



**COMMISSION
AGENDA MEMORANDUM**

Item No. 6c_attach_2

ACTION ITEM

Date of Meeting August 15, 2017

DATE: August 8, 2017

Attachment B

SUBJECT: North Satellite Renovation & North Satellite Transit Station Lobbies (NSAT) Project (CIP #C800556) at Seattle Tacoma International Airport

EXECUTIVE SUMMARY

The NSAT project is a collaborative effort of the Port and Alaska Airlines (AS) since late 2011 to create and promote a user-friendly “curb-to-seat” traveler experience by improving customer service, employee working environment, airport and airline operational efficiencies and long-term energy savings. To meet this goal and the airport’s urgent need for gates, the existing 45-year old north satellite must be modernized and expanded to increase from 12 to 20 contact gates. At completion NSAT will provide a balance of holdrooms, concessions and circulation space to meet the overall project vision of improved operations and increase airport revenues.

The Commission recently authorized an additional \$200 million capital budget increase on June 27, 2017. Since then negotiations have completed for the final Maximum Allowable Construction Costs (MACC) Amendment and the expected final project budget has been determined. The current authorized budget must be increased by \$107 million (capital) and by \$0.5 million (expense) to complete the project in Q3 2021. Included in the budget increase is \$5 million to replenish the project’s Management Reserve. Staff recommends approval of the increased budget, authorization of the entire project, amending the Hensel Phelps (HP) contract for the final MACC to complete the project, and authorization to execute all pending and future change orders to the HP contract within authorized budget and project scope to avoid potential delays.

The team has refined the phasing to improve the design to better address customer and operational service, gate capacity and the passenger experience during construction and to ensure there is no significant degradation in level of service and the smooth activation of each new portion of the facility. Recent work included validating the design by conducting simulations, analysis, studies, detailed phasing, micro phasing and construction sequencing. Due to the complexity of constructing the project while maintaining AS’s operations, the schedule had to be extended. HP originally forecasted that Alaska would not be operating in phase 2 of the project (renovated existing NSAT) until Q1 of 2022, but through a tremendous amount of hard work, the entire team reduced this extension to only 3 months (Q3 of 2021), at a cost noted later.

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To better accommodate unforeseen/changed conditions and install equipment, staff is requesting approval to use Port crews in support of the NSAT construction in addition to utilizing small works contractors.

According to the Port's tenant reimbursement policy, the staff recommends that Commission authorize a Tenant Reimbursement Agreement to reimburse AS for NSAT project scope constructed by AS, estimated at \$1.2 million, which is included within the project budget. This agreement will also allow AS to reimburse the Port as appropriate for Port designed & constructed improvements.

The formal majority-in-interest (MII) project approval for \$531 million occurred on March 31, 2016. Staff recently briefed the Airlines on July 20, 2017 on the current status of the project.

Staff has determined another MII approval from the Airlines is not required as described in the section titled budget and source of funds below. AS has expressed verbally to Port staff they concur with the budget increase and moving forward with completion of this project.

JUSTIFICATION

The Port and AS made a collaborative recommendation in 2014 to the Commission to not only renovate the North Satellite, but to expand the facility's size to meet project requirements and capacity to 20 gates. This was in response to projected increases in airport-wide activity for all domestic and international growth updates to Sea-Tac Airport's capacity projections. The project is adding 8 gates to the North Satellite, which is critical to the Airport plan to address growth of the airlines and the needs of the region that the Airport currently experiences.

The recommended increases to the capital (\$107 million) and expense (\$0.5 million) budget have been vetted and identified into 6 capital and one expense categories:

- Understated Initial Estimate/Design Evolution (\$22 million/21%)
- Scope Added by Port/Airlines - Accepted (\$21 million/20%)
- Other Required Cost Increases (\$12 million/11%)
- Market Conditions/Contractor Availability (\$24 million/22%)
- Schedule and Phasing Complexity (\$23 million/21%)
- Replenishment of Management Reserves (\$5 million/5%)
- Recover Cost of Removing Contaminated Soil (\$0.5 million Expense)

The understated initial estimate/design evolution describes a lack of sufficient design development allowance after 60% design that adequately covered the final complexity and design of all the integrated building systems and for which the project team will conduct lessons learned to better improve future cost estimating on mega-projects. Scope added by Port/Airlines categories cover additional scope requested by the Aviation Division or Alaska Airlines. The other required cost increases cover changes required such as sales tax increases, 100% worker & employee security screening requirements, and future regulatory requirements.

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Market conditions/contractor availability covers the challenging conditions of our regional construction market. Staff has been reporting that market conditions have contributed to overall budget increases. Critical factors contributing to the increase consist of the lack of subcontractor availability, regional labor shortages, lack of qualified labor in the area, and the ability of subcontractors to “pick and choose” projects (Port restrictions including badging, security, limited access and laydown area). These factors are now included as realized market driven cost increases, due to documented increases in regional construction activity and increases in subcontractor and commodity pricing, resulting in a low interest bidding climate. While staff has worked closely with the contractor to maximize bidder interest to obtain competitive pricing, a large number of sub-bid packages had only one or two bidders. HP has completed all bidding, with the exception of two packages that received no bids. As staff completed the design, the building systems designs were fully developed, resulting in the engineer’s estimate for the project increasing which requires the budget must increase.

The team has been working on refining phasing resulting in an improved design that better addresses customer and operational service, gate capacity and the passenger experience during construction over the next 4 years. The intent has been to ensure that during construction there is no significant degradation in level of service and to ensure the smooth activation of each new portion of the facility. Staff has and will continue to work closely with AS and HP to mitigate construction impacts in order to maintain the highest level of customer and operational experience during the project. A more complex and detailed construction work-sequencing plan to transition from Phase I to Phase II has been completed. The sequencing plan harnesses new port strategies to minimize impacts to airport operations while providing as many operational gates as possible during the construction.

In order to maintain project schedule and construction sequencing, staff is requesting authorization to execute all pending and future change orders to the HP contract within authorized budget and project scope. The allowances and contingencies identified in the contract are required by State law and are the contract mechanisms for executing the future change orders. Staff will provide summaries of these changes in quarterly briefings throughout construction.

Staff recommends \$5 million of the requested budget increase be placed into Management Reserve to cover potential unknown situations that could occur over the four years of construction. Staff will only be allowed to access this authorized amount after approval by the Aviation Division’s Investment Committee and Commission notification. An emergent example is the FAA’s operational safety concerns of the adjacent runways given the height required for large construction crane to construct NSAT.

The expense budget is recommended to be increased by \$0.5 million to cover additional contaminated soils discovered during the preliminary work completed to date.

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Staff recommends approval of the increased capital and expense budget, authorization of the entire project and amending the HP contract for the final MACC to cover the remainder of the project. Amending the contract by \$161,563,526 is proposed to support the critical path of construction and to maintain the overall project schedule completion dates. Staff recommends proceeding with construction by increasing the current project authorization and executing a contract amendment with HP.

Staff has been advancing construction activities through three preliminary work packages using previously authorized funds. The preliminary work has benefitted the project and will seamlessly transition into the major construction of the project. Preliminary construction work includes excavation, footings and foundations, preliminary mechanical, electrical and plumbing utilities below grade, metal decking, and the structural steel for the expansion portion of the North Satellite building. Structural piles have been installed in the new expansion area as excavation and construction progresses.

This project has been coordinated with the Sustainable Airport Master Plan (SAMP), continues to coordinate closely with the near term planning of the Airport through 2021, and will not be adversely affected by future development recommendations of SAMP.

Project Objectives

1. Extend the length of NSAT by approximately two hundred forty feet to improve customer service and accommodate additional aircraft and passengers.
2. Seismically strengthen NSAT and expand the existing infrastructure.
3. Balance and integrate NSAT functional areas and requirements (concessions, holdrooms, amenities, airline operations and airline services) through a renovation and expansion of the NSAT's terminal area to achieve acceptable levels of service.
4. Align near term and forecasted airport-wide gate use and capacity by providing 20 contact gates at NSAT.
5. Optimize gate door contact points, loading bridges and aircraft parking positions, including fuel hydrants and other support utilities.
6. Meet or exceed current sustainability goals of the Century Agenda. This project is pursuing Leadership in Energy and Environmental Design (LEED) certification.
7. Create a "frictionless" and stress-free passenger experience within NSAT.
8. Create an exciting and attractive facility integrating hold-rooms, diverse amenities and numerous concessions.
9. Maintain and promote a Northwest sense of place through the design of architecture and connected technologies.

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DETAILS

The project design has been completed and delivered to HP. The passengers will travel smoothly through the construction areas and be drawn to positive digital messaging illustrating the final facility configuration. The Port has collaborated with the contractors, designers and Alaska to maintain operational requirements through the planned construction.

Numerous passenger flow simulations, level of service analyses, and circulation/use studies have been conducted. These efforts have led to a path of success during the construction phases and assuring the smooth activation of each consecutive sequence of construction. The collaboration results in a better overall NSAT terminal design. The Port and AS staff agree to continue working collaboratively to refine construction phasing, signage and wayfinding during construction to ensure no degradation of current levels of service.

Pursuant to the Tenant Reimbursement Guidelines, and RCW 14.08.120(4), the Port and AS will enter into a Tenant Reimbursement Agreement (TRA) and work collaboratively to complete documentation and schedule of values for the tenant reimbursement, including the validation of prevailing wages and release of liens. The Port has also agreed to reimburse AS \$508,587.24 for a portion of the HOK preliminary design effort that was considered applicable and beneficial to the current design, per the Letter of Understanding, dated April 4, 2012 between the Port and AS. The Port has requested AS reimburse the Port for the expense cost of removing the Dual Door scope they originally requested be added to the project, which is in negotiations. AS has requested the Port replace the glazing for their lounge with specialty glazing and will reimburse the Port up to \$250,000 considered to be the incremental additional cost for this scope. These three amounts are not considered Tenant Improvement Reimbursement by RCW 14.08.120(4) and are additive to the \$1.2 million noted above.

Scope of Work

This request includes the following elements associated with the requested authorizations:

1. Amend the HP contract by \$161,563,526 to maintain project schedule completion dates.
2. Authorize Port crews to support NSAT construction.
3. Authorize Port staff to enter into a TRA with AS for the reimbursement of AS and Port responsible design efforts and improvements, in alignment with AV-2, for reimbursable costs associated with:
 - AS's tenant improvements in their future leased areas at the North Satellite
 - AS's design efforts from the useable portions of the study HOK performed
 - Port installation of AS requested specialty glazing for their Lounge which replaces the specified glazing
 - Port standard finishes for all AS tenant spaces
 - Port design efforts for adding then removing AS requested Dual Door features

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Small Business

Under the current contract with HP, there is a requirement to achieve SCS firm participation of 5.5%. There are also two aspirational goals that HP is expected to attain: Small Business Enterprise participation of 16%, and Disadvantaged, Disabled Veteran, Minority, Women’s Business Enterprise participation of 3.6%. These benchmarks were reached and exceeded within the Preliminary Work Package #1 and continue to track toward the goals and requirements. Staff has and will continue to update the Commission through quarterly briefings.

Schedule

The schedule to complete the project is detailed below. The team has accommodated many changes including the redesign of the third floor, so it is important to note given the complexities of constructing this project while maintaining AS’s active operations, completion of the project has extended 3 months from the schedule previously presented to the Commission in 2016. The final project schedule attached to the HP contract amendment has been agreed to by the Port and AS.

Activity

Design completion	2 nd Quarter 2017
Commission construction authorization	3 rd Quarter 2017
Construction start	2 nd Quarter 2016
In-use date Phase 1	2 nd Quarter 2019
In-use date Phase 2	3 rd Quarter 2021
Substantial Completion	1 st Quarter 2022

Cost Breakdown

This Request

Project Total

	This Request	Project Total
Design	\$1,784,397	\$82,628,410
RMM/ERL	\$500,000	\$12,300,000
Construction	\$96,958,494	\$529,204,170
State & Local Taxes	\$8,257,109	\$46,488,612
Total	\$107,500,000	\$670,621,192

FINANCIAL IMPLICATIONS

Authorization Summary

	Capital	Expense	Total
Previous Budget	\$551,321,192	\$11,800,000	\$563,121,192
Budget Transfers	\$0	\$0	\$0
Current Request for Budget	\$107,000,000	\$500,000	\$107,500,000
Current Budget	\$658,321,192	\$12,300,000	\$670,621,192
Previous authorizations	\$396,773,800	\$3,500,000	\$400,273,800
Authorization Transfers associated with above Budget Transfers	\$0	\$0	\$0
Current request for authorization	\$261,547,392	8,800,000	270,347,392
Total authorizations, including this request	\$658,321,192	\$12,300,000	\$670,621,192
Remaining amount to be authorized	\$0	\$0	\$0

Annual Budget Status and Source of Funds

This project is included in the 2017 – 2021 capital budget and plan of finance with a budget of \$538.1 million. The project will be funded with a combination of Airport Development Fund, revenue bonds and Passenger Facility Charge revenues (PFCs).

The terms under which AS will participate in the Port’s NorthSTAR Program costs have been established via an April 5, 2012, Letter of Understanding between the Port and AS. The airlines approved this project for \$531 million on March 31, 2016 via the majority-in-interest (MII) process as outlined in the Signatory Lease and Operating Agreement (SLOA). Since the project is under construction, per SLOA any additional budget increase does not require further MII approval. The airlines were recently briefed on the potential for a budget increase on May 18, 2017.

Financial Analysis and Summary

Project cost for analysis	\$658 million
Business Unit (BU)	Terminal
Effect on business performance (NOI after depreciation)	Could be positive or negative depending on level of PFCs used. Increasing use of PFCs reduces Port revenues as capital costs are excluded from airline rate base.
IRR/NPV (if relevant)	N/A
CPE Impact	\$0.60 - \$1.60 depending on amount of PFCs applied to ongoing revenue bond debt service.

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The funding plan includes approximately \$128 million of PFCs to fund construction costs. Capital costs funded with PFCs are excluded from the airline rate base and therefore do not impact passenger airline cost per enplaned passenger (CPE). The funding plan also includes the use of PFCs to pay some level of ongoing revenue bonds debt service. Debt service paid by PFCs is also excluded from the airline rate base. The amount of PFCs applied to this project will vary over time depending on the PFC eligibility of project costs (PFC application is currently pending with Federal Aviation Administration), availability of PFCs each year (e.g., 1998 PFC backed bonds will be fully amortized in 2023, thus freeing up considerable capacity) and rate management decisions (i.e., allocation of PFCs among airfield, terminal and FIS cost centers). Consequently, the CPE attributable to this project could vary between \$0.60 and approximately \$1.60 depending on the amount of PFCs used to pay ongoing revenue bonds debt service.

Future Revenues and Expenses (Total cost of ownership)

An adequate estimate of staff hours and materials expense to operate the expanded and renovated NSAT building is still in development. Thorough design reviews of 30, 60, and 90 percent design stages have evaluated infrastructure systems to minimize the total cost of ownership. It is already understood that the additional expansion area will incur additional maintenance expense. A key objective of the project is installing sustainable materials and to maximize the maintainability of the new equipment. The complete renovation/replacement of the mechanical, electrical, lighting, communications, pre-conditioned air, 400 Hz, baggage and other major systems provides an opportunity to achieve life cycle cost efficiencies and savings.

The project is pursuing LEED certification and is submitting the design for evaluation in August of 2017. Rigorous in depth studies and evaluation of options for 30 year life cycle cost have resulted in more holistic decision making throughout the design process, balancing first cost, energy consumption, replacement cost of infrastructure, and maintenance over the life of the facility. The resulting design champions total cost of ownership for the Port.

ATTACHMENTS TO THIS REQUEST

PowerPoint presentation

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

- July 25, 2017 –NorthSTAR Program status update (mail notification)
- June 27, 2017 –NorthSTAR – Commission authorized:
 - Increase project authorization for the NSAT Project by \$200 million.
 - Execute Preliminary Work Amendment #3 (PWA #3) with Hensel Phelps (HP) for up to \$200 million.
 - Authorize Port staff to execute all change orders to the HP contract within authorized budget and project scope without returning for additional Commission authorization.

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- Authorize Port Construction Services (PCS) to execute small works contracts and use Port crews to support NSAT construction.
- April 25, 2017 –NorthSTAR Program status update
- January 24, 2017 –NorthSTAR Program status update
- September 13, 2016 – Commission authorized four NSAT related items:
 - Increase the NSAT project scope and budget (capital) by \$7 million for a revised total budget of \$549,902,042.
 - Increase authorization by \$1 million for project design.
 - Amend design service agreement with URS that exceeds 50% of the value of the original contract.
 - Increase authorization by \$30 million for Preliminary Work Package #2 (PWP #2) construction for a revised authorization total of \$194,718,800.
- August 9, 2016 –NorthSTAR Program status update
- May 24, 2016 – Commission authorized four NSAT related items:
 - Increase NSAT project scope and budget (capital and expense) by \$121,219,098 for a revised total budget of \$542,902,042.
 - Increase authorization by \$11 million, \$5 million for continued NorthSTAR Program/Project Management services (CIP# C800544) for a new total of \$9,350,000 and \$6 million and overall project support (CIP# C800556) for a new total of \$163,718,000.
 - Amend service agreements with Jacobs Project Management Company and URS.
 - Authorize the use of port crews and small works contractors to perform work for the project.
- April 26, 2016 – NorthSTAR Program status update
- February 9, 2016 – NorthSTAR Program status update
- December 8, 2015 - Project authorization, and execute contract amendments and change orders to HP for \$98.1 million and execute a contract for project specific construction audit services.
- November 24, 2015 – NorthSTAR Program status update and NSAT budget briefing
- July 14, 2015 – NorthSTAR Program status update
- April 28, 2015 – NorthSTAR Program status update
- March 28, 2015 – The Commission authorized three NSAT related items:
 - Expand the baggage handling system increasing the project scope for \$14.4 million and authorizing \$1.954 million to complete the design.

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- Entering into a developer agreement with Puget Sound Energy and authorizing \$200,000 in reimbursement for the design and construction of underground gas infrastructure.
- Authorized \$5.3 million to
 - Prepare four locations to accommodate temporary passenger loading bridges, to construct temporary construction offices.
 - To complete construction of a Satellite Transit System (STS) North loop Dynamic Display system.
 - \$600,000 in expense funds for regulated materials management for AS's tenant improvement project.
 - Approval to use Port crew labor and small works contractors to complete early project work.
- January 27, 2015 – NorthSTAR Program Status Update
- January 6, 2015 – The Commission authorized (1) \$5 million preconstruction services; (2) execution of a General Contractor/Construction Manager contract for preconstruction services; and (3) transfer of scope, \$1.75 million budget and authorization for STS station roof replacement to the North Satellite Renovation and Expansion project.
- October 28, 2014 – NorthSTAR Program Status Update
- August 5, 2014 – Commission authorized an estimated \$191,323,143 to expand the NSAT by 8 additional gates, an additional \$15,717,800 for design completion, and use of the General Contractor/Construction Manager alternative public works contracting procedure for NSAT expansion construction procurement.
- July 22, 2014 - NSAT Expansion Briefing.
- April 16, 2014 – Seattle-Tacoma International Airport Capital Program – Briefing.
- January 14, 2014 – NorthSTAR Program status update and initial NSAT Expansion briefing.
- September 24, 2013 – NorthSTAR Program status update.
- September 24, 2013 – The Commission authorized staff to: (1) advertise, award, and execute a major public works contract for the construction of the NSAT Refurbish Baggage System Project; and (2) authorize the use of Port crews.
- June 25, 2013 –NorthSTAR Program status update.
- May 28, 2013, Commission authorized the execution of separate service agreements for Construction Management Services and Commissioning Services, of approximate values of \$10 million and \$1.5 million.
- April 9, 2013 – The Commission authorized the Chief Executive Officer to enter into a project labor agreement covering the NorthSTAR program's five major construction projects.
- March 26, 2013 –NorthSTAR Program status update.

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- December 11, 2012 – The Commission was briefed on the Vertical Conveyance Modernization Project Aero Phases 1 and 2 and the possibility of adding the specified elevators and escalators to the NorthSTAR program.
- July 24, 2012 - Commission authorized \$32 million for the design of the NorthSTAR NSAT Renovation and NSTS Lobbies project.
- June 26, 2012 - The Port Commission was briefed on the NorthSTAR program by Wayne Grotheer, Director Aviation Project Management Group.
- April 10, 2012 - The Commission authorized the execution of consultant contracts for design and construction support services; program management services; and the completion of site surveys for regulated materials management, for \$1.2 million.