COMMISSION
AGENDA MEMORANDUM **Item No.** 8c

ACTION ITEM **Date of Meeting** May 26, 2020

DATE: March 16, 2020

TO: Stephen P. Metruck, Executive Director

FROM: Wayne Grotheer, Director Aviation Project Management
James Jennings, Director Aviation Business and Properties
Jeffrey Brown, Aviation Chief Operating Officer

SUBJECT: C1 Building Expansion Design Authorization (CIP# C800845)

Amount of this request:	$10,800,000
Total estimated project cost:	$340,000,000

ACTION REQUESTED

Request commission authorization for the Executive Director to (1) execute a contract for Architecture and Engineering (A/E) design services in the amount not to exceed $6,200,000; (2) to utilize a General Contractor/Construction Manager (GC/CM) and to advertise and execute a GC/CM construction contract for pre-construction services (3) and use port crews for pre-construction activities for the C1 Building Expansion project at Seattle-Tacoma International Airport in an amount not to exceed $10,800,000 of a total estimated project cost of $340,000,000.

EXECUTIVE SUMMARY

The C1 Building Expansion project will construct four additional floors on top of the existing C1 Building, located adjacent to Gate C3 and between Concourses C and D at Seattle-Tacoma International Airport (SEA). It will also redevelop the existing concourse level footprint, which is largely blocked off from the public today, to provide additional concessions, services and amenities to the travelling public. The C1 Building Expansion project will address current level of service deficiencies at SEA by adding four new floors to the existing three floors that currently make up the C1 Building. Each new floor plate will be approximately 27,000 square feet. An additional 5,000 square feet will be added to the existing building footprint for the construction of a new loading dock.

The expansion of this existing building will provide new Airport Dining and Retail (ADR) options, new premium club spaces, and new ancillary office space for tenants. The C1 Building Expansion will also construct a post security Meditation Room, a Nursing Mothers Room, build new restrooms, create circulation and seating for the traveling public, and expand the existing Gate C3 hold room.

Project Status

For the C1 Building Expansion the project team used a consultant to create a Project Definition Document (PDD). With the completion of the PDD the project design is at approximately 10%. The Project budget and schedule reflect the level of information that is available with a 10% design effort. As the design effort progresses the budget and schedule certainty will increase to reflect the level of information that becomes available with additional design. The layouts and concepts that are illustrated in the PDD were created to provide the project team with an understanding of the overall scope of the project and the viability of constructing the new floor plates. The final layouts, configuration of spaces, and finishes will be created by the project design team.

Even in light of the existing COVID-19 economic crisis, Port staff believe it makes sense to move forward with this project now because the completion of construction is still several years out into the future when passenger traffic will more than likely have recovered. It is important to note that prior to COVID-19 SEA had severe space deficiencies, and there will be no financial impact to the airlines until the project is completely constructed. But in an effort to be mindful of the current economic uncertainty, this request is for a small portion of the overall design costs. The full scope of the design and GC/CM costs total $77.4M, so this incremental approach allows for overall project design to continue, while creating an opportunity to revisit the project prior to full design authorization. Prior to the completion of initial design deliverables, the project will be further discussed with the airlines and a Majority-In-Interest (MII) vote completed before Port staff returns to request additional funds to complete design. The initial request in this authorization will allow the project team to procure a designer, begin design efforts, and procure a General Contractor/Construction Manager for pre-construction services.

Port staff will return to Commission to request the authority to amend the A/E design contract for an additional estimated amount of $17.9M.

Project Scope and Budget Controls

The total program budget for the C1 Building Expansion program is $340M. At this early stage of project development, the total program budget could range from 30% below to 50% above the stated figure, but the staff goal for the C1 Building Expansion is to design to this budget. This means that the project intends to modify scope or descope to meet the current Program budget.

To further assist in meeting the project budget, Aviation Project Management secured a second construction cost estimate which came in within 10 percent of the original estimate.

As stated above, the current cost estimate reflects the level of information available to the project team at the current level of design. The project team has implemented several strategies

that will shore up the budget in the absence of the information that is available when a design is 100% complete. Those strategies are as follows:

1. All impacted Aviation Division departments were involved in the creation of the PDD. Representatives for those departments provided comments both during information gathering sessions and by commenting on the draft PDD. The scope was modified or updated based on the input from these key staff members and departments. The Directors of each of these departments signed the final PDD agreeing to the scope proposed in the PDD. Any changes to the PDD scope will be considered discretionary and will be not be implemented without approval through the change management system described in item 7 below.
2. The original cost estimate was prepared by a subconsultant to the Port's planning consultant that prepared the PDD, with review by the Aviation Project Management estimating manager. A second independent estimate was performed by a cost estimating firm under a different contract to the Port. The firm doing the second estimate was provided the PDD scope of work only and was not provided any information on the original cost estimate. The two estimates are within 10% of each other.
3. Project designer will be directed to design to budget and produce an updated construction estimate at all major design milestones. With this effort, the project would seek to reduce scope, after conferring with Port Commission, if early assumptions and pricing prove to be inaccurate.
4. Subject to further authorization by the Port Commission, the Port intends to procure a General Contractor, Construction Manager (GC/CM) firm. We anticipate the Port and the GCCM will elect to utilize an Electrical Contractor Construction Manager and Mechanical Contractor, Construction Manager (EC/CM & MC/CM). The GC/CM, EC/CM, and MC/CM will allow for early constructability input and additional project cost estimates from a contractor at major design milestones.
5. Design review comments will be limited to identified key individuals representing the different stakeholders. This will provide additional controls on scope creep.
6. Aviation Capital Programs and Aviation Project Management have implemented a formal change management system (applicable to all projects) that will require budget and schedule impact analysis and formal approval for any discretionary scope increases beyond the scope established in the PDD.

Key Risks

The project team has identified Key Risks for the C1 Building Expansion project. These risks are being strategically mitigated or they are being accounted for in the Project Risk Contingency. The identified Key Risks are:

1. Complex phasing: The C1 Building is currently occupied on all three existing levels. Throughout the life of the project, these levels will be occupied to a greater or lesser extent at different times during construction. The mitigation strategy employed to

control this risk is the early procurement of the GCCM. The GC/CM will be a partner with the project team and designer in creating a viable phasing plan and finding cost effective solutions to phasing challenges.

2. Operational constraints: The C1 Building is located at the intersection of Concourse C and Concourse D. There is limited access for construction material laydown and the construction equipment required to erect a new building. The project team employed two different strategies to control this risk: early procurement of the GCCM and early involvement of Airport Operations. The project team completed a Safety Risk Assessment that addressed safety and operational concerns both during construction and in the final configuration of the building.
3. Scope changes: The scope change risk has been addressed by the items listed above under Project Scope and Budget Controls.
4. Baggage Optimization: The C1 Expansion was to benefit from a large scope of work being performed by the Baggage Optimization project. Recent delays to Phase 2 construction of that project have a potential to add both cost and time to the project. The C1 Expansion project team is working with the Baggage Optimization team to mitigate impacts.
5. Airline Support: The C1 Expansion project is a long-term investment to remedy a multitude of significant SEA deficiencies that will not have an impact on SEA costs until put into service several years out into the future. Unfortunately, with the economic uncertainties associated with the COVID-19 outbreak, it is possible our airline partners may vote against this project, regardless of its merits and long-term benefits, but we are working hard to gain airline support (particularly from Alaska/American because of their proximity).

Environmental

The C1 project will be the first project that has been identified as a "Tier three project" under the Port's new ***Sustainable Project Framework***; and the project team will execute design and construction work consistent with the following Commission-approved approach:

1. Integrate sustainability early in the capital process by establishing a team of project-specific experts through the Sustainable Project Assessment and Review Committee (SPARC).
2. Convene subject matter experts to develop sustainable design approaches for the project and operational team to consider and evaluate through project development.
3. Select and apply the relevant Sustainable Evaluation Framework criteria to highlight tradeoffs and benefits during development of the sustainable design approach.
4. Present SPARC recommendations to Commission along with the request for authorization for design funds.
5. Develop a Sustainable Design Strategy that includes the selected alternatives from the Sustainable Design Approach. The Sustainable Design Strategy will be included in the final construction authorization for the project.
6. Track progress and recognize achievements of project teams.

The project team worked with the Aviation Environmental department to convene and conduct a SPARC meeting to identify ideas and analyses for the C1 Sustainable Design Approach (SDA). In addition to pursuing certification for Silver level for the most current version of LEED Building Design and Construction, the SDA requires the designer conduct the following analyses as the design develops for the sustainability categories relevant to the project prior to the completion of the 30 percent design deliverable:

Category	Analyses
Energy/Carbon	Analyze energy use (electricity, liquid fuel, natural gas) and options for reducing energy use by 5%, 10%, and 20% below Washington State Energy Code. For each proposed option, analyze capital and total costs. AVENV will calculate carbon emission and reduction estimates associated with proposed options.
Materials	Provide Port staff with technical specifications and amounts of concrete, steel, and gypsum proposed for use on the project. Staff will analyze options and provide recommendations to reduce embodied carbon for those materials.
Water conservation	Analyze water use and cost and provide options to reduce water use by 10% and 20% below Uniform Plumbing Code 2015 and Washington State Amendments. Options include but are not limited to indoor water use, outdoor water use, process water demand, and rainwater capture. Proposed options must meet the Port's existing design standards.
Transportation	Develop project-specific design options to support employees that commute via active transportation, public transportation, or other non-drive alone modes. Include cost estimates for all proposed options.
Innovation	Analyze and propose any additional options that could be considered innovative techniques. Designer must provide evidence of past precedent within the last three years and corresponding performance data for Port review.

General Contractor, Construction Manager (GCCM), – Preconstruction services

This authorization will allow Port staff to retain the services of a GCCM for pre-construction services. The GCCM may retain an ECCM and an MCCM and provide the following services that will allow for better scheduling and cost control during the design phase of the project:

1. The GCCM will provide an extensive survey of existing conditions in the C1 Building. As built documents are often incorrect, incomplete, or spread over multiple project

documents. Early engagement and access to the site by the GCCM will allow for a more informed and complete design from the Design Team.

2. The GCCM will provide a construction estimate at each major design milestone. This approach will assist with the project team's goal of scope and budget control.
3. The GCCM will provide essential input on project phasing. The C1 Building is an occupied building in a difficult to access part of the airport. With early involvement, Port staff aims to minimize change orders by providing the GCCM early input and access to the site and design documents.

Future authorizations will be sought for the finalize construction contract between the Port and the GCCM. Port staff may also return for authorization that will allow for enabling work or early work packages to be completed.

JUSTIFICATION

Over the last decade, leasable space post-security at SEA has become almost non-existent due to the continued growth of airlines and tenants' operational and administrative needs. Staff has identified the C1 Building area as a key location where the terminal can be expanded without the consumption of additional real estate (building up rather than out). There are no other viable options for expanding the terminal without significant negative impacts to existing capacity or operational areas.

Additionally, the demand for increased airport dining and retail space post-security has significantly outpaced availability across the airport. Airport Dining and Retail services are crucial to providing a high level of service and an important generator of non-aeronautical revenue. At this time, Concourses C and D are underserved by approximately 30,000 square feet of Airport Dining and Retail services. This shortage takes in to account the spaces that have opened or will open as part of the current Airport Dining and Retail Re-Development.

The C1 Expansion Project will grow Airport Dining and Retail services with two floors of new space. This additional square footage will provide a higher level of service to travelers and generate additional non-aeronautical revenue. The remaining three new floors will provide space for two new premium lounges and additional office space. The office space will serve to support existing tenants, airlines, and TSA in addition to creating support space for the new C1 Airport Dining and Retail spaces. The Port of Seattle has received general support from the airline community, including letters of interest for large portions of the leasable space.

Diversity in Contracting

Project team has worked with the Diversity in Contracting team to conduct outreach and the setting of a women- and minority-owned business enterprise (WMBE) aspirational goal of 12% for the design contract. The goals for the GCCM will be set for the future construction contract once the plans have been developed and the trades involved in the project have been identified with more certainty.

DETAILS

The C1 Building is an existing three-level structure that was built to house the C1 in-line baggage screening system (on the baggage claim and bridge levels) that supports Alaska Airlines. The current C1 Building houses the TSA in much of the concourse level space, which would be better utilized for publicly accessible services and amenities. As part of this project, the TSA functions will be relocated to make way for higher and better uses.

Beyond being one of the few locations for SEA to expand its footprint without further encroaching on limited real estate, this will be the first project to utilize the Environmental Sustainability Framework adopted by the Commission, and a great opportunity to embody the Airport's new SEA brand.

The Gate C3 Holdroom scope of work was previously authorized by Commission for design and execution of a major works contract. However, the bids submitted exceeded the engineers estimate. Since the C# Holdroom expansion is adjacent to the C1 Building expansion, the Aviation division decided to cancel the procurement and combine both projects into one program.

Scope of Work

This project will add an additional four floors to the three floors C1 Building and expand the existing holdroom at Gate C3. The new space will be used for ADR, Offices, and Premium Lounge space.

Scope of Work includes:

(1) Four new floors
(2) New HVAC Penthouse
(3) Mechanical / Electrical / Plumbing Improvements
(4) Infrastructure for ADR, Tenant Offices, and Premium Lounge spaces
(5) Expansion of the C3 Holdroom
(6) Upgraded and added vertical circulation
(7) New restrooms
(8) New nursing mothers' room
(9) New post security Meditation room
(10) Gate C3 Holdroom Expansion

Schedule

Activity

Design start	2020 Quarter 4
Commission construction authorization	2022 Quarter 4
Construction start	2022 Quarter 4

In-use date	2027 Quarter 2

Cost Breakdown	This Request	Total Project
Design	$7,060,000	$42,000,000
Construction	$3,740,000	298,000,000
Total	$10,800,000	$340,000,000

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Redevelop and expand ADR space on the concourse level. Under this option, there would be no vertical, hold room nor loading dock expansion.

Cost Implications: $100 – $168 Million

Pros:

(1) The project will deliver additional ADR space approximately 2.5 years sooner.

Cons:

(1) The Port of Seattle will still be in dire need of office and club space.
(2) The complex phasing required in the earlier part of the large project will still be required. Concession storage will still need to be moved, and TSA will still need to be moved to the lower floors prior to the build out of the concession space.
(3) There still may be structural upgrades required as a result of adding more live load.

This is not the recommended alternative.

Alternative 2 – Leave the C1 Building as-is

Cost Implications: $800,000 would be expensed (cost to date to develop PDD)

Pros:

(1) No interruption of ADR level of service
(2) No interruption of tenant or ADR rent
(3) No additional capital Investment required

Cons:

(1) Does not expand ADR level of service to meet current demand
(2) Does not create new leasing and revenue opportunities
(3) The level of service at the C# holdroom will continue to be sub-optimal.

This is not the recommended alternative.

Alternative 3 – Expand C1 Building and C3 Holdroom and create new tenant and ADR space

Cost Implications: $340 Million

Pros:

(4) Will increase ADR level of service and mitigate current level of service inadequacies
(5) Will increase office and club space and mitigate current space deficiencies
(6) Creates new revenue opportunities

Cons:

(7) Requires a substantial Capital investment
(8) During construction, there will be significant operational and level of service impacts.

This is the recommended alternative.

FINANCIAL IMPLICATIONS

Cost Estimate/Authorization Summary	Capital	Expense	Total
COST ESTIMATE			
Original estimate	$331,776,000	$8,224,000	$340,000,000
AUTHORIZATION			
Previous authorizations	$800,000	0	$800,000
Current request for authorization	$10,800,000	0	$10,800,000
Total authorizations, including this request	$11,600,000	0	$11,600,000
Remaining amount to be authorized	$320,176,000	$8,224,000	$328,400,000

Annual Budget Status and Source of Funds

This project is included in the 2020-2024 capital budget and plan of finance with a budget of $50,000,000, which was reflected as a Status 2 project prior to any project specific scoping or cost estimating. The capital budget increase of $290,000,000 will be transferred from the Aeronautical Reserve CIP (C800753) resulting in zero net change to the Aviation capital budget. The funding sources will include the Airport Development Fund and future revenue bonds.

Financial Analysis and Summary

This project is an investment in additional terminal space that is intended to be used for both aeronautical and non-aeronautical purposes. As a hybrid project, the financial analysis looks at the projects as both a standalone non-aero investment and a terminal investment that flows through airline rates and charges. Although the project should still be considered as a range, $340M is what was used for the investment analysis.

Non-aeronautical Investment Analysis

The table below shows the allocation of the capital costs based on the planned rentable square feet. Since 61.8% of the rentable square feet is designated for non-aeronautical purposes, 61.8% of the capital cost ($210M) is the basis of the non-aeronautical investment analysis. The lower part of the table shows the new revenues ramping up from $13.5 million in 2027 (assumed first full year of occupancy) to 2030, the year by which all space is assumed to be fully leased. This new revenue (airport dining and retail as well as office leases) is the basis of the positive Net Present Value. Because the space is currently generating revenues, the NPV is netted against a base case (do nothing). From a non-aeronautical investment perspective, the positive NPV of $32.7 million indicates it is a good investment.

Non-aero Investments				
	$ in 000s	Non-aero	Aero	Total
C1 rentable sqft		76,334	47,179	123,513
C1 rentable sqft %		61.80%	38.20%	
Project Cost		$ 210,128	$ 129,872	340,000
Payback (years from opening)		14		
NPV (40 years)		$ 131,200		
NPV Inrcemental to Base		$ 32,700		
		2027	**2030**	
Incremental Non-aero Revenue		$ 13,471	23,796	
Incremental Non-aero O&M		$ 771	818	
Net Operating Income		$ 12,700	$ 22,978	

Aeronautical Rate Base Impacts

At Sea-Tac, under the terms of SLOA IV, terminal space is allocated between aeronautical and non-aeronautical cost centers based on rentable square feet. Terminal rents are set based on the total cost center costs. Therefore, in looking at the impacts of a project like C-1 that adds significant square footage, it is important to do a two-step analysis that accounts for the fact that the total terminal space distribution changes, and therefore the entire terminal cost center distribution between aeronautical and non-aeronautical changes. The table below shows that before C-1, 76.69% of the terminal costs are allocated to the aeronautical rate base. This suggests that $22.7 million of the costs of C-1 would be allocated to the aeronautical rate base. After C-1, 74.05% of the terminal costs are allocated to the aeronautical rate base. This effectively shifts $11.4 million of costs from the aeronautical rate base to the non-aeronautical side. Thus, in 2027 the net impact of the project is to add $11.2 million to the aeronautical rate base.

Airline Rates and Charges			
	2027		
($000s)	**Aero**	**Non-aero**	**Total**
Rentable sqft wihtout C1 sqft	76.69%	23.31%	
Rentable sqft WITH C1 sqft	74.05%	25.95%	
Project cost	$ 251,777	$ 88,223	$ 340,000
Incremental Revenues WITHOUT C1 sqft	22,701	13,471	36,172
Terminal redistribution	(11,488)		
Incremental Revenues WITH C1 sqft	11,214	13,471	24,684
Incremental Debt Service	21,407	7,501	28,908
Incremental O&M		771	771

The table below shows that in 2027, the project will effectively increase CPE by $0.38. It also shows that the average terminal rental rate will decrease in 2027. Overall, the project will result in a slight reduction in debt service coverage in 2027 (.05) with this narrowing to a 0.01 reduction by 2030. Assuming growth in net operating income and level debt service, the debt service coverage would be expected to increase after 2030.

	2020 Plan of Finance **		**WITH C1 Renovation SQFT**			
(000s)	2027	2030	2027	2030	2027 Change	2030 Change
Terminal Revenue Requirement	$ 288,941	$ 343,261	$ 298,116	$ 350,458	9,176	7,196
Airline Rentable Space (normalized)	1,340	1,340	1,387	1,387	47.2	47.2
Terminal Rental Rate	$ 215.70	$ 256.25	$ 214.98	$ 252.72	(0.72)	(3.5)
Cost Per Enplanement (CPE)	$ 19.40	$ 22.34	$ 19.78	$ 22.66	0.38	0.32
Debt service coverage	1.82	1.85	1.77	1.84	(0.05)	(0.01)

Summary

Overall, from a financial perspective, the project is favorable non-aeronautical investment with relatively modest impacts on airline costs. It results in a slight decrease in the average terminal rental rate. The project is anticipated to increase debt service coverage beginning in 2031.

The above calculations were completed pre-Covid-19. The assumed passenger levels for 2027 and 2030, and the non-airline revenues to be generated from this facility upon completion may vary, but staff continues to assume that the demand for this type of space will be strong by 2027.

ATTACHMENTS TO THIS REQUEST

(1) SPARC Environmental Notes
(2) Project Presentation

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

- March 10, 2020 – C1 Building Briefing and Introduction
- June 26, 2018 – Authorization for Planning Funds
- January 26, 2016 – The Commission authorized design of an expansion for the existing Gate C3 passenger holdroom at Seattle-Tacoma International Airport.
- July 11, 2017 – The Commission authorized (1) advertise and execute a construction contract for the Gate C3 Holdroom Expansion project at Seattle-Tacoma International Airport; and (2) use Port crews in executing the project