

## Joint Legislative Committee on Semiconductors

February 6, 2023 (5 – 6:30 pm)

### Invited Testimony on Industrial Lands

- |                   |                                   |                     |
|-------------------|-----------------------------------|---------------------|
| 1. Doug Smith     | Port of Portland                  | <i>5 minutes</i>    |
| 2. Gabriela Frask | Mackenzie. Engineers & Architects | <i>5-10 minutes</i> |
| 3. Dick Sheehy    | Global Site Selection Expert      | <i>5-10 minutes</i> |
| 4. Keith Leavitt  | Port of Portland                  | <i>5 minutes</i>    |

For the record, my name is Gabriela Frask.

Cochair Bynum, Cochair Soulman, and members of the Joint Semiconductor Subcommittee, thank you for the invitation to present today. I am an associate principal and head of the land use planning department at Mackenzie. Mackenzie is a 62-year-old architecture and engineering firm, headquartered in Portland, and we advise local and regional development organizations as well as design sites and buildings for industrial and advanced technology sector clients throughout Oregon and Washington. I personally have worked on industrial lands inventory reports for more than a decade, including the Regional Industrial Site Readiness Report of 2011, 2014, 2017, working with Metro, NAIOP, Port of Portland, Portland Business Alliance, Greater Portland Inc and Portland General Electric and I also worked on the updated report that you received. I've also worked on industrial land inventory projects for Columbia County and Clark County in Washington. I have worked with real estate developers and end users on hundreds of private industrial development projects throughout Oregon, from Clatsop County to Malheur County, working to address site readiness issues so that these projects successfully place a shovel in the ground and bring good quality jobs to our state. It has been an honor to support the work of the Industrial Lands subcommittee to the Oregon semiconductor Competitiveness Task Force convened last year.

#### **SLIDE 2:**

After the Seizing Opportunity Initial Report was finalized in August 2022, it was clear that the industrial land subcommittee work required more information, and under the guidance of the industrial land subcommittee, a Technical Advisory Committee was formed to help guide our work. The TAC was comprised of these organizations you see on this slide with myself and Mr. Sheehy also serving on it. The purpose of the TAC was to provide input and to help shape policy considerations related to semiconductor industrial site readiness, based on our technical industry knowledge.

After our initial working group efforts from the spring and early summer last year, Mackenzie worked with our partners at Business Oregon, sourcing through the State's Oregon Prospector database of industrial sites, and economic development practitioners around the state in order to create a more extensive inventory of potential sites larger than 25-acres, in the regions across the state identified by the Task Force. Members of our TAC contributed to the inventory as well. We know there are more industrial sites around our state so we mapped them, working in collaboration with our partners on where the sites are throughout the state, and obtaining information from TAC members and economic development partners through their boots on the ground knowledge of their communities.

In response to the August 2022 Task Force report, we concentrated the inventory efforts mostly in the Portland metro area, north throughout Columbia County, south to Newberg, Woodburn, Salem, Corvallis and Eugene in the Willamette

Valley, south to Medford throughout the Rogue Valley and in Central Oregon. The Task Force identified these areas of the state as having some existing supplier base and areas for future investments.

We found 79 sites, ranging in size from 25 acres all the way up to 1700 acres. We then applied semiconductor site selection criteria, which you'll hear more about in greater detail from Mr. Sheehy in a moment, in efforts to identify the sites that met the industry siting criteria. We assessed sites based on suitability for the 3 categories the Task Force report called for; R&D and/or fab; device manufacturers or major semiconductor equipment manufacturers and key suppliers to the semiconductor cluster.

**SLIDE 3:**

This statewide map shows which regions we conducted outreach in to identify industrial sites in those regions, again working with Business Oregon and local economic development practitioners and members of the TAC.

I would like to turn the presentation over now to Mr Sheehy to speak more about specific semiconductor site selection needs and siting criteria.

**SLIDE 5:**

The Short term recommendations from the Industrial land subcommittee in the Task Force Report called to identify sites most suitable for semiconductor expansion during this industry investment cycle, to take advantage of the CHIPs and science act federal funding opportunity, to meet market demand, specifically:

- 2 sites of 500+ acres each to accommodate large-scale semiconductor R&D and/or production fabrication operations.
- And 4 sites of 50-100 acres suitable for integrated device manufacturers or major semiconductor equipment manufacturers.
- And at least 8 sites of 15-35 acres to enable key suppliers to the semiconductor cluster to locate and expand.

**SLIDE 6:**

Our work, in consultation with the TAC, compared the 79-site industrial site inventory against the site selection criteria that Mr Sheehy just presented. Those criteria were additive, meaning a site had to meet all of those criteria not just one or 2 to make it through the screening. As a result, this analysis found 0 sites in the 500-acre range that met the site selection criteria, 7 sites in the 50-100 acre range for device manufacturers or fab/equipment suppliers, and 1 site for key suppliers.

The site selection criteria for the device manufacturers (that 50-100 acre range) expands the distance to industry clusters to 2 hours as well as the distance to an international airport to 2 hours, while the other 2 categories have this criteria as less than 1 hour to an international airport and within 1 mile to existing industry cluster, and that is why most sites were identified in our analysis in the 50-100 acre range.

**SLIDE 7:**

This data has been summarized in one table here from all of the Portland metro industrial land inventories Mackenzie worked on in recent years, that I mentioned in my introduction. This data and project methodology is well known in the region. The purpose of this table is to show how the Portland region's large industrial site inventory has changed in recent years. The inventory was first created in 2011 as we were coming out of the great recession, trying to be ready from a regional perspective for investment for traded sector employment opportunities and the region was trying to figure out if we were ready for that investment at the time. The focus of these inventories was only analyzing sites that were at least 25 acres and larger, for industrial and employment development and how ready they were for development and investment.

Working with Business Oregon’s site certification program, which designates sites certified as shovel ready within 6 months, we used that same statewide definition as shovel ready, as our Tier 1 sites definition in the Portland metro industrial land inventory project. Business Oregon’s site certification program is well established protocol for industrial development and with Business Oregon as a project partner, we utilized their terminology in the inventory project. Tier 2 sites were identified as shovel ready in 7-30 months and Tier 3 sites, shovel ready in more than 30 months, and ranged all the way up to a few decades potentially, due to the complexity of their site development constraints.

You can see how the total of sites **and** total acreages decreased over the years.

In 2023, there is only 1 Tier 1 site ready to go in 6 months or less, it’s about 30 acres in Forest Grove. That other tier 1 site is tied up with potential development now. There are 6 sites in that 2nd readiness tier ready 7-30 months and 20 sites in Tier 3, ready in 30 months or longer. Out of those 20 sites, 3 are superfund sites on the Willamette River and 6 of those 20 are operating gravel pits so that shows you a bit of how complicated these sites will be to develop with their development constraints and the time needed to put a shovel in the ground. These acres are not ready within the timelines the semiconductor industry needs, as Mr Sheehy just talked us through.

TIER	2011			2014			2017			2022*		
	Sites	Acreage		Sites	Acreage		Sites	Acreage		Sites	Acreage	
		Gross	Net		Gross	Net		Gross	Net		Gross	Net
<b>ONE</b>	9	463	433	14	740	636	10	502	425	2	82	<b>82</b>
<b>TWO</b>	16	801	715	17	1,240	1,102	11	765	677	6	498	<b>477</b>
<b>THREE</b>	31	2,885	2,354	23	1,961	1,300	26	2,327	1,679	20	1,984	<b>1,442</b>
<b>TOTAL</b>	<b>56</b>	<b>4,150</b>	<b>3,502</b>	<b>54</b>	<b>3,941</b>	<b>3,039</b>	<b>47</b>	<b>3,594</b>	<b>2,781</b>	<b>28</b>	<b>2,565</b>	<b>2,001</b>

This is the status of the 25 acre and larger sites within the Portland Metro region. After the 2017 inventory project was finalized, it led to the preparation in 2020 of a Site Readiness Toolkit project that built off of all of this inventory work. The toolkit project which was completed with leadership from METRO, the Port of Portland and Greater Portland Inc. and more than 19 community partners contributed to the effort, myself also included. The great work created a resource for this committee and others to tackle industrial site readiness not just in the Portland metro region but across the state.

Sincerely,

Gabriela Frask