

Backgrounder: YVR 2037 Master Plan Phase 2

Phase 2 consultation for YVR's Master Plan runs from September 5 to October 31, 2016. This phase will develop options to respond to growth and achieve YVR's vision of becoming a world-class sustainable connecting hub. Options address six components: terminal, airside and airspace, ground access, environment, land use and amenities. Input from each of these areas will inform the draft YVR 2037 Master Plan. The <u>Discussion Guide</u> includes a detailed summary of each topic area, discussion questions, visuals and maps.

Terminal

In 2015, YVR formed a Terminal Working Group, comprised of technical experts and consultants, to develop sustainable options for the terminal facilities that will accommodate increased passenger and cargo volumes over the next 20 years. The Terminal Working Group developed 57 viable options and used an evaluation approach based on the four supporting objectives from YVR's Strategic Plan. The options were grouped into three possible expansion directions for the terminal:

- East (eastward expansion of existing facilities, similar to the previous Master Plan)
- West (an infield satellite terminal to the west and separate from the existing facility)
- Centre (expansion of the existing terminal with additions to each of the five piers)

After analysis of the top six options, the recommended *Centre* option was selected because of its maximum flexibility to grow at an incremental and as-needed basis, allowing for moderate capital investment and less overall disruption. This flexible opportunity would expand existing terminals gate by gate and eliminate the need to build a separate new terminal.

Airside and Airspace

As an international airport, YVR is mandated to provide the infrastructure and operational services to meet the demand for more service and connections while balancing the need for a sustainable airport for the community.

The last Master Plan projected the need for an additional runway in 2025, based on growth forecasts. At that time, YVR evaluated a number of runway options and protected for two potential runways, which included a Close in South Parallel Runway and a Foreshore Runway. Since then, passenger capacity has increased significantly more than runway movements because aircraft have become larger and more efficient. This means that YVR will have



sufficient runway capacity to accommodate up to 34 million passengers annually. While the need for an additional runway to be operational is expected after 2037, YVR will begin planning for the third runway during the life of this Master Plan to meet all planning, consultation and environmental requirements. Therefore, YVR will continue to protect for both runway options.

The Close in South Parallel Runway would be primarily used as an arrivals runway. This runway would extend slightly beyond the dyke to meet new Runway End Safety Area requirements. The Foreshore Runway would be longer and used as both an arrivals and departures runway. It would add more runway movement capacity than the Close in South Parallel and allow for less noise impact. The Foreshore Runway would have greater cost and environmental implications.

Due to YVR's geographic location, time zones and role as a connecting hub, YVR experiences pronounced peaks in runway and gate demand. Current peak traffic is highest during the summer months between 11:00 a.m. and 3:00 p.m. In order to get maximum efficiency out of our existing runway system, YVR is currently considering:

- Using the North Runway for aircraft departures
- Supporting the use of technological developments including Required Navigation Performance (RNP), Simultaneous Parallel Independent Departures (SPIDs), Performance Based Navigation and other air traffic control measures
- Constructing the North South Taxiway, which provides a direct link between runway ends and the terminal, enabling a more balanced use of the parallel runways
- Constructing high-speed rapid exit taxiways and other taxiway improvements, which facilitate arriving aircraft to clear the runways faster

Ground Access

YVR's role is to provide safe, efficient and convenient ground access to transport people and goods to and from the airport and around Sea Island. YVR owns and is responsible for the majority of the road network on Sea Island including the Arthur Laing and Dinsmore bridges. YVR invested \$300 million in the Canada Line extension to Sea Island, which has some of the highest transit ridership of any airport in North America, at almost 25 per cent. Other bridges with access to Sea Island are the Moray Bridge and Airport Connector Bridge, owned and maintained by the Province of British Columbia, and No.2 Road Bridge, owned and maintained by the City of Richmond. The City of Richmond also owns and maintains several roads on Sea Island. Based on extensive studies and traffic forecasting, there will be significant challenges in the next 20 years, which include:



Beyond, Every Day.

- Regional travel time to Sea Island by car to increase and become less reliable
- Arthur Laing Bridge to reach capacity in peak periods by 2037
- Continued use of Sea Island roads by commuter traffic
- Roadway congestion on Sea Island for employees, passengers and businesses
- Lack of direct transit connections to outlying growing communities, especially Langley and Surrey

YVR has a number of future projects that are part of its current Capital Plan. This includes creating an interchange at Templeton Street, upgrading or replacing the Dinsmore Bridge to include cycling and pedestrian improvements and adding more Electric Vehicle Charging stations. YVR is also considering the following options and will use input from YVR 2037 consultation to determine priorities:

- Lengthening Canada Line platforms on Sea Island to provide additional capacity
- Creating a high priority vehicle lane on Russ Baker Way
- Extending Templeton Street between Grant McConachie Way and Russ Baker Way
- Constructing a separated cycling lane on Arthur Laing Bridge
- Following the lead of the region's transportation authorities and considering regional road user pricing or time of day pricing to alleviate congestion during peak periods

Environment

YVR's five-year <u>Environmental Management Plan</u> includes the framework to guide sustainable environmental management of the airport, key strategic environmental priorities, goals, targets and actions to advance environmental performance and ecosystem health. YVR is committed to reducing greenhouse gas emissions, waste, potable water consumption and its impact on Sea Island ecology. All future planning for the Master Plan will consider these priorities. YVR is seeking input on future projects including District Energy Geoexchange, energy recovery from the Iona Wastewater Treatment Plant and efficiencies of airside infrastructure. More information on these projects can be found in our public <u>Discussion Guide</u>.

Land Use

YVR's Airport Land Use Plan guides decisions about how airport lands are used to respect operations, the environment and the community. It gives clarity and certainty to the location and types of development that can take place. YVR is required to update and submit a land use plan every 10 years to the Federal Minister of Transport for approval. YVR's current 2027 Airport Land Use Plan established the plan for land use between 2007 and 2027. The plan identifies six land use designations at the airport: airfield, passenger terminal, airside, groundside, ground



access and parking and recreational areas. Input from Phase 2 consultation will help create a draft Land Use Plan, which will be available as part of Phase 3 consultation.

Amenities

YVR's commitment to being a good community steward includes a role in helping provide world-class amenities. The proposed amenities include recreational and commuter cycling routes, walking paths, park space, natural areas, multi-use pathways, plane spotting areas and community and public spaces. YVR is seeking input on the amenities listed above, including which are most important to business partners and surrounding communities. A map of proposed amenities can be found in our public <u>Discussion Guide</u>.

More information about YVR's public engagement process, including how to provide input, is available at YVR2037.ca.

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About Vancouver Airport Authority

Vancouver Airport Authority is a community-based, not-for-profit organization that manages Vancouver International Airport (YVR). Canada's second busiest airport, YVR served 20.3 million passengers in 2015. Fifty-five airlines serve YVR, connecting people and businesses to more than 120 non-stop destinations worldwide. YVR was voted Best Airport in North America for the seventh consecutive year in the 2016 Skytrax World Airport Awards. Vancouver Airport Authority is a dedicated community partner and in 2015 donated more than \$900,000 to local organizations. We are committed to creating an airport that British Columbia can be proud of: a premier global gateway, local economic generator and community contributor. For more information, please visit www.yvr.ca.

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