directives have influenced the definition and adoption of sustainable practices in system selection and operations. Hargis has invested in understanding such factors and the programmatic requirements to aid stakeholders in making informed decisions for the life of their buildings.

We understand LEED Silver is a design goal that complements the agency's intent to electrify the campus and integrate an EMS system. These complementary ambitions will aid DCYF in complying with the Clean Buildings Performance Standard – a legislative mandate we are very familiar with.

As we approach the sustainable goals for this project and the subsequent upgrades, we will work with the stakeholders to identify the solution that best aligns with the agency's desired outcome. Presented as system options with total cost of ownership, an energy model, and potential energy savings, stakeholders will have the information needed to make an informed decision

<b>Bellevue College</b>	P1: 15 Buildings 978,848 sf P2: underway
<b>Pierce County</b>	P1: 6 Sites, 1,204,375 sf P2: 2 Sites, 778,543 sf
<b>Auburn School District</b>	P1: 31 Sites, 2,343,521 sf P2: 9 Sites, 546,882 sf
<b>Mercer Island School District</b>	P1: 6 Sites, 693,258 sf P2: 1 Site, 231,018 sf
<b>Seattle Public Schools</b> Decarbonization Plan	P1 & 2: 36 Sites, 3.9M sf P 1 & 2: 52 sites, 5.1M sf

## REFERENCE

RICHARD BEST  
rlbest@seattleschools.org, (206) 252-0644

	Option 1 ASHRAE 90.1 Packaged Roof Top Units	Option 2 WSEC Baseline Bldg 80% Boiler & Fan Coils	Option 3 Current Design Geothermal Hybrid, 50% Heat Recovery, Radiant Floors, Min Vent	Option 4 Current Design Geothermal Hybrid, 50% Heat Recovery, Red Radiant Floors, Min Vent	Option 5 Current Design Geothermal Hybrid, No Heat Recovery, Red Radiant Floors, Min Vent	Option 6 Current Design 97% Boilers, No Geothermal, No Heat Recovery, Red Radiant Floors, Min Vent
<b>COSTS</b>						
First Cost - Arch Support of Mech	1	2	6	5	4	3
First Cost - Elec Support of Mech	6	5	1	1	3	3
First Cost - Mechanical	1	2	6	5	4	3
Routine Mech Component Replacement Costs	6	5	1	1	3	4
<b>ENERGY</b>						
Gas Consumption	6	5	1	1	3	4
Electrical Consumption	6	5	1	1	3	4
Total Energy Consumption	6	5	1	1	3	4
Heat Recovery Savings	6	6	1	1	3	6
EUI (Approximate)	54	45	28	30	38	42
ECl (\$/SF)	1.15	1.05	0.76	0.80	0.90	0.95
<b>MAINTENANCE</b>						
Routine Maintenance	6	5	1	1	3	4
Filters	6	6	1	1	1	1
Belts	6	1	1	1	1	1
<b>Component Replacement Maintenance</b>						
Fans	6	5	1	1	1	1
Motors	6	5	1	1	1	1
Mechanical Equipment not in Spaces	6	1	1	1	1	1
Qty of Complex Equipment Req Service	2	1	3	3	3	3
<b>REDUNDANCY/RELIABILITY</b>						
Redundancy of Equipment	2	3	1	1	1	1
Reliability of System	2	3	2	2	2	2
<b>IAQ &amp; THERMAL COMFORT</b>						
Filtration of Air	2	2	2	2	2	2
Tight temperature Control	6	5	1	2	3	3
Controllability of System	6	5	1	1	3	3
Noise Control	5	6	1	1	1	1
Attenuation of Equipment	6	5	1	1	1	1
<b>CONSTRUCTABILITY</b>						
Simplicity in routing of mech/elec	1	6	5	4	2	2

^ **Example:** Weighted System Options Matrix

# PAST PERFORMANCE

# PROJECT APPROACH

In serving projects throughout the state's operating enterprise, we have developed effective strategies for engaging stakeholders (security, historical preservation, etc.), influencers (AHJ, utility, emergency responders) and contributors (technical peers, consultants) to realize projects' intent. Our knowledge of campus operations, established relationships, open channels of communication, and ability to identify risks and mitigation strategies with options for implementation.

We engage these different groups early to socialize the project objectives, framework, and critical course of actions, as well as collect non-technical components of the project that will influence our success. Lines of communication are established, with roles, responsibilities, and critical milestones articulated. With this information, we develop a systematic plan for assessing existing conditions and pathways to realizing stakeholders' objectives.

## TAKING INVENTORY

We evaluate the existing systems in comparison to the end goal and identify methods to create minimal impacts on the existing infrastructure. When the existing infrastructure will be affected, we develop a phasing schedule around the systems and the occupants to minimize the need for temporary services.<sup>1</sup>

## DEVELOPING OPTIONS AND A PLAN

Reporting our assessment findings and presenting the options as a cost/benefit analysis, the team works closely with the stakeholder group to develop a project approach, considering the operational status, code compliance, and other concurrent projects at each campus. The resulting plan, cost model, schedule and associated recommendations are based upon the documented need, with the stakeholder's specific input, and reflective of their prioritized values and criteria.

<sup>1</sup> The phasing strategy is carried through in the CD's, communications with the local AHJ, and commissioning authority, and on-site operators to minimize the impact on the project and continued operations.

Contingencies, risks, and mitigation strategies are identified and tracked as part of the project plan, which blends the qualitative and quantitative information to provide a mechanism for DSHS to plan for future capital improvements and capital budget requests.

## DESIGN TOWARDS TARGET VALUE & TOTAL COST OF OWNERSHIP (TCO)

Reporting our assessment findings and presenting the options as a cost/benefit analysis, the team works closely with the stakeholder group to develop a project approach, considering the operational status, code compliance, and other concurrent projects at each campus. The resulting plan, cost model, schedule and associated recommendations are based upon the documented need, with the stakeholder's specific input, and reflective of their prioritized values and criteria.

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### Influencing Factors (prioritized)

- » Code Deficiencies
- » Programming Requirements
- » Capacity or Performance
- » Operational Costs
- » Scalability
- » Future Phasing Opportunities

### System Upgrades Considerations:

- » Risk Tolerance
- » Life-Safety System Technologies
  - » Information Technology System
- » Infrastructure Condition and Capacity
- » Legacy System Life Cycles
  - » High-Technology Spaces Quality and Reliability of Power
  - » Evolution of System Integration
- » Aligning System Function with Security Operations

## UTILIZED TIME-TESTED QUALITY CONTROL PROTOCOLS

With the benchmarks for project success tracked, documented, and integrated into the QA/QC process, the team has the information needed to produce quality deliverables. Backed by an engaged leadership team invested in a positive project outcome, the project team is supported throughout the project with formal reviews to evaluate system concepts, type and direction, and constructability.

As part of the evaluation, there may be opportunities to enhance return on investment through phasing, grants, and rebates. There may also be system enhancements or options to address other deficiencies in adjacent systems or spaces. The report will note these as enhancements rather than barriers to moving the project forward.

## PROJECT PLAN DEVELOPMENT CONSIDERATIONS

- » Conditions of the existing building energy management systems and supporting network, raceway, wiring and devices
- » Physical constraints
- » Interconnections with other building systems (e.g. energy management, fire doors, fire/smoke dampers, nurse call systems, etc.)
- » Occupancy types and associated programmatic requirements

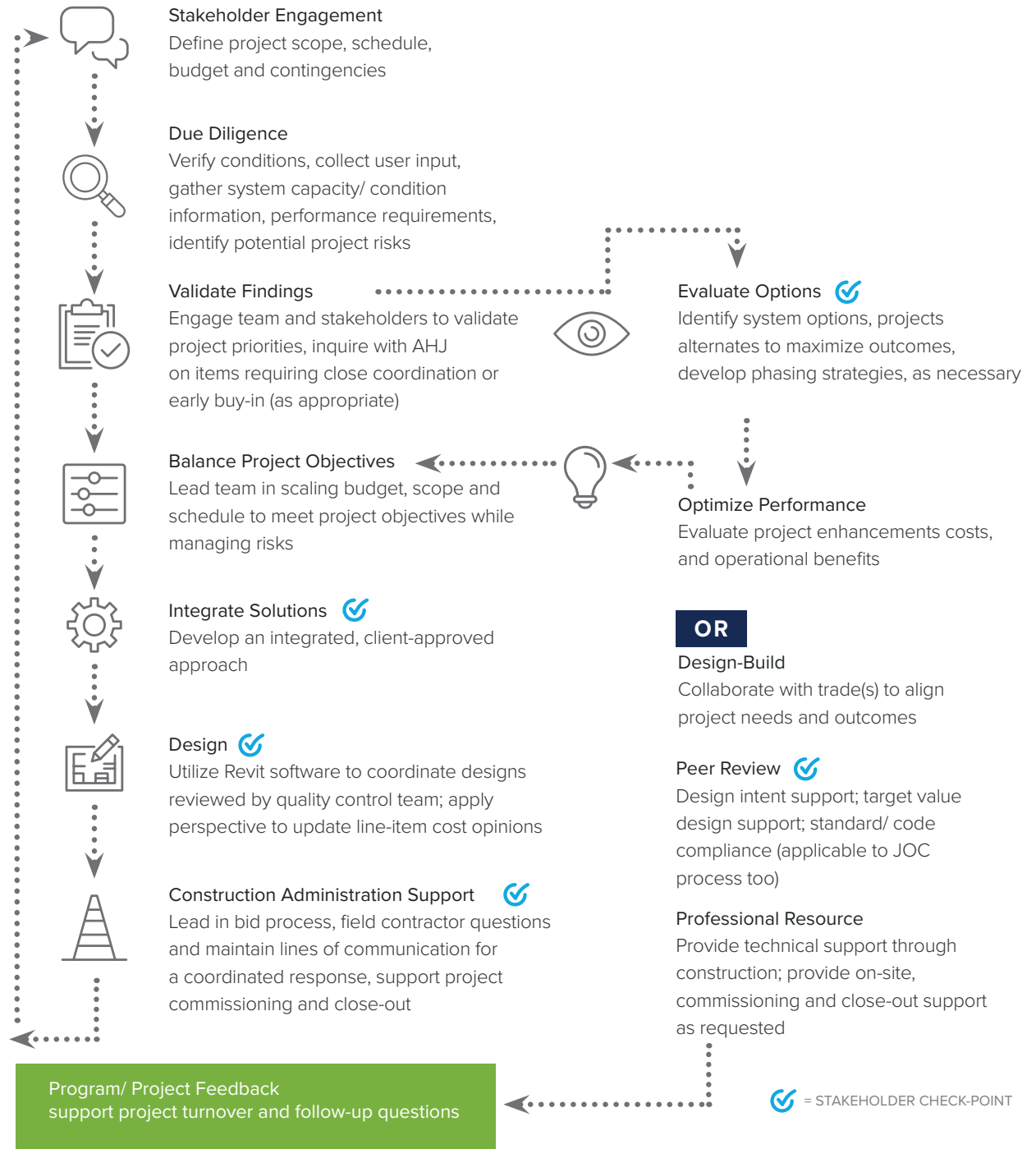
**COST & SCHEDULE CONTROL**

We manage costs and schedules at two levels: the consulting team and the project. Managing the consulting team is the primary focus of the program manager. In developing the project scope, the program manager is intimately involved with assessing the parameters in which the client is working, level of effort expected, engaging a qualified project manager to lead the project and monitoring the activities associated with completing the task directive. The program manager reviews the fee allocation versus actual utilization per project, as well as caps on overall contract allowances. This micro and macro review aids in assessing project progress against the scope of work, reporting DBE-utilization metrics and maintaining project continuity through contract management. At a project level, the program and project manager work in tandem to develop the project budget and schedule. Our project budgets are developed with line-item cost opinions that align well with tracking ROM versus bid values. Our cost opinions are developed based upon installation costs for projects of like scope and geographic location, and verified by our cost estimator. We compare this against current cost trends within the marketplace based upon data collected from our in-house library of recent projects' cost opinions and schedules of values.

This is paired with our schedule management approach that emphasizes timely responses and clear articulation of accountability to keep projects on-time. We share this information in our project scoping and meeting minute updates. The project schedule includes tasks, responsible parties, due dates and completion dates that are defined in advance with clear definition of the expected interaction with project stakeholders in language appropriate to the technical level of the responsible party.

**Key to Our Schedule Management:**

- » Engage key stakeholders early for timely decision-making;
- » Initiate 30%, 60% and 90% design review phases, as appropriate, to allow for an adequate owner review period;
- » Develop a detailed construction phasing plan to optimize construction time period;
- » Lead construction administration activities to effectively close-out the project.



## SUCCESSFUL ENDEAVORS

Components that will make this project successful rest in technical aptitude and operational awareness. Our team has demonstrated the ability to deliver on both.

### King County Metro

#### North Base (KCNB) HVAC & Electrical Upgrade

KCNB shares many of the same objectives as the Green Hill School Campus HVAC Upgrade program. As the first in the series of multiple buildings, multiple campuses, the team needed to develop a plan to align with five overriding objectives: integrate a new technology to the enterprise (VRF), align with LEED® silver design standards as a minimum, identify and secure grant/energy rebates, maintain operations, and improve occupant comfort. The last was the most heavily weighted outcome of the project.

The team delivered a phased approach that delivered on all five benchmarks. Going above the client's energy conservation goals, the team introduced additional conservation measures that elevated the project to one of the most energy-efficient buildings in Metro's operations while maintaining the project budget and schedule.

#### Improved system energy efficiency

- » Extensive sub-metering system to enable monitoring of all power and loads in the facility;
- » Dual core heat recovery units with condensing boilers to serve the HRUs in the industrial space; heat exchanger to recover waste heat from the water-cooled air compressors serving the shop which reduced the domestic hot water demand by approximately 70%

#### Maximizing project outcomes

- » Coordinated controls with the contractor through detailed shop drawings and sequence of operations that enabled the pricing to be negotiated prior to bidding
- » Secured LEED Gold New Construction certification for a system-driven remodel project
- » 13 points for Energy & Atmosphere Credit 2 saving 33% over ASHRAE 90.1

#### Maximizing buying power

- » Secured \$285,000 in energy grants and rebates

Our performance on this project earned us the opportunity to serve the remaining four bases.

Bldg	Alternate #	Heating Source	System Description	EUI	Annual Costs			First Cost	Life Cycle Cost
					Energy	GHG Emissions	Maint.		
Vehicle Maintenance	Existing	Gas		72.4	\$9,832	\$2,273			
	Office - Alt 1	Electric		40.6	\$9,988	\$277	\$14,741	\$652,069	\$1,514,369
	Office - Alt 2	Electric		32.1	\$7,787	\$244	\$13,375	\$1,032,177	\$1,713,092
	Office - Alt 3	Electric		43.3	\$10,687	\$288	\$13,876	\$826,524	\$1,608,801
	Existing	Gas		20.4	\$2,665	\$292			
	Storage - Alt 1	Gas		18.8	\$2,627	\$231	\$4,120	\$250,737	\$476,041
	Storage - Alt 2	Electric		18.2	\$3,318	\$51	\$4,120	\$235,184	\$470,144
	Existing	Gas		166.2	78,650	\$17,902			
	Shops - Alt 1	Gas		89.9	\$39,798	\$10,295	\$16,484	\$2,725,653	\$5,180,773
	Shops - Alt 2	Electric		87.4	\$57,954	\$5,715	\$12,451	\$2,726,147	\$5,279,860
	Shops - Alt 3	Electric		83.5	\$54,463	\$5,661	\$19,647	\$3,229,757	\$6,144,886

^ EXAMPLE: SYSTEM OPTIONS - EUI measured in (kBTU/SF/Yr) // system description per Central Plant and Airside Systems [truncated]

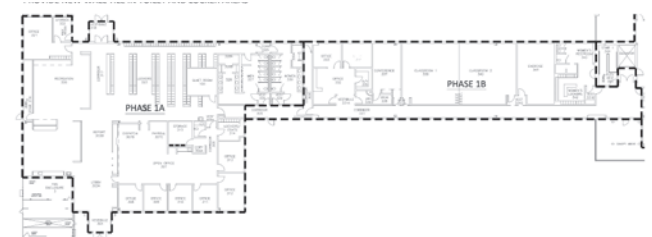
### King County Water & Land Resources Division Environmental Laboratory Fume Hood Replacement

Earmarked as an energy conservation project, like the GHS Campus HVAC program, this project required extensive planning and coordination to maintain operations of the 24/7 critical facility.

The team commenced with an evaluation of the HVAC systems that serve 32 laboratory fume hoods. We provided an equipment condition assessment to determine which had aged beyond its service life. The result of the assessment was the replacement of 15 of the lab fume hoods, 6 lab air handling units, and 32 lab exhaust fans.

Once the scope of work was defined, we developed three replacement alternatives and performed extensive energy analyses and life cycle costs to settle on the best solution from an energy use and capital cost standpoint. The work was completed over four phases, resulting in over 30% fan energy savings.

Delivered during a time of escalation and a lack of qualified contractors resulted in a 4-month delay. We mitigated this through extensive swing space planning and contacting our network of qualified contractors to make them aware of the project. *The quality of deliverables and planning efforts kept the project on time and within 2% of the \$4.2M budget.*



^ EXAMPLE: PHASING STRATEGY

Hargis' performance during [KCNB] project was very good. Technical knowledge of the state-of-the-art, most efficient and cost effective building systems that Hargis' design team provided to the project team, resulted in one of the most energy efficient bus facilities that Metro operates.

The consultant was responsive, proactive, practical and professional and we have no hesitation to work with Hargis and their team in the future if the opportunity arises.

**Ron Moattar**, Project Manager  
King County Metro Transit

**University of Washington  
Chiller Replacement Program**

Like GHS, the UW chiller replacement program addressed system deficiencies across multiple buildings. Some of the buildings required continued operations to support the laboratories that have low tolerances for temperature variances.

As critical as the project was for the university’s marquee R&D programs, funding was not secured at the time of design. We factored this in with bid alternates to keep the project moving forward. The 24-month schedule was maintained, and bids were within 10% of the cost estimate during a time of cost escalation.

The technical scope included:

**Warren Magnuson Health Sciences Center** - 22-ton chiller replacement and associated DX cooling coil in the adjacent 100% OA air handling unit serving the laboratory.

**Physics Astronomy Lab** - 52-ton chiller replacement and associated chilled water pumps and controls. Equipment selection was focused on increased reliability and redundancy.

**Marine Sciences Building** - decommission a 90-ton cooling tower in the penthouse, as well as to investigate the need for additional equipment. Condenser water pumps and piping were demolished, fan coil unit replaced, and the water cooled condensing unit was replaced with an air cooled unit.

**North Physics Lab** - system loads and flow requirements assessed for the chiller that was replaced and provided a VFD for the chilled water pump

SCENARIOS FOR COMPARISON		Less than Bare	Bare Bones	Evap / Energy	Energy/Elec	All In
Provide New UPS Room		YES	YES	YES	YES	YES
(E) 80KW UPS and 100KW UPS		NO	NO	YES	NO	NO
Replace (E) 80KW UPS with (2) 100 KW UPS		NO	NO	NO	YES	YES
Modify (E) AHU's and Add New AHU's, DX (M1)		HALF	YES	NO	NO	NO
Modify (E) AHU's and Add New AHU's, Evap Cooling (M2)		NO	NO	YES	YES	NO
Replace (E) AHU's with (2) Custom Units (M3)		NO	NO	NO	NO	YES
Added Electrical Improvements		NO	NO	NO	NO	YES

CONSTRUCTION COSTS		Base Cost Opinion	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
<b>Architectural</b>							
Server Room, Vapor Barrier, Containment, Misc	\$	24,195	\$ 24,195	\$ 24,195	\$ 24,195	\$ 24,195	\$ 24,195
UPS/Battery Room, New 453 SF Room	\$	41,861	\$ 41,861	\$ 41,861	\$ 41,861	\$ 41,861	\$ 41,861
<b>Structural</b>							
Expand Platform to North (All M Options Same)	\$	105,550	\$ 105,550	\$ 105,550	\$ 105,550	\$ 105,550	\$ 105,550
<b>Mechanical</b>							
UPS Room HVAC Equipment and Exhaust	\$	11,270	\$ 11,270	\$ 11,270	\$ 11,270	\$ 11,270	\$ 11,270
Replace Existing Condensing Units for (E) AHU's HVAC Upgrade Options	\$	18,113	\$ 18,113	\$ 18,113	\$ 18,113	\$ 18,113	\$ 18,113
M1, Modify existing AHU's, Add DX cooling	\$	599,910	\$ 464,910	\$ 599,910			
M2, Modify existing AHU's, Evap Cooling	\$	620,955			\$ 620,955	\$ 620,955	
M3, Remove existing, 2 new custom units	\$	783,698					\$ 783,698
<b>Electrical</b>							
General Conditions and Temp Power	\$	41,113	\$ 41,113	\$ 41,113	\$ 41,113	\$ 41,113	\$ 41,113
Main Feeder and Distribution	\$	36,407	\$ 36,407	\$ 36,407	\$ 36,407	\$ 36,407	\$ 36,407
Server Rack Distribution (A/B Feeds)	\$	50,753	\$ 50,753	\$ 50,753	\$ 50,753	\$ 50,753	\$ 50,753
Demo EPO System	\$	6,325	\$ 6,325	\$ 6,325	\$ 6,325	\$ 6,325	\$ 6,325
UPS/Battery Room Upgrades							
E1, Both New 100KW UPS w/ Bypass	\$	322,575		\$ 322,575	\$ 322,575	\$ 322,575	\$ 322,575
E2, (E) 80KW UPS and New 100KW UPS	\$	(187,220)	\$ 30,000	\$ (187,220)	\$ (187,220)		

**ValleyComm  
911 Data Center Upgrades**

We are applying our three generations of 911 call center experience to guide the system selection and upgrades to ValleyComm. Borrowing from our fire station (Gen 1) and city hall (Gen 2) experience, we have helped stakeholders navigate the resiliency, redundancy, repair/ replace proximity sourcing and occupant considerations as they evolve their operating systems.

Hargis studied eight options to improve the data center HVAC performance, reliability, and redundancy. Leading the adopted system upgrades in the active data center with no shutdowns or impacts to the operations, the team worked closely with the contractor to sequence work and stage materials. Change orders due to errors and omissions were 0.5% while adding \$157,000 in additional project enhancements.

Our performance on this project earned us the invitation to assess and upgrade the HVAC system that serves the rest of the building, as well as a site lighting upgrade and maintenance contract The assessment was completed in 2018 with the upgrade to be completed in 2024.

**DCYF Green Hill School  
Living Unit Renovations**

KMB's leadership with the renovations of North Baker and Spruce exemplify their aptitude for working in occupied secure campuses where occupants are in a more at-risk group. It is of critical importance to maintain the highest levels of safety and security, minimize all disruptions to staff and residents, particularly residents who thrive with consistency. KMB worked with user groups to fully understand operations and potential impacts in an effort to avoid disruptions. KMB conveyed this information to the contractor to ensure a full understanding of requirements for safety and security of equipment and tools, site, egress, life safety, systems operations, reinforced with clear and early communication with users regarding expectations and requirements.



# LIFE CYCLE COST ANALYSIS

Leveraging the power of smart analytics and powerful software with human discernment, we are identifying opportunities for owners to conserve resources. As energy consultants, we have served as an on-call life cycle cost analyst for state-funded projects. As we work with our clients, we couple our technical background as engineers with our analytical abilities to develop systematic approaches to identifying energy efficiency measures (EEMs). Our energy services team helps educational, healthcare, and municipal project stakeholders and the communities they serve to bolster return on investment through investment grade audits, energy modeling, life cycle cost analyses, benchmarking, and measurement and verification studies.

We have proven methods for capturing building performance information and creating feasible strategies to improve energy efficiency at an operational and systems level. Our efforts over the past decade have resulted in a number of system improvements and modifications, some of which have received over \$40+ million in energy grants and rebates. These grants and rebates are a reflection of the team's knowledge of the various utilities and governing agencies offering such incentives. Securing the funds has optimized owners' capital and maintenance budgets.

We utilize both in-house calculations and industry-accepted energy modeling software to forecast cost savings that can be expected of recommended EEMs. Our experience performing energy audits (CBPS ASHRAE Level II Energy Audits), life cycle cost analysis (OFM compliant), post occupancy performance evaluations (SPS BEX IV M&V Study), and nearly 70 years of in-the-field troubleshooting substantiate our abilities to provide realistic ROI that stakeholders demand in order to make better-informed decisions. When coupled with our analysts' ability to translate the data into opportunities for further investigation, we provide a surgical approach to isolating EEMs in short, mid- and long-term payback schedules.

# INCLUSION STRATEGIES

As the prime consultant on several on-call and full-scale projects, we have worked with stakeholders to identify qualified firms and key individuals to fulfill the technical merits of projects and the establishment's contracting goals.

Based upon the 220+ system-driven upgrade projects since 2011 that we have led as the prime consultant, 22.58% of the contractual fees have been paid to sub-consultants on average. With each of these projects, we have worked with stakeholders and the consulting community to identify opportunities to engage qualified professionals that align with the technical and contractual goals of the entity.

To identify and engage these individuals, we draw from the relationships we've developed over the past six decades and those who have performed favorably for the client. For this first phase, we have engaged JB Iringan (M4M002356), an MBE well-versed in cost-estimating system-driven projects. As the project progresses, we anticipate additional opportunities for DBE firms, including tradespersons, commissioning, testing/ balancing and ancillary services (printing, food services, etc.) to realize the full project scope.

## Goals

10%

Minority Owned Business certified by the Washington State Office of Minority and Women Business Enterprises

5%

*Achieved with JB Iringan's involvement*

6%

Women Owned Business certified by the Washington State Office of Minority and Women Business Enterprises

5%

Veteran Owned Business certified by the Washington State Dept. of Veterans Affairs

5%

Washington Small Businesses  
*Achieved with JB Iringan's involvement*

# ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (if any)  
2025-085

## PART II – GENERAL QUALIFICATIONS

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


2a. FIRM (OR BRANCH OFFICE) NAME Hargis Engineers			3. YEAR ESTABLISHED 1955	4. DUNS NUMBER 087594370
2b. STREET 1201 Third Avenue, Suite 600			5. OWNERSHIP	
2c. CITY Seattle	2d. STATE WA	2e. ZIP CODE 98101	a. TYPE Corporation	
6a. POINT OF CONTACT NAME AND TITLE Ron Eliason, Principal, Mechanical			b. SMALL BUSINESS STATUS	
6b. TELEPHONE NUMBER 206.448.3376			6c. E-MAIL ADDRESS ron.eliason@hargis.biz	
8a. FORMER FIRM NAMES(S) (If any)			8b. YR. ESTABLISHED	8c. DUNS NUMBER 0

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
02	Administrative	20		008/A11	Auditorium/Theatre	3
13	Communications Engineer	24		010B01	Barracks; Dorms	2
21	Electrical Engineer	15		014/C06	Churches; Chapels	1
42	Mechanical Engineer	16		017/C10	Commercial Bldg	6
				018/C12	Communications Systems	6
				019/C13	Computer Facilities	6
				027/D07	Dining Halls; Clubs; Rest.	1
				029/E02	Educational Facilities	7
				035/E07	Energy Conservation	2
				030/F02	Field Houses; Gyms; Stadiums	2
				050/H11	Housing (multifamily)	4
				058/L01	Laboratories/Med Facilities	5
				060/L04	Libraries; Museums	2
				072/O01	Office Bldg; Indus. Park	3
63	Other Employees: Mechanical Designer	30		087/S12	Swimming Pools	2
64	Other Employees: Electrical Designer	34		045/H06	High-rise; Air-rights Bdgs	4
65	Other Employees: Telecom Designer	63		112/V01	Value Analysis; LCCA	3
66	Other Employees: Commissioning Agent	18				
Total		207				

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

### 12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE 	b. DATE August 22, 2024
c. NAME AND TITLE Ron Eliason, Principal	



**ARCHITECT – ENGINEER QUALIFICATIONS**

1. SOLICITATION NUMBER (If any)  
2025-085

**PART II – GENERAL QUALIFICATIONS**

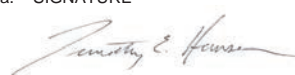
(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME AHBL, Inc.			3. YEAR ESTABLISHED 1969	4. UNIQUE ENTITY IDENTIFIER 048668859
2b. STREET 2215 North 30th Street, Suite 300			5. OWNERSHIP	
2c. CITY Tacoma			2d. STATE WA	2e. ZIP CODE 98403-3350
6a. POINT OF CONTACT NAME AND TITLE Timothy Hansen, PE, LEED AP, MBA   Chief Operating Officer			a. TYPE Corporation	
6b. TELEPHONE NUMBER 253-383-2422			6c. E-MAIL ADDRESS thansen@ahbl.com	
8a. FORMER FIRM NAME(S) (If any)			8b. YR. ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER
7. NAME OF FIRM (If block 2a is a branch office)				

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code E&AS	b. Discipline	c. No. of Employees		a. Profile Code E&AS	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
02	Administrative	14		A03	Agricultural Development; Grain Storage;	2
08	CADD Technician	16		C08	Codes; Standards; Ordinances	3
12	Civil Engineers	45		C09	Cold Storage; Refrigeration and Fast	1
38	Land Surveyor	18		C10	Commercial Building (low rise); shopping	5
39	Landscape Architects	13		C11	Community Facilities	5
47	Planners: Urban/Regional	12		D02	Dams (Earth; Rock); Dikes; Levees	1
57	Structural Engineers	11		E02	Educational Facilities; Classrooms	7
				E06	Embassies and Chanceries	4
				H07	Highways; Streets; Airfield Paving;	4
				H08	Historical Preservation	1
				H09	Hospital & Medical Facilities	4
				H10	Hotels; Motels	3
				H11	Housing (Residential, Multi-Family;	7
				I01	Industrial Buildings; Manufacturing	6
				L01	Laboratories; Medical Research Facilities	1
				M05	Military Design Standards	5
				O01	Office Buildings; Industrial Parks	2
				P05	Planning (Community, Regional,	5
				P08	Prisons & Correctional Facilities	1
				P13	Public Safety Facilities	2
				R04	Recreation Facilities (Parks, Marinas,	4
				S13	Storm Water Handling & Facilities	4
	Other Employees	0				
	<b>Total</b>	129				

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

**12. AUTHORIZED REPRESENTATIVE**  
The foregoing is a statement of facts.

a. SIGNATURE 	b. DATE April 17, 2024
c. NAME AND TITLE Timothy Hansen, PE, LEED AP, MBA   Chief Operating Officer	

# ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (if any)  
2025-085

## PART II – GENERAL QUALIFICATIONS

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


2a. FIRM (OR BRANCH OFFICE) NAME <b>J B Iringan Consulting</b>			3. YEAR ESTABLISHED <b>2005</b>	4. DUNS NUMBER
2b. STREET <b>121 60<sup>th</sup> Place SE</b>			5. OWNERSHIP	
2c. CITY <b>Everett</b>			2d. STATE <b>WA</b>	2e. ZIP CODE <b>98203</b>
6a. POINT OF CONTACT NAME AND TITLE <b>Juan B. Iringan, Owner/Estimator</b>			a. TYPE <b>Single Proprietorship</b>	
b. TELEPHONE NUMBER <b>425.267.0298</b>			6c. E-MAIL ADDRESS <b>jiringan5510@gmail.com</b>	
8a. FORMER FIRM NAMES(S) (If any) <b>NA</b>			7. NAME OF FIRM (If block 2a is a branch office)	
			b. SMALL BUSINESS STATUS	
			MBE M4M002356	
			8b. YR. ESTABLISHED	
			8c. DUNS NUMBER	

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
18	Estimator	1		E02	Educational Facilities, Classrooms	1
				E05	Elevators	1
				E09	Environmental Impact Studies, Assessments	1
				H09	Hospitals & Medical Facilities	1
				I01	Industrial Buildings, Manufacturing Plants	1
				O01	Office Buildings, Industrial Parks	1
				P08	Prisons & Correctional Facilities	1
				R04	Recreational Facilities, (Parks, Marinas, etc.)	1
				R06	Rehabilitation (Buildings, Structures, Facilities)	1
				S03	Seismic Designs & Studies	1
				S04	Sewage Collections, Treatment & Disposal	1
				S09	Structural Design, Special Structures	1
				S13	Storm Water Handling, Water supply & Facilities	1
				W01	Warehouses	1
Total		1		C11	Community Centers	1

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

### 12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE 	b. DATE <b>August 17, 2024</b>
c. NAME AND TITLE <b>Juan B. Iringan/Owner</b>	