APPENDIX 3 – 2024 REGIONAL EMPLOYMENT LAND DEMAND METHODOLOGY

Background

This appendix summarizes potential 20-year demand for land based on the regional employment forecast. This forecast-based approach is one source of information that the Council may choose to consider in making its growth management decision. In addition to this forecast-based demand analysis, the Council may wish to consider the potential benefits of adding the Sherwood West employment area to the UGB as proposed by the City of Sherwood, which have been assessed in a separate appendix to this 2024 Urban Growth Report (UGR).

Overview of approach

This appendix summarizes the approach and set of assumptions used in informing the employment land demand projections for this 2024 UGR. The overall methodology is similar to the one used in UGRs dating back to 2009 and is similar to methods commonly used in city Economic Opportunities Analyses. Generally, this analysis goes through several steps, as follows:

1. Estimate how much of the 7-county Metropolitan Statistical Area (MSA) job growth is likely to be "captured" in the Metro UGB over the 20-year planning period.
2. Account for work from home and hybrid work, which reduce future demand for business space (new in this UGR because work from home/hybrid work will likely persist for a sizable share of jobs).
3. Sort shares of jobs in each employment sector into six prototypical building types.
4. Account for current excess office vacancies that are expected to be absorbed over the 20-year planning period (new in this UGR because of historically high office vacancy rates resulting from the pandemic and increased work from home/hybrid work).
5. Translate jobs into building square footage demand by applying square feet per employee assumptions to each of the six building types, recognizing submarket variations.
6. Translate employee square footage to acreage demand by applying floor-area-ratios to each of the six building types, recognizing submarket variations.
7. Summarize acreage demand by building type and then sort into more general commercial and industrial categories for comparison with commercial and industrial growth capacity estimates (capacity estimation methods are summarized in a separate appendix).

Assumptions for the above-listed steps are updated with additional years of data and/ or revised to reflect newer available information to the current methodology. The analysis includes updated projections of employment growth for the Metro UGB (i.e., [1] capture rate assumption); and new data that are deductions to that demand based on negative space need factors (i.e., [2] future job absorption through existing office vacancies in the region and [3] an increased expectation of work from home/ hybrid work (WFH) which is expected to lower on-site job needs). The combination of these three factors we are calling as "Triple Net" and incorporated into this DRAFT UGR non-residential space demand projections.

The MSA forecast includes a range (high, medium, and low growth scenarios) of alternatives and is carried through this UGR jobs demand analysis as three distinct growth options; however, to avoid

repetition in explaining the methodology, we use the medium case (or baseline forecast) for purposes of exposition and explanation of our approach.

- An updated Metro UGB employment forecast for 2024 to 2044 serves as the economic trend basis for nonresidential land demand projections of the 2024 Employment UGR. The MSA regional forecast provides the economic foundations for the UGB employment forecast.
- The three growth factors that pare the regional forecast down to the UGB we call collectively "Triple Net" are [1] UGB capture rate, [2] office vacancy rate (based on recent published information from real estate brokers, [3] Census hybrid/ work-from-home data.
    - Factor [1] pares the regional MSA forecast down to the employment growth for just the Metro UGB
    - Factors [2] and [3] do not alter the amount of the UGB employment forecast but rather reduce the impact on brand-new future land demand for office space.
    - Assumes that abnormally high office vacancy rates (today) will stabilize in the long-run and that stabilization will absorb a share of future office demand, partly negating the demand for new/ additional office space.
    - Assumes the WFH trend will persist and continue at current elevated levels during the 20-year forecast, offsetting a portion of demand for new/ additional office employment space.
- The historical capture rate for employment growth in the Metro UGB from 1979 to 2022 is 75%.
- The projection period for the 2024 UGR is 2024 to 2044. For purposes of the DRAFT analytics, future value of the Metro UGB capture rate is assumed to be an average of 75%, same as history, with variation for individual sectors.
- Other key density and growth assumption factors on future land demand:
    - Square foot per job density (updated per advice from public and private sector experts)
    - Floor area ratios (initial consultant input from the 2009 UGR; it appears unlikely that these ratios have changed in recent construction)
    - Employment allocations by 2040 design type & development hubs/ rings (revised with 2019 information)

Data sources

- MSA regional forecast (2024 to 2044) *updated* (w/ peer review)
- UGB employment forecast (2024 to 2044) *updated* – derived from MSA regional forecast
- UGB capture rate *updated* (source: Metro LDMS & BLS)
- Work from home factor *added* to methodology for office demand (source: Census ACS)
- Office vacancy rate *added* to methodology (source: regional real estate brokerage reports)
- Contingency table for UGB jobs to six building types *updated* (source: OED | QCEW & Metro LDMS | RLIS)
- Square foot density per employee *updated* (w/ stakeholder input)

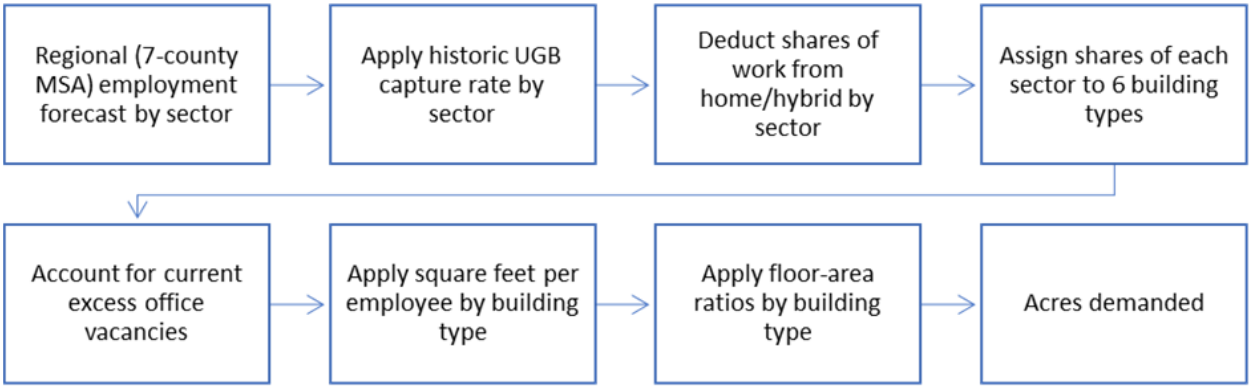

Figure 1: Concept diagram of UGB employment demand calculation.

Methodology details

Metro UGB Employment Capture Rate

The purpose of the Metro UGB employment capture rate is to pare the 7-county MSA regional forecast down to only payroll jobs inside the Metro UGB. The rate excludes projected amounts of employment growth in Clark and Skamania counties in Washington; Columbia and Yamhill counties in Oregon; and the portion of cities and unincorporated county areas in Clackamas, Multnomah and Washington outside the Metro UGB. The rate is used as a forecast allocation tool for splitting the MSA employment forecast between growth assigned to inside the Metro UGB (and to the outside).

The Metro capture rate is both a statistic and an assumption in the UGB forecast. As a statistic, it simply describes the historical share of employment growth (also for example, households or population) within the Metro UGB and the MSA region. When used as an assumption about the future, staff recommends that the capture rate have a basis in historic observations or that there be a clear rationale for why it may be higher or lower than those observations in the future. This analysis assumes a continuation of the historic 1979-2022 UGB capture rate.

The MSA region is delineated by federal data sources to include the counties of Clackamas, Columbia, Multnomah, Washington and Yamhill in Oregon and the counties of Clark and Skamania in Washington State. The Metro UGB is designated by Metro, and its boundaries have increased incrementally over the years with UGB expansions as decided by the Metro Council.

Equation 1: Metro UGB Employment Capture Rate

$$\text{Capture Rate} = \frac{(E_t^{UGB} - E_0^{UGB})}{(E_t^{MSA} - E_0^{MSA})}$$

where,

E	is payroll employment
UGB	is delineation (of employment) in the Metro Urban Growth Boundary
MSA	is delineation (of employment) in the 7-county metropolitan statistical area
t	is a future time
0	is the base year time

The historical value of the Metro capture rate fluctuates over time, depending on business cycle peaks and troughs as well as the span of years included in the capture rate's computation. A nearby table illustrates several examples of different historical periods and the calculations of the capture rate at different points and intervals of business cycles in the region. The table shows that capture rates do indeed vary because of business cycles and these economic impacts may hit organizations differently, depending upon the mix of industries inside vs. outside the UGB and the type of economic driver causing variations in the business cycle.

	Payroll Employment		
	UGB	MSA (7-county)	
difference: **1979-2022**	483,400	646,900	75% capture rate
trough-to-trough: **1983-2010**	337,200	435,800	77% capture rate
peak-to-peak: **1979-2007**	334,500	464,900	72% capture rate

Table 1: Historical capture rate estimates of payroll employment in the region (source: Metro and US BLS)

Historic capture rate data suggests that systemic economic change could be underway as the trend in the historic capture rate payroll employment has been trending lower since peaking at 89% in 2014. A nearby chart illustrates the recent downward trajectory in Metro UGB capture rates. The capture rate, more recently in 2022, edged higher. More data will be needed to determine if the uptick is an anomaly or a return to the higher capture rate readings prior to 2015 when the rate hung closer to 80%.

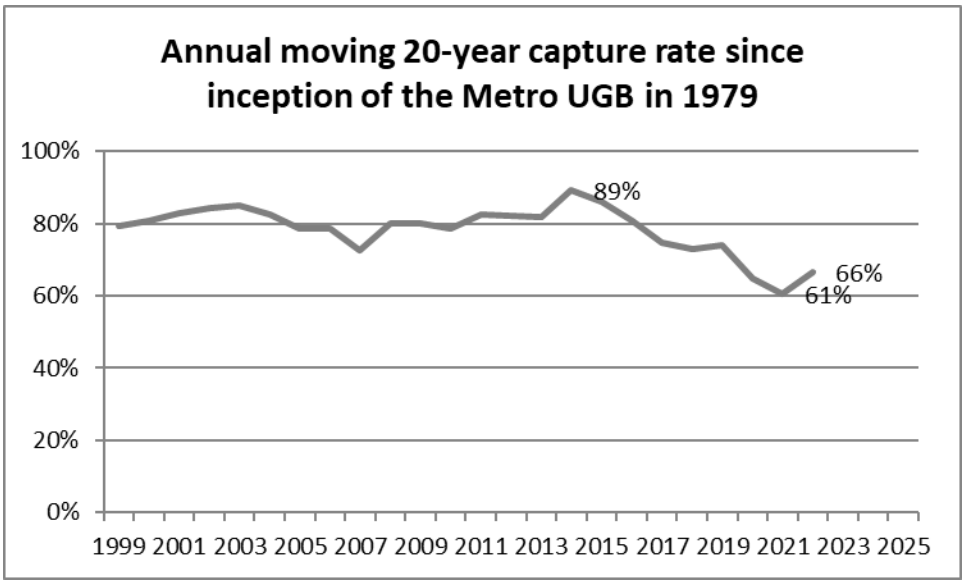

Figure 2: Historic 20-year capture rates of payroll employment in the Metro UGB

For purposes of the DRAFT Employment UGR, staff recommends assuming a 75% capture rate which is the long-term historical rate for the Metro UGB and considers the rate's "average" through several business cycles (i.e., 1980-82 double-dip recession, 1991 recession, 2000 dot-com bust, 2008-2009 Great Recession and 2020 pandemic). The regional economy recently suffered through one of the steepest downturns in history, a pandemic-induced recession which battered growth across many industries. Since then, the recovery suggests the onset of a rebound in the capture rate. A 75% capture rate assumes that the UGB job forecast will stabilize near its long-term "average" and further implies that growth is roughly unchanged from the region's historical long-term growth share.

Hybrid/ Work-from-home Assumption

The purpose of the WFH factor is to calculate a reduced demand for the "housing" of employment growth in non-residential spaces / or buildings. A fairly large fraction of employees now work from home and should be considered going forward in the UGR. Part-time or hybrid employees are assumed to have a smaller workspace footprint than regular on-site employees. Fully home-based employees are assumed to have no workspace footprint in the businesses that employ them.

Most employees continue to be "on-site" workers, about three-fourths, according to a recent Census report for the nation, falling from 84% before the pandemic (see nearby figure). 16% of workers were either hybrid (i.e., a mix of working from home and part-time on-site) or fully home-based employees before the pandemic. After the pandemic, the share of employees working away from home was nearly double, at 27%. The share of employees working from home (full + mixed) held steady during and after the pandemic. Separately, additional Census ACS data (2022) suggests a persistence in work away from home. This is assumed to continue and held steady in the twenty-year forecast of non-residential building demand.

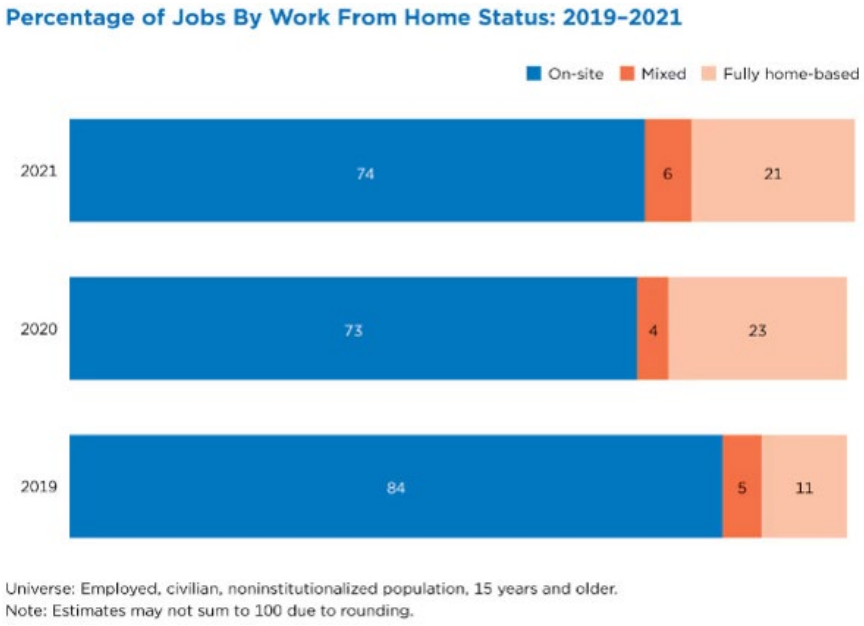

Figure 3: Work from Home Status of Employees (source: US Census, 2020-22 Survey of Income and Program Participation (SIPP))

The Metro and UGB employment forecasts are unchanged by the WFH net reduction. Instead, a hypothetical calculation (much in the manner of a pro forma) is said to reduce the forecast and adjust for a lowering of the number of employees demanding future non-residential building space. This represents a necessary step to avoid over-estimating non-residential land need going forward when roughly one-third of employees are expected to have a status that is work from home. A nearby figure illustrates the work from home assumptions applied to the industry job forecast as a step in calculating the hypothetical employment land need of the Metro region.

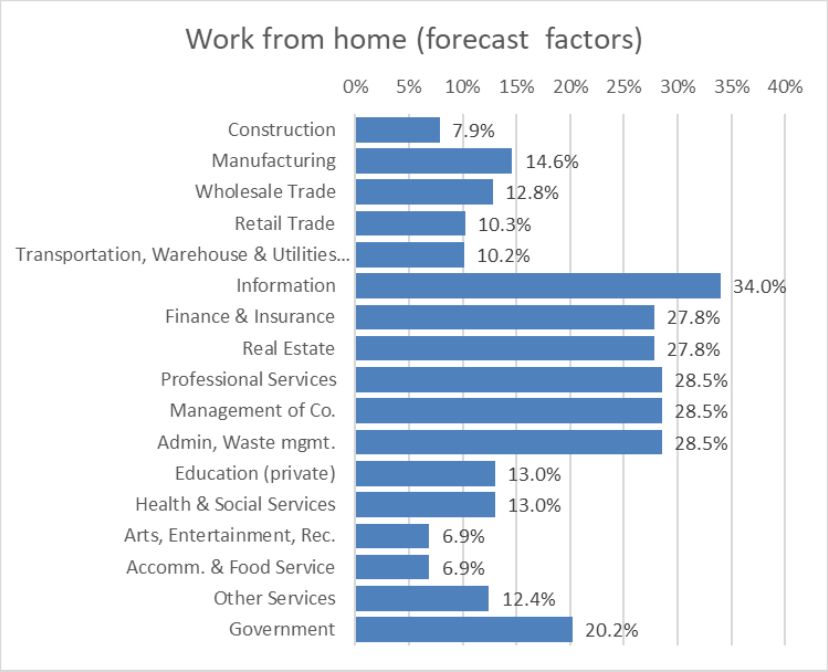

Figure 4: Work from home factors (source: Census ACS, Census SIPP and Metro calculations)

UGB Employment forecast by Building Type

The first level of employment projections was of the MSA (7 counties). The second level, the MSA projections were then trimmed to the Metro UGB, assuming a capture rate for the twenty-year forecast. The third level is the transformation of the UGB employment forecast to the forecast of UGB employment by building space (i.e., the job components for industrial vs. commercial non-residential demand). These employment projections are tallied to jobs by building archetypes. Six types are assumed: (1) general industrial, (2) flex/business park, (3) warehouse/ distribution facilities; (4) office, (5) retail stores, (6) institutional uses (schools, hospitals, medical clinics, etc.).

A contingency table based on Oregon Employment Department (OED) Quarterly Census of Employment and Wages (QCEW) confidential jobs data for the Metro region is used to distribute the UGB payroll employment projections into the 6 building types. The equation below explains the formula for how this was calculated.

Equation 2: Metro UGB Employment Forecast by Building Type

$$E_{j,t} = \sum_{i=1}^{17} (E_{i,t} * \mathbf{B}_{i,j})$$

where,

E is payroll UGB employment (less hypothetical reduction for WFH factors)

B is a contingency table of job shares by building type, a matrix that displays the bivariate frequency distribution of employment by NAICS and building type.

t is the job growth of 2024 to 2044 (end points for the twenty-year forecast)

i is the list of two-digit NAICS contained by the regional forecast (17 industry categories)

j is the list of building archetypes/ 6 types (i.e., general industrial, flex/business park, warehouse/ distribution facilities; office, retail stores, institutional uses ([schools, hospitals, medical clinics, etc.])

The building archetypes used primarily by the region's businesses vary by industry classification. Some industries have a very distinct "preference" for a certain building archetype, but all industries utilize a mix of all six forms to a higher or lesser degree. This degree is based on current employment data and the figures represent shares of jobs in each NAICS by building type.

- Construction employment mainly utilizes general industrial space, but also office space and warehousing/ distribution facilities.
- Manufacturing mostly uses general industrial buildings and flex/ business parks.
- Wholesale trade job classifications are mostly in warehouse/ distribution facilities but also in flex/ business parks.
- Transportation, warehouse & utilities (TWU) sector employs workers in warehousing/ distribution facilities, office buildings, and flex/ business parks.
- Information services, comprised of print media businesses and internet service-based providers, which include data centers and the like, primarily utilize office spaces followed by warehouse/ distribution building spaces.
- Finance & Real Estate firms employ workers in mostly office settings and retail locations.
- Professional Service providers mainly are in office buildings and some retail locations.
- Management of Companies are employees of big corporations and the holding company that owns or oversees its subsidiaries. The workers are predominantly office workers.
- Administration services are support staff occupations and temporary help workers plus businesses in waste management services, which occupy primarily office buildings and retail formats.
- Private education services are mostly located in institution spaces and office buildings.
- Health care providers mostly utilize institutional space, but some medical clinics are located in retail formats or are in office buildings.
- Arts, entertainment, and recreation jobs are classified into retail formats and larger entertainment activities are assumed in large footprints and classified in warehouse/ distribution.
- Food and accommodation services have workers in largely retail formats.
- Other services sector is more of a "catch-all" category that doesn't have a real dominant footprint
- Government is mostly classified into office spaces. Note: space demand from public schools is excluded here because public school land supply and demand is not fungible across school districts in the region (in other words, a regional calculation of the adequacy of school land supply is not meaningful to individual school districts that must address their site needs within their respective school districts). The UGR analysis also reflects this on the supply side of the ledger by excluding school district lands from the buildable land inventory. Metro has a Major UGB Amendment process that is better suited for addressing the site needs of individual school districts.

NAICS	Sectors Represented	Office	Institution	Flex/BP	Gen Industrial	Ware-house	Retail
23	Construction	27%	2%	1%	40%	20%	10%
31-33	Manufacturing	3%	0%	33%	40%	20%	4%
42	Wholesale Trade	12%	1%	23%	7%	50%	8%
44-45	Retail Trade	5%	1%	0%	2%	50%	42%
22, 48-49	Transportation, Warehouse & Utilities	31%	6%	10%	1%	43%	9%
51	Information	50%	2%	2%	1%	30%	15%
52	Finance	74%	2%	0%	0%	0%	23%
53	Real Estate	73%	3%	1%	2%	1%	21%
54	Professional Services	62%	4%	1%	2%	10%	20%
55	Management	78%	6%	1%	1%	0%	14%
56	Admin, Waste	69%	2%	2%	1%	5%	21%
61	Education (private)	33%	63%	0%	0%	0%	3%
62	Health & Social Services	17%	67%	0%	0%	0%	15%
71	Arts, Entertain, Rec	17%	13%	1%	1%	20%	49%
72	Accomm & Food Service	7%	1%	0%	1%	25%	65%
81	Other Services	34%	8%	1%	2%	35%	18%
92	Government	76%	0%	0%	0%	0%	3%
	TOTAL	36%	16%	6%	8%	5%	29%

Table 2: Metro UGB employment by building type contingency table (source: QCEW 2019 data, Metro tabulation using LDMS information; note: government does not add to 100% because of school employment – please reference the major UGB amendment process for the handling of school uses)

Office Vacancy Rate Assumption

Portland's office vacancy rate in the Central Business District (CBD) has been recently tracked by various professional real estate brokerage reports as somewhere between 25% to 30% (2023Q4 to 2024Q1). The broader Metro region has shown an office vacancy rate of about half that of the Portland CBD. Significant economic dislocations occurred during the pandemic, and difficulties in the office market continue to persist. Many pundits have said that conditions will likely worsen before improving as more leases come up for renewal, and employers who don't need as much office space as before will choose to relocate elsewhere or rent significantly less office square footage. This leaves a "surplus" of existing office space that will take additional time to absorb.

As a result of the current market surplus, most would agree that the current excess supply will get absorbed by market growth and future demand in office space. That trend will indeed resolve existing surpluses, but it will on the flip side reduce the demand for brand new office space going forward. A fraction of projected office need is expected to be absorbed by refilling of today's empty office buildings. Because this refilling of existing vacant office space is not accomplished through redevelopment of buildings, it is not addressed in the UGB capacity analysis. Instead, it is factored in here, as a demand reduction.

The office vacancy rate across the entire Metro area is currently about 15%. Market professionals have noted that a well-functioning market has a vacancy rate between 5 and 10%. This rate accounts for a "friction-less" or the smooth transaction between re-location and rental of new movers and new tenants. For purposes of computation for the UGR employment land need, a friction-less vacancy rate of 7.5% is assumed – a number arrived at from the midpoint between 5 and 10%. With the current office vacancy rate about 15% and subtracting the estimated 7.5% friction-less vacancy rate, the amount of excess office space is assumed to be 7.5% of current office space – regionally. This 7.5% of current excess office space is assumed to then reduce the amount of future office space construction in the twenty-year

forecast. This is the third component of the "triple-net" calculation applied to future nonresidential development needs.

Using Square Foot Per Employee (SFE) to Forecast Physical Building Space Needs

At this stage in calculations, we begin to translate "triple-net" job numbers into demand for building space. This is a step towards estimating demand for acres of land for employment growth. This is an approach commonly used in city Economic Opportunities Analyses.

First, we gratefully acknowledge the contributions of experts from local governments, developers, brokers, and knowledgeable individuals in the region's various real estate markets for their insights on the density and scope of non-residential construction trends. We thank them for their generous aid in reviewing the density assumptions for the 2024 UGR. Final values are Metro assumptions after consideration of external expert opinions.

The density methodology and assumptions attempt to differentiate by business unit types, generally following zoning by industrial or commercial and NAICS code, by building structure type, and by price gradients depending on proximity to the urban core. Generalization is necessary to make a regional scale employment demand analysis feasible and is in keeping with Oregon Administrative Rules such as OAR 660-024-0040(1), which states that "The 20-year [land need] determinations are estimates which, although based on the best available information and methodologies, should not be held to an unreasonably high level of precision."

Reasons for needing to generalize are at least threefold. First, there are numerous types of businesses doing production, fabrication, assembly, service provision, etc. in a variety of industry fields, and each having quite disparate space need requirements to house their operations and employees, handling and storage of materials, and the usage of large and small-scale machinery. These wide division of activities don't always lend themselves to a fully representative "average".

Second, even classifying the activities of industries into a loose organization by building type does not necessarily make the estimate of job density any easier. Building types serve a useful breakdown of the density of different structure uses, but even within this distinction there were many businesses and organizations that did not fit harmoniously into the list of building types.

Third, real estate economic theory and observed price gradients suggest that the "efficient" usage of space for various industries and firms would argue that some variation in job density should exist depending upon location. The simplest formulation imagines that, other things being equal, that closer-in locations would likely fetch a higher price premium than locations out on the edge of a region. In practice, locations aren't likely to be as fungible (or easily interchangeable) with the particular space usage needs of a business unit. The land supply isn't necessarily that fungible either because of the wide variability of the land itself, which can have quite unique aspects in its topography (i.e., good or bad for development), historic development patterns (e.g., airports, railroad stations, port facilities, existing infrastructure, etc.), and regulatory barriers. This aside, theory would offer that higher real estate prices ought to influence efficiency in density. Prices near the center of a region are generally more highly prized and therefore price per square footage is generally greater. Other things being equal, theory suggests land supply near the edge of a region might show less density.

Most have agreed that there is wide uncertainty around any job density statistic, or its estimate, and Metro staff would agree. However, external review indicated that the square footage assumptions used in this analysis strike a reasonable balance between observed variability, economic theory, and market trends that may lead to future changes in densities over the 20-year planning period.

Our approach attempts to acknowledge some of the wide variability in space efficiency by considering multiple tiers as we have; however, we acknowledge that there is significant uncertainty in the scope of possible development going forward. Density assumptions in the UGR, generally reflect greater density (i.e., lower square foot per employee) among commercial activities than compared to businesses units that need to operate on industrial sites and zoning districts. Densities between industrial activities vary too, with warehousing and distribution types generally assumed to have greater space usage per employee (i.e., less density per employee). In largely commercial activities, the office archetype is assumed to utilize space most efficiently per employee. Institutional spaces are largely assumed to be medical clinics, hospitals and other medical facilities. Retail is perhaps the most difficult to fathom because so many industry groups can find themselves located in a retail format. These could vary between a small corner grocery store up in size to a "big box" retail footprint with a regional service coverage. Additionally, a wide range of businesses activities are in retail sites, and when these traditional retail outlets change hands, a new "non-retail" establishment could replace the location turnover.

2024 Urban Growth Report – Non-residential employment density assumptions (square-foot per employee)

Building Archetypes	Central Hub	Inner Ring	Outer Ring
General Industrial	850	800	800
Warehousing/ Distribution	950	1,400	2,000
Flex	600	625	1,000
Office	300	300	300
Retail	450	450	475
Institutional	500	500	550

The density assumptions represent a curated "average" after consideration of stakeholder input.

Table 3: Reviewed Square Foot per Employee Density Assumptions

Future square footage demand is calculated by the following generalized formula.

Equation 3: Projected industrial demand (square footage)

$$Sq.ft.(of\ industrial\ demand) = \sum_{i=1}^{3} \sum_{j=1}^{3} (SFE_{i,j} * E_{i,j})$$

where,

SFE is square feet per employee

E is subarea payroll employment by building type

i is building type = {general industrial, warehouse/ distribution, flex}

j is subarea = {central hub, inner ring, outer ring}

Equation 4: Projected commercial demand (square footage)

$$Sq.ft.(of\ commercial\ demand) = \sum_{i=1}^{3}\sum_{j=1}^{3}(SFE_{i,j} * E_{i,j})$$

where,

SFE is square feet per employee
E is subarea payroll employment by building type
i is building type = {office, retail, institutional}
j is subarea = {central hub, inner ring, outer ring}

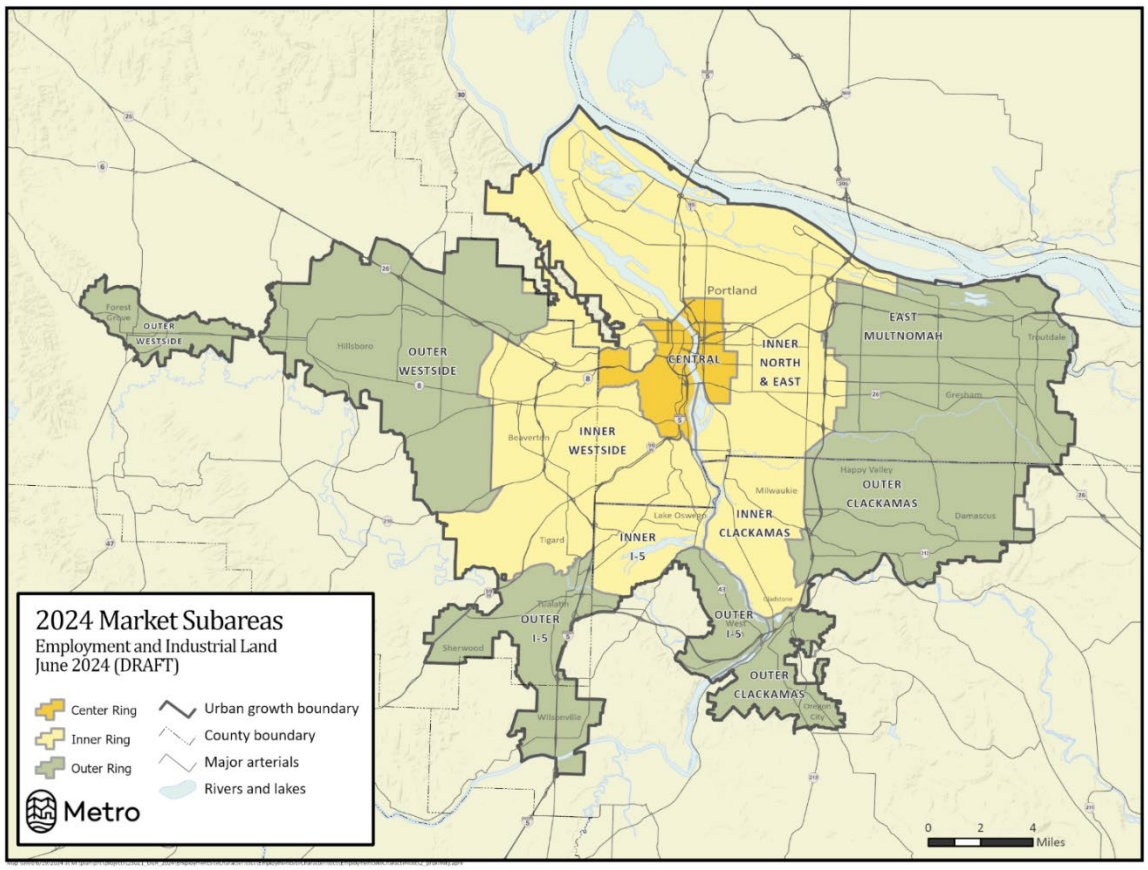

Figure 5: Map of subarea (central, inner & outer rings)

Using Floor-to-Area Ratios (FAR) to Forecast Physical Land Area Need (in net acres)

Floor area ratios convert the square footage space needs of employment and employers from buildings to net acres. The notion is conceptualized in the general equation shown nearby.

Equation 5: Concept formula for estimating net acre land demand from an employment forecast

$$Net\ acre\ land\ demand\ = \frac{(Employment)\ *\ (sq.ft.per\ employee)}{Floor\ area\ ratio}$$

where, the floor area ratio (FAR) is the relationship between a building's total usable floor space and the total area of the lot on which the building stands. FAR may be expressed as a decimal number and is derived by dividing the total area of the building by the total area of the parcel (building area ÷ lot area). Employment is the "triple net" 2024-44 Metro UGB job forecast by building type and distributed to subareas. Subareas employment is based on current employment geographic distributions. Square foot per employee assumptions are noted in Table 3. FAR assumptions are discussed conceptually, next.

The FAR values assumed in the UGR methods have been developed in past UGRs and range from 0.25 to 5.0. Individual FAR contingency tables exist for each of the 6 building types, in other words 6 matrices of FAR. Each table has individual FAR values by subarea and 2040 design type. An illustration of this contingency matrix is shown in a nearby image.

Subareas/ 2040 designs	Central	Corridors	Regional Center	Town Center	RSIA	Industrial	Employment	Other
Central								
Inner Westside								
Inner North & East								
Inner Clackamas								
Inner I-5								
Outer Westside								
East Mult Co								
Outer Clackamas								
Outer I-5/205								

Figure 6: Illustration of the contingency matrix: row and column headings (FAR values populate the cells of the matrix of which there are 6 different arrays – 1 for each building type)

FAR distinction by 2040 design type:

- Central: 1.0 to 5.0
- Corridors: 0.3 to 0.75
- Regional Centers: 0.3 to 0.75
- Town Centers: 0.4 to 0.9
- RSIA (regionally significant areas – Metro Title 4): 0.25 to 0.5
- Industrial: 0.25 to 0.5
- Employment: 0.25 to 0.5
- Other (areas not in a designated 2040 design type): 0.25 to 0.6

FAR distinction by subarea:

- Most notably, FAR's are highest in the central hub and become incrementally less dense (i.e., smaller FAR value) as sites radiate out to the inner ring and then outer ring subareas.
- The names of the subarea denote which of the 3 rings the subarea belongs (also see Map nearby)

Employment land demand results

Applying these steps results in the following estimates of 20-year demand for industrial and commercial land.

	Industrial Demand (acres)
Low growth forecast	-1,500
Baseline growth forecast	1,400
High growth forecast	5,200

	Commercial Demand (acres)
Low growth forecast	-300
Baseline growth forecast	800
High growth forecast	2,300

Negative demand shown in the low growth forecast is a result of job losses under that scenario. The baseline forecast is the most likely outcome.

Additional Notes:

- Redevelopment calculations are handled on the supply-side. The real estate pro forma model is used to estimate the supply of non-residential redevelopment in the twenty-year forecast.
- Public education land demand is handled through the major amendment process, which is outside Metro's 6-year review of the UGB. Experience in past UGR cycles has shown that land for public schools is generally not fungible across different school districts. We exclude from the UGR land demand computation the portion of government employment that can be attributed to demand for future public-schools. Also note that the BLI excludes school owned property from the land available for future development.