

## **Transmittal Letter**

February 20, 2018

To:

Talia Baker, Administrative Support Capital Projects Advisory Review Board 1500 Jefferson St. SE Olympia, Washington 98501

From:

Kirk Robinson, President The Robinson Company Project Management Consultant for Olympic Medical Center 101 Stewart Street, Suite 925 Seattle, WA 98101

Subject: Olympic medical Center – Central Sterilization Project - GCCM Approval Application

Attached you will find the GCCM Application and its related attachments. With your approval, our team is looking forward to commencing with the GCCM procurement process right away. The Owner has approved the GCCM procurement method and is excited to move forward with this critical project.

As you may know, Olympic Medical Center is a major health provider on the Olympic Peninsula. To learn more about their facilities and their services I recommend the reviewers of this application visit their website at <a href="http://www.olympicmedical.org">www.olympicmedical.org</a>

Please let me know if you have any questions or need additional information. I can be reached by email at <u>bkrobinson@robinson-co.com</u> or by phone at 206-391-0938.

Our team is looking forward to receiving any questions you may have and presenting to the Committee in March.

Kirk Robinson, President The Robinson Company Project Management Consultant for Olympic Medical Center

Enclosures: PRC Application Organizational Chart Project Schedule Preliminary Drawings State of Washington

Capital Projects Advisory Review Board (CPARB)

## Project Review Committee (PRC) APPLICATION FOR PROJECT APPROVAL

To Use the General Contractor/Construction Manager (GC/CM) Alternative Contracting Procedure

The CPARB PRC will only consider complete applications: Incomplete applications may result in delay of action on your application. Responses to Questions 1-8 and 10 should not exceed 20 pages *(font size 11 or larger)*. Provide no more than six sketches, diagrams or drawings under Question 9

#### 1. Identification of Applicant

(a) Legal name of Public Body: Clallam County Public Hospital District No. 2, dba Olympic Medical Center

(b) Address: 939 Caroline Street, Port Angeles, Washington 98362

(c) Contact Person Name: Rockie Lee Title: Manager, Plant Operations and Construction

(d) Phone Number: 360 417 7478 Fax: 360 417 8627 E-mail: rlee@olympicmedical.org

2. Brief Description of Proposed Project

a) Name of Project: Olympic Medical Center – Central Sterilization Project

b) County of Project Location: Clallam County, Washington

c) Please describe the project in no more than two short paragraphs.

The Central Sterilization project focuses on replacing, upgrading and relocating key elements of the hospital's existing central sterilization department and staff in order to increase space and significantly improve the work flow process and infection control aspects of the facility. Many of the existing systems are aging, or near the end of their useful life, and need to be replaced or improved in order to prepare the organization to meet increasing sterilization demand.

Elements of work include significant plumbing, steam, HVAC, electrical and fire protection system upgrades, as well architectural and minor structural renovations necessary to relocate equipment for improved staff workflow processes. Some asbestos abatement will be required, a new reverse osmosis water system will be installed and new equipment will be provisioned.

#### 3. Projected Total Cost for the Project:

#### A. Project Budget

Costs for Professional Services (A/E, Legal etc.): **\$700,000** Estimated project construction costs (including construction contingencies): **\$4,058,000** Equipment and furnishing costs: **\$800,000** Off-site costs: **\$0** Contract administration costs (owner, cm etc.): **\$375,000** Contingencies (design & owner): **\$300,000** Other related project costs (permits, testing, commissioning): **\$150,000** Sales Tax: **\$308,000** Total **\$6,691,000** 

#### **B. Funding Status**

Please describe the funding status for the whole project.

#### Project will be funded with current cash reserves.

#### 4. Anticipated Project Design and Construction Schedule

Please provide:

- The anticipated project design and construction schedule, including:
- (1) Procurement;
- (2) Hiring consultants if not already hired; and
- (3) Employing staff or hiring consultants to manage the project if not already employed or hired.

#### See attached project schedule

#### 5. Why the GC/CM Contracting Procedure is Appropriate for this Project

Please provide a detailed explanation of why use of the contracting procedure is appropriate for the proposed project. Please address the following, as appropriate:

## We believe this project is an excellent candidate for GCCM contract delivery (and likely ECCM and MCCM contract deliveries as well) for the following reasons:

- A. The work needs to occur in a hospital that cannot allow major shut-downs.
- B. Due to the complexity of the project, the need to have precise timing of shutdowns/ cutovers and the need to maintain a high degree of project safety and infection control, this project needs the right general contractor on the team as early as possible.
- C. The project has difficult and complex routing paths impacting many areas and relatively low floor-floor heights. This will require careful and well coordinated planning between the hospital, design team and the contractors.
- D. Since the hospital is an active 24-hour facility, off-hours work is likely to be required. Careful and well coordinated planning between the hospital, design team and the contractors needs to occur.
- E. A significant portion of the work will occur below the surgery/operating rooms. Careful and well coordinated planning between the hospital, design team and the contractors needs to occur to avoid impacts to these critical rooms.
- F. New equipment will be purchased and installed which will require early coordination and planning between the hospital, design team and the contractors.

- G. We also believe the project is an excellent candidate for ECCM and MCCM contracting deliveries as well, but this will be reviewed with the selected general contractor prior to a final decision.
- H. Because of the location, complexity and size of the project finding qualified general contractors and subcontractors to bid the project with a design-bid-build delivery seems highly unlikely and increases risk to the hospital. Therefore use of the GCCM delivery method (and likely ECCM and MCCM as well) is important for the success of the project.
- I. The work is divided into five (5) distinct phases which will collectively total eight (8) months (see attached schedule and drawings).

• If implementation of the project involves complex scheduling, phasing, or coordination, what are the complexities?

#### See above

• If the project involves construction at an existing facility that must continue to operate during construction, what are the operational impacts on occupants that must be addressed? *Note:* Please identify functions within the existing facility which require relocation during construction and how construction sequencing will affect them. As part of your response you may refer to the drawings or sketches that you provide under Question 9.

#### See above

• If involvement of the GC/CM is critical during the design phase, why is this involvement critical?

#### See above

• If the project encompasses a complex or technical work environment, what is this environment?

#### See above

• If the project requires specialized work on a building that has historical significance, why is the building of historical significance and what is the specialized work that must be done?

#### **Not Applicable**

• If the project is declared heavy civil and the public body elects to procure the project as heavy civil, why is the GC/CM heavy civil contracting procedure appropriate for the proposed project?

#### **Not Applicable**

#### 6. Public Benefit

In addition to the above information, please provide information on how use of the GC/CM contracting procedure will serve the public interest. For example, your description must address, but is not limited to:

· How this contracting method provides a substantial fiscal benefit; or

• How the use of the traditional method of awarding contracts in a lump sum is not practical for meeting desired quality standards or delivery schedules.

• In the case of heavy civil GC/CM, why the heavy civil contracting procedure serves the public interest.

The GCCM process will provide the community the benefit of reduced costs, better scheduling and sequencing resulting in less impact to the operation of the hospital as follows:

Reduced Costs: Due to the limited amount of qualified general contractors and major subcontractors (primarily mechanical and electrical contractors) in the semi-isolated area of the Olympic Peninsula the use of GCCM will enable the hospital to contract with a qualified general contractor to do the work. There is risk in a lowest bidder lacking the experience to perform the required work within the shutdown parameters of an operating hospital. If ECCM and MCCM deliveries are selected this same benefit will occur for the mechanical and electrical contracts

Better Scheduling: By having the GCCM on the team prior to construction the hospital will receive more accurate and cost-effective scheduling which will allow the work to be performed more efficiently and with less impact to hospital operations.

Less Impact to the Hospital: By having the GCCM on the team early, specific routing and shut-downs of mechanical and electrical work can be well planned and carefully coordinated with the hospital.

#### 7. Public Body Qualifications

Please provide:A description of your organization's qualifications to use the GC/CM contracting procedure.

The Olympic Medical Center Team has four team members which are very familiar with the GCCM process. These include: Sazan Group – Electrical Engineering Perkins Coie – Legal and Contracts TBS Engineering - Mechanical Advisor The Robinson Company – Project Management

This team's collective history with the GCCM process along with the balance of the team member's extensive knowledge of the facility and the design and operational requirements will ensure the project is delivered on-time, within budget and with minimal impact on the project's operation. If the CPARB Committee believes an additional GCCM advisor needs to added to the team to receive approval one can be included.

• A Project organizational chart, showing all existing or planned staff and consultant roles.

#### See Attached

• Staff and consultant short biographies (not complete résumés)

#### Rockie Lee – Olympic Medical Center - Manager, Plant Operations and Construction

Over 20 years of experience in senior management and technical positions, and as independent consultant; construction projects included a medical office building, two data

centers, a trident submarine and many smaller projects. Facilities managed include critical, high tech manufacturing, research, offices and nuclear submarines. Functions managed include safety, cost, schedule, bid analysis, negotiation, award, permitting and demolition. Coordinated and managed submarine-wide testing that simulated missile launches and exercised systems that actually moved more than 100,000 lbs of water within 10 seconds. Systems managed include HVAC, mechanical, electrical, plumbing, building automation and gas. Submarine systems managed included steering and diving, hovering and depth control, missile compensating water, navigation and interior communications. These systems involved electrical/electronic, pneumatic, hydraulic, synchro/servo, PLC and integrated circuit interfaces.

#### Andrea MacFeat – Olympic Medical Center – Projects Coordinator

Andrea's current tasks include general management and coordination of both DBB and SWR contracts, including; Small Works Roster management, project budgeting and costing, design review and coordination, construction contract review and administration, construction planning and scheduling, document control and payment processing, NFPA, CMS, DNV, State, and Local Authority code compliance and accreditation administration. She previously served on the Kadoka, SD City Council and has over 20 years of project experience.

#### Jason Francis – Olympic Medical Center – Plant Operations Supervisor

Jason has worked at Olympic Medical Center since 2005 as a lead Plant Operator and was promoted to Supervisor nearly 2 years ago. He monitors and assigns work to staff, checks work for accuracy, organizes work flow and acts as liaison between other plant operators, maintenance staff and upper management. Jason has a high degree of knowledge about the hospital's mechanical and electrical systems. Prior to working at Olympic medical Center Jason worked for major mechanical contractors and for Swedish Hospital

#### Karsea Langlois – Architect - Insight Design Studio LLC

Karsea Langlois has over 20 years of professional experience, spent exclusively in the field of healthcare design. Specializing in capital improvement projects and space planning, she has extensive experience working with the Department of Health, Construction Review Services. After working with a small healthcare design firm for 10 years, she founded Insight Design Studio LLC in 2009, and was brought on as a consultant by Skagit Valley Hospital and Skagit Regional Clinics. Since 2009, she has been the architect of record on all capital projects, and numerous feasibility studies.

In 2011, she was brought on as a consultant by Olympic Medical Center to complete their new Sleep Disorders Center, located in Sequim, Washington. Since that project, the hospital has utilized her space-planning abilities as Design Architect on numerous projects.

As the Principal Architect of Insight Healthcare Architecture, Karsea is the point of contact for the design team on each project, handling all aspects of the design process from conception through design completion.

#### Kevin Yamada – Mechanical Engineer – Harris Group

As Project Engineer, Kevin has a Bachelor of Science, Mechanical Engineering degree from the University of Washington and draws upon over eleven years' experience in consulting engineering. Kevin is licensed in the State of Washington. His expertise includes a wide variety of HVAC, plumbing and fire protection system projects. Experience includes new construction and retrofit of assisted living facilities, multi-family and mixed use buildings, medical facilities, municipal, commercial and retail. He has been responsible for existing HVAC investigations including indoor air quality issues and energy studies. Kevin is also a member of American Society of Heating, Refrigeration and Air Conditioning (ASHRAE).

#### **Healthcare Projects:**

Cascade Skagit Health Alliance

**Skagit Regional Clinics Riverbend** 

University of Washington Medical Center Family Waiting Remodel

**Skagit Valley Hospital Cardiac Rehab** 

Summit Pacific Medical Center

#### Lee R. Swanson, P.E., RCDD - Electrical Engineer - Sazan Group

Lee has over 17 years of experience in the A/E MEP industry primarily working in the design of healthcare projects. Previous projects involved central sterile processing departments and numerous hospital renovation projects including emergency departments, ICU/CCU and various imaging equipment projects. Significant past project work has included design and construction work at Olympic Medical Center, Virginia Mason Medical Center, Evergreen Health, Providence St. Peter Hospital and Multicare. Specific design experience at Olympic Medical Center dates back to 2004 with the Dietary-Cardiac-MRI expansion project followed by numerous other projects at both the OMC Port Angles and Sequim facilities. The most recent work at OMC includes the Renovation and expansion of the Emergency Department in 2014-15 and then the Design of the new MOB in 2015-16. Several of Lee's projects have used GCCM delivery

#### Kirk Robinson – Project Manager – The Robinson Company

Kirk has over 37 years of cost estimating and project management experience. Under his leadership, The Robinson Company has provided construction management services for projects in excess of \$700,000,000 and over 5,000 cost estimates. Kirk offers in-depth knowledge of budgeting, construction management, constructability reviews, cost estimating and scheduling for a large array of public projects throughout the Northwest including numerous hospital facilities (Olympic Medical Center, Swedish Hospital, Providence Hospital, Good Samaritan Hospital and Whidbey Island Hospital). His expertise in the process helps ensure that facilities will be completed on time, within budget, and without arbitration or litigation. He is also experienced with the GCCM delivery process and is currently managing the Grant Street School Project for the Port Townsend School District which is using GCCM delivery.

#### Rick Peters – Mechanical Advisor – TBS Engineering

Rick is the President of TBS Engineering, a mechanical engineering firm primarily focused on creating and maintaining a safe, efficient hospital/healthcare environment for patients, caregivers, and facility staff. Rick has a strong knowledge of hospital mechanical systems and has worked extensively at Olympic Medical Center including developing as-built mechanical drawings for this project. Several of Rick's previous projects have used GCCM delivery.

#### Graehm Wallace – Legal Advisor – Perkins Coie

Graehm Wallace is a partner in the Seattle office of the law firm Perkins Coie LLP. Graehm has provided GC/CM project legal assistance for numerous public entities including preparation of GC/CM contract documents and providing legal counsel regarding compliance with RCW Chapter 39.10 for GC/CM projects. For example, Graehm has prepared GC/CM contracts for Columbia County Health System, Grays Harbor Public Hospital District, and Lake Chelan Community Hospitals, the Cities of Oak Harbor and Spokane, as well as for the Auburn, Bainbridge Island, Bellingham, Centralia, Central Kitsap, Central Valley, Clover Park, Lake Stevens, Mead, Mount Vernon, Port Townsend, Shoreline, Spokane, Seattle, Tacoma, and Vancouver School Districts. Graehm has over twenty-one years legal counsel experience working in all areas of construction and has provided legal assistance to over 100 Washington public entities. His work has covered all aspects of contract drafting and negotiating. This includes preconstruction, architectural, engineering, construction-management, GC/CM, design-build, and bidding. Graehm has also provided legal advice during construction, claim prosecution and defense work.

• The qualifications of the existing or planned project manager and consultants. See brief resumes above

• If the project manager is interim until your organization has employed staff or hired a consultant as the project manager, indicate whether sufficient funds are available for this purpose and how long it is anticipated the interim project manager will serve. **Not Applicable** 

 A brief summary of the construction experience of your organization's project management team that is relevant to the project.
 See brief resumes above

• A description of the controls your organization will have in place to ensure that the project is adequately managed.

Olympic Medical Center has a full time staffed in-house Construction Management Department and legal staff which will be supplemented with contracted services for construction/project management, legal and design teams. OMC has an established capital projects process as well. During pre-design the project will receive updated schedules from the project manager on a weekly basis to confirm activities are occurring in the necessary and required time frames. Monthly budget updates will be provided to the Manager, Plant Operations and Construction, who will be reviewing them with the CFO and CEO on a weekly basis. The CEO will review the schedule and budgets with the Board of Directors no less than once per month.

During construction the project will receive updated schedules from both the Construction Project Manager and the GCCM on a weekly basis to confirm activities are occurring in the necessary and required time frames. Weekly budget updates will be provided to the Manager, Plant Operations and Construction, who will be reviewing them with the CFO and CEO on a weekly basis. The CEO will review the schedule and budgets with the Board of Directors no less than once per month.

The Construction Project Manager will work with the owner to select and negotiate agreement with outside consultants (commissioning agents, testing/inspection firms, etc.)

The Constriction Project Manager will work closely with the design team and GCCM to assist in receiving all required permits and to ensure that all owner furnished equipment and furniture are ordered and delivered on schedule.

Any Change Orders will be reviewed by the design team, Construction Project Manager and Manager, Plant Operations and Construction. Final approval of all change orders will follow the established guidelines of Olympic Medical Center.

• A brief description of your planned GC/CM procurement process.

After approval from CPARB the hospital will establish a Selection Committee and issue a Request for Qualifications (RFQ) which will be publicly advertised. After receiving and scoring the RFQ and conducting interviews with the submitting firms, the Selection Committee will issue a Request for proposal (RFP) to the qualifying firms. Upon receipt and public opening of the RFP the scores will be totaled and the selected GCCM will be established.

• Verification that your organization has already developed (or provide your plan to develop) specific GC/CM or heavy civil GC/CM contract terms.

# Contract terms will be developed after the approval from CPARB and in close coordination with The Robinson Company, Perkins Coie and the hospital. All required laws and regulations will be part of the contract.

#### 8. Public Body (your organization) Construction History:

Provide a matrix summary of your organization's construction activity for the past six years outlining project data in content and format per the attached sample provided:

**Contract Date** 

ED Expansion (1) 7/24/2014 MOB (2) 7/9/2015 CT remodel (3) 12/2/2015

<b>Planned Start</b>	7/24/2014	7/9/2015	12/2/2015
Actual Start	7/24/2014	7/9/2015	12/2/2015
Planned	9/15/2015	1/1/17	4/29/2016
Completion Actual Completion	9/15/2015	6/7/2017 (2a)	4/29/2016
Completion			
Delivery Method	Design-Bid-Build	Design-Bid-Build	Design-Bid-Build
	Design-Bid-Build \$1,789,000.00	Design-Bid-Build \$16,210,000.00	Design-Bid-Build \$ 614,000.00
<b>Delivery Method</b>	0	0	0

- (1) Project Description: Expansion of Emergency Department including minor renovations
- a. Change Order Discussion: Only minor change orders were required. (2) Project Description: New 40,000 sf Medical Office Building
  - a. Change Order and Schedule Discussion: Project was delayed by a six week glazers strike and impacts of discovery of significant quantities of unforeseen contaminated soil; increased costs included approximately \$2,500,000 for unforeseen contaminated soils, the addition of emergency power throughout the facility (voluntarily added by the owner), demolition of existing Women's Clinic (voluntarily added by the owner), additional utility requirements from Century Link and additional utility/paving required by the City of Port Angeles.
- (3) Project Description: Change-out of the CT Scanning Unit and related work.
  - a. Change Order Discussion: During demolition unforeseen leaks were discovered which resulted in significant roofing repairs, replacement of a structural floor and repair to existing finishes

#### 9. Preliminary Concepts, sketches or plans depicting the project

To assist the PRC with understanding your proposed project, please provide a combination of up to six concepts, drawings, sketches, diagrams, or plan/section documents which best depict your project. In electronic submissions these documents must be provided in a PDF or JPEG format for easy distribution. (*See Example concepts, sketches or plans depicting the project.*) At a minimum, please try to include the following:

• An overview site plan (indicating existing structure and new structures)

• Plan or section views which show existing vs. renovation plans particularly for areas that will remain occupied during construction.

#### See attached plans

#### 10. Resolution of Audit Findings on Previous Public Works Projects

If your organization had audit findings on *any* project identified in your response to Question 8, please specify the project, briefly state those findings, and describe how your organization resolved them.

#### The hospital has never received any findings relative to their capital projects.

#### CAUTION TO APPLICANTS

The definition of the project is at the applicant's discretion. The entire project, including all components, must meet the criteria to be approved.

#### SIGNATURE OF AUTHORIZED REPRESENTATIVE

In submitting this application, you, as the authorized representative of your organization, understand that: (1) the PRC may request additional information about your organization, its construction history, and the proposed project; and (2) your organization is required to submit the information requested by the PRC. You agree to submit this information in a timely manner and understand that failure to do so shall render your application incomplete.

Should the PRC approve your request to use the GC/CM contracting procedure, you also understand that: (1) your organization is required to participate in brief, state-sponsored surveys at the beginning and the end of your approved project; and (2) the data collected in these surveys will be used in a study by the state to evaluate the effectiveness of the GC/CM process. You also agree that your organization will complete these surveys within the time required by CPARB.

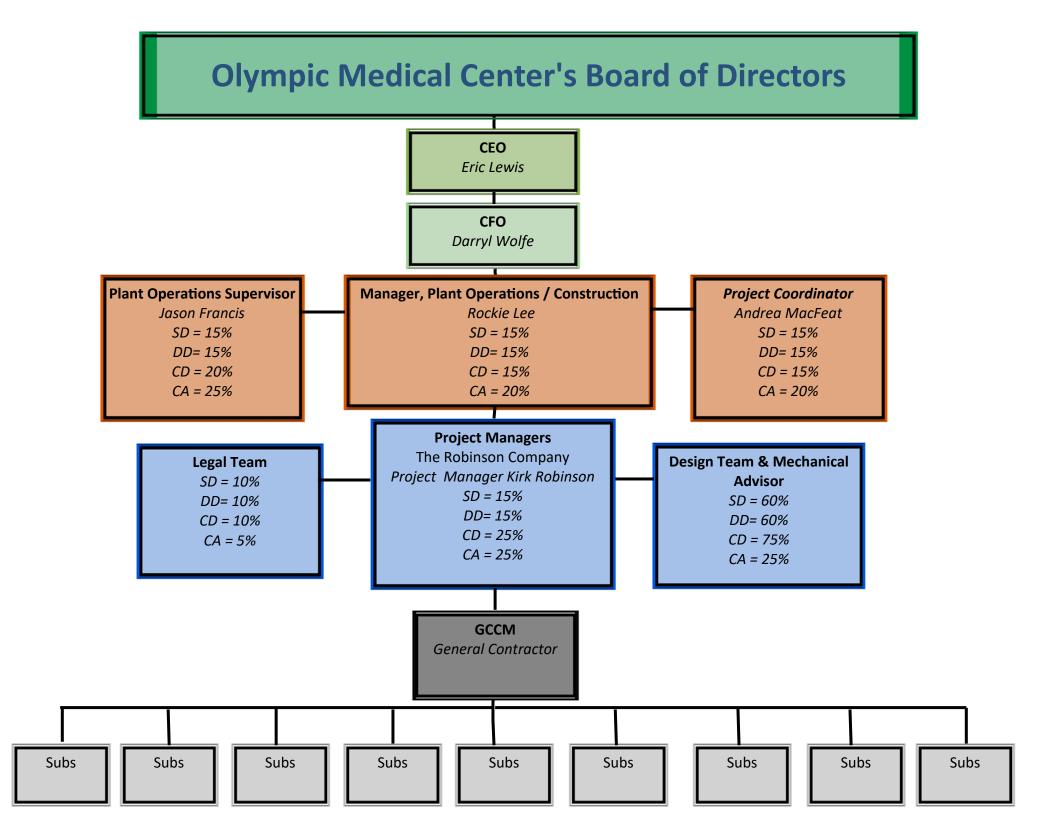
I have carefully reviewed the information provided and attest that this is a complete, correct and true application.

1- Will Signature:

Name (please print): Darryl Wolfe

Title: CFO

Date: February 20, 2018



Γ	OMC CENTRAL STERILIZATION		
	PROJECT SCHEDULE		
	1/30/2018		
1		START	FINSIH
2	PRECONSTRUCTION		
3			
	Initial Planning		
5	Review Preliminary Estimate	01/31/18	01/31/18
	Adjust Preliminary Estimate	01/31/18	02/06/18
7	Finalize Scope and Estimate	01/31/18	02/06/18
8	Owner Approval of Scope and Estimate	02/06/18	02/12/18
9			
	GCCM Selection		
	Submit GCCM Application	02/15/18	02/20/18
	Receive Questions from CPARB	02/20/18	03/15/18
	Respond to Questions from CPARB	02/20/18	03/15/18
	Meeting with CPARB	03/20/18	03/20/18
	Develop Draft RFQ and RFP	02/19/18	02/26/18
	Review RFQ and RFP	02/26/18	03/05/18
	Finalize RFQ and RFP	03/05/18	03/12/18
	Advertise for GCCM	03/26/18	04/03/18
	RFQ Pre-Submittal Meeting	04/05/18	04/05/18
	Issue RFQ Addenda	04/06/18	04/06/18
	Receive RFQs	04/11/18	04/11/18
	Score RFQs	04/12/18	04/16/18
	Interview Firms	04/17/18	04/17/18
	Select Firms for RFP	04/17/18	04/17/18
	Issue RFP	04/18/18	04/18/18
	RFP Pre-Submittal Meeting	04/24/18	04/24/18
	Issue RFP Addenda	04/26/18	04/26/18
	Receive RFPs	05/01/18	05/01/18
	Negotiate Preconstruction Scope and Services	05/01/18	05/08/18
	Sign Preconstruction Agreement	05/08/18	05/11/18
	Contractor Develops Preliminary Estimate	05/08/18	05/22/18
32 33	Review Estimate & Value Engineering	05/22/18	05/29/18
	MCCM and ECCM Selection Develop Draft RFQ and RFP	05/00/40	05/18/18
	Review RFQ and RFP	05/08/18 05/08/18	05/18/18
	Finalize RFQ and RFP		
	Advertise for GCCM	05/08/18 05/23/18	05/18/18 05/30/18
		05/31/18	05/31/18
	RFQ Pre-Submittal Meeting Issue RFQ Addenda		
	Receive RFQs	06/01/18 06/07/18	06/04/18 06/07/18
	Score RFQs	06/07/18	06/14/18
	Interview Firms	06/07/18	06/14/18
	Select Firms for RFP	06/07/18	06/14/18
	Issue RFP	06/14/18	06/14/18
	RFP Pre-Submittal Meeting	06/21/18	06/21/18
	Issue RFP Addenda	06/22/18	06/25/18
	Receive RFPs	06/28/18	06/28/18
	Negotiate Preconstruction Scope and Services	06/28/18	07/09/18
49	regulate Freconstruction Scope and Services	00/20/10	07709/10

50 Sign Preconstruction Agreement	07/09/18	07/11/18
51		
52 Design Development		
53 Complete Design Development Plans	07/11/18	08/08/18
54 Weekly Meetings with Team	07/11/18	08/08/18
55 Design Development Estimate	08/08/18	08/22/18
56 Review Reconcile DD Estimate	08/22/18	08/29/18
57 Receive Approval for DD Phase	08/29/18	08/31/18
58		
59 Contract Documents		
60 Complete Contract Documents	09/01/18	10/01/18
61 Weekly Meetings with Team	09/01/18	10/01/18
62 Contract Documents Estimate	10/01/18	10/15/18
63 Review Reconcile CD Estimate	10/15/18	10/22/18
64 Receive Approval for CD Phase	10/22/18	10/25/18
65		
66 BID & AWARD		
67 Advertise for Bids	10/30/18	11/06/18
68 Pre-Bid Site Visit	11/08/18	11/08/18
69 Issue Addenda	11/13/18	11/13/18
70 Receive Bids	11/20/18	11/20/18
71 Award Contracts/Issue NTP	11/20/18	11/27/18
72		
73 CONSTRUCTION		
74 Phases One - Five	12/1/18	7/31/19
75		
76 CLOSE-OUT		
77 Receive/Review Warranties	8/1/19	11/1/19
78 Receive/Review As-Builts	8/1/19	11/1/19
79 Receive/Review Other Close-Out Docs	8/1/19	11/1/19
80		



## Olympic Medical Center Central Sterilization Schematic Design Narrative

## Summary:

The project consists of a 5,700-square foot full renovation of the existing central sterilization area located in the basement. The project will be completed in 5 phases during which the central sterilization department will need to remain in operation. After hours of work will need to be provided and coordinated with OMC for any disturbances which will affect other areas of the hospital.

## **Existing HVAC:**

The area of work is currently served by AHU-8 which is located on the roof. This unit also serves parts of the first floor so any modifications in the basement area will affect the first floor above. AHU-8 provides the cooling and heating is provided by individual zone hot water coils. The existing controls for these are non-existent so all new controls will need to be provided and connected into an existing Johnson Control panel in the Mechanical Room. There are multiple exhaust fans that serve the area for spaces which require exhaust to the exterior.

## **Existing Plumbing:**

There are multiple plumbing systems running through this area which include domestic hot and cold water, waste and vent, hot water heating supply and return, condensate and steam.

## New HVAC:

A new 25-ton air handler (see schedule sheet for details) will be provided to serve the area of work in the basement and located on the exterior at grade. The air handler will consist of a DX cooling coil and chilled water coil. At this time, the basement will be served by the DX cooling coil and the chilled water coil will be provided for future use when capacity is added to the existing chillers (chilled water coil will provide cooling and DX coil discontinued, not in scope). All new hot water coils (15 total, see schedule sheet for details), ductwork, GRD's, piping and controls will be provided for the area. The existing Johnson Control panel in the mechanical room has the capacity to add the new coil controls. A new exhaust fan will need to be provided in Mech B-52 to replace existing EF. The new HVAC equipment and ductwork will run through spaces outside of the architectural new floor plan. Work in all areas will need to be coordinated with OMC.

## New Plumbing:

A new domestic hot water loop along with the cold water will be provided for the renovated area. This will need to be installed parallel to the existing domestic water piping to keep existing fixtures up and running as needed. Installing the new domestic water loop will be tricky because it will be installed in phase 1 but run through spaces that are not part of phase 1. The contractor will have the option to install the entire loop in phase 1 or install piece by piece as

Our difference is engineered.



each phase is completed. All new plumbing fixtures and existing fixtures until demo will need to remain in operation during construction. Contractor will need to provide all new plumbing fixtures in line with OMC standards.

There is an existing steam RPBP station located at the sterilizer room that has an existing stub to connect to the new sterilizers. New steam piping will need to be provided from the stub to the new equipment.

New waste and vent piping will need to be provided to all the new plumbing fixtures and equipment. There is an existing waste line that runs through the area of work with the capacity to handle the new fixtures. Saw-cutting the slab will need to be provided to tie any new fixture into the existing waste line.

New hot water heating piping will need to be provided for all the new hot water coils.

A new reverse osmosis system (see schedule sheet for details) and piping will be provided in the boiler room to serve the new wash sinks and disinfectors. This piping and equipment will run through spaces outside of the architectural new floor plan. Work in all areas will need to be coordinated with OMC. **Olympic Medical Center – Central Sterilization – Electrical Narrative** 

## **Electrical SUMMARY**

## Project Summary/Scope

The project includes renovation of the existing central sterile processing department and adjacent areas to create additional storage spaces and separate decontamination and processing areas.

- Approx. 5000 sf
- Five phases of construction
- No significant changes to the power, fire alarm or telecom infrastructure are anticipated.

- Power for new and relocated equipment and lighting will be derived from existing panels.

- One panel will be replaced.

The project will include a new reverse osmosis unit for water purification

• A new air handler will be provided to support the increased demand of the central services department.

## LIGHTING

•New 2x4 and 2x2 recessed prismatic LED light fixtures will be provided throughout the renovation area.

- The lighting in the shower/restrooms will include a wall mounted LED vanity light and a 6 inch LED down light.

- Light fixture color temperature will be 4000k with a CRI of 90 or better with the 4000 lumen package selected for the lay-in troffers.

• Lighting controls will be via wall mounted line voltage switches in the sterile processing areas with occupancy sensor based controls in offices, restrooms, locker rooms and storage spaces.

- Lighting will be designed in compliance with IES recommend illumination levels as referenced by the AAMI standard ST79:2010. This standard references the IES 9th Edition illumination levels rather than those defined in the current 10th edition.9th edition IES recommended illumination levels are listed in the table below:

Space Name/Location	IES Illumination (average) Recommendation (FC)
Decontamination Drop Off	30
Sink Areas (decontamination)	75
Breakout/Receiving and Clean Storage	30
Clean assembly workroom	75
Detailed Inspection Areas	150
Sterile Storage Rooms	30
Offices	30
Staff Lounge	10-20
Lockers/Restrooms	10-15

## Power

## **General Receptacles**

-General purpose receptacles will be provided on each wall in most spaces. Dedicated outlets will be provided for special equipment, such as scope cleaners, ultrasonic cleaners and computer work stations.

• The 120V receptacle and lighting loads in phase 1 will be powered from panels DD, LD. Panels DD and LD are located in corridor B41D, just outside the central sterile space.

• Existing panel CSR will be replaced during phase 2. The existing panel is located in the space the will be occupied by the new cart washer so it must be demolished and replaced. A new 225A panel will be installed in the decontamination room next to the new cart washer. This new panel will be powered from an existing spare 225A sub-feed breaker in panel ME via new 225A feeder. The existing 100A breaker feeding the old/existing panel CSR will become spare. Panel ME is located in the mechanical room directly west of the renovation area. Existing panel CSR loads will be re-fed from the new panel. All new 120V or 208V equipment, lighting and receptacle loads within the phase 2 through 5 renovation areas requiring emergency power, will be fed from new panel CSR. Normal power circuits will be extended from panel LD. It is expected that most of the equipment and all of the lighting in the space will require emergency power with normal power being utilized for staff break room, offices and a few convenience outlets around the renovation areas.

## **Central Sterile Equipment**

Equipment within Central Sterile area appears to be powered from panel CSR (located inside central sterile), as described above. Existing panel CSR will have to be demolished to make way for the new cart washer. As a result, the sterilizers and other equipment that will remain in place until phases 3, 4 and 5 will need to be re-fed. A replacement panel will be provided, and this new panel will be used to power the new central sterile equipment.

## **Mechanical Systems**

- The project will include a new air handling unit (AHU) and a new reverse osmosis water treatment (RO) system.

- The AHU will be located at grade level, outside, north of central sterile. The system will require (2) electrical connections; one from normal power for the cooling system equipment, and one from emergency power for fans. We anticipate that the fans can be powered from either panel ME or 1Z1. Due to limited capacity within the emergency power system, the compressor or chiller will be connected to normal power. 208V power is available for the compressor/chiller from Switchboard #3 or, alternatively, from panel 4BN2 in electrical room B-9 if 480V power is preferable.

• The RO unit will be installed in the boiler room. This is expected to be a 208V, 3-phase system with a demand in the 15-20-amp range. Emergency power is available from panel LSU-1 in the boiler room. Should the system need to be powered at 480V, emergency power is available nearby from panel 4BZ1 located in electrical room B-9.

### Load Name/Description

AHU - Chiller AHU Fans RO Unit Phase 1, Central Sterile CS, LTS/ RCPTS Phase 2-5, Central Sterile CS, LTS/RCPTS Central Sterile Equipment New PNL CSR

## Planned power source/panel

PNL 4BN2 PNL 1Z1 PNL 4BZ1 PNL DD, PNL LD PNL CSR (new) PNL CSR (new) PNL ME / ATS ME

## SUMMARY OF GENERATOR LOAD CHANGE

• ATS ME: The net load increase on ATS ME will be about 37kW, or 102 amps at 208V 3-phase.

• ATS ME TOTAL: Total calculated demand will increase from 190 amps to 292 amps. The system is rated at 400 amps. (Note that ATS ME is rated at 600 amps, but downstream panel ME is rated at 400 amps.)

• ATS Z: The net load increase on ATS Z will be about 32.26kW, or about 39 amps at 480V 3-phase.

• ATS Z TOTAL: The total calculated demand will increase form 228 amps to about 267 amps. The system is rated at 400 amps.

• ATS Z1: The RO unit will be power from panel 4BZ1, downstream from ATS Z1. The load will increase by 12.5kW or about 15 amps at 480 volts

• ATS Z1 TOTAL: The total calculated demand will increase from 231 amps to 246 amps. The system is rated at 400 amps.

• NORMAL POWER CHANGES: At the time of this draft, metering was in progress so the load on the existing normal power systems isn't yet known. No problems are anticipated however, since, historically, the normal power systems at OMC have tended to be lightly loaded.

## LV AND TELECOM SYSTEMS

## Fire Alarm

New fire alarm devices will be provided throughout the occupancy as an extension of the existing fire alarm system. The majority of the devices provided will be notification appliances. New smoke detectors will be required in the various linen and equipment storage spaces. An existing fire alarm pull station will be relocated to within five feet of the exit door located to the west of the central services occupancy. The existing pull station is located substantially more than five feet from the exit, near the entrance to mechanical room B-52, and will need to be relocated to comply with building and fire codes.

## **Access Control**

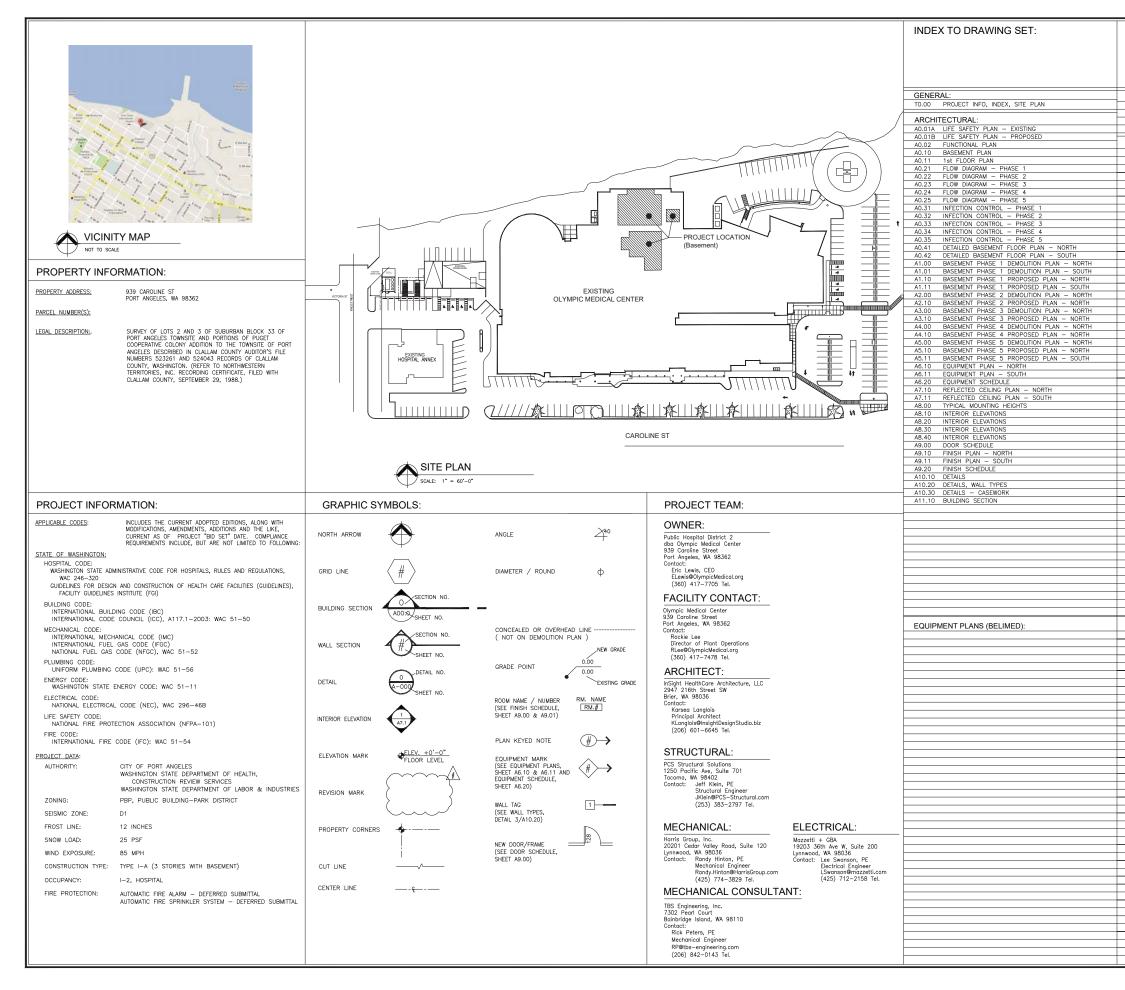
Card readers will be provided at selected doors to prevent unauthorized access into the CS work and storage areas. Access control signals will be extended from the existing

access control panel located in basement Comm room B-54. A total of seven new card readers are expected.

#### Voice and Data

Voice and data circuit throughout the occupancy can be extended from the equipment in existing telecom room #2, located in room B-54. Over the course of the renovation between 30 and 40 existing telecom/data connections will be removed with patch panel spaces becoming available for re-allocation. The requirement for voice and data ports are estimated in the table below:

	Quantity of Device plates/boxes	Quantity of jacks/cables per faceplate
Office B-47E	2	3
Office B-47D	2	3
Sterile Processing B-47 (work stations,		
printer/copier)	5	2
Buyers office B-39A	2	3
Clean Storage B-39 (work Stations)	2	2
Wireless access point in CS B-47	1	1
At each of (2) new washers	1	1
For (3) sterilizers	1	3



STRUCTURAL:

MECHANICAL



OWN	ER NAME	
	1	
O		MPIC
9	39 Carc	oline Street es, WA 98362
MARK	DATE	DESCRIPTION
PROJE	CT NO.	30329
DOH CF	RS NO.	60766844
DRAWN	BY:	K. LANGLOIS
DATE:		FEBRUARY 2018
COPYR	ight to:	
SHEE	T TITI F:	
PROJECT INFO / INDEX / SITE		
PLAN		
SHEE	T #:	
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ELECTRICAL:

