

## INTERGOVERNMENTAL AGREEMENT FOR ONGOING AGREEMENTS RELATED TO THE AIRPORT FUTURES PROJECT

This INTERGOVERNMENTAL AGREEMENT FOR ONGOING AGREEMENTS RELATED TO THE AIRPORT FUTURES PROJECT ("Agreement") effective May 13, 2011 ("Effective Date") is between **THE CITY OF PORTLAND, OREGON**, a municipal corporation ("City") and **THE PORT OF PORTLAND**, a port district of the State of Oregon ("Port").

### RECITALS

A. The Port and the City are authorized to enter into intergovernmental agreements with other local governments pursuant to the terms of ORS 190.003 to 190.010.

B. The Port and the City recognize that their future is intrinsically linked and that the success of each is based in part on their mutual cooperative efforts. The Port and the City wish to establish through this Agreement a continued partnership on a wide array of issues as well as an agreement about specific tasks and activities that each party will undertake and complete to advance their missions and ongoing success. Both parties recognize that achievement of the actions and goals described in this Agreement are mutually beneficial.

C. The Port and the City are also parties to an *Intergovernmental Agreement Portland International Airport Land Use Approvals Work Program and Tasks*, effective December 3, 2004 as adopted by the Portland City Council pursuant to Ordinance No. 178814 ("2004 IGA"), as amended by *Reimbursement Agreement Amendment No. 1 to Intergovernmental Agreement*, effective October 1, 2006; *Detailed City Workplan Amendment No. 2 to Intergovernmental Agreement*, effective June 27, 2007; *Detailed City Workplan Amendment No. 3 to Intergovernmental Agreement*, effective August 5, 2008; *Detailed City Workplan Amendment No. 4 to Intergovernmental Agreement*, effective June 30, 2010; and *Detailed City Workplan Amendment No. 5 to Intergovernmental Agreement*, effective December 29, 2010.

D. As a result of the 2004 IGA, over the last five (5) years the Port and the City have collaborated on long range planning efforts as part of the Airport Futures Project that will guide and influence the Airport's future development through 2035 ("Planning Period"). The Airport Futures process included a Planning Advisory Group ("PAG") comprised of citizens representing diverse and regional interests.

E. Airport Futures was a collaborative effort between the Port, City, and the Portland-Vancouver metropolitan community to create an integrated long-range development plan for the Airport. Through analysis of information, discussion, and many questions asked, the PAG advanced several conclusions and recommendations involving the Airport's long range plan during a three year process ending in 2010. The Port and City appreciate the importance of the work of the PAG as captured through the Airport Futures Planning Advisory Group Report, the City's Land Use Plan, and the Port's Airport Master Plan Update. Port and City collaboration through working groups (discussed herein) will continue as a direct result of the PAG's work in the Airport Futures process.

F. Alternatives to the conditional use permit, including comprehensive plan and zoning code amendments and the creation of a plan district, were analyzed and discussed. It was

concluded that a plan district was most appropriate regulatory tool and as such the Airport Plan District is implemented concurrently with this Agreement.

G. The Port's 2000 Airport Master Plan ("2000 Plan") anticipated two (2) major infrastructure improvements that could have significant impact to the community. One concept was to construct a new parallel runway ("Third Runway") south of the existing airfield and north of the Columbia Slough at sometime in the future. The Third Runway was depicted as being eleven thousand nine hundred and twenty-five (11,925) feet in length and two hundred (200) feet in width. The other significant concept was a new passenger terminal at the Airport at sometime in the future. Two terminal alternatives were analyzed, decentralized (a new second terminal with a separate terminal access system) and centralized (a new satellite terminal accessed from existing Airport Way corridor). Airport Futures reanalyzed the viability of both terminal alternatives as well as the timing of the Third Runway.

H. Many of the items included in this Agreement address and implement the newly adopted PDX 2010 Master Plan and City Land Use Plan (Comprehensive Plan and Zoning Code Amendments, including the newly created Airport Plan District). This Agreement provides a common thread between the above-referenced documents in an effort to address future airport development in a manner that contributes to the long term economic, environmental, and social health of the region.

NOW, THEREFORE, in consideration of the promises and covenants contained in this Agreement, and for other good and valuable consideration, the receipt of which is hereby acknowledged, the parties agree as follows.

## **AGREEMENT**

### **1. RECITALS**

The Recitals above are incorporated into and are a part of this Agreement.

### **2. AIRPORT FUTURES PROCESS AND PAG RECOMMENDATIONS**

The following PAG recommendations have been considered and are accepted by the Port and the City.

#### **2.1 Third Runway**

The necessity of a Third Runway during the Planning Period was evaluated during Airport Futures and it was determined a Third Runway is not required to accommodate the forecast demand for the Planning Period. If conditions change which justify the runway, preliminary analysis indicates a shorter runway that is eighty five hundred (8,500) feet long and one hundred fifty (150) feet wide could accommodate the operational requirements of the majority of aircraft in the forecast fleet mix. A City legislative planning process will be required to amend the Airport Plan District to allow it to be built. Both parties acknowledge that any such runway will be subject to Federal review under the National Environmental Policy Act ("NEPA") or any successor federal environmental screening process. At the time a NEPA review may be required, both parties agree to work collaboratively with any applicable federal agencies to coordinate and execute a NEPA review process.

## **2.2 Terminal Alternatives**

The centralized and decentralized terminal alternatives were analyzed during the Airport Futures process. While neither alternative was found to be needed within the Planning Period, it was determined that for long-term growth of the Airport the centralized alternative would be the most sustainable choice. The parties agree that the terminal will remain centralized during the Planning Period. Any expansion of the passenger terminal during the Planning Period will be consistent with a future centralized terminal concept, as described in the 2000 Airport Master Plan.

## **3. TRANSPORTATION**

The Port and City recognize the transportation system surrounding the Airport serves not only Airport users, but connects to other City and State roads serving surrounding neighborhoods and businesses. An executive summary of the Airport Futures Traffic Impact Analysis ("TIA"), attached hereto as **Exhibit A**, was conducted as part of the Airport Futures process. The Port and the City agree that future Airport traffic impact analyses shall occur consistent with the requirements in Portland City Code Section 33.565.340 Transportation Impact Analysis Review, or if some significant change in the airport layout or operations is proposed that warrants another review. In this event, further analysis beyond the current TIA will be conducted to consider whether the obligations set forth in this Agreement are then reasonably appropriate, and if not, this Agreement shall be amended to address the changed conditions.

### **3.1 Intersection Improvements**

The Port and the City recognize that as transportation demand to and from the Airport increases, existing transportation infrastructure may fail, and improvements will be necessary. The Port and City, through the Portland Bureau of Transportation ("PBOT"), are collaborating to implement two primary improvement projects. One project on NE Columbia Boulevard, encompassing the intersections of N.E. Alderwood Road and N.E. Cully Boulevard, and the second project at the intersection of N.E. 33<sup>rd</sup> Avenue and N.E. Marine Drive. Recommended improvements and the Port's proportionate share are detailed in **Exhibit A**. The intersections referenced in this Section shall be improved with the Port contributing its proportionate share of the expense to the impacts determined to be attributed to the Airport, except as otherwise stated.

#### **3.1.1 N.E. Columbia Boulevard at N.E. Alderwood Road and at N.E. Cully Boulevard**

Improvements at these intersections ("Columbia Project") will include implementation of signals and turn lanes on N.E. Columbia Blvd. at N.E. Alderwood Rd, and N.E. Cully Blvd. It is agreed that the Columbia Project shall be required at such time as the Airport reaches fifteen (15) million annual passengers ("MAP") as Airport growth and development at that time shall cause the intersection to fail as demonstrated in **Exhibit A**. The parties agree to detail the scope of the improvements for the Columbia Project in a memorandum of understanding between the parties. The Port shall pay no more than its proportionate share of the improvements to the Columbia Project.

#### **3.1.2 N.E. 33<sup>rd</sup> Avenue and N.E. Marine Drive**

Improvements at this intersection will include implementation of a signal. It is agreed that these improvements shall be required at such time as the Airport's Northwest Quad is

developed with a new general aviation operator or something resulting in a reasonably similar or greater traffic impact. The Port may require intersection improvements to be paid by a third party responsible for developing the Northwest Quad but in no case shall the Port pay more than its proportionate share as detailed in **Exhibit A**.

### **3.1.3 Design, Delivery, and Timing**

Prior to construction of any of the above identified mitigation projects the Port shall conduct the project consistent with City standards and obtain any necessary permits to construct it, or enter into a project specific intergovernmental agreement with the City to ensure its construction. The City and Port acknowledge that many factors related to design, funding, permits, and construction can influence the project delivery schedule. The City and Port agree to work cooperatively and in good faith in an effort to deliver the complete mitigation in an efficient and timely manner. The City and Port acknowledge that changed circumstances or requirements may result in the need to delay project implementation to a more appropriate time. Should the need arise, the City Engineer may authorize the delay of a project, with full concurrence of the Port to some mutually agreed upon time.

## **3.2 Transportation Impact Analysis**

Portland City Code Section 33.565.340 requires the Airport to submit a transportation impact analysis to study future airport transportation impacts for increments of six (6) MAP commencing when the Airport reaches twenty-one (21) MAP.

### **3.2.1 Identified Intersections**

The 2010 Airport Futures Transportation Impact Analysis identified four intersections to be included, at a minimum, in the first phase analysis (21 MAP to 27 MAP).

- (a) N.E. Airport Way and N.E. 122<sup>nd</sup> Ave;
- (b) N.E. Airport Way and Interstate 205 northbound on-ramp;
- (c) N.E. 82<sup>nd</sup> Ave and NE Alderwood Road; and
- (d) N.E. Columbia Boulevard and the east ramp of N.E. 82<sup>nd</sup> Avenue.

### **3.2.2 Future Transportation Analyses**

The Port agrees to submit a draft scope of work for the Phased TIA to PBOT for informal review six (6) weeks prior to publishing a request for proposals. The Port also agrees to submit the final Phased TIA to PBOT eight (8) weeks prior to application for a Transportation Impact Analysis Review as defined in Title 33, Planning and Zoning, Section 565.340.

## **3.3 Regional Transportation System Improvements**

The Port and the City acknowledge that several regional and local transportation system improvements are desired to improve the livability and economic vitality of the areas surrounding the Airport. The Port and the City agree to reasonably advocate for the implementation of these transportation improvements and to seek funding for them when such improvements are appropriate and necessary. The Port and City agree to work closely to coordinate funding requests from state and federal sources when appropriate and available.

### **3.4 Public Mass Transit Cooperation**

The Port and City agree to continue efforts to implement, maintain and improve the transportation programs surrounding the Airport. The Port will continue to work collaboratively with TriMet and the City to achieve a high rate of transit ridership for employees and passengers. In acknowledgement of the large number of airline passengers and airport employees residing in Washington State, the Port and City agree to work with C-Tran in an effort to establish better transit service from Washington State to the Airport.

### **3.5 Pedestrian and Bicycle Network**

The Port and City agree to continue efforts to promote and improve pedestrian and bicycle access to the Airport and from the adjacent residential neighborhoods to the south to the Airport. The Port and City acknowledge that the Port's current Pedestrian and Bicycle Plan is consistent with the City's requirements for bicycle and pedestrian access. The Port supports the development of pedestrian and bicycle plans on Port property - subject to the Port's Pedestrian and Bicycle Plan and consistent with FAA requirements regarding the use of airport funds and airport lands.

## **4. SUSTAINABILITY**

The City and the Port affirm their commitment to sustainability and to applying principles that promote sustainability in the future development at the Airport. An underlying tenet of these principles is the common understanding that the Airport is a gateway for the region that reflects the high value Portland places on economic development, environmental stewardship, and social responsibility, as detailed in **Exhibit B**.

### **4.1 PAG Sustainability Recommendations**

The Port and City acknowledge the innovative and thoughtful deliberations of the PAG during the Airport Futures process which culminated in the PAG's Visions and Values, Guiding Principles, and Goals (attached hereto as **Exhibit B**). These concepts will inform decisions concerning future development and operations at the Airport. The Port and the City agree to coordinate efforts related to sustainability. The City and Port agree to an annual review and refinement of **Exhibit B**, in consultation with the PDX Community Advisory Committee ("PDX CAC"), under the principle of adaptive management. The Port and City will annually measure and report its success in achieving sustainability efforts to the PDX CAC, Port Commission, and City Council.

## **5. NOISE**

The Port and City agree to implement those PAG recommendations contained within Section 5 which resulted from the Airport Futures analysis of Airport created noise impacts to the surrounding community.

### **5.1 City's Noise Impact Overlay Zone**

The Port created the Noise Management Program in 1979 in an effort to address concerns regarding noise impacts to the surrounding communities. The 65 day-night average sound level contour ("DNL"), which is the area regulated by federal and state agencies, has decreased in size over time since 1990. The City regulates airport-generated noise through Portland Zoning Code Chapter 33.470 Portland International Airport Noise Impact Overlay Zone ("Noise Overlay"). The Noise Overlay is based upon the 1990 DNL contours. Although the 1990 based Noise

Overlay contours are larger than the current noise contours, the PAG recommended and the Port and the City agreed during the Airport Futures process that the City should plan for the possible expansion of noise impacts in the future and therefore maintain the current 1990 based Noise Overlay. Furthermore, in an effort to inform and mitigate noise impacts, the PAG recommended, and the Port and the City agreed, that the City should expand the Noise Overlay to include areas within the 55 DNL for 2035 as a way to notify people that the area within that Noise Overlay is subject to higher frequencies of jet aircraft overflights. The Code has been updated to include the 55 DNL in the Noise Overlay with specific disclosure requirements.

## **5.2 Noise Working Group**

The Port and the City established a Noise Work Group ("NWG") to continue to analyze noise issues related to the Airport. The NWG consisted of a 'Core Team' which included City, Port, and City of Vancouver staff, members of the Citizen Noise Advisory Committee, PAG members, and other interested members of the region. The NWG commenced on December 10, 2009 and executed the Work Scope attached hereto as **Exhibit C**. The work of the NWG is anticipated to take between six (6) months to a year to complete at which time the NWG will terminate.

## **5.3 Noise Contour Updates**

The Port agrees to periodically update the PDX noise contours based upon one or more of the following:

- (a) the Port will prepare an update of the noise contours as part of an update of the PDX FAA Part 150 Program, upon reaching 275,000 annual operations, and at least every 50,000 annual operations increase thereafter; or
- (b) upon any change or adoption of a new noise metric made by the FAA; or
- (c) upon development of noise contours as part of a Federally required NEPA process; or
- (d) based upon substantially changed conditions at the airport (such as a significant change in the noise characteristics of the aircraft fleet or the time of day profile).

The Port will report the updated contours to the PDX CAC, the City, and the City of Vancouver and will work with those organizations to determine the significance of any change and whether a change in the land use regulations using those contours is warranted.

## **6. TERM**

The term of this Agreement shall be from the Effective Date through the end of the Planning Period, December 31, 2035, unless terminated or amended as set forth in this Agreement.

## **7. DISPUTE RESOLUTION**

In the event a dispute arises between the parties involving this Agreement, the parties shall use their best efforts to settle such disputes, questions, or disagreement. To this effect, the parties shall consult and negotiate with one another in good faith and, recognizing their mutual interests, attempt to reach a just and equitable solution satisfactory to all parties.

## **8. AVAILABILITY AND APPROPRIATION OF FUNDS**

It is understood that the parties are public agencies with the fiduciary duty to expend public funds in accordance with applicable law. Furthermore, the Port is subject to federal grant assurances directing the expenditure of airport revenue. All obligations of both the Port and City are contingent upon funding being available and appropriated. Both parties agree that they will strive to attain funding necessary to meet their respective obligations under this Agreement.

## **9. CHANGED CONDITIONS**

If the physical configuration or operation of the Airport should require a legislative amendment to the Plan District within the Planning Period, the Port and City agree that the obligations set forth in this Agreement may no longer be appropriate or warranted. If such change occurs, the City and Port agree to review this Agreement and make any reasonably necessary amendments in order to address the changed conditions, or if appropriate, terminate this Agreement altogether. If such a change occurs, the parties will make every reasonable effort to bring the condition to the PDX CAC for discussion and input.

## **10. CAPACITY TO EXECUTE**

The parties each warrant and represent to one another that this Agreement constitutes a legal, valid and binding obligation of that party. The individuals executing this Agreement personally warrant that they have full authority to execute this Agreement on behalf of the party for whom they purport to be acting.

## **11. COUNTERPARTS**

This Agreement may be executed in counterparts, each of which shall be deemed to be an original, and such counterparts shall constitute one and the same instrument.

## **12. DEFINED TERMS**

Capitalized terms shall have the meaning given them in the text herein.

## **13. ENTIRE AGREEMENT**

This Agreement represents the entire agreement between the parties relating to the parties responsibilities address herewithin. This Agreement has been thoroughly negotiated between the parties; therefore, in the event of ambiguity, there shall be no presumption that such ambiguity should be construed against the drafter.

## **14. GOVERNING LAW**

This Agreement shall be governed, construed and enforced in accordance with the laws of the State of Oregon. Jurisdiction shall be with Multnomah County Courts or the Federal Court located in Portland, Oregon.

## **15. HEADINGS**

The section headings contained herein are for convenience in reference and are not intended to define or limit the scope of any provision of this Agreement.

## **16. MODIFICATION**

Except as specifically set forth herein, this Agreement may not be modified or amended except by a written instrument duly executed by the authorized signatories for the parties hereto.

## 17. TERMINATION

This agreement may be terminated by mutual written agreement of both parties or by thirty (30) calendar days written notice by either party. Termination of this Agreement does not necessarily prohibit the continuation of the PDX CAC.

IN WITNESS HEREOF, the parties have subscribed their names hereto effective as of the year and date first written above.

### THE CITY OF PORTLAND


By:   
Sam Adams, Mayor

Date: 5/12/11

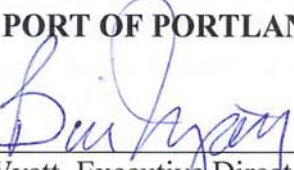
By:   
LaVonne Griffin-Valade, Auditor

Date: 5/13/11

APPROVED AS TO FORM FOR THE CITY:

By:  <sup>KSB</sup>  
CITY ATTORNEY  
Counsel for the City of Portland

### THE PORT OF PORTLAND

By:   
Bill Wyatt, Executive Director

Date: May 19, 2011

APPROVED FOR LEGAL SUFFICIENCY  
FOR THE PORT:

By:   
Counsel for The Port of Portland



**EXHIBIT A**  
**AIRPORT FUTURES TRAFFIC IMPACT ANALYSIS**  
**CHAPTER 1 – EXECUTIVE SUMMARY**

The following chapter summarizes key highlights from the entire Airport Futures Transportation Impact Analysis document. Key areas of interest include existing conditions, growth expectations, future conditions, and recommended mitigation.

**Introduction**

Traditionally the Port of Portland International Airport and surrounding port related land uses have submitted a Conditional Use Master Plan (CUMP) to the City of Portland for future growth in and around the airport because the land use designation (zoning) for an airport does not exist for the current terminal location. The submittal occurs every ten years and includes expected growth for the airport for the next ten years.

The Port of Portland is now seeking a permanent legislative land use designation, which will eliminate the need for submitting a CUMP application every ten years, and allow the Port of Portland to coordinate with the City of Portland for a longer time period for expected growth for the Port. In addition, this is a more efficient utilization of both Port and City resources for reviewing and approving growth and potential impacts associated with expansion of Port facilities.

A collaborative process between the City of Portland, the Oregon Department of Transportation, and the Port of Portland was established to help foster this permanent legislative land use designation. To help determine potential impacts associated with growth, a transportation impact analysis was undertaken in which the existing transportation conditions were analyzed, future growth for the Port was estimated for two planning horizons, future impacts to the transportation infrastructure was estimated base on that expected growth, and recommended mitigation for those planning horizons were developed. The following summarizes the results of this process.

**Existing Conditions**

Two study areas were determined for this project: the primary and secondary areas. The secondary area was selected to gain a better understanding of transportation conditions further away from the airport area (including local neighborhoods), while the primary study area was focused in the immediate Port properties area and included intersection data to be collected as well.

Within the primary study area (bounded by the Columbia River to the north, NE 122<sup>nd</sup> Avenue to the east, NE 33<sup>rd</sup> Avenue to the west, and NE Killingsworth Street to the south) there were almost 20 intersections where existing transportation data was collected. This data included pedestrian activity, bicycle activity, and motor vehicle turning counts. In addition, transit data for both buses and the MAX were collected at stops. Here is a key summary of each mode:

- **Pedestrian/Bicycle** – With a number of sidewalks and off-street paths in the study area, there is a minimal number of pedestrians crossing at study area intersections. All intersections had less than three pedestrians crossing either in the AM or PM peak hours, with the exception of NE Alderwood Road/NE Holman Road which had a total of eight crossings in the PM peak hour, but only two crossings in the AM peak hour. Gaps in the current pedestrian infrastructure exist along

NE Cornfoot Road, NE 82<sup>nd</sup> Avenue (south of NE Alderwood Road), NE Airport Way and NE Alderwood Road.

Similar peak hour count data was collected for bicycles at study intersections. Most intersections had minimal activity with the exception of NE Columbia Boulevard/NE 47<sup>th</sup> Avenue. This intersection had 11 bicycles during the AM peak hour, and 12 bicycles during the PM peak hour. There are gaps in the designated bicycle facilities on NE 82<sup>n</sup> Avenue, NE Airport Way, NE Alderwood Road, NE Cornfoot Road, and NE Cully Boulevard.

It should be noted that either the Port of Portland or City of Portland have pedestrian and bicycle designations for facilities that have existing gaps. In addition, NE Airport Way is an area of future study for pedestrian and bicycle connectivity. There are also a number of off-street multi-use paths where data was not collected that serve pedestrians and bicycles in the area.

- **Transit** – Within the study area the MAX serves approximately 6,000 daily on/off riders, with the majority of those on/offers occurring either at the Parkrose Transit Center (1,900 daily) or the Portland International Terminal (3,250 daily). There are five bus routes that service the study area, and the bus stops have far less activity on a daily basis than the MAX line. Most individual bus stops have 50 or less on/offers during the day, with the exception of the Parkrose Transit Center which has approximately 1,560 daily bus on/offers.
- **Motor Vehicle** – Generally the PM peak had higher activity levels than the AM peak hour, although the intersection of NE 82<sup>nd</sup> Avenue/NE Airport Way has a peak of motor vehicle activity during the mid day. The following intersections do not meet jurisdictional standard for the respective time periods:

**Table 1-1**

**Existing Intersections Not Meeting Jurisdictional Standard**

AM Peak Hour	PM Peak Hour
<ul style="list-style-type: none"> <li>• NE Alderwood Road/NE Cornfoot Road*</li> <li>• NE Killingsworth St/I-205 Southbound</li> </ul>	<ul style="list-style-type: none"> <li>• NE Airport Way/I-205 Northbound**</li> <li>• NE Airport Way/NE 122<sup>nd</sup> Avenue*</li> <li>• NE Alderwood Road/NE Cornfoot Road*</li> <li>• NE Columbia Blvd/NE Alderwood Road**</li> <li>• NE Columbia Blvd/NE 82<sup>nd</sup> Ave Southbound**</li> <li>• NE Killingsworth St/I-205 Southbound</li> </ul>

\* - Indicates an intersection with a recently constructed and/or finished improvement (after analysis).

\*\* - Indicates an intersection with a planned future improvement.

Collision data was also evaluated for all of the study intersections and it was found that all intersections had a calculated collision rate of less than 1.0 for the most recent three years of data, except the intersection of NE Killingsworth Street/I-205 Northbound, with a rate of 1.44.<sup>1</sup> Collision rates that are calculated over 1.0 represent locations where existing safety concerns are present.

### Planning Horizon/Future Growth

Two planning horizons have been selected for future forecasting and analysis. These two years are 2022 and 2035. The planning horizon of 2022 was selected to help identify potential shorter term

<sup>1</sup> "A rule of thumb is that intersections with a crash rate of 1.0 or greater is generally considered to be an indication that further investigation is warranted." Oregon Department of Transportation (ODOT) Transportation Planning and Analysis Unit (TPAU) Analysis and Procedures Manual, April 2006 (updated July 2009), page 5-5.

improvements to help prioritize those improvements for funding. The interim planning horizon year also corresponds to an interim planning horizon year in the Airport Futures Master Plan (Planning Activity Level 3). The 2035 planning horizon was selected because it is the Airport Futures Master Plan horizon year (Planning Activity Level 5), as well as it coinciding with the current Metro Regional Transportation Plan for future forecasting.

**Table 1-2**  
**Existing and Future Planning Horizon Growth Assumptions**

	Existing (2008)	2022 <sup>*</sup>	2035 <sup>*</sup>
<b>No-Build</b>	14.3 Million Annual Passengers (MAP)	<ul style="list-style-type: none"> <li>• 18.6 MAP<sup>**</sup></li> <li>• 53% background growth<sup>***</sup></li> <li>• 0% proposed land uses</li> </ul>	<ul style="list-style-type: none"> <li>• 18.6 MAP<sup>**</sup></li> <li>• 100% background growth</li> <li>• 0% proposed land uses</li> </ul>
<b>Build</b>		<ul style="list-style-type: none"> <li>• 21.0 MAP</li> <li>• 53% background growth<sup>***</sup></li> <li>• 53% proposed land uses<sup>***</sup></li> </ul>	<ul style="list-style-type: none"> <li>• 26.8 MAP</li> <li>• 100% background growth</li> <li>• 100% proposed land uses</li> </ul>

**SOURCE:** Port of Portland

Notes:     \*     Future planning horizon MAP for 2035 documented in *Airport Futures Master Plan: Technical Memorandum no. 2 – Aviation Demand Forecasts*, September 2008, Table 18, page 5-17. Planning horizon MAP for 2022 was interpolated between planning horizon MAPs for 2017 and 2027 from the same document.

          \*\*     Approved level of passenger activity in the 2003 Conditional Use Master Plan

          \*\*\*    The 53% of background growth (and proposed land uses) for the planning horizon of 2022 assumes a straight line growth between existing volumes and future 2035 volumes

Proposed growth for Port facilities by 2035 (beyond approved growth from the 2003 CUMP) includes approximately 8.2 million annual passengers at the terminal, 175,000 square feet at AirTrans Center, 15,000 square feet of commercial space in the North Frontage Road area, a compressed natural gas facility in South Airport Way area, and potentially new general aviation (similar to the existing Flightcraft area) in the Northwest Quadrant area.

### Future Conditions

Based on the projected growth for the Port facilities, the two planning horizon years were forecasted for the PM peak hours for both the No-Build and Build conditions. While the airport terminal has a peak during the midday, the PM peak hour was selected due to the fact that the existing traffic count data indicated that the this period has the highest level of traffic activity at intersections (which would indicate the worst traffic conditions) in comparison to the midday or AM peak hour.<sup>2</sup>

### Mitigation Criteria

Mitigation measures or facility improvements will be identified where future conditions do not meet the identified performance measures set forth by the City of Portland and the Oregon Department of Transportation for intersection operations. In situations where the facility is not meeting the established performance standards under No Build conditions, the facility will be mitigated if it has a significant impact under Build conditions based on an additional 10 seconds of delay and/or an increase of 0.05 V/C ratio or more beyond No Build conditions. In these cases, the improvements will try to mitigate the significant impacts, at a minimum.

<sup>2</sup> The midday does create a higher condition of traffic at NE 82<sup>nd</sup> Avenue/NE Airport Way than the PM peak, but all other intersections have higher traffic activity during the PM peak hour.

### *2022 Planning Horizon*

The future year of 2022 has minor impacts under the Build condition compared to the No-Build condition primarily due to the fact that a passenger activity level of 18.6 MAP is already approved under the 2003 CUMP with the City of Portland, and the 2022 conditions only adds an additional 3.4 MAP to the roadway system, and minor additional land uses. The following list shows the potential intersections with impacts under the Build 2022 PM peak hour:

- NE Columbia Boulevard/NE Alderwood Road (+11 seconds)
- NE Columbia Boulevard/NE Cully Boulevard (greater than 100 seconds)
- NE Marine Drive/NE 33<sup>rd</sup> Avenue (+28 seconds)

All of these intersections do not meet jurisdictional standard under the No-Build and Build conditions. However all intersections under the Build condition increase delay by 10 seconds or more, or increase volume-to-capacity ratio by 0.05 or more. It is expected that all of these intersections would need mitigation based on the criteria for significant impact.

### *2035 Planning Horizon*

The future 2035 conditions were also analyzed for potential impacts to the transportation infrastructure. Based on the growth projected by 2035 for both background and Port facilities, there are seven intersections that do not meet jurisdictional standard and have either 10 seconds or more of additional delay, and/or an increase in V/C ratio of 0.05 or more. The following list shows intersections with potential impacts under the Build 2035 PM peak hour:

- NE Airport Way/Interstate 205 northbound on-ramp (+0.11 V/C ratio)
- NE Airport Way/NE 122<sup>nd</sup> Avenue (+20 seconds)
- NE 82<sup>nd</sup> Avenue/NE Alderwood Road (+15 seconds)
- NE Columbia Boulevard/NE Cully Boulevard (greater than 100 seconds)
- NE Columbia Boulevard/NE Alderwood Road (greater than 100 seconds)
- NE Columbia Boulevard/NE 82<sup>nd</sup> Avenue Northbound (+0.19 V/C ratio)
- NE Marine Drive/NE 33<sup>rd</sup> Avenue (+11 seconds)

The intersections of NE Alderwood Road/NE Cornfoot Road and NE Cornfoot Road/NE Airtrans Way also had more than 10 seconds of delay associated with the Build condition, however they still met jurisdictional standard and therefore do not have a significant impact. All other intersections listed would be considered to have a significant impact and would require mitigation.

### **Recommendations**

The impacts at the study area intersections were evaluated for both the 2022 and 2035 PM peak hours to determine potential recommendations to mitigate those impacts. The following table summarizes the potential mitigation strategies for the intersections that have impacts identified for the shorter planning horizon of 2022 and the trigger years/development associated with those mitigations.

**Table 1-3**  
**Potential Mitigation Strategies for 2022 Planning Horizon**

Intersection	Mitigation	Trigger Year/Development
<b>Alderwood Rd/Columbia Blvd</b>	Signalize intersection with center turn lane on NE Columbia Boulevard*	2010/15.0 MAP
<b>NE Columbia Blvd/NE Cully Blvd</b>	Signalize intersection with center turn lane on NE Columbia Boulevard*	2010/15.0 MAP
<b>NE Marine Dr/NE 33<sup>rd</sup> Avenue</b>	Signalize intersection	2010/15.0 MAP

Notes: \* Proximity of intersections would most likely require side-by-side left turns, rather than back-to-back left turns. This would widen NE Columbia Boulevard to a six lane section in this area.

As can be seen in the preceding table, many of these mitigation strategies are needed within the next few years. This is primarily due to the fact that all of these intersections are unsignalized and the volume on the “mainline” (free flow movement) reaches levels that have significant delay associated with side street (stop controlled) movement. Any additional traffic added to the side streets increases the delay for the side street, as well as any additional volume on the mainline can cause delay for the side streets.

The mitigation strategies outlined previously allow for adequate operations in the future planning horizon of 2035 as well. Beyond the 2022 planning horizon, potential mitigation strategies have been identified for the additional intersections beyond 2022. The 2035 planning horizon is meant to identify intersections that may need to be looked at in further detail beyond the immediate planning horizon. The following summarizes potential mitigation strategies for these locations.

- NE Airport Way/NE 122<sup>nd</sup> Avenue – Additional eastbound left turn lane, and/or separate westbound right turn pocket.
- NE Airport Way/Interstate 205 Northbound – Grade separate the intersection to allow the eastbound left turns to not conflict with the westbound through volume.
- NE 82<sup>nd</sup> Avenue/NE Alderwood Road – Additional eastbound through lane (with shared right turn movement), and overlap phases for all separate right turn pockets at the intersection.
- NE Columbia Boulevard/NE 82<sup>nd</sup> Avenue Northbound – Signalize intersection with protected eastbound phasing.

These listed mitigations would allow for adequate intersection operations by 2035, however because these potential impacts are beyond the immediate 2022 planning horizon year, these intersections represent locations to monitor based on how future growth (and the rate of growth) occurs at Port facilities. The above listed mitigation strategies is preliminary and may be subject to change upon future additional analysis.

## CHAPTER 5 – RECOMMENDATIONS

The following chapter summarizes the potential recommendations to mitigate identified impacts associated with the proposed growth for Port facilities at intersections for both the immediate planning horizon of 2022, as well as identifying potential solutions for the longer term planning horizon of 2035.

The potential recommendations have been categorized into the two planning horizon periods because the shorter planning horizon of 2022 represents a time period where required mitigation would most likely be implemented, while the longer planning horizon helps to identify intersections that may need potential solutions further out and should be monitored and updated in the future depending on the rate at which the Port facilities may grow. For this reason, detailed mitigation has been developed for the shorter 2022 planning horizon, while potential strategies are outlined (but not detailed) for the longer 2035 planning horizon.

### **2022 Planning Horizon**

Each of the three intersections that were identified as having an impact based on projected growth from Port facilities by the planning horizon of 2022 was evaluated during the PM peak hour to determine potential mitigation strategies to achieve governing jurisdictional standards. In addition, the No-build conditions for the same planning horizon were evaluated to determine if mitigation even without the project would be necessary to meet jurisdictional standard. The two sets of mitigation were then compared to determine if the Build condition would require any additional mitigation beyond that which would be necessary under the No-build condition (if mitigation was necessary). The following outlines this analysis for each individual intersection.

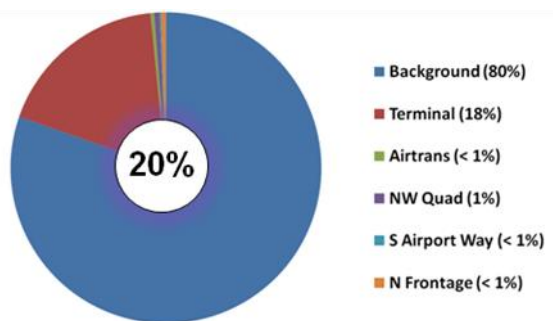
#### *NE Columbia Boulevard/NE Cully Boulevard*

This intersection fails in the future under both the No-build and Build conditions due to significant delay on the side street which is stop controlled, caused from heavy volumes on the mainline (NE Columbia Boulevard). These heavy volumes make it difficult for side street traffic to turn onto NE Columbia Boulevard, especially with northbound left turns. The future configuration of this intersection has NE Columbia Boulevard as a five-lane facility (two through lanes in each direction with a center turn lane), and a shared left/right northbound approach. Due to the proximity of the NE Cully Boulevard, and Alderwood Road intersections on NE Columbia Boulevard, the intersections would most likely require side-by-side left turns, rather than back-to-back left turns, and therefore would require a six-lane cross section in this area. Additional side street geometry to allow for separate left and right turn pockets only reduces the delay for the right turns and allows for acceptable delay, however the northbound left turn still does not meet the jurisdictional standard of LOS E during the PM peak hour.

Signal warrant analysis was conducted for this intersection to determine if the intersection would be a likely candidate for implementation of a signal. Based on the peak hour warrant, this intersection would meet the signal warrant criteria under both the No-build and Build conditions, and therefore potential mitigation may include signalization. With a signal as potential mitigation, the intersection would meet jurisdictional standard and would operate at an LOS B or better under No-build or Build conditions.

In addition, the proportionate share of traffic related to Port facilities and background traffic was estimated for the 2022 PM peak hour at the intersection of NE Columbia Boulevard/NE Cully Boulevard. Based on future forecasting, it is estimated that 20% of the total future traffic forecasted at this intersection is related to net new traffic associated with Port facilities. Background traffic at this intersection is approximately 80% of total traffic. Existing traffic has been removed from this estimate and these percentages only represent net new traffic in the future.

**Proportionate Share of Net New Traffic at Intersection**



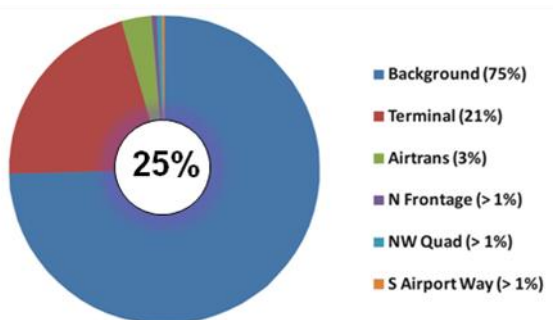
#### NE Columbia Boulevard/NE Alderwood Road

Similar to the previous intersection mentioned, the intersection of NE Columbia Boulevard/NE Alderwood Road is an unsignalized side street stop controlled intersection with NE Columbia Boulevard operating with a free flow movement. Delay to the side street (NE Alderwood Road) is heavy due to the heavy mainline volumes on NE Columbia Boulevard. NE Alderwood Road currently has separate left and right turn pockets/lanes approaching NE Columbia Boulevard, and both turn lanes experience LOS F during the PM peak hour.

Signal warrant analysis was conducted for this intersection to determine if the intersection would be a likely candidate for implementation of a signal. Based on the peak hour warrant, this intersection would meet the signal warrant criteria under both the No-build and Build conditions, and therefore potential mitigation may include signalization. With a signal as potential mitigation, the intersection would meet jurisdictional standard and would operate at an LOS C or better under No-build or Build conditions.

In addition, the proportionate share of traffic related to Port facilities and background traffic was estimated for the 2022 PM peak hour at the intersection of NE Columbia Boulevard/NE Cully Boulevard. Based on future forecasting, it is estimated that 25% of the total future traffic forecasted at this intersection is related to net new traffic associated with Port facilities. Background traffic at this intersection is approximately 80% of total traffic. This excludes existing traffic and only represents net new traffic in the future.

**Proportionate Share of Net New Traffic at Intersection**



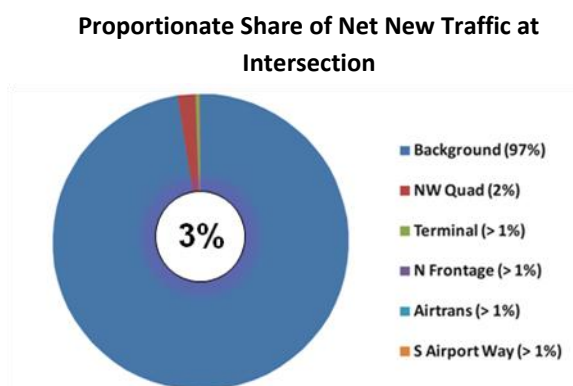
#### NE Marine Drive/NE 33<sup>rd</sup> Avenue

This intersection is similar to the previous intersections in that it is a "Tee" intersection with side street stop control on NE 33<sup>rd</sup> Avenue, and NE Marine Drive is allowed to operate in a free flow environment. Heavy volumes on NE Marine Drive create delay on NE 33<sup>rd</sup> Avenue beyond jurisdictional standards for both the No-build and Build conditions.

Signal warrant analysis was conducted for this intersection to determine if the intersection would be a likely candidate for implementation of a signal. Based on the peak hour warrant, this intersection would

meet the signal warrant criteria under both the No-build and Build conditions, and therefore potential mitigation may include signalization. With a signal, and a westbound left turn lane as potential mitigation, the intersection would meet jurisdictional standard and would operate at an LOS C or better under No-build or Build conditions, however the volume-to-capacity at the intersection is getting near a 1.00 condition during the PM peak hour which would indicate constrained conditions.

In addition, the proportionate share of traffic related to Port facilities and background traffic was estimated for the 2022 PM peak hour at the intersection of NE Columbia Boulevard/NE Cully Boulevard. Based on future forecasting, it is estimated that 3% of the total future traffic forecasted at this intersection is related to net new traffic associated with Port facilities. Background traffic at this intersection is approximately 80% of total traffic. This excludes existing traffic and only represents net new traffic in the future.



It should be noted that if the land use in the Northwest Quadrant is removed, or pushed out beyond the 2022 planning horizon year, the net new traffic at this intersection is estimated to be 1% or less, and would not be considered to have a significant impact.

#### Summary of 2022 Mitigation Strategies

Based on the potential impacts, the recommended mitigation strategy for each intersection has been identified in the following table. In addition, the estimated trigger year of when the proposed mitigation is needed, and the mitigated intersection operations have been identified as well. This trigger year has been correlated to an estimated million annual passengers (MAP) at the terminal due to the terminal being the largest trip generator for potential development.

**Table 5-1**  
**Summary of 2022 Potential Mitigation Strategies and PM Peak Hour Operations**

Intersection	Mitigation	Mitigated Conditions			Trigger Year/Development
		LOS	Delay (seconds)	V/C	
<b>Alderwood Rd/ Columbia Blvd</b>	Signalize intersection with center turn lane on NE Columbia Blvd*	LOS C	32.7	0.85	2010/15.0 MAP
<b>NE Columbia Blvd/ NE Cully Blvd</b>	Signalize intersection with center turn lane on NE Columbia Blvd*	LOS B	16.4	0.59	2010/15.0 MAP
<b>NE Marine Dr/ NE 33<sup>rd</sup> Ave</b>	Signalize intersection, add westbound left turn lane	LOS C	32.6	1.00	2010/15.0 MAP

Notes: \* Proximity of intersections would most likely require side-by-side left turns, rather than back-to-back left turns. This would widen NE Columbia Boulevard to a six lane section in this area.

#### **2035 Planning Horizon**

In addition to the 2022 planning horizon, future potential impacts and mitigation strategies have been identified in the longer range 2035 planning horizon for the PM peak hour. Evaluating the 2035 impacts and potential mitigation strategies is primarily done to flag intersections that may become problematic in the future beyond the immediate planning horizon where funding would be secured for mitigation to be implemented (2022). This allows the opportunity to revisit intersections that may have potential

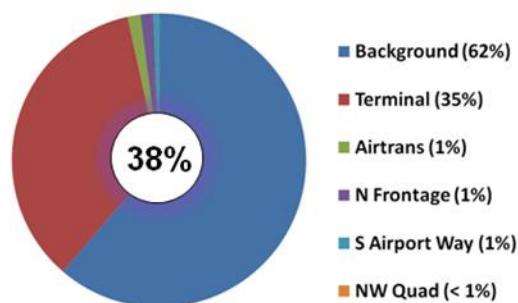


operational constraints in the future depending on the potential rate at which the Port facilities develop. It is not expected that mitigation would be pursued at these locations at this time. The following summarizes some potential mitigation strategies that may be considered for each of the intersections identified with a significant impact during the PM peak hour by 2035.

#### NE Airport Way/Interstate 205 northbound on-ramp

This intersection is over the jurisdictional standard of 0.85 V/C ratio during the PM peak hour by 2035 under both the No-Build and Build condition. The eastbound left turn conflicts with the westbound through movement which creates a V/C ratio over the standard. The intersection reaches a 1.0 V/C ratio under the Build condition (so it is not over capacity), and the No-build condition still has some available capacity with a V/C ratio of 0.89 during the PM peak hour. Potential improvements at this intersection would grade separate the eastbound left turns with the westbound through movement. With this mitigation strategy, the intersection will no longer have signal control and all movements will be free flowing, therefore, the intersection will have no V/C ratio.

**Proportionate Share of Net New Traffic at Intersection**

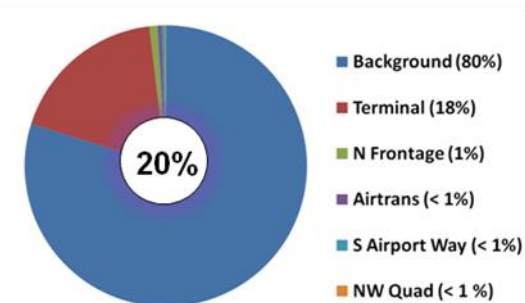


An assessment of the share of Port related traffic was evaluated at this intersection compared to background traffic. It is estimated that approximately 38% of net new traffic is related to growth with the Port land uses.

#### NE Airport Way/NE 122<sup>nd</sup> Avenue

This intersection is both over capacity and has high average delay beyond the jurisdictional standard of LOS D during the PM peak hour by 2035. The No-build condition is at LOS E, while the Build condition increases the intersection delay to LOS F. Additional capacity via separate turn lanes would allow for better operations of the intersection and reduce the potential delay allowing adequate intersection operations. Potential improvements include an additional eastbound left turn lane, and/or separate westbound right turn pocket. With these improvements, the intersection would operate at LOS E or better. The intersection will still not meet jurisdictional standards, but will no longer have a significant impact under 2035 build conditions beyond the 2035 no-build conditions, as the delay is reduced.

**Proportionate Share of Net New Traffic at Intersection**

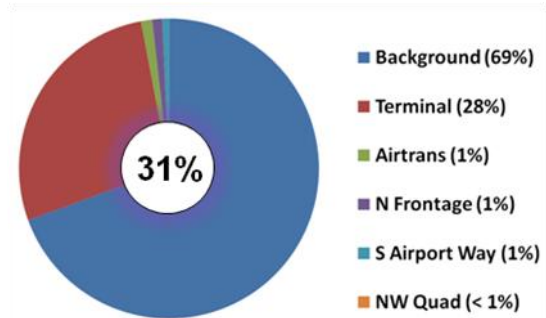


An assessment of the share of Port related traffic was evaluated at this intersection compared to background traffic. It is estimated that approximately 20% of net new traffic is related to growth with the Port land uses.

### NE 82<sup>nd</sup> Avenue/NE Alderwood Road

This intersection is over capacity and has an LOS E under No-build and LOS F under the Build conditions during the PM peak hour by 2035. The build condition adds approximately 16 seconds of additional delay to the intersection. Additional capacity at the intersection would allow for better operations including reduced delay. Potential improvements at this intersection include an additional eastbound through lane (which could be created by converting the separate eastbound right turn pocket to a shared through/right lane). In addition to help reduce overall delay, any separate right turn pocket phasing could overlap with concurrent left turn phasing. With these improvements the intersection would operate with a LOS E. The intersection would still not meet jurisdictional standards, but will no longer have a significant impact under 2035 build conditions beyond the 2035 no-build conditions, as the delay is reduced.

**Proportionate Share of Net New Traffic at Intersection**



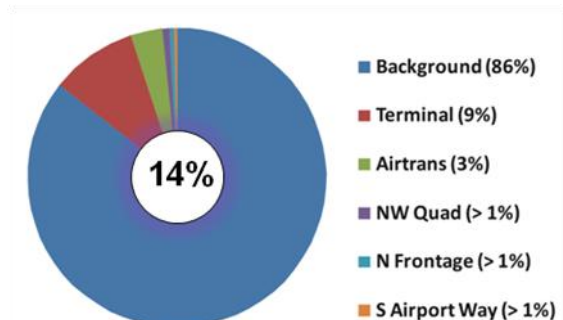
It should be noted that the additional westbound left turn pocket that was called out as an earlier improvement could shift the two existing eastbound through lanes on the east leg of the intersection to be in alignment with this potential improvement of an additional eastbound through lane. But consideration should be made at this intersection to allow for lane geometries (departing and receiving lanes) to occur concurrently to line up and create a safe transition.

An assessment of the share of Port related traffic was evaluated at this intersection compared to background traffic. It is estimated that approximately 31% of net new traffic is related to growth with the Port land uses.

### NE Columbia Boulevard/NE 82<sup>nd</sup> Avenue Northbound

This intersection has significant delay on the side street, as well as being over capacity standards of 0.99 V/C ratio, and LOS E during the PM peak hour by 2035. Additional lane geometry does little to reduce the delay or improve the capacity because the current geometry acts as a separate left and right turn lane. A potential improvement at this location would be to signalize the intersection with a protected eastbound left turn phase. A peak hour signal warrant was conducted for the PM peak hour and the intersection met signal warrant thresholds indicating the potential need for a signal. With these improvements, the intersection would meet jurisdictional standards and operate with a 0.83 V/C, and a LOS C or better.

**Proportionate Share of Net New Traffic at Intersection**



An assessment of the share of Port related traffic was evaluated at this intersection compared to background traffic. It is estimated that approximately 14% of net new traffic is related to growth with the Port land uses.

### 2035 Planning Horizon Potential Mitigation Strategies

The 2035 planning horizon is meant to identify intersections that may need to be looked at in further detail beyond the immediate planning horizon. The following table summarizes potential mitigation strategies, and intersection operations with the mitigations for these locations.

**Table 5-2**

#### **2035 Potential Mitigation Strategies and PM Peak Hour Operations**

Intersection	Potential Mitigation	Mitigated Conditions		
		LOS	Delay (seconds)	V/C
<b>NE Airport Way/NE 122<sup>nd</sup> Ave</b>	Additional eastbound left turn lane, and/or separate westbound right turn pocket	LOS E	70.5	1.04
<b>NE Airport Way/ I-205 NB</b>	Grade separate the intersection to allow the eastbound left turns to not conflict with the westbound through volume	-	-	-
<b>NE 82<sup>nd</sup> Ave/NE Alderwood Rd</b>	Additional eastbound through lane (shared with right turn pocket), and overlap phases for all separate right turn pockets at the intersection	LOS E	72.5	1.05
<b>NE Columbia Blvd/NE 82<sup>nd</sup> Ave NB</b>	Signalize intersection with protected eastbound phasing	LOS C	23.9	0.83

**SOURCE:** DKS Associates

These listed mitigations would allow for adequate jurisdictional intersection operations by 2035, however some intersections listed are still over capacity. Because these potential impacts are beyond the immediate 2022 planning horizon year, these intersections represent locations to monitor based on how future growth (and the rate of growth) occurs at Port facilities. The above listed mitigation strategies is preliminary and may be subject to change upon future additional analysis.



# AIRPORT FUTURES

CHARTING A COURSE FOR PDX

## EXHIBIT B

### PAG'S SUSTAINABILITY VISIONS AND VALUES, GUIDING PRINCIPLES, AND GOALS

#### VISIONS AND VALUES

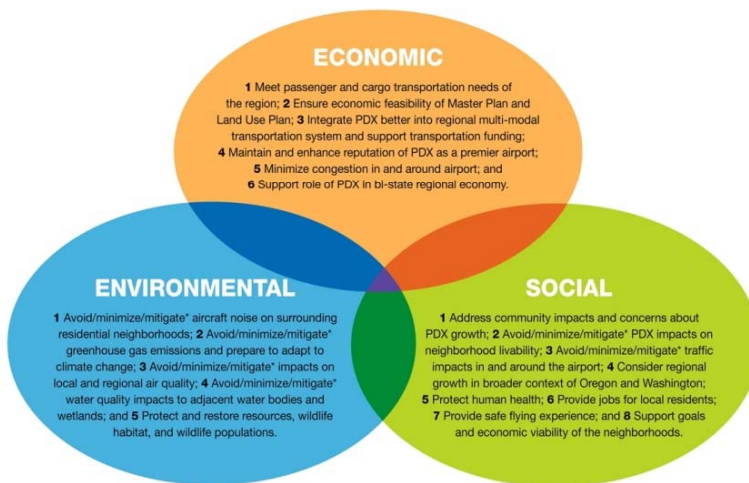
#### Airport Futures Planning Advisory Group

#### Vision and Values

Our **vision** is a PDX Master Plan and a City of Portland Land Use Plan that:

- 1 Allows the **City** to address the complex issues associated with PDX and their potential impacts,
- 2 Provides the **Community** with a greater opportunity to influence airport planning and development, and
- 3 Provides the **Port** with flexibility to respond to changing circumstances in airport development.

Sustainability is an overarching goal of this project. Sustainability means meeting the Region's air transportation needs without compromising the livability and quality of life for future generations. In this planning process, we will transparently explore and make recommendations that **fairly, realistically and optimally balance** the following **values and goals**:



In doing so, **our recommendations** will:

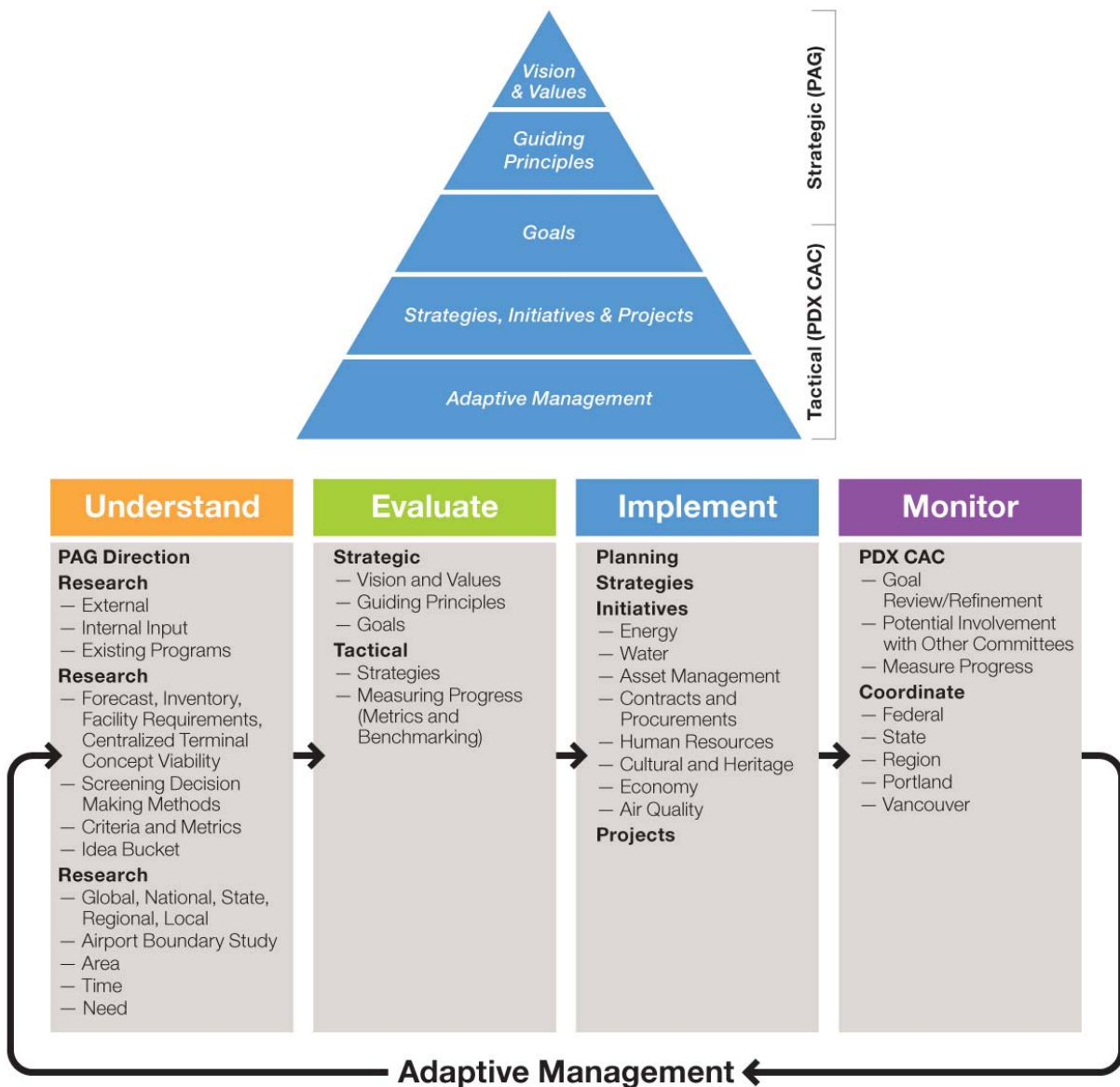
- 1 Balance and sustain economic, environmental, and social interests;
- 2 Integrate other local and regional planning efforts into Airport Futures planning and vice versa;
- 3 Provide long-term public involvement process with opportunities for meaningful public engagement and a voice in aviation development; and
- 4 Provide system to measure and track success and share results with public.

\*Avoid/minimize/mitigate means: first, avoid; if not, minimize and mitigate where adverse impacts cannot be avoided.

## GUIDING PRINCIPLES

Airport Futures Vision and Values recognize the long-term, critical interconnection between economic development, environmental stewardship, and social responsibility. The Port of Portland and City of Portland will use the following Guiding Principles as they work towards assuring PDX and the Airport Plan District become the most sustainable in the world.

These Guiding Principles should be read in conjunction with the adopted Vision and Values, and considered alongside the Sustainability Pyramid and Process Overview graphics that follow:



1. **Generational Fairness and the Triple Bottom Line:** Sustainability is not a choice because the world's resources are finite, calling for their most prudent and conservative consumption. The essence

of sustainability is to find a balance between the economic, environmental, and social equity of current and future generations. As the world shifts its emphasis from quantity to quality growth, we need to ensure the resources we consume and the pollution we generate are understood, considered, and balanced with future quality of life needs when making community planning, development, and governance decisions.

2. **Community:** Engage and involve our entire community and encourage our citizens to take responsibility for their individual actions to reduce resource use, production of pollution and waste. This requires collaboratively developing solutions that remove barriers and build upon existing private and public efforts to ensure efficient, timely, and complementary results.
3. **Measure Progress:** Establish and track clear, measurable goals, both short and long term, that are linked to those of our governmental partners (e.g., 2009 City of Portland and Multnomah County Climate Action Plan), do not default to regulatory minimums, and take responsibility for our proportional share of the problems and solutions without regulatory prompting.
4. **Stay Ahead of the Curve:** Supplement traditional regulatory approaches by taking voluntary actions with incentive-based and performance-oriented systems.
5. **Balance:** Explore alternative strategies to achieve objectives when current goals cannot be reconciled with future needs. Decisions should be made in consideration of their individual and cumulative economic, environmental and social impacts, and whether they substantially benefit or harm the health of the region for future generations.
6. **Economy:** Maintain and enhance PDX as a world class airport that meets the passenger and cargo transportation needs of the region and supports the role of PDX and the surrounding area in the bi-state regional economy.
7. **Reduce, Reuse, and Recycle:** Use resources (e.g. fossil fuel-derived energy) efficiently and reduce demand, rather than first looking to expand capacity. Commit to the maximum use of existing facilities. Consider alternative methods of managing demand, including the application of emerging technologies, before building new facilities. Prefer options that reduce pollution and waste.
8. **Avoid, minimize, mitigate and restore impacts to natural resources:** Where natural resources in special habitat areas or protection areas will be adversely impacted, apply the principles of avoid, minimize, mitigate and restore to ensure we fully mitigate for impacts and contribute to the overall net improvement of wildlife habitat quality, quantity and connectivity within the Columbia Slough Watershed.
9. **Continuous Learning and Education:** Emphasize on-going learning and adaptive management to inform and improve the process continually, consider future generations, and educate the public about goals and what was learned.
10. **Equity:** Ensure commitment to equity so impacts and the costs of protecting our resources do not burden unfairly any one geographic, socioeconomic, ethnic, or generational group, particularly those that are disadvantaged.

11. **Leadership Now:** Accelerate, support, and implement innovative programs, projects, and initiatives to maintain and increase our collective leadership in sustainability, including encouraging our partners to use sustainability practices.
12. **Accountability:** Using a project management approach, report annually on our results, lessons learned, plan adjustments, and future endeavors to our stakeholders, including the PDX Community Advisory Committee.

## GOALS

Airport Futures Key Sustainability Goals – Consolidated Subcommittee Proposal including comments received up to and including the February 3, 2010 Land Use/Transportation Subcommittee Meeting.

These strategic goals have been drafted by the Sustainability Subcommittee as part of a larger sustainability process overview. The goals, along with the Vision and Values and Guiding Principles are intended to give guidance to the Port, City and ongoing PDX Community Advisory Committee. They continue to reflect a collaborative approach between the City, Port and Portland-Vancouver metropolitan community to create an integrated long-range development plan for Portland International Airport. These goals are not assumed to be an all-inclusive list. Instead, they are intended as a starting point, setting the direction for the detailed tactical work that is expected to generate goals, objectives, and targets that are specific, time-based and measurable.

1. PDX-controlled airport operations will achieve carbon neutrality by 2035<sup>1</sup>. As part of this, PDX will adopt a Climate Action Plan in coordination with the City of Portland by 2011<sup>2</sup>.
2. Consistent with the Wildlife Hazard Management Plan, Airport Master Plan, and City Land Use Plan, the Port will fully mitigate for impacts and contribute to overall net improvement of wildlife habitat quality, quantity and connectivity within the Columbia Slough Watershed.
3. Consistent with the Wildlife Hazard Management Plan, the Port will achieve the equivalent of the City of Portland's target of 15% canopy cover on industrial lands either by on-site tree plantings or support for compensatory offsite tree plantings where onsite planting is not practicable.
4. PDX will achieve net zero waste by 2035<sup>3</sup>.

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<sup>1</sup> By "carbon neutrality" we mean achieving net zero carbon emissions by balancing a measured amount of carbon released with an equivalent amount sequestered or offset. The term carbon neutrality is used to reflect the fact that it is not just carbon dioxide (CO<sub>2</sub>) that is driving climate change, but also encompasses other greenhouse gases, namely: methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulphur hexafluoride (SF<sub>6</sub>). It is not assumed that PDX would have zero carbon emissions. The State Goal is to reduce greenhouse gases to 75% below 1990 levels by 2050, arrest growth by 2010, and be 10% below 1990 levels by 2020. The Port's 2009-10 Target is to reduce Port direct and indirect greenhouse gas emissions 15% below 1990 levels by 2020. The Port has identified an additional target of reducing diesel particulate matter from Port-controlled operations by 25% from 2000 baseline levels by 2015.

<sup>2</sup> As part of this plan, PDX will develop a Sustainable Choices website by 2012 to guide passengers on how they can participate in reducing their air travel carbon footprint, including providing carbon offsets to passengers.



5. PDX will eliminate or minimize toxic substances used and hazardous waste generated in the operation of the airport<sup>4</sup>.
6. The City of Portland, City of Vancouver and Port of Portland will appoint an advisory group to help PDX achieve continuous improvement in its public involvement and sustainability efforts<sup>5</sup>. Stakeholders in PDX planning, operations and improvements will be valued participants in Port and City decision making.
7. PDX will expand and diversify passenger and employee transportation options, achieve the highest transit mode split in the nation and manage transportation demand to preserve mobility for all modes within the airport area<sup>6</sup>.
8. By 2035, PDX will achieve indoor air quality measurements 30% better than current ASHRAE 62.1-2004 standards.<sup>7</sup>
9. PDX will obtain 100% of operating power for PDX-controlled facilities from renewable sources and will achieve in-building energy efficiency levels of 45 W/M2<sup>8</sup> by 2035.
10. PDX will give preference to doing business with firms that have implemented Health Safety Environmental Management Systems under ISO 14001<sup>9</sup>, with the goal of having 75% of them compliant by 2035.

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<sup>3</sup> PDX uses the One Planet Living definition of “zero waste” to mean no more than 2% of construction or normal operational wastes would go to landfills. (See separate goal for toxic and hazardous wastes)

<sup>4</sup> Details on how this will be accomplished will be worked out during implementation of the master plan. In general, implementing will involve developing a plan to annually:

- Evaluate current and new technologies that can achieve further reductions of toxic chemicals and hazardous waste;
- Review and updating process and personnel procedures involving hazardous materials use and hazardous waste generation; and
- Train employees about how they can help the facility reduce its toxics use and hazardous waste generated.
- 

<sup>5</sup> A key focus of the ongoing PDX Community Advisory Committee is sustainability and that group will consider creating subcommittee's in the future on a case by case basis.

<sup>6</sup> Traffic count data for the airport area is currently collected on a regular basis as is light rail ridership for passengers and employees. In addition the Port conducts annual terminal user surveys that provide information on passenger transportation choices. The 2007 base year passenger LRT ridership is approximately 6.5%. PDX would need to double that number to be in the range of the best transit mode split in the nation. The Port does not have complete control over numerous aspects of the transportation system and will need to work cooperatively with other transportation service providers, airport tenants and area businesses to achieve these goals.

<sup>7</sup> ASHRAE 62.1-2004 are standards for ventilation for acceptable indoor air quality promulgated by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers.

<sup>8</sup> 45 W/M2 is a metric for energy consumption in a building measured in watts per square meter.

<sup>9</sup> ISO 14001 is a standard developed by the International Standards Organization (ISO) for environmental management systems applicable to any business, regardless of size, location, or income. The aim of the standard is to reduce the environmental footprint of a business and to decrease the pollution and waste a business produces.



11. PDX will participate in the US Dark Sky Initiative<sup>10</sup> to limit light pollution to the extent that this is allowed by FAA regulations.
12. By 2010 PDX will provide 5 hours of sustainability education and awareness training annually to its employees and will encourage all companies operating at the airport to do the same. Provide sustainability education and awareness information to passengers.
13. PDX will maintain its viability and its part in the regional economy by:
  - a. Maintaining an airport master plan that can be effectively phased to balance operating and capital costs in a way that keeps PDX cost competitive and maximizes the use of existing infrastructure.
  - b. Making PDX investment decisions based on achieving lowest life-cycle costs.
  - c. Preserving and enhancing opportunities for airport-dependent and airport-related businesses in and around PDX.
  - d. Preserving the significant transport and warehousing job base in the vicinity of PDX.
14. PDX will adopt an environmental management system, underpinned by measurable sustainability goals, and subject them to annual or biennial public reporting and auditing by an independent third party beginning in 2011.
15. The Port will comply with all local, state and federal air quality mandates and will continue to measure impacts on the local environment and develop annual goals and benchmarks for continuous improvement, above-and-beyond regulatory requirements.
16. The Port will comply with all local, state and federal water quality mandates and will continue to measure impacts on the local environment and develop annual goals and benchmarks for continuous improvement, above-and-beyond regulatory requirements.

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<sup>10</sup> US and international Dark Sky initiatives seek to reduce light pollution by promoting more efficient lighting systems that reduce glare and protect nighttime darkness.



## EXHIBIT C

### WORK SCOPE

**Purpose:** Through a partnership between the City of Portland and the Port of Portland, convene a group to explore ideas related to noise strategies beyond the 65 DNL threshold of significance defined by the FAA, EPA and Oregon DEQ and recommend a comprehensive strategy mix to reduce noise impacts (outside the 65 DNL) to the greatest extent in the most cost effective manner. (The Work Group will revisit purpose statement when establishing underlying goal of project in Work Plan Step 1.)

**Context & Recognition of Past Work:** Due to the limited time frame for this follow-on study (6 months to one year), it will be essential for work group participants to begin the effort with as much background knowledge as possible. In an effort to provide that background, the core team will assemble binders for work group participants that include a briefing packet on airport noise management; applicable (federal, state, and local) regulations; an overview of the PDX Noise Program; and other pertinent studies, reports, information, and resources. Further, the core team will schedule a Special Information Meeting on the subject of Airport Noise Management open to all work group participants and any other interested individuals. The Work Group will focus on principles of “Avoid, Minimize, Mitigate” when addressing noise impacts beyond the DNL 65.

#### **Work Group Assumptions & Scope Boundaries (“sideboards”):**

- PDX will not be moved
  - The population, and demand for air travel, will continue to grow, but slower than in the past
  - Technology will continue to reduce aircraft noise
  - There will be an increasing focus on greenhouse gas (GHG) emissions and potentially increased restrictions
  - Energy efficiency will be accelerated
  - Flight operations, airspace and Part 150 are not the focus of this Work Group but may be discussed
  - Land-use planning and regulations are essential in effective airport noise impact mitigation
1. Beyond 65 DNL Noise Work Group establishes underlying goal of project (PAG assignment: Explore ideas related to noise mitigation beyond 65 DNL).
    - a. Define impacts – including annoyance and explore levels of annoyance and factors which influence dose-response

- b. Recommend measures to reduce noise exposure and noise impacts, both indoor and outdoor
  - c. Address acoustic and non-acoustic noise impacts
  - d. Review of noise-annoyance mitigation at airports through acoustic and non-acoustic strategies. Approaches may include:
    - i. Increase community awareness of noise exposure, noise program, etc. Focus on communities, e.g., Neighborhood (enhancement) grants).
    - ii. Reduce indoor noise exposure. Focus on individuals (e.g., Individual grants for sound insulation).
  - e. Review of noise-annoyance mitigation at airports through acoustic strategies
  - f. Explore/research emerging technology and innovations
    - i. Regional noise mapping
    - ii. Partner with a university to create some form of noise institute, project or program to study noise issues, impacts and mitigation strategies
    - iii. Affordable technologies for indoor noise mitigation
- 2. Overview of Airport Noise Management (Special Information Meeting – open to work group participants and other interested parties)
  - a. Regulatory Overview
    - i. Why don't more airports look beyond 65 DNL? (Obstacles)
      - 1. Federal regulations
      - 2. Funding issues
  - b. Basics of airport operations
  - c. Acoustics and measuring sound
    - i. Metrics Day-Night Level (DNL)
    - ii. Time Above (TA)
    - iii. Number Above (NA)
  - d. Acoustic and non-acoustic impacts associated with airport noise
  - e. Noise annoyance mitigation at airports by acoustic and non-acoustic measures
  - f. Noise programs (within and beyond 65 DNL - US and abroad)
  - g. Overview of PDX Noise Program (within and beyond 65 DNL)
  - h. Local jurisdictions' noise management programs (cities of Portland and Vancouver)
- 3. Identification of tools and approaches for mitigating airport noise beyond 65 DNL
  - a. Review of available documentation (Materials or references provided in work group binders for prior review)
    - i. ACRP, ACI, ANNA, Wyle Labs, others
    - ii. FAR Part 150 Studies
    - iii. Boeing Airport Noise Regulations Website
  - b. Identify opportunities for new programs or enhancement to current programs:
    - i. Strategies to reduce aircraft noise
    - ii. Strategies to reduce/minimize noise impacts
    - iii. Focus to include acoustic and non-acoustic strategies
- 4. Identification of strategies
  - a. Link each strategy to specific goal(s) from Step #1

- i. Establish boundaries – tiered mitigation possible (e.g., multi-faceted/multi-phased approach based on noise exposure level, population density and/or other factors to be determined by work group)
  - ii. Identify/recommend possible phasing
  - iii. Identify responsibility for implementation
  - iv. Determine costs and potential funding sources
- 5. Draft Report
  - a. Defines mitigation boundaries
  - b. Details boundaries if tiered mitigation is recommended
  - c. Identifies mitigation recommendations including: goals, objectives, findings, and implementation plans
  - d. Review and comment (CNAC, PDX Community Advisory Committee, Port, cities, other)
  - e. Incorporate stakeholder comments (from Step 5d above) and finalize report
- 6. Final Report
  - a. Submission to CNAC, PDX Community Advisory Committee, Port Commission, cities (as applicable)

## ORDINANCE No. 184521

Adopt and implement the Airport Futures City Land Use Plan and authorize implementing intergovernmental agreements related to airport planning. (Ordinance; Amend the Portland Comprehensive Plan, Amend Title 33, Planning and Zoning)

The City of Portland Ordains:

### Section 1. The Council finds:

1. In the fall of 2000, the City began discussions on an alternative land use approval process for Portland International Airport (PDX). In the spring of 2001, the City Council and Port of Portland (Port) representatives held a work session and agreed to develop an agreement outlining future planning efforts for PDX.
2. In the summer of 2001, the City and the Port adopted similar resolutions agreeing to work collaboratively on future planning for PDX (Resolution No. 36018). The City and the Port agreed that the Port would submit a conditional use permit for the approximate uses permitted under the 1993 permit, specifically excluding a third runway and decentralized terminal. The Port and City also agreed to initiate a legislative process to develop appropriate land use regulations.
3. In the winter of 2002, the City and the Port signed an Intergovernmental Agreement (IGA) specifying a general timeline for short term and long term planning efforts that would culminate in an adopted legislative land use process and designation for PDX (Ordinance No. 176250).
4. In 2004, the Bureau of Planning, together with the Port, City bureaus, and a group of citizens representing the Air Traffic Issues Roundtable (AIR) and other interests groups, developed a second Agreement over a 12-month period.
5. The 2004 Agreement clarified the process and associated costs for the development of an integrated airport planning effort between the City and Port. Specifically, it identified work tasks, timelines, expected products, and funding mechanisms with the objective of beginning the joint City legislative process and Port master planning process.
6. The 2004 Agreement included specific provisions to fund a Senior Planner position with the Planning Bureau to develop a detailed work program for the joint planning process. The work program included a consultant contract and initiating the public involvement process prior to project start date (Ordinance No. 52355).
7. In 2006 and 2007, the City and Port developed detailed consultants' scopes of work, the City's scope of work, and a comprehensive public involvement program. City and Port staff received input on these products from the Land Use Advisory Committee, public involvement experts, neighborhood associations, and many other stakeholders' groups.
8. In the fall of 2007, the City and Port convened a 30-member Planning Advisory Group with broad representation from the bi-state region to collaborate on the creation of an integrated airport and land use plan. The three year planning process, known as Airport Futures, addressed community concerns and issues related to PDX, including noise,

transportation and natural resources. The three main products of this process include a Port master plan update, a City land use plan, and a series of intergovernmental agreements.

9. Between September 2007 and March 2010, the Airport Futures Planning Advisory Group deliberated on the complex issues associated with airport growth and the potential impacts on the surrounding communities. The group achieved a consensus recommendation documented in the *Airport Futures Planning Advisory Group Final Report*, dated May 25, 2010. This document summarizes the Port's *2010 Master Plan Update* and the *City of Portland Land Use Plan*.
10. On March 25, 2010, the Airport Futures Planning Advisory Group also recommended the City and Port enter into a series of intergovernmental agreements to address issues related to ongoing public involvement, transportation, natural resources, noise, and sustainability. The agreements are a key component of the Airport Futures process and final documents.
11. The provisions of the *Airport Futures City Land Use Plan* implement or are consistent with the Statewide Planning Goals, the Oregon Transportation Planning Rule, the Region 2040 Plan, the Metro Urban Growth Management Functional Plan, and the Portland Comprehensive Plan, as explained in the *Recommended Airport Futures City Land Use Plan: Findings Report* attached as Exhibit G and incorporated as part of this ordinance.
12. On May 21, 2009, notice of a June 4 and June 10, 2009 open house was mailed to all property owners with natural resources mapped as part of the Natural Resources Inventory.
13. On May 3, 2010, notice of a May 11 and 13, 2010 open house was mailed to all property owners with natural resources mapped as part of the Natural Resources Inventory.
14. On May 17, 2010, notice of the proposed action was mailed to the Department of Land Conservation and Development in compliance with the post-acknowledgement review process required by OAR 660-18-020.
15. On May 19, 2010, notice of the proposal as required by ORS 227.186 was sent to all property owners potentially affected by proposed zoning map and code changes.
16. On June 7, 2010, notice of the Planning Commission hearing was sent to the project mailing list and the bureau's legislative mailing list
17. On June 22, 2010, the Planning Commission held a hearing on the proposal. Staff from the Bureau of Planning and Sustainability and the Port of Portland presented the proposal and public testimony was received.
18. On July 13, 2010, the Planning Commission held a second hearing on the proposal. Staff from the Bureau of Planning and Sustainability clarified issues related to the proposal and public testimony was received.
19. On August 6, 2010, notice of the continued Planning Commission hearing was sent to all property owners potentially affected by the proposed zoning map and code changes, the project mailing list, and the bureau's legislative mailing list.
20. On August 24, 2010 the Planning Commission held a third hearing / work session to discuss the proposal and consider public testimony. The Commission voted to forward the *Recommended Airport Futures City of Portland Land Use Plan* to City Council.

21. In the fall of 2010, City Council consideration of *Recommended Airport Futures City of Portland Land Use Plan* was deferred to resolve issues raised by the Federal Aviation Administration related to the expenditure of airport funds off airport as part of the Agreements between the City and Port.
22. On January 21, 2011 the State of Oregon Land Use Board of Appeals remanded the City of Portland's *River Plan* (amendments to its Comprehensive Plan and Zoning Code) in *Gunderson, LLC et. al. v. City of Portland*, LUBA Nos. 2010-039-04 concluding the evidence supporting the City's Goal 9 analysis and findings was insufficient. As a result, the City Council is deferring the natural resource program update for industrially zoned properties (not owned by the Port of Portland) that were included in the *Airport Futures City of Portland Recommended Land Use Plan* for further analysis and review.
23. On February 22, 2011, notice of the March 16, 2011 City Council public hearing was mailed to those who presented oral and written testimony at the Planning Commission public hearing or requested to be on the City's legislative mailing list. In addition, the Port emailed notice of the hearing to its Airport Futures email list.
24. It is in the public interest that the recommendations contained in the *Plan* be adopted to serve as a guide to public and private decision-making and investment in the Airport district.

NOW, THEREFORE, the Council directs:

- a. Accept the *Airport Futures Planning Advisory Group Final Report* as shown in Exhibit A, dated May 25, 2010.
- b. Amend Portland's *Comprehensive Plan, A Vision of Portland's Future*, as shown in pages 14-17 in Exhibit B, *Airport Futures City of Portland Recommended Land Use Plan: Summary Report*, dated February 22, 2011;
- c. Amend Portland's *Comprehensive Plan Map*, as shown on page 131 in Exhibit C, *Airport Futures City of Portland Recommended Land Use Plan: City Zoning Code and Map Amendments Volume 1*, dated February 22, 2011;
- d. Amend *Title 33, Planning and Zoning*, as shown in Exhibit C, *Airport Futures City of Portland Recommended Land Use Plan: City Zoning Code and Map Amendments Volume 1*, dated February 22, 2011;
- e. Adopt the commentary in Exhibit C, *Airport Futures City of Portland Recommended Land Use Plan: City Zoning Code and Map Amendments Volume 1*, dated February 22, 2011, as legislative intent and as further findings;
- f. Amend the *Portland Plant List*, as shown in Exhibit C, *Airport Futures City of Portland Recommended Land Use Plan: City Zoning Code and Map Amendments Volume 1*, dated February 22, 2011;
- g. Adopt the *Proposed Update of City of Portland Height Overlay map and City of Portland Noise Impact Overlay map* as Comprehensive Plan background documents as shown in Exhibit C, *Airport Futures City of Portland Recommended Land Use Plan: City Zoning Code and Map Amendments Volume 1*, dated February 22, 2011;

- h. Amend the Official Portland Zoning Map as shown in Exhibit D, *Airport Futures City of Portland Recommended Land Use Plan: City Zoning Code and Map Amendments Volume 2*, dated February 22, 2011;
- i. Adopt Exhibit E, *Airport Futures City of Portland Recommended Land Use Plan: Appendix B - Middle Columbia Corridor/Airport Natural Resources Inventory: Riparian Corridors and Wildlife Habitat*, dated September 24, 2010;
- j. Adopt Exhibit F, *Airport Futures City of Portland Recommended Land Use Plan: Appendix C – Middle Columbia Corridor/Airport Economic, Social, Environmental and Energy (ESEE) Analysis: Riparian Corridors and Wildlife Habitat*, dated February 22, 2011;
- k. Adopt Exhibit G, *Airport Futures City of Portland Recommended Land Use Plan: Findings Report*, dated February 2010, as findings for this ordinance;
- l. Authorize the Mayor and Auditor to execute three Intergovernmental Agreements titled as *Intergovernmental Agreement for Ongoing Agreements Related to the Airport Futures Project*, *Intergovernmental Agreement for PDX Community Advisory Committee*, and *Intergovernmental Agreement for Natural Resources Related to the Airport Futures Project* described in a form substantially in accordance with the attached Exhibit H;
- m. The zoning map 1/4 sections contained in Exhibit H shall become effective on the effective date of the *Intergovernmental Agreement for Natural Resources Related to the Airport Futures Project* and shall replace zoning map 1/4 sections 1932-1935, 2032-2035, 2133-2137, 2235-2238, and 2338 contained in Exhibit D; and

Section 2. If any section, subsection, sentence, clause, phrase, diagram, designation, or drawing contained in this Ordinance, or the plan, map or code it adopts or amends, is held to be deficient, invalid or unconstitutional, that shall not affect the validity of the remaining portions. The Council declares that it would have adopted the plan, map, or code and each section, subsection, sentence, clause, phrase, diagram, designation, and drawing thereof, regardless of the fact that any one or more sections, subsections, sentences, clauses, phrases, diagrams, designations, or drawings contained in this Ordinance, may be found to be deficient, invalid or unconstitutional.

Passed by the Council: **April 13, 2011**

Mayor Sam Adams  
Prepared by: J. Sugnet  
Date Prepared: March 1, 2011

LaVonne Griffin-Valade  
Auditor of the City of Portland

By

  
Deputy



Agenda No.  
**ORDINANCE NO. 184521**  
Title

Adopt and implement the Airport Futures City Land Use Plan and authorize implementing intergovernmental agreements related to airport planning. (Ordinance; Amend the Portland Comprehensive Plan; Amend Title 33, Planning and Zoning)

<p align="center"><b>INTRODUCED BY</b> Commissioner/Auditor: <b>MAYOR SAM ADAMS</b></p>	<p>CLERK USE: DATE FILED <u>MAR 11 2011</u></p>
<p align="center"><b>COMMISSIONER APPROVAL</b></p> <p>Mayor—Finance and Administration - Adams <i>[Signature]</i></p> <p>Position 1/Utilities - Fritz</p> <p>Position 2/Works - Fish</p> <p>Position 3/Affairs - Saltzman</p> <p>Position 4/Safety - Leonard</p>	<p align="center">LaVonne Griffin-Valade Auditor of the City of Portland</p>
<p align="center"><b>BUREAU APPROVAL</b></p> <p>Bureau: Planning and Sustainability Bureau Head: Susan Anderson <i>[Signature]</i></p> <p>Prepared by: Jay Sugnet Date Prepared: March 1, 2011</p> <p>Financial Impact Statement Completed <input checked="" type="checkbox"/> Amends Budget <input type="checkbox"/> Not Required <input type="checkbox"/></p> <p>Portland Policy Document If "Yes" requires City Policy paragraph stated in document. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Council Meeting Date <b>March 16, 2011</b> <i>[Signature]</i></p> <p>City Attorney Approval</p>	<p>By: <i>[Signature]</i> Deputy</p> <p><b>ACTION TAKEN:</b></p> <p><b>MAR 16 2011 PASSED TO SECOND READING APR 13 2011 2 P.M.</b> <i>TIME CERTAIN</i></p>

<b>AGENDA</b>
<p><b>TIME CERTAIN</b> <input checked="" type="checkbox"/> Start time: <b>6:00 p.m.</b></p> <p><b>Total amount of time needed: 2 hours</b> (for presentation, testimony and discussion)</p>
<p><b>CONSENT</b> <input type="checkbox"/></p>
<p><b>REGULAR</b> <input type="checkbox"/> Total amount of time needed: _____ (for presentation, testimony and discussion)</p>

FOUR-FIFTHS AGENDA	COMMISSIONERS VOTED AS FOLLOWS:		
		YEAS	NAYS
1. Fritz	1. Fritz	<input checked="" type="checkbox"/>	
2. Fish	2. Fish	<input checked="" type="checkbox"/>	
3. Saltzman	3. Saltzman	<input checked="" type="checkbox"/>	
4. Leonard	4. Leonard	<input checked="" type="checkbox"/>	
Adams	Adams	<input checked="" type="checkbox"/>	