

Reevaluation of Categorical Exclusion  
For  
Seattle-Tacoma International Airport  
Runway 16L/34R Rehabilitation Project

The Federal Aviation Administration (FAA) signed a Categorical Exclusion Form for the Runway 16L/34R Rehabilitation project on October 30, 2008 (see Attachment A). The project is required due to deterioration of the pavement. This project will not expand, strengthen or accommodate a different mix of aircraft than those currently using the airport. Rehabilitation will include safety area grading and runway lighting improvements.

The rehabilitation project qualifies for a categorical exclusion pursuant to paragraph 310(e) of FAA Order 1050.1E, Chg. 1 "Environmental Impacts: Policies and Procedures". Categorical exclusions represent actions that have been found, based upon past experiences, not to require Environmental Assessments (EA) or Environmental Impact Statements (EIS) because they do not individually or cumulatively have a significant effect on the human environment, with the exception of extraordinary circumstances. FAA Order 1050.1E, Chg. 1, paragraph 303a. Extraordinary circumstances, defined under FAA Order 1050.1E, Chg. 1, paragraph 304, were evaluated for this project. It was determined that no extraordinary circumstances existed.

Subsequent to our finding, the third runway was opened on November 20, 2008. The FAA received considerable comments and concerns about the operation of the runway. In light of those comments, the FAA decided that it was prudent to reevaluate the categorical exclusion in order to determine whether or not there were any changes or new information related to the Runway 16L/34R Rehabilitation project that resulted in extraordinary circumstances.

While each of the impact categories under NEPA was reevaluated to assess the presence of extraordinary circumstances, the FAA's primary focus was on the noise impacts resulting from the proposed change in runway usage so soon after the opening of the new runway at SeaTac. The FAA Office of Environment and Energy (AEE) performed a noise contour analysis to show the potential short term noise impacts associated with this project (See Attachment B). The analysis concluded that there would be a 1.5 DNL increase at some grid points during the temporary rehabilitation. Pursuant to FAA noise guidance, further analysis was conducted to determine if there was a slight to moderate impact (3 dB increase) between 60 and 65 dB. No slight to moderate impacts were found for this project. The FAA has evaluated all possible airport operational measures that could be implemented to minimize the temporary noise impacts. No prudent or feasible measures were identified.

While the noise impacts exceed the FAA threshold, the impacts are temporary and of limited duration. Accordingly, mitigation is not required.. Upon completion of the project, aircraft operations will return to normal on all three runways. Operations will

continue to be monitored and evaluated in accordance with the commitments in the 1997 Record of Decision for the Supplemental Environmental Impact Study for the Master Plan Update Development Actions at Seattle-Tacoma International Airport. As stated on page 21 of the ROD, “Following commencement of operations on the new runway, but prior to the year 2010, the POS and the FAA will undertake a further supplemental evaluation of noise and land use impacts anticipated after the year 2010. That supplemental evaluation may be included as part of the Part 150 study undertaken by the POS. Following completion of that evaluation, if significant additional adverse environmental impacts are found, the POS will be required to adopt further noise and land use mitigation measures designed to minimize any significant adverse affects found in that evaluation.”

After a careful and thorough review of the categorical exclusion for the Runway 16L/34R Rehabilitation project and the related noise contour analysis, the FAA has determined that the Categorical Exclusion signed on October 30, 2008 remains accurate and valid.

The Categorical Exclusion is reaffirmed.

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Cayla D. Morgan  
Environmental Protection Specialist

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Date

Attachments

# Seattle–Tacoma International Airport Noise Contour Analysis

## February 18, 2009

### Introduction

The Federal Aviation Administration (FAA) Office of Environment and Energy (AEE) performed a noise contour analysis of the Seattle-Tacoma International Airport (SeaTac). The analysis was done to show the potential short term impacts of a runway rehabilitation project at SeaTac expected during the calendar year 2009. Two airport runway configurations were modeled; a three runway configuration representing the existing condition at SeaTac and referred to as the Baseline Case, and a two runway configuration representing the runway rehabilitation scenario, referred to as the Alternative Case. Noise contours as well as noise at grid point locations were developed to compare the airport community noise environment of the two cases. The assumptions used in the development of the noise model studies and the results of the analysis follows.

### Analysis Assumptions

AEE created the noise contours for the Baseline and Alternative cases using the Integrated Noise Model version 7.0a (INM 7.0a). The data used to construct the INM study files was obtained from two prior SeaTac INM studies provided by ESA. The first was from the 2007 Noise Contour Update entitled “2008\_STUDY\_SEA-TAC INM 7.0” and contains information regarding the Runways 16C/34C and 16L/34R prior to the opening of Runway 16R/34L. The second study was from the Comprehensive Development Plan Environmental Assessment dated August 2007 (CDP) entitled “SEA-TAC INM 6.1 2010 CDP FINAL\_INM7.0” and contains information for all three runways at the airport. The flight track information for the modeling was derived from both studies. The tracks for Runways 16C/34C and 16L/34R came from the 2007 Noise Contour Update while the Runway 16R/34L flight track information came from the CDP study.

The Baseline case is the existing condition where operations are distributed among all three runways (16C/34C, 16R/34L, and 16L/34R). The runway utilization for this case was derived from the Proposed Master Plan Update Development Actions at SeaTac International Airport - Supplemental Environmental Impact Statement Table C-3-14. The runway use was given only by arrivals and departures and did not include a day/night breakdown. Therefore, the day/night information was derived from the CDP study provided by ESA. Table 1 shows the runway use for the baseline.

**Table 1: Baseline Runway Use**

Runway ID	Arrival		Departures	
	Day	Night	Day	Night
16L	17.5%	17.5%	25.4%	23.9%
16R	27.7%	27.7%	2.5%	2.6%
16C	15.9%	15.9%	33.3%	34.6%
34C	17.2%	17.2%	14.1%	14.7%
34L	16.4%	16.4%	1.6%	1.7%
34R	5.3%	5.3%	23.2%	22.5%
Total	100.0%	100.0%	100.0%	100.0%

The Alternative case is the rehabilitation scenario where Runway 16L/34R is closed for reconstruction and operations only use Runways 16C/34C and 16R/34L. Table 2 shows the runway use for the Alternative case. As this table shows, with the closing of Runway 16L/34R, arrival operations are heavily shifted to Runway 16R, while the departure operations are heavily shifted to Runway 16C. These operational shifts will alter the shape of the noise contours between the baseline and the alternative.

**Table 2: Alternative Runway Use**

Runway ID	Arrival		Departures	
	Day	Night	Day	Night
16R	62.8%	60.4%	2.4%	2.0%
16C	7.2%	12.6%	70.4%	72.5%
34C	13.8%	12.7%	18.7%	10.1%
34L	16.2%	14.3%	8.5%	15.4%
Total	100.0%	100.0%	100.0%	100.0%

Track usage and stage length (which affects weight) also needed to be determined. Percentages of track use and stage length by aircraft type were identified using the input files from the two studies provided. Those percentages were then applied to the current fleet mix to create the input information for the study.

Appendix A contains a complete list of all the assumptions used during the modeling process. It also contains the INM types for the fleet mix and operation counts that were provided for the analysis.

## Results

The metric used in the analysis is the day-night average sound level (DNL). This metric logarithmically average aircraft sound level generated at the airport over an annualized average 24-hour period. Each aircraft operation occurring between 10:00 p.m. and 6:59 a.m. is treated as if it were ten (10) operations. Logarithmically, these multipliers are the equivalent of adding 10 dB to the noise level of each nighttime operation. These weightings have been added because of the increased sensitivity to noise during night time hours and because ambient (without aircraft) sound levels during nighttime are typically lower than during daytime hours. The decibel "penalty" represents the added intrusiveness of sounds occurring during these hours.

The potential impacts described herein are only relevant during the rehabilitation project, which is expected to last approximately six months. The DNL levels calculated for both the existing condition (baseline) and the rehabilitation condition (alternative) are based on an annual average day. Therefore, although the rehabilitation project is expected to be six months in duration, operations under the Baseline and Alternative cases were assumed to be for the entire year when calculating the average annual day.

Figure 1 and Figure 2 show the Baseline and Alternative DNL contour for DNL 65 dB, DNL 70 dB, and DNL 75 dB. With the closing of Runway 16L/34R for reconstruction, operations shift to the west. The shift is more prevalent to the north than it is to the south

due to how the runways are used between the baseline and the alternative. Hence, the contour's shape changes between the Baseline and Alternative. This is best seen in Figure 3, which overlays the baseline and alternative contours. As stated before, shifting a large number of the arrivals to Runway 16R has elongated the contour to the north for the alternative. Also, the shift of departures to Runway 16C has also contributed to the elongation and also has changed the 70 dB DNL contour to the north.

In addition to contours, a grid analysis was also performed. A ten by ten nautical mile grid was created with points every 1,000 ft. Noise was computed for both the baseline and the alternatives at points on the grid. Figure 4 shows the grid points in yellow diamonds. Changes in DNL at most of the grid points were below 1.5 dB. A chart showing grid points with a DNL increase greater than 1.5 dB during the temporary rehabilitation (as numbered on Figure 5) is shown in Table 3. A slight-to-moderate impact occurs when an area that is currently experiencing a DNL level of between 60 and 65 dB has at least a 3 dB increase between the Baseline and the Alternative. There were no slight-to-moderate impacts found in this study.

**Table 3: Grid Points with Temporary Impacts**

Grid Number	DNL			Grid Number	DNL		
	Baseline	Alternative	Difference		Baseline	Alternative	Difference
1	65.3	67.0	1.7	30	75.7	77.2	1.5
2	65.4	68.5	3.1	31	75.1	77.2	2.1
3	73.6	79.7	6.1	32	64.6	67.5	2.9
4	74.3	76.7	2.4	33	72.5	75.9	3.4
5	64.9	67.9	3.0	34	71.7	73.3	1.6
6	73.1	79.4	6.3	35	64.0	67.0	3.0
7	73.6	76.2	2.6	36	71.0	74.3	3.3
8	64.1	66.5	2.4	37	63.8	66.7	2.9
9	73.7	77.7	4.0	38	70.2	73.3	3.1
10	73.2	75.4	2.2	39	69.8	71.4	1.6
11	73.0	76.5	3.5	40	63.6	66.5	2.9
12	72.5	74.5	2.0	41	69.5	72.6	3.1
13	73.4	76.7	3.3	42	69.5	71.0	1.5
14	71.6	73.2	1.6	43	63.5	66.3	2.8
15	86.2	88.3	2.1	44	68.9	71.8	2.9
16	73.9	77.5	3.6	45	69.1	70.6	1.5
17	87.3	89.8	2.5	46	68.3	71.2	2.9
18	74.0	77.8	3.8	47	67.8	70.5	2.7
19	72.0	73.6	1.6	48	67.3	70.0	2.7
20	88.2	90.9	2.7	49	66.8	69.4	2.6
21	64.3	66.9	2.6	50	66.3	68.8	2.5
22	74.9	78.2	3.3	51	65.9	68.3	2.4
23	73.1	74.9	1.8	52	65.5	67.8	2.3
24	90.0	92.8	2.8	53	65.1	67.3	2.2
25	64.8	67.4	2.6	54	64.8	66.8	2.0
26	74.0	76.2	2.2	55	64.5	66.4	1.9
27	74.4	76.3	1.9	56	64.2	66.1	1.9
28	92.5	95.5	3.0	57	63.9	65.7	1.8
29	65.1	67.7	2.6	58	63.6	65.3	1.7

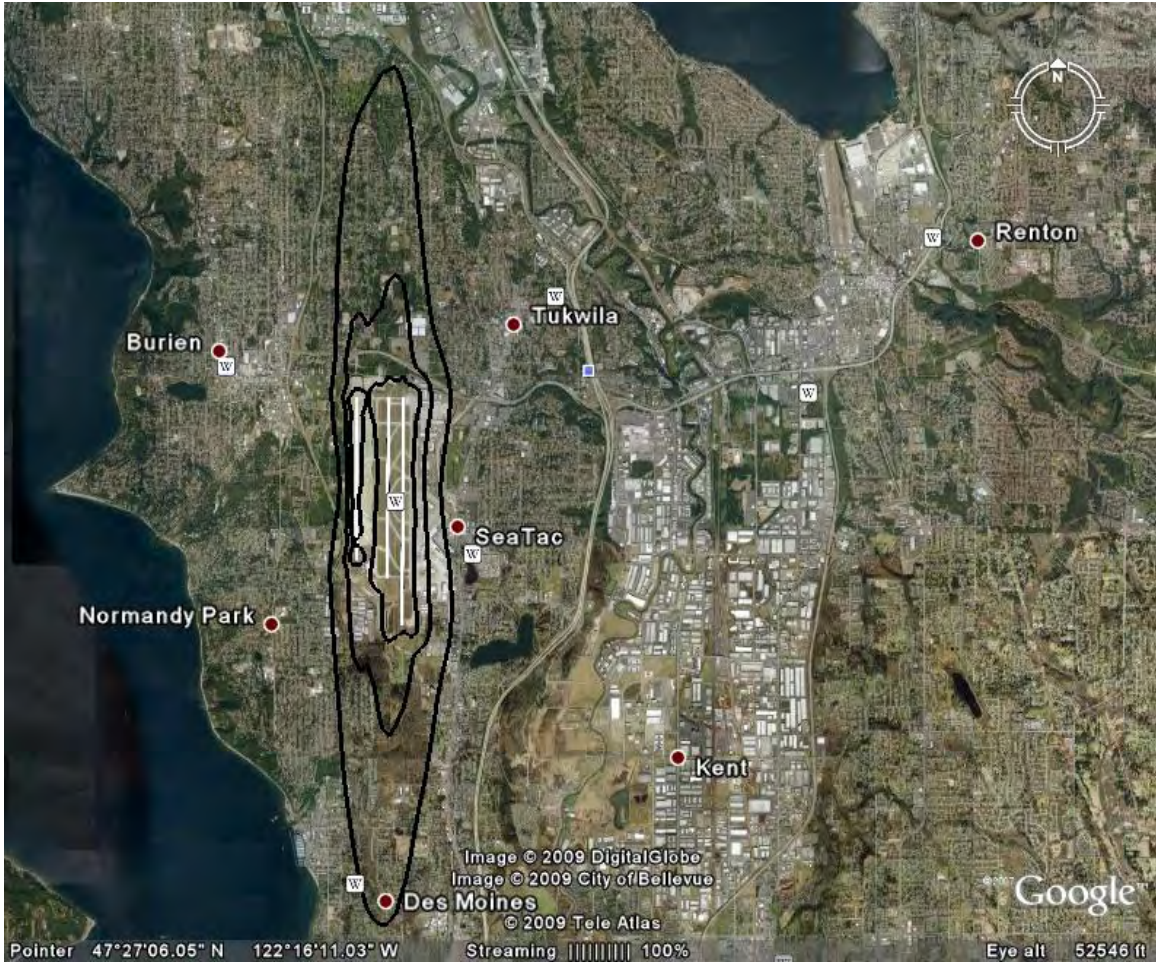


Figure 1: Baseline DNL Contour

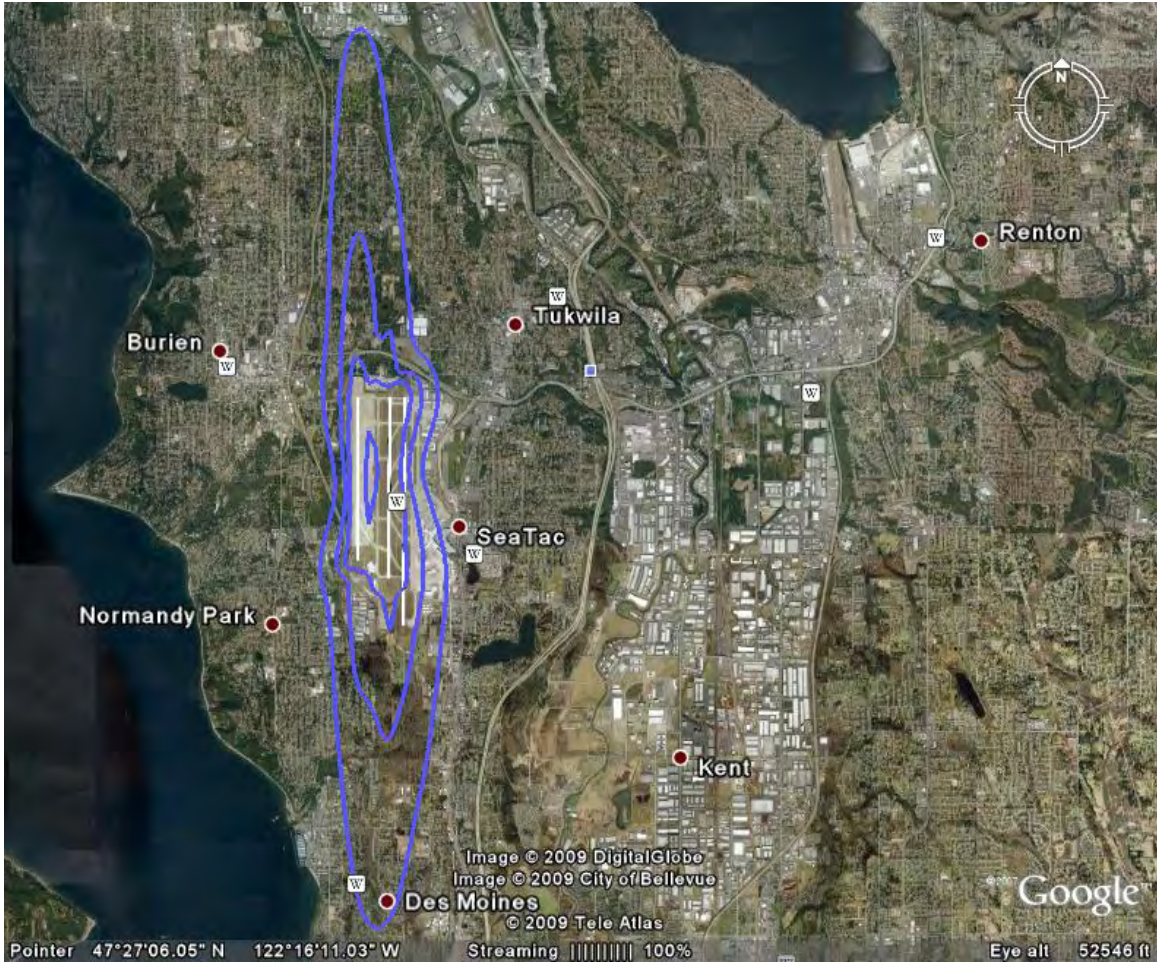
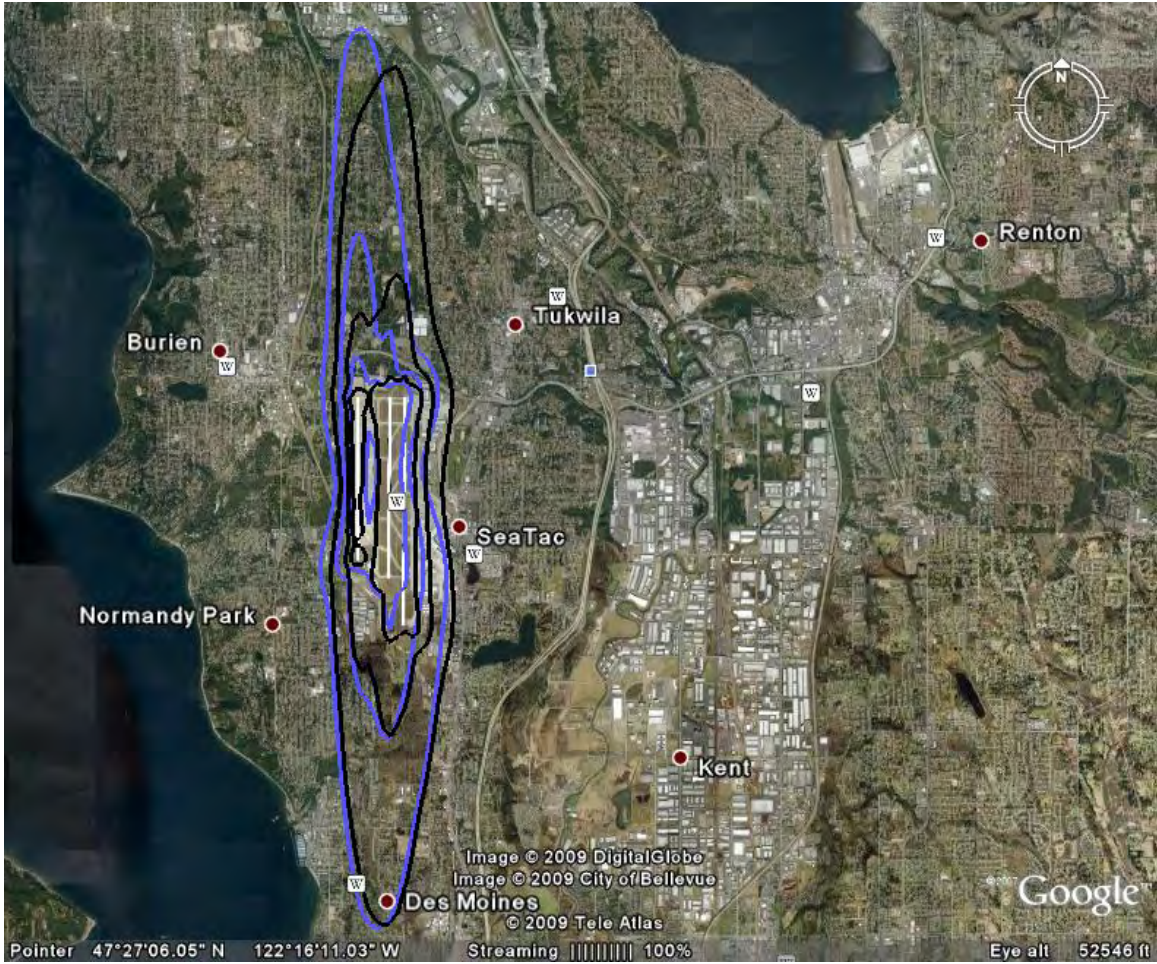


Figure 2: Alternative DNL Contour



**Figure 3: Baseline and Alternative DNL Contour**



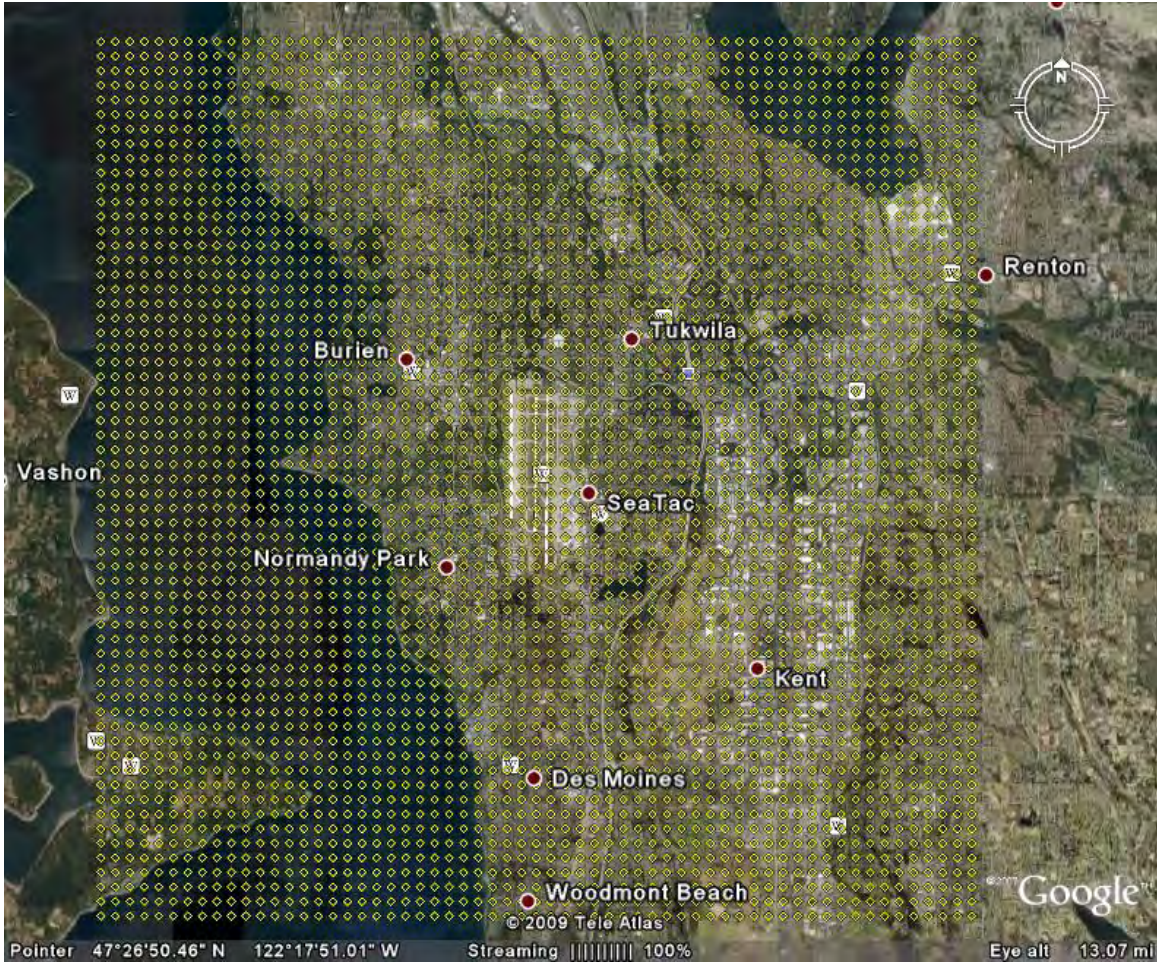


Figure 4: Noise Grid Computed

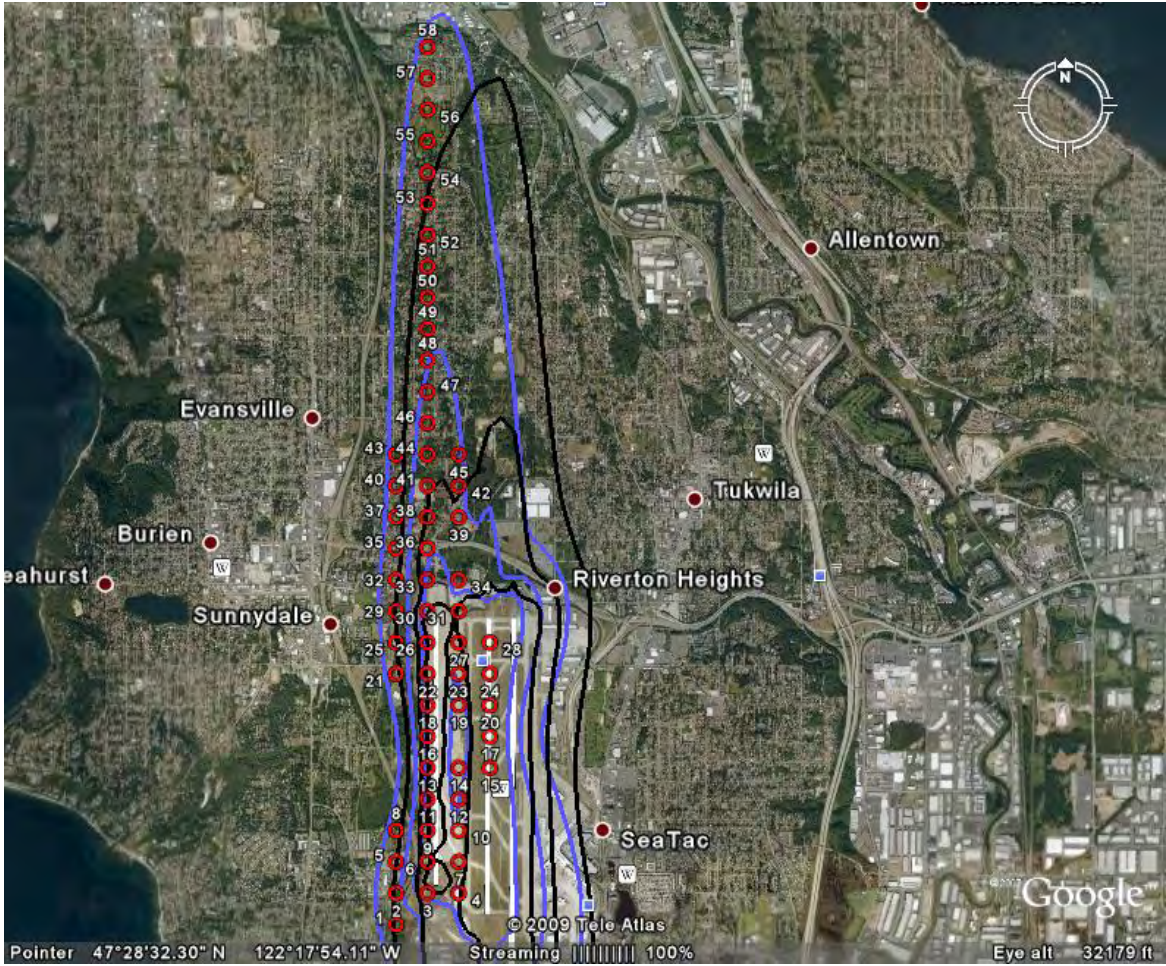


Figure 5: Grid Points with Temporary Impacts

**Appendix A**  
**SeaTac Noise Modeling Assumptions**  
**February 2009**

1. No Terrain will be modeled.
2. The following Weather information will be used:
  - a. Temperature: 57.5 F
  - b. Pressure: 29.92 in-Hg
  - c. Humidity: 70.0% (with modify NPDs checked)
  - d. Headwind: 8 knots
3. Fleet Mix – The 2008 Year to Date Landings worksheet provided by the Seattle Airports District Office will be used.
  - a. Operations at the Airport:
    - i. Arrivals: 461.14
    - ii. Departures: 461.14
    - iii. Total Operations: 922.28
  - b. Only landings were provided so will assume same percentage breakdown for departures
  - c. Since a day/night split for fleet mix was not given, the percentage split from the 2008\_STUDY\_SEA-TAC INM 7.0 (08 Study) will be used
  - d. Since stage length was not provided, the 08 Study stage length information will be used (as close as possible)
  - e. The worksheet did not contain INM aircraft types. When an aircraft type could have multiple INM aircraft types, then the 08 Study was used to help determine AC type. When there is a one-to-many combination, the percentage of the many in the 08 Study will be applied to the 08 Study percentages for the single aircraft.
    - i. See attached table (SeaTac Fleet Mix to INM Aircraft Type)
  - f. Due to early retirement, the December 2008 data for the MDs (and the DC9 and DC10) will be used. To do this, we will multiply the December numbers for these aircraft by 12 to get a Year-to-date number, find percentage of each aircraft with the new number of operations and then grow the operations back to the correct average annual day level (as stated in a).
4. Runways Modeled (as currently named at airport)
  - a. Baseline: Runways 16L/34R, 16C/34C, and 16R/34L
  - b. Alternative: Runways 16C/34C and 16R/34L
5. Runway Use
  - a. The Baseline will use Runway use percentages from the Sea-Tac Airport – Supplemental Environmental Impact Statement, Table C-3-14
    - i. Runways are labeled differently than current names so following translation will be used:

Labeled in Table	At Airport
16L	16L
16R	16C
16X	16R
34L	34C
34R	34R
34X	34L

- ii. The 2010 percentages will be used
- b. The Alternative will use Runway use percentages from the Sea-Tac Airport – 2007 Noise Contour Update Table 6
  - i. Runways are labeled differently than current names so following translation will be used:
  - ii.

Labeled in Table	At Airport
16L	16C
16C	16R
34C	34L
34R	34C

- iii. This assumes that the runway use used when the airport had two runways will be shifted to the two runways that will be opened during the construction

#### 6. INM Tracks

- a. All profiles will be modeled using INM standard profiles
- b. Tracks to model 16R/34L (newest runway) will be taken from INM study: SEA-TAC INM 6.1 2010 CDP FINAL\_INM7.0
- c. Tracks to model 16L/34R and 16C/34C will be taken from INM study: 2008\_STUDY\_SEA-TAC INM 7.0
- d. Assume that no procedural changes occurred to operations using runways 16L/34R and 16C/34C when runway 16R/34L was commissioned

#### 7. Noise Output

- a. DNL contours and grid points will be computed
- b. The DNL contour for 65, 70 and 75 dB will be computed
- c. A ten nautical mile square will be used for the grid points. The points will use a spacing of 1000 ft.

- 8. AEE modeled the DA50 using a user defined aircraft of LEAR35 +1.8 dB. Since no information on day/night, runway use, stage length, etc was not available, we assumed it was similar to the operations for the LEAR35 and used the LEAR35 runway/track/stage length information to model it.

- 9. If an aircraft does not use the runway in 2010, the aircraft is spread evenly across all tracks for the runway. If the aircraft was used for day, but not night, or vise

versa, the operations is spread evenly over the same tracks for the missing night information.

10. All aircraft can use all runways and all flight tracks off of all runways.
11. If an aircraft was given a larger stage length than can be modeled due to how inputs were created, the largest stage length was used.

## Attachment

### SeaTac Fleet Mix to INM Aircraft Type

Aircraft	
Make Model	INM Model
A300	A300-622R
A310	A310-304
A318	A319-131
A319	A319-131
A320	A320-211
A321	A321-232
A330	A330-301
A340	A340-211
ATR42	DHC8
B717	717200
	737300/737400/737500
B737	/737700/737800
B73Q	737N17
B747	747400
B757	757300/757PW
B767	767300
B777	777200/777300
C208	GASEPF
C560	MU3001
CRJ-100	CL601
CRJ-200	CL601
CRJ-600	CL601
CRJ-700	GV
CRJ-900	GV
DA50	LEAR35 +1.8 dB
DH8	DHC830
E120	EMB120
E190	GV
	EMB145/
EMB145	EMB14L
LR35	LEAR35
MD10	DC1010
MD11F	MD11GE
MD83	MD83
MD90	MD9025



OCT 28 2008

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October 28, 2008

Federal Aviation Administration  
Seattle Airports District Office  
ATTN: Cayla Morgan, Environmental Protection Specialist  
SEA-632  
1601 Lind Ave. SW  
Renton, WA 98055-4056

**RE: Seattle – Tacoma International Airport Runway 16L/34R Rehabilitation  
Categorical Exclusion**

Dear Ms. Morgan:

Please find the enclosed Categorical Exclusion for the Seattle – Tacoma International Airport (SEA) Runway 16L/34R rehabilitation project.

Runway 16L/34R was built in 1947 and is reaching a critical pavement condition where rehabilitation is required. In April 2009 SEA intends to rehabilitate Runway 16L/34R, closing the runway for no more than 180 days. Per FAA Order 1050.1E Paragraph 310(e), this project was considered eligible for a Categorical Exclusion, "Federal Financial assistance, licensing, or Airport Layout Plan (ALP) approval for construction or report of a runway that is existing or taxiway, apron, or loading ramp, including extension, strengthening, reconstruction, resurfacing, marking, grooving, fillets and jet blast facilities, provided the action will not create environmental impacts outside of an airport or launch facility property."

Per our discussion concerning the project we will disclose the project and provide the FAA with documentation regarding the method and results of public disclosure. The project will be disclosed minimally as follows:

**In-Person Briefings / Informational Meetings:**

- Public Discussion in Port of Seattle Commission Meeting - Oct. 28, 2008

*All Port of Seattle Commission meetings are open to the public, and the agenda is available prior to the meeting. Comments may be made in respect to any agenda item at the meetings.*

- Highline Forum Meeting - Oct. 2008

*The Highline Forum is comprised of all the communities surrounding the airport and includes local government officials and other leaders within the community. The*



*purpose of the Highline Forum is to update local communities of projects at the airport, and pursue ventures that are of common interest.*

Publications:

- Information will be published in AirMail in December 2008 and Spring 2009

*Airmail is an external physical publication that is published quarterly and distributed to airport neighbors whose lives are most impacted by aircraft operations and activities. Its purpose is to inform individuals about issues and existing and future projects at the airport. Distribution: 33,500 copies*

- Information will be published in BluePrint in December 2008;

*BluePrint is an internal physical publication that is published bi-annually and distributed to all Port and airport employees, legislators, elected officials, community and business leaders statewide. Its purpose is to inform individuals about issues, existing and future projects, current events at the airport. Distribution: 5,500 copies*

Port's Website:

- Commission Agenda is published and archived online
- Information posted on the Environmental website

*In December 2008 a Runway Rehabilitation Fact Sheet will be posted on the Port of Seattle's Environmental website, explaining the purpose, need, and facts about the runway rehabilitation project.*

- AirMail is posted online
- BluePrint is posted online

All publications and announcements will have my contact information available for individuals to comment or inquire about the project. Any comments made to the Port of Seattle will be compiled and FAA will be notified no later than January 15<sup>th</sup>, 2009 as to any environmentally related concerns.

Please let me know if this method for public disclosure is satisfactory.

If you have any additional questions or concerns please, contact me at (206) 988-5527.

Thank you,



Steve Rybolt  
Port of Seattle - Aviation Environmental Programs  
[Rybolt.S@portseattle.org](mailto:Rybolt.S@portseattle.org)

Enclosure (1) – Categorical Exclusion



## NORTHWEST MOUNTAIN REGION - AIRPORTS DIVISION

### Categorical Exclusion Form

Version 08/08/07a

#### **CONTACT THE ADO ENVIRONMENTAL SPECIALIST BEFORE USING THIS FORM**

*Directions: The person (analyst) preparing this form should have knowledge of the environmental features of the airport and general impacts of the project. Although some responses may be obtained from the preparer's own observations, previous environmental documents or research should be cited. Some of the best sources for information are the jurisdictional federal, state and local resource agencies responsible for the impact categories. This form is to be used with the current versions of FAA guidance, specifically FAA Orders 1050.1E, and 5050.4B.*

FAA urges the analyst to contact the ADO as quickly as possible for any extraordinary circumstance that requires FAA to complete the process any applicable special purpose laws require. For example, FAA is solely responsible for completing the Section 106 process. Other special purpose laws may require FAA to complete certain procedures. Early coordination with FAA will do much to reduce delays that would have occurred if it did not begin compliance procedures with the applicable special purpose law early in the project review cycle.

Some of the categories below require a reference or information to support a finding. Attach that information to the form or scan it as an attachment if you are filing this form on the web site noted below.

An electronic version of this form is available at:

[http://www.faa.gov/airports/airtraffic/airports/regional\\_guidance/northwest\\_mountain/airports\\_resources/forms/media/environmental/environmental\\_checklist.doc](http://www.faa.gov/airports/airtraffic/airports/regional_guidance/northwest_mountain/airports_resources/forms/media/environmental/environmental_checklist.doc)

#### **APPLICABILITY:**

This Environmental Evaluation Form may be used only if the sponsor's proposed project meets the following two (2) criteria:

1. The proposed project is a federal action subject to NEPA. List applicable paragraph number from FAA Order 5050.4B, Chapter 1 para. 9g (1)
- And*
2. The proposed project is identified as one that can be categorically excluded. List applicable category from FAA Order 1050.1E paragraphs 307 through 312. 310(e)

Per FAA Order 1050.1E Paragraph 310(e), this project was considered eligible for a Categorical Exclusion "Federal Financial assistance, licensing, or Airport Layout Plan (ALP) approval for construction or report of a runway that is existing or taxiway, apron, or loading ramp, including extension, strengthening, reconstruction, resurfacing, marking, grooving, fillets and jet blast facilities, provided the action will not create environmental impacts outside of an airport or launch facility property."

In 1991, as a requirement to receiving Federal Aviation Administration (FAA) Airport Improvement Program (AIP) Grant funding for airfield pavement projects, the Airport was required to implement an airfield Pavement Maintenance Management Program. The Pavement Maintenance Management Program assesses the current pavement conditions through a series of inspections, analyzes the data, and quantifies the structural condition of the pavement with a pavement condition index.

<b>Airport:</b>	<b>Seattle-Tacoma Int'l Airport</b>	<b>Airport Identifier:</b>	<b>SEA</b>
<b>Project Title:</b>	<b>Runway 16L/34R Rehabilitation</b>		
<b>Project Description:</b>	<i>List and clearly describe ALL components of project proposal including all connected actions. (Attach site map identifying project area).</i> <b>Complete rehabilitation of runway 16L/34R</b>		
<b>Proposed Start Date of Project:</b>	<b>April 6, 2009</b>		
<b>Purpose &amp; Need:</b>	<b>Per FAA Order 1050.1E Paragraph 310(e), this project was considered eligible for a Categorical Exclusion "Federal Financial assistance, licensing, or Airport Layout Plan (ALP) approval for construction or report of a runway that is existing or taxiway, apron, or loading ramp, including extension, strengthening, reconstruction, resurfacing, marking, grooving, fillets and jet blast facilities, provided the action will not create environmental impacts outside of an airport or launch facility property."</b>		

In 1991, as a requirement to receiving Federal Aviation Administration (FAA) Airport Improvement Program (AIP) Grant funding for airfield pavement projects, the Airport was required to implement an airfield Pavement Maintenance Management Program. The Pavement Maintenance Management Program assesses the current pavement conditions through a series of inspections, analyzes the data, and quantifies the structural condition of the pavement with a pavement condition index.

The last runway pavement condition inspection was conducted in October 2006, indicating that the structural condition of the runway is approaching the critical pavement condition index when rehabilitation is required. In addition to pavement structural deterioration, there is significant concern regarding the degradation of the top surfaces of the pavement. The last pavement overlay was completed in 1992 and has exceeded its design life. This has resulted in the loss of pavement grooves, posing a potential safety risk when water remains on the runway.

Deterioration of the infrastructure systems over time has been notable. Systems include electrical distribution and airfield lighting, storm drainage, water systems, and the industrial waste system. All systems are aged, and many are difficult to repair and outdated. The infrastructure systems need replacement, which can be best be accomplished with the reconstruction of the runway.

Rehabilitation of this runway will require its closure for up to 180 days while work is accomplished. Closure will impact aircraft operations, however the resulting extended life of the runway will enhance a steady operation in the future.

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Per FAA Order 1050.1E, paragraph 304 and 5050.4B paragraph 606, before a categorical exclusion may be utilized, a review of extraordinary circumstances must be conducted to ensure the categorical exclusion is valid. Extraordinary circumstances exist when the proposed action (1) involves any of the following circumstances and (2) may have an adverse effect requiring further analysis to determine the intensity of that effect. Please complete this form so that the FAA can make a determination.

**FOR EACH YES OR NO ANSWER: PROVIDE DOCUMENTATION USED AS THE BASIS FOR THE DETERMINATION**

**CONTROVERSY** Is the proposed project likely to be highly controversial on environmental grounds?  Yes  No

A proposed Federal action is considered highly controversial when the action is opposed on environmental grounds by a Federal, state, or local government agency, or by a substantial number of the persons affected by such action. For more info see Order 5050.4B, paragraph 9.i. If the action proponent has any doubt whether a given number of opposing persons is "substantial", or there is a probable risk of litigation, that doubt shall be resolved by discussion with ADO Environmental Specialist to determine if the action should be processed as a highly controversial one.

**On what basis was the determination made?** Reference available documentation to support analysis.

As shown during the Master Plan Update EIS and Comprehensive Development Plan process, controversy at Sea-Tac has been limited to adverse impacts caused by construction of a new runway. Routine maintenance of the airfield occurs frequently at Sea-Tac, and no controversy has arisen during those efforts. The proposed runway 16L/34R reconstruction will not increase capacity and has not generated any general reaction during discussion by the Port Commission and public notifications:

In-Person Briefings / Informational Meetings:

- Public Discussion in Port of Seattle Commission Meeting - Oct. 28, 2008

All Port of Seattle Commission meetings are open to the public, and the agenda is available prior to the meeting. Comments may be made in respect to any agenda item at the meetings.

- Highline Forum Meeting - Oct. 2008

The Highline Forum is comprised of all the communities surrounding the airport and includes local government officials and other leaders within the community. The purpose of the Highline Forum is to update local communities of projects at the airport, and pursue ventures that are of common interest.

**Publications:**

- Information will be published in AirMail in December 2008 and Spring 2009

Airmail is an external physical publication that is published quarterly and distributed to airport neighbors whose lives are most impacted by aircraft operations and activities. Its purpose is to inform individuals about issues and existing and future projects at the airport. Distribution: 33,500 copies

- Information will be published in BluePrint in December 2008;

BluePrint is an internal physical publication that is published bi-annually and distributed to all Port and airport employees, legislators, elected officials, community and business leaders statewide. Its purpose is to inform individuals about issues, existing and future projects, current events at the airport. Distribution: 5,500 copies

**Port's Website:**

- Commission Agenda is published and archived online
- Information posted on the Environmental website

In December 2008 a Runway Rehabilitation Fact Sheet will be posted on the Port of Seattle's Environmental website, explaining the purpose, need, and facts about the runway rehabilitation project.

- AirMail is posted online
- BluePrint is posted online

All publications and announcements will have my contact information available for individuals to comment or inquire about the project. Any comments made to the Port of Seattle will be compiled and FAA will be notified no later than January 15th, 2009 as to any environmentally related concerns.

**AIR  
QUALITY**

1. Will the proposed project have the potential to increase landside or airside capacity, including the capacity to handle additional surface vehicles? If no, provide basis and proceed to next section. If yes, proceed to question 2 in this topic.  Yes  No
2. General Conformity requirements Is the proposed project within or adjacent to a U.S. Environmental Protection Agency, defined NON-ATTAINMENT (or maintenance) AREA?  Yes  No
- a. If yes to 2 above, is the project exempt from the General Conformity regulations published in the Federal Register of November 30, 1993?  Yes  No

- c. Would the proposed project allow the airport to serve 180,000 GA ops and/or 1.3 million enplanements.  Yes  No

If yes, an air pollutant emission inventory must be prepared to determine if the project will produce, on an annual basis, criteria pollutants exceeding applicable de minimis levels. This inventory analysis should include project revisions, intended to reduce the emission inventory to below de minimis levels. If project emissions cannot be kept below de minimis levels an environmental assessment must be prepared.

**On what basis was the determination made?** Reference available documentation to support analysis.

**In the fall of 2004, the SIP/Maintenance Plan for the Puget Sound region was approved by the EPA that contains a technical appendix specifically identifying emissions from Sea-Tac. As it was not known that the SIP would be amended, the Port prepared a General Conformity applicability analysis that showed emissions to be determined to be de minimus and thus a general conformity determination was not required. As referenced in the General Conformity Rule - 93.153(c)(2)(iv) requirements do not apply for "Routine maintenance and repair activities, including repair and maintenance of administrative sites, roads, trails, and facilities."**

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**COASTAL  
RESOURCES**

Will the project occur in, or affect a coastal zone as defined by the State's Coastal Zone Management Plan? (CZMP)? If no, provide basis and proceed to next section.  Yes  No

Is the proposed project consistent with the approved state CZMP?  Yes  No

If no, then the project sponsor and FAA will need to consult with the state and Federal CZM offices and document the outcome in an environmental assessment.

**On what basis was the determination made?** Reference available documentation to support analysis (e.g. state CZM plan).

**The only water body under the jurisdiction of a local or national shoreline program is Angle Lake. The proposed runway 16L/34R reconstruction will not affect Angle Lake.**

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**COMPATIBLE  
LAND USE**

Is the proposed project reasonably consistent with plans, goals, policies, or controls that have been adopted for the area in which the airport is located?  Yes  No

**On what basis was the determination made?** Reference available documentation to support analysis (e.g. Master Plan, zoning ordinance, letters from local jurisdictions).

**The zone in the area for the project is designated Aviation Operations (AVO) for Port owned land as defined in the Interlocal Agreement (ILA) between the Port of Seattle and the City of SeaTac, September 1997. The current project will not deviate from the current designated land use. As related to land use and noise, the noise levels associated with the changes in flight patterns due to the reconstruction of runway 16L/34R will be temporary within 180 days or less.**

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**CONSTRUCTION  
IMPACTS**

Will the proposed project produce construction impacts, such as increases in localized noise levels, reduce localized air quality, produce erosion or pollutant runoff, or disrupt local traffic patterns? Include impacts to haul routes, staging areas, disposal sites, stockpiling, etc. Explain. If YES, describe impacts and note project-specific best management practices.  Yes  No

**On what basis was the determination made?** Reference available documentation to support analysis.

**Construction will occur during daylight hours within the airport operating area (AOA). All concrete will be made onsite and waste materials will be sent to Renton Concrete Recylers, Allied Waste - Black River Facility, Pacific Topsoils, and Stoneway Concrete.**

**There are no nearby residences to the proposed project. Construction noise would not be significant because of the distance away from nearby residences/hotels. Construction impacts associated with localized traffic (See Attachment A - Haul Routes/Project Controls), air, noise, erosion and pollutant runoff and are not expected to adversely affect the nearby environment or residences/hotels.**

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**SECTION 4 (f)  
[49 U.S.C. 303 (c)]  
IMPACTS**

Will the proposed project impact 49 U.S.C. Section 303 (c) [formerly designated DOT Section 4 (f)] resources (publicly owned land from a public park, recreation area, or wildlife or waterfowl refuge of national, state or local significance, or land of an historic site of national, state or local significance)?  Yes  No

If yes, contact ADO specialist for further guidance.

**On what basis was the determination made?** Reference available documentation to support analysis.

**Project will not aquire 4(f) lands, as no recreational land or historic sites would be affected nor will it change conditions to existing 4(f) lands.**

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**FARMLANDS**

Will the proposed project impact prime or unique farmlands? Has the Natural Resources Conservation Service (NRCS) or state, if applicable, been contacted to determine if the proposed project will impact prime or unique farmlands?  Yes  No

If there are prime or unique farmlands impacted, has the NCRS Farmland Protection Policy Act form AD-1006 process been completed and project adjustments made to the preferred alternative, if necessary? Provide the total score on that form. Review FAA Order 5050.4B, Table 7-1, Farmlands to determine the intensity of impact. Contact ADO if score is between 200 and 260 for more information.  Yes  No

**On what basis was the determination made?** Reference available documentation to support analysis (e.g. Farmland Impact Rating Form).

**The propsed project does not consist of any farmland nor is any farmland to be acquired to complete the proposed project. The designation of the the current land use is Aviation Operations and the Farmland Protection Policy Act does not require consideration of farmland issues for "projects on land already in urban development."**

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**FISH, WILDLIFE AND PLANTS**

**ENDANGERED  
AND  
THREATENED  
SPECIES**

1. Does the proposed project have the potential to impact federal or state listed endangered or threatened species or their habitat?  Yes  No

2. Has the United States Fish and Wildlife Service (USFWS) or National Marine Fishery Service (NMFS, aka NOAA Fisheries Service) been contacted to acquire lists of endangered or threatened species that may be impacted by the project? If, no, then contact the services to get the lists, if any.  Yes  No

If yes to either 1 or 2, contact the ADO Environmental Specialist for further guidance.

**On what basis was the determination made?** Reference available documentation to support analysis. Note outcome of discussions with ADO.

**A biological assessment was prepared for potential project impacts on threatened and endangered species and essential fish habitat in the project area in the Comprehensive Development Plan and found no significant impact. Consultation was completed in accordance with Section 7(a)(2) of the ESA and its implementing regulations, 50 CFR Part 402, and Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act.**

**ESSENTIAL FISH  
HABITAT (EFH)**

Does the proposed project have the potential to impact fish habitat protected under the Magnuson-Stevens Act (ID, OR, WA)?  Yes  No

If yes, has an Essential Fish Habitat assessment been prepared and consulted upon with the National Marine Fisheries Service?  Yes  No

Are the habitats of listed species adversely impacted?  Yes  No

If yes, what conservation measures must be incorporated into the project design?

**On what basis was the determination made?** Reference available documentation to support analysis.

**A biological assessment was prepared for potential project impacts on threatened and endangered species and essential fish habitat in the project area in the Comprehensive Development Plan and found no significant impact. Consultation was completed in accordance with Section 7(a)(2) of the ESA and its implementing regulations, 50 CFR Part 402, and Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act.**

**MIGRATORY  
BIRD ACT**

Does the proposed project have the potential to adversely impact birds protected by the Migratory Bird Treaty Act?  Yes  No

If yes, are the habitats of listed species adversely impacted?  Yes  No

If yes to either, discuss what conservation measures have been incorporated into the project design?

**On what basis was the determination made?** Reference available documentation to support analysis.

**The Migratory Bird Treaty Act (MBTA) makes it illegal to pursue, hunt, take, capture, kill, attempt to take, capture or kill any migratory bird or "any part, nest, or egg of any such bird...by any means or in any manner," except house sparrows, starlings, feral pigeons (rock doves), pheasant, quail, any domestic duck, geese, and other exotic birds. In the context of the MBTA, consideration must be given to the potential direct (albeit unintended) killing of protected birds. Such direction killing of birds is not expected to occur unless as an accidental strike with either existing aircraft operations, construction equipment, or vehicles entering the project area.**

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**FLOODPLAINS**

Will the proposed project be located in, encroach upon, or otherwise impact a floodplain?  Yes  No

If yes, attach FEMA Flood Map.

**On what basis was the determination made?** Reference available documentation to support analysis (e.g. 404 permit, consultation with the Corps, floodplain delineation report).

**No streams, lakes, ponds, wetlands or floodplains are known to exist on the site.**

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**SOLID WASTE  
IMPACT**

Will the proposed project produce solid waste impacts?  Yes  No  
If yes, are local solid waste facilities able to accommodate that waste?  
If no, how will project-related excess waste be addressed or mitigated?

**On what basis was the determination made?** Reference available documentation to support analysis.

**During demolition and construction, resulting metals, concrete, asphalt, and soil would be segregated when possible and recycled.**

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**HAZARDOUS  
MATERIALS**

Is there reason to believe or does evidence exist that the proposed project will be constructed in an area that contains hazardous materials?  Yes  No

If yes, explain how such impacts will be mitigated.

**On what basis was the determination made?** Reference available documentation to support analysis.

**The current 16L/34R runway was built in 1947 and was undeveloped land prior. Since 1947, this area has only been used as a runway at Sea-Tac. Historical photos and the 1968 Detail Record Maps (i.e. Bishop Drawings) show no indications of hazardous materials on the project site. In the instance that any hazardous materials are found, Port of Seattle specifications have strict guidance as to their handling and disposal.**

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**HISTORICAL,  
ARCHITECTURAL,  
ARCHAEOLOGICAL  
AND CULTURAL  
RESOURCES**

Pursuant to Section 800.3 of 36 CFR Part 800, does the project involve an activity that has the potential to affect historic properties (note: includes any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register)?  Yes  No

If no, provide rationale and move to next section.

If yes, work with the ADO environmental specialist to complete the 106 process. It is the ADO environmental specialist's responsibility to coordinate with the Tribes and the SHPO. It is critical that you contact the ADO as soon as possible to avoid project delays.

**On what basis was the determination made?** Reference available documentation to support analysis. (e.g. survey results, letters from SHPO and Tribes).

**There is no change in current use of site. Review of previous studies identified no known historical, architectural, and/or cultural resource that were determined eligible to affect historic properties.**

- **Final Environmental Impact Statement for the Proposed Master Plan Update Development Actions, Seattle-Tacoma International Airport (FAA and Port of Seattle, 1996)**
- **Final Supplemental Environmental Impact Statement for the Proposed Master Plan Update Development Actions, Seattle-Tacoma International Airport (FAA and Port of Seattle, 1997)**
- **Final Sea-Tac International Airport Comprehensive Development Plan, Sea-Tac International Airport (FAA and Port of Seattle, 2007)**

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**LIGHT  
EMISSIONS  
AND VISUAL  
IMPACTS**

Will the proposed project produce light emission impacts?  Yes  No

Will there be visual or aesthetic impacts from the project, and/or have there been concerns expressed on this?  Yes  No

If yes, how will such impacts be mitigated?

**On what basis was the determination made?** Reference available documentation to support analysis.

**During construction, the contractor may use portable lights for some early morning or evening work activities. The closest light sensitive use (i.e. residential) is thousands of feet.**



**NATURAL  
RESOURCES,  
ENERGY SUPPLY  
AND  
SUSTAINABLE  
DESIGN**

Will the proposed project impact energy supply or natural resources in a detrimental manner?

Yes  No

If yes, please explain.

**On what basis was the determination made?** Reference available documentation to support analysis.

**Operational energy impacts are not anticipated to be significant and would not require mitigation.**

**NOISE**

1. Do project forecasted operational levels for the period the analysis covers exceed 90,000 annual adjusted propeller operations or 700 annual adjusted jet operations? (Cite data reference).

Yes  No

If yes, have noise contours been prepared?

Yes  No

2. Does the project increase noise exposure levels 1.5 DNL or more over noise sensitive areas (residential homes, schools, health facilities, churches, cultural or historic sites) within the 65 DNL contour?

Yes  No

If yes, can mitigation be committed to reduce the increase to below the 1.5 DNL threshold of significance?

Yes  No

If no, and mitigation cannot be developed to reduce the impact below the 1.5 DNL threshold, an Environmental Assessment (EA) or an Environmental Impact Statement (EIS) will need to be prepared.

3. Identify the nearest 4(f) properties to your project (parks, wildlife and recreational areas, historic properties). Contact the ADO for further directions.

**On what basis was the determination made?** Reference available documentation to support analysis. (e.g. ALP, Master Plan, noise contours).

**The noise levels associated with the changes in flight patterns due to the reconstruction of runway 16L/34R will be temporary within 180 days or less. Short-term, temporary, changes in aircraft noise impacts will be caused by the closure of the runway and required transfer of all activity to Runway 16R/34L and Runway 16C/34C. Once completed, runway usage will return to its pre-rehabilitation use. Since this is a temporary condition, no noise mitigation will be required.**

**SECONDARY  
(INDUCED)  
IMPACTS**

Will the project cause shifts in patterns of population movement and growth; public service demand; or changes in business and economic activity?

Yes  No

Will the project result in disruption of community?

Yes  No

If yes to either, what mitigation is planned?

**On what basis was the determination made?** Reference available documentation to support analysis.

**Proposed project will not alter the level or activity at Sea-Tac International Airport.**

**SOCIO-ECONOMIC  
IMPACTS,  
ENVIRONMENTAL  
JUSTICE,  
AND  
CHILDREN'S**

Does the action require the relocation of residents or businesses?

Yes  No

If yes, how will those being relocated be accommodated?

Does the project alter surface transportation patterns or cause a degradation of level of service?

Yes  No

If yes, what mitigation is planned?

**ENVIRONMENTAL,  
HEALTH AND  
SAFETY RISKS**

Will the project cause disproportionately high adverse impacts on minority or low-income populations within the DNL 65 contour?  Yes  No

If yes, what mitigation is planned?

Will the project cause disproportionately high adverse impacts in any impact category to minority or low income populations?  Yes  No

If yes, what mitigation is planned?

**On what basis was the determination made?** Reference available documentation to support analysis (e.g. census data, local statistics).

**Project will not result in adverse impacts to any populations, as it will not acquire property, alter air quality, noise, or water conditions affecting residential areas. There will be no off-airport effects.**

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**WATER  
QUALITY**

Will the proposed project produce water quality impacts to ground water, surface water bodies, public water supply systems, or violate Federal, state or tribal water quality standards?  Yes  No

If yes, what mitigation is planned?

**On what basis was the determination made?** Reference available documentation to support analysis (e.g. National Pollutant Discharge Elimination System (NPDES) permit, water quality certification or other consultation with involved water quality agencies).

**No streams, lakes, ponds or wetlands are known to exist on the site.**

**Stormwater on the site of the proposed project currently drains into the storm drain system and discharges into Des Moines Creek.**

**Project design would prevent discharge of water materials to surface waters. There are no streams or wetlands on the proposed project site.**

**Construction of the proposed project would improve the stormwater system on the existing site by reconstructing the stormwater drainage system. This would be an improvement over current site conditions where stormwater from the proposed project is currently clogging filters.**

**Stormwater on site would be detained in an onsite enclosed detention vault and stormwater pond to the south of the property. Water quality would be maintained by treatment under conditions of an approved Stormwater Pollution Prevention Plan (SWPPP).**

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**WETLANDS**

1. Will the proposed project impact wetlands?  Yes  No
2. If yes, has the proposed project area been surveyed for wetlands, and/or has a wetland delineation been done?  Yes  No
- a. If not, a wetland delineation may need to be done in consultation with the ADO and the U.S. Army Corps of Engineers (Corps).
- b. If yes to 2, has the Corps concurred on the wetland delineation?  Yes  No
- c. Is a Corps permit required for the project? If so, explain what type (nationwide, general or individual permit).

3. If yes to question 1, have all practical measures been taken to avoid impacting the wetlands? Discuss the measures to avoid, minimize and compensate for wetland impacts.

Note: If an individual permit is required from the Corps, an environmental assessment must be prepared.

**On what basis was the determination made?** Reference Available documentation to support analysis (e.g. 404 permit, consultation with the Corps, wetland delineation report and Corps verification report).

**No impacts on wetlands would result from this project (Reference: Comprehensive Development Plan). There is no change in current use of site.**

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**WILD AND SCENIC RIVERS**

Would the proposed project affect any portion of the free-flowing characteristics of a Wild and Scenic River or a Study River, or any adjacent areas that are part of such rivers, listed on the Wild and Scenic Rivers Inventory?  Yes  No

If yes, explain how such impacts will be mitigated.

**On what basis was the determination made?** Reference available documentation to support analysis.

**There are no wild and scenic rivers with the airport area (Reference: Comprehensive Development Plan). Therefore, no wild and scenic rivers would be affected by the proposed project.**

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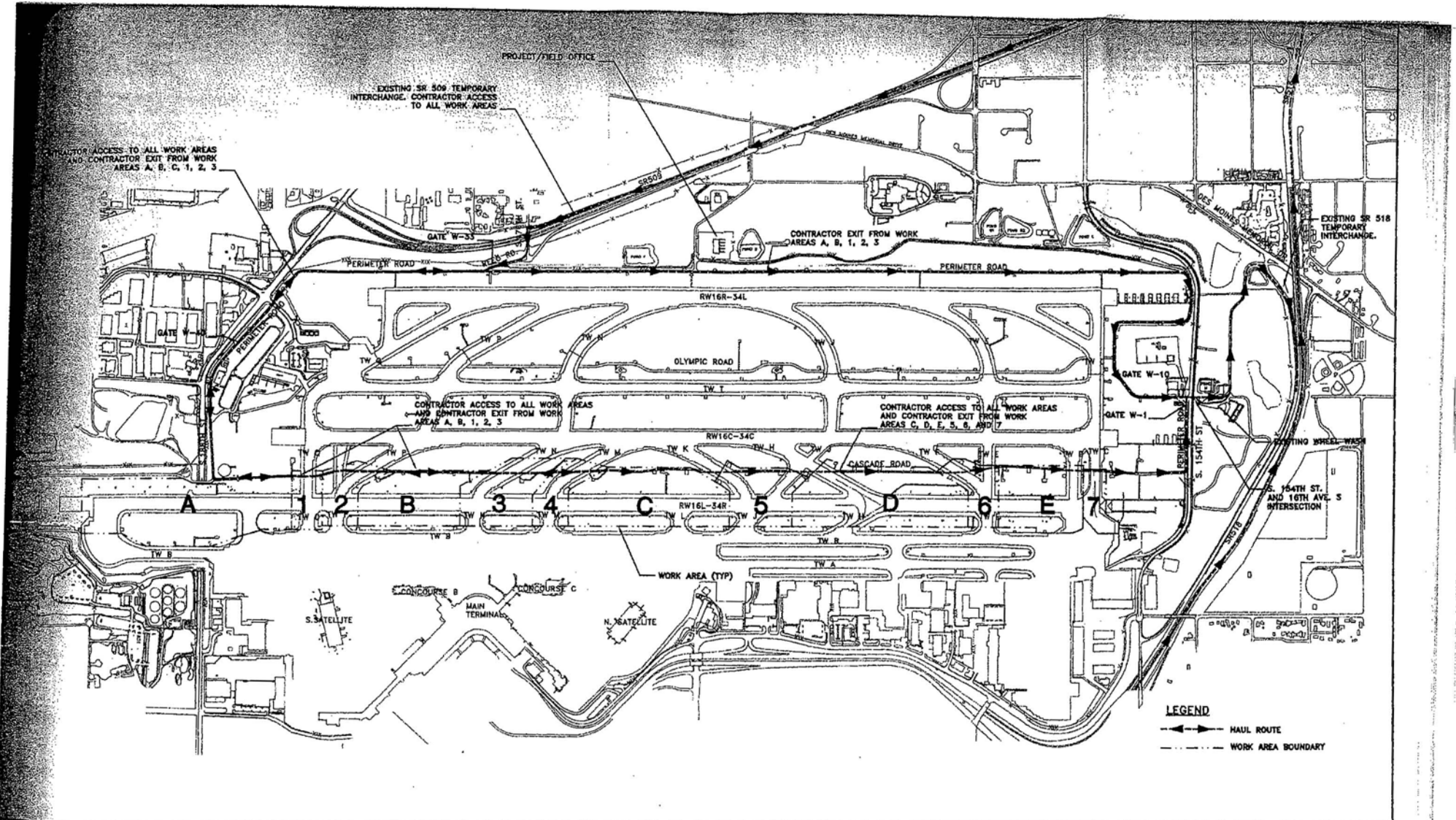
**CUMULATIVE IMPACTS**

When considered together with other past, present, and reasonably foreseeable future development projects on or off the airport, federal or non-federal, would the proposed project produce a significant cumulative effect on any of the environmental impact categories above? Where the project does have an impact in a resource category, although not significant, a cumulative impact analysis for that category is required. Consider projects that are connected, cumulative, or similar from a timing or geographical perspective. Provide a list of projects considered. Refer to 5050.4B, paragraph 9.q for a definition of reasonably foreseeable.  Yes  No

**On what basis was the determination made?** Reference available documentation to support analysis.

**Construction activities associated will likely overlap with the construction of the garage walkway, 3<sup>rd</sup> RW existing lighting vault demolition, roadway reconstruction (Contract 7), pre-conditioned air, IWS pipe inspection and repair project, and the rental car facility bus maintenance facility. Based on the description, location and schedule for each of the six projects, no significant cumulative impacts are anticipated with the respect to the above identified environmental categories. Considering the project with past, present, and a reasonably foreseeable future development projects on and off the airports no significant cumulative impacts are anticipated.**

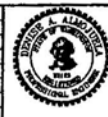




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 CHECKED BY:  
 APPROVED BY:

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REVISIONS				
NO.	DATE	BY	DESCRIPTION	APP'D



PROJECT NUMBER:  
 DON AST/JANICE AKT  
 DESIGNER: A. ALMOJEDA  
 CHECKER: A. ALMOJEDA  
 PROJECT: MAC  
 AS NOTED  
 DATE: 12/01/98  
 PREPARED BY: JOHN E. ROTHME

**Port of Seattle**  
**SEA-TAC INTERNATIONAL AIRPORT**  
 PROJECT: RW 161-34R RECONSTRUCTION  
 SHEET TITLE: HAUL ROUTES/PROJECT CONTROLS

WORK ORDER NO. 103793  
 SUBSEQUENT NO. GP1.03  
 PART OF BIDDING NO. STIA-0901-GP1.03

90% REVIEW

**PART 1 - GENERAL**

1.01 SUMMARY

- A. Install, maintain, and operate all temporary facilities and controls as long as needed for the safe and proper completion of the work.
- B. Temporary connections to the Port of Seattle electrical and water systems require the Contractor to submit to the Engineer a completed "Application for Connection" a minimum of one week in advance. Appropriate forms available from the Engineer.
- C. Section Includes:
  - 1. TEMPORARY ELECTRICITY
  - 2. TEMPORARY CONSTRUCTION LIGHTING
  - 3. TEMPORARY CONSTRUCTION FENCING
  - 4. COMMUNICATIONS
  - 5. TEMPORARY WATER
  - 6. TEMPORARY SANITARY FACILITIES
  - 7. SECURITY
  - 8. FIELD OFFICE
  - 9. HAUL ROUTE MAINTENANCE AND DUST CONTROL
  - 10. USE AND OCCUPANCY
  - 11. NOISE CONTROLS
  - 12. TEMPORARY EROSION AND SEDIMENT CONTROL
- D. Related Sections:
  - 1. Document 00700 – General Conditions
  - 2. Document 00800 – Supplementary Conditions
  - 3. Section 01110 – Summary of Work
  - 4. Section 01140 – Operational Safety on Airports During Construction
  - 5. Section 01552 – Haul Routes
  - 6. Section 01570 – Traffic Control
  - 7. Section 01631 – Pollution Prevention Planning and Execution
  - 8. Section 02270 – Temporary Erosion and Sediment Control Planning and Execution

1.02 TEMPORARY ELECTRICITY

- A. Contractor to provide and pay for all power and associated services required from utility source and all required permits.
- B. Provide power outlets for construction operations, with branch wiring and distribution boxes located as required. Provide flexible power cords as required.
- C. Provide main service disconnect and overcurrent protection at convenient location.

**DIVISION 1 – GENERAL REQUIREMENTS**  
**Section 01500 – Temporary Facilities and Controls**

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- D. Provide adequate distribution equipment, wiring, and outlets to provide single-phase, branch circuits for power and lighting.

**1.03 TEMPORARY CONSTRUCTION LIGHTING**

- A. Temporary floodlights adequate to illuminate the work areas during nighttime operations shall be provided by the Contractor. The relocation of the lights and the electrical power required shall be the responsibility of the Contractor. When transporting lights to the various work areas, floodlights shall be pointed down or turned off.
- B. Lighting used for nighttime operations shall be directed away from adjacent residences, airfield operations, public roadways, or other operations or facilities adversely impacted by the lighting. Contractor shall provide glare shields or other necessary and sufficient means of lighting control when necessary to prevent adverse impacts and when specifically required by the Engineer.
- C. As indicated on the drawings, lighted closure markers are required for portions of work on this project. The Contractor shall provide and operate as many units as required for the Contractor's operation in closure at Runways and taxiways. The portable lighted closure marker shall meet the requirements of FAA Technical Report DOT/FAA/CT-TN87/3 and be equivalent to the Flashing X Marker as manufactured by WANCO, Inc., or approved equal. At the completion of the project, two (2) lighted closure markers shall become the property of the Port of Seattle.

**1.04 TEMPORARY CONSTRUCTION FENCING**

Install temporary construction fencing at the start of the project in locations shown on the drawing.

Maintain fencing in place for the duration of the project. If fencing is damaged during construction promptly repair or replace damaged sections. Remove all fencing at the completion of the work.

**1.05 COMMUNICATIONS**

- A. Provide, maintain and pay for telephone and data services to field office at time of project mobilization.
- B. Provide, maintain and pay for facsimile service and a dedicated telephone line to field office at time of project mobilization.
- C. The Contractor shall provide his own means of job site communication.
  - 1. Mobile communications equipment (i.e. Radio) must be approved in advance by the Engineer.
  - 2. Contractor shall submit the radio frequency desired to be used and a copy of the Contractor's or any subcontractor's FCC license(s) for approval along with the RF Application forms provided by the Engineer.

**DIVISION 1 – GENERAL REQUIREMENTS**  
**Section 01500 – Temporary Facilities and Controls**

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1.06 TEMPORARY WATER

- A. Provide, maintain and pay for suitable quality water service required for construction operations.
- B. Extend branch piping with outlets located so water is available by hoses with threaded connections. Provide temporary pipe insulation to prevent freezing.
- C. Drinking water for employees shall be provided in accordance with WISHA requirements.
- D. Construction water may be supplied via existing Port of Seattle supply mains under the following conditions:
  - 1. Each connection may be made at an existing Port of Seattle fire hydrant in only the locations shown on the drawings. Each connection shall be made using a shutoff valve to be obtained from Port of Seattle Maintenance. Each connection shall be metered and utilize a “Hydrant Watch Dog” device (Model HRP-200) or approved equal, to be provided by the Contractor.
  - 2. The Contractor shall obtain the “Hydrant Watch Dog” device or approved equal and register for temporary water service with Port of Seattle Maintenance through the Engineer.
  - 3. The Port of Seattle reserves the right to test the water meter and operation of the reduced pressure backflow assembly at any time and require the Contractor to take necessary actions to maintain the integrity of the meter and backflow assembly at all times. The Contractor will be required to conduct his water filling and usage operations in such a manner that he will not endanger the Port of Seattle Water System at any time nor cause the Port to be in violation of Washington State Administrative Code (WAC) Section 246-290 at any time.
  - 4. Failure of the Contractor to follow these backflow prevention requirements will result in the removal of the Contractor’s connection to the Port of Seattle water system.
  - 5. The cost of water used will be billed by the Port of Seattle at the current water billing rate, subject to change at anytime, and paid for by the Contractor.
- E. The Contractor shall install construction water holding tank(s) with a minimum size of 10,000 gallons for the purpose of filling water trucks, sweepers and other equipment requiring water. There will be no direct filling of Contractor equipment from Port of Seattle fire hydrants. The potential locations for the Contractor’s holding tank(s) are shown on the drawings.



**DIVISION 1 – GENERAL REQUIREMENTS**  
**Section 01500 – Temporary Facilities and Controls**

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**1.07 TEMPORARY SANITARY FACILITIES**

Provide and maintain required facilities and enclosures for both sexes; serviced and cleaned weekly. Quantities per local, state and federal requirements.

**1.08 SECURITY**

- A. Provide security and facilities to protect the Work and Port's operations from unauthorized entry, vandalism, or theft.
- B. The Contractor shall install security fence and gate to secure the construction site. The areas of existing fencing and need for new fencing is shown on the drawings.
- C. Ensure the security of tenant facilities in the event construction activities endanger those facilities or commodities.
- D. Abide by special requests of security personnel, Port of Seattle Police and Fire Departments.
- E. Airport Security: See requirements summarized in paragraph "Airport Rules and Regulations," Section 01140 – Operational Safety on Airports During Construction.

**1.09 FIELD OFFICE**

- A. The Contractor shall install one single (12') or double wide (24') Field Office Trailer at the Port of Seattle's Westside Construction Office in a space as directed by the Engineer.
- B. No material / equipment storage or laydown area is allowed at the Construction Office. These activities shall be confined to the Staging and Storage Areas as noted on the drawings.
- C. Contractor shall obtain all required permits for installation of the Field Office Trailer and utility services.
- D. Water and sewer connection points are provided for Contractor hook-up at the Field Office Trailer location. Water and sewer service will be provided at no cost to the Contractor at this location only.
- E. Power and phone/data connection points are provided at the Field Office Trailer location. Contractor shall arrange and pay for service installation from the appropriate provider and shall install all needed connections from the connection point designated by the Engineer to the Field Office Trailer.
- F. Contractor shall provide a minimum of two appropriate fire extinguishers per trailer.
- G. Contractor shall install safety rails on pier walkway to match existing.

**DIVISION 1 – GENERAL REQUIREMENTS**  
**Section 01500 – Temporary Facilities and Controls**

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**1.10 USE AND OCCUPANCY**

**Materials Storage, Staging and Parking**

- A. The Contractor will be allowed space for the storage of materials and the pursuance of the Work under this Contract in the areas shown on the Drawings.
- B. Contractor employee parking will be confined to Public parking outside the Airport security fence as arranged for by the employee at the employee's expense. No employee parking will be permitted inside the fence area of the Airfield.

The Airport is an operating facility which will continue in full operation throughout the term of this Contract. Where facility operations conflict with those of the Contractor, the operations of the facility will take precedence over those of the Contractor. It shall be the sole responsibility of the Contractor to schedule and coordinate its activities with those of the facility to assure minimum disruption of facility operations.

**1.11 NOISE CONTROLS**

- A. At all times keep objectionable noise generation to a minimum by:
  - 1. Equipping air compressors with silencing packages.
  - 2. Equipping jackhammers with silencers on the air outlet.
  - 3. Equipment that can be electrically driven instead of gas or diesel is preferred. If noise levels on equipment cannot reasonably be brought down to criteria, listed as follows, either the equipment will not be allowed on the job or use time will have to be scheduled subject to approval of the Engineer.
  - 4. All construction vehicles and equipment on the project operating between 10:00 p.m. and 7:00 a.m. shall be equipped with an ambient noise sensing variable volume backup alarm system, Smart Alarms as manufactured by Electronic Controls Company or approved equal. The system shall be in compliance with Washington Administrative Code (WAC) 296-155-615.
- B. Objectionable noise received on neighboring (non-Port owned) properties is defined as any noise exceeding the noise limits of State Regulations (WAC 173-60-040) or City ordinance, as stated below, or as any noise causing a public nuisance in a residential area, as determined by the Port and community representatives, or by the nuisance provisions of local ordinances.
  - 1. The noise limitations established are as set forth in the following table after any applicable adjustments provided for herein are applied:

**RECEIVING PROPERTY**

<u>Noise Source</u>	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>
Airport	50 dBA	65 dBA	70 dBA

2. Between the hours of 10:00 p.m. and 7:00 a.m. on weekdays and 10:00 p.m. and 9:00 a.m. on weekends the noise limitations above may be exceeded for any receiving property by no more than:

- a. Five dBA for a total of 15 minutes in any one hour period; or
- b. Ten dBA for a total of 5 minutes in any one hour period; or
- c. 15 dBA for a total of 1.5 minutes in any one hour period.

C. In addition to the noise controls specified, demolition and construction activities conducted within 1,000 feet of residential areas may have additional noise controls required.

D. The Contractor's operation shall at all times comply with all City of SeaTac requirements.

1.12 TEMPORARY EROSION AND SEDIMENT CONTROL – See Section 02270 – Temporary Erosion and Sediment Control Planning and Execution.

**PART 2 – PRODUCTS**

2.01 TEMPORARY CONSTRUCTION FENCING

- A. Temporary construction fencing to be Diamond Safety Fence as manufactured by Geo-Synthetics or approved equal.
- B. Posts: five foot steel heavy-duty "T" posts, 1-3/8"x1-3/8" x7/64" with steel anchor.
- C. Fasteners: nylon zip straps, 150 pounds minimum breaking strength each, at least three straps per post.

**PART 3 – EXECUTION**

3.01 MAINTENANCE OF OPERATIONS:

- A. **Public Safety Convenience:** The Contractor shall conduct all operations with the least possible obstruction and inconvenience to the Port, its tenants and the public. Maintain pedestrian traffic routes and existing roadways adjacent to, the Work area.
- B. **Responsible Representative:** The Contractor shall appoint one employee as the responsible representative in charge of maintenance of operation and safety. The appointed representative shall have authority to act on behalf of the

**DIVISION 1 – GENERAL REQUIREMENTS**  
**Section 01500 – Temporary Facilities and Controls**

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Contractor and shall be available, on call, twenty-four hours a day, throughout the period of construction for the Contract. A twenty-four hour telephone number shall be provided to the Engineer for use in case of an off-hour emergency. The Contractor shall provide immediate response to correct all deficiencies upon notification.

- C. **Traffic Control Devices:** The Contractor shall provide and maintain controls as needed to warn and protect the public, other contractors and Port employees from injury or damage caused by the Contractor's operations. No Work shall be performed on or adjacent to any vehicular or pedestrian roadway/walkway until all necessary signage and traffic control devices have been approved and are in place.

**PART 4 - MEASUREMENT AND PAYMENT**

- 4.01 Measurement for "Temporary Construction Fencing" will be per linear foot as measured in place.
- 4.02 Payment for "Temporary Construction Fencing" will be made at the contract unit price per linear foot as stated in the Schedule of Unit Prices – A and shall be full compensation for furnishing all labor, materials, tools and equipment to provide, install, maintain, replace as required, and remove the temporary construction fencing as detailed on the drawings and specified herein.

No other separate measurement or payment will be made for the work required by this section other than "Temporary Construction Fencing". The cost for all other Work will be considered incidental to, and included in the payments made for the applicable bid items in the various Schedules of Unit Prices.

Payment will be made under:

Runway 16L Reconstruction  
Schedule of Unit Prices – A

Temporary Construction Fencing – per linear foot

**END OF SECTION**