ATTACHMENT A: POPULATION AND EMPLOYEMENT FORECASTS

Date:	January 25, 2023
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Project:	City of Florence Transportation System Plan Update
Project:	Attachment A: Population and Employment Forecasts

Population and Employment Forecasts

This memorandum documents the methodology and results of the population and employment forecasts conducted as part of the City of Florence Transportation System Plan (TSP) Update. This forecast ultimately provides the following:

- Number of dwelling units in each Transportation Analysis Zone (TAZ), current year (2020) and end year (2045).
- Square footage of employment uses, current year and end year.

The forecast analysis is based on the best available population, employment, and land use data for the City of Florence and Lane County. As such, please note that the estimates are generalized approximations based on the available population and employment information.

PROJECTED POPULATION GROWTH PATTERNS

As of the 2020 census, Florence is home to an estimated 9,396 residents, and the Portland State University Population Research Center (PRC) estimates the City's 2020 population within the Urban Growth Boundary (UGB) at 11,182 residents.

Table 1 compares Florence's 20-year population growth with Lane County. Since 2020, Florence has experienced population growth at a higher rate than the rest of Lane County. Overall, Florence grew by about 25% since 2000, which represents an estimated 2,253 people.

Table 1. Florence and Lane County Population Growth

				2000-2020 Change	
Geography	**2000**	**2010**	**2020**	**Number**	**Percent**
Lane County	322,959	351,715	381,365	58,406	18.1%
Florence UGB	8,929	10,327	11,182	2,253	25.2%

Source: PSU Population Research Center

The PRC develops long-term coordinated population forecasts for Oregon's UGBs on a routine basis. PRC forecasted population figures for Florence and Lane County are provided in Table 2.

The PSU PRC population methodology addresses places within an urban growth boundary (UGB) individually. Florence is forecasted to grow at a faster rate than the County over the next 20 years.

Table 2. Florence Population Forecasts (% growth)

				2020-2045 Change	
Geography	2020	2045	2070	Number	Percent
Lane County	381,365	443,747	490,588	62,382	16.4%
Florence UGB	11,182	14,040	17,840	2,858	25.6%

Source: PSU Population Research Center

Table 3 shows the persons per household for Florence, which experienced a slight increase of 0.07 person per household (PPH) between the 2010 and 2020 census. The assumption for 2045 is that this ratio will remain the same throughout the planning horizon at approximately 1.9 PPH. Dividing the population by this number results in an estimated 5,885 households in 2020 and 7,389 households in the year 2045. The difference between the Base Year and End Year is an **additional 1,505 households.**[1] This is the overall growth in housing units estimated for Florence during the planning period.

Table 3: Persons per Household Change (PPH)

Geography	2010	2020	2010-2020 Change
Lane County	2.35	2.39	0.04
Florence	1.86	1.93	0.07

Source: US Census Table DP02

An inventory of undeveloped and underdeveloped land was produced as part of Technical Memorandum #3: Existing Conditions. The undeveloped/underdeveloped land inventory is used as the basis for determining future residential capacity in Florence. This analysis uses Zoning and Comprehensive Plan designations within the UGB to estimate residential capacity. Because the City's residential zones have corresponding Comprehensive Plan designations (low, medium, and high density), allowed density for residential zones were used as a proxy to estimate capacity in UGB areas. Minimum and maximum residential density is provided in Chapter 10 of the Florence Zoning Code (Title 10). A summary of the minimum and maximum allowed densities for residential zones is provided in Table 4, and a brief description of each residential zone is provided in Table 5. In addition, Table 5 includes a description of housing unit type mix assumptions for each zone. The unit mix assumptions for each zone are based on the approximate current mix of housing types that have been developed in each residential zone. These assumptions are rough approximations based on current available property tax assessor data.

1 Note that the population and household forecasts used here deviate slightly from forecast estimates used for TAZs in later tables. The slight deviation is due to differences in sources. Table 2 figures are derived from PSU Population Research Center Estimates, while population and household estimates for Table 7 are based on Census Block counts.

Table 4: Residential Density Standards

City of Florence Zones	Minimum (DU/acre)	Maximum (DU/acre)
Low Density Residential (LDR)	-	5.8 DU/acre
Medium Density Residential (MDR)	-	12
Mobile/Manufactured Home Residential (RMH)	-	12
High Density Residential	12	25

Table 5: Florence Zoning Designation Descriptions[2]

Zone	Zone Purpose	Unit Mix Assumption
Low Density Residential (LDR)	The Low Density Residential District is intended to provide a quality environment for low density, urban residential uses and other Planned Unit Development as determined to be necessary and/or desirable. This zone allows single-family detached dwellings and manufactured dwellings.	Assume 5 DU/acre at 95% single-family and 10 DU/acre at 5% duplex. Although duplexes are not currently allowed in the low density zone, the City will likely adopt amendments to allow this housing type in the near-future (within ~1 year) to comply with HB 2001, and duplexes are not subject to maximum density requirements per the state rules for middle housing compliance. This is a conservative (high) estimate to test the performance of the transportation system assuming maximum development.
Medium Density Residential (MDR)	The Medium Density Residential District is intended to provide a quality environment for medium density, urban residential uses and other compatible land uses determined to be necessary and/or desirable. This zone allows single-family attached dwellings, duplexes, and manufactured homes.	Assume 12 DU/acre at 95% single-family and 12 DU/acre at 5% duplexes/single-family attached (townhomes). Based on the current unit mix in this zone approximately 95% of residential parcels are single-family detached, while the remaining roughly 5% are duplexes or single-family attached.
Mobile Home/ Manufactured Home Residential (RMH)	The Mobile Home/Manufactured Home Residential District is intended to provide mobile home/manufactured homeowners and owners of other pre-manufactured homes an alternative	Assume 12 DU/acre at 95% single-family and 12 DU/acre at 5% duplexes/single-family attached (townhomes). For the purposes of this zone, manufactured/mobile homes

[2] The City also allows residential development in the Coast Village District (Chapter 29). However, per the BLI analysis, this small residential zone is completely built out, and therefore was not included in the future capacity analysis.

Zone	Zone Purpose	Unit Mix Assumption
	to renting space in a mobile home/manufactured home park.	are considered the same as single-family detached. Based on the current unit mix in this zone approximately 95% of residential parcels are single-family detached, while the remaining roughly 5% are duplexes or single-family attached.
High Density Residential (HDR)	The High Density Residential District is intended to provide a quality environment for high density, urban residential uses together with other compatible land uses determined to be necessary and/or desirable. This zone allows every housing type allowed in the city and permits single-family detached as a conditional use and multifamily (5+ units) through site plan review.	Assume 65% multi-family (3+ units), 30% duplexes/single-family attached, and 5% single-family detached, all at 25 DU/acre.

For the purposes of calculating capacity, the gross acreage was reduced by 25% to allow for dedications and improvements. Site-specific environmental constraints (i.e., floodplains and wetlands) were not factored into the capacity analysis. Multiplying these assumed densities by the remaining buildable acres identified in the vacant inventory map provides the expected capacity of households remaining within the UGB. Table 6 shows the estimated buildable acres and unit capacity by zone, and Figure 1 shows buildable lots (undeveloped or underdeveloped) by TAZ.

Table 6: Residential Capacity Summary

Zone	Net Buildable Acres	Assumed Density	Unit Capacity	Unit Split
Low-Density Residential	284.28	5.8 DU/acre	1,651	95% Single-family 5% Duplex/SFA
Medium-Density Residential	247.91	12 DU/acre	2,959	95% Single-family 5% Duplex/SFA
High-Density Residential	38.50	25 DU/acre	962	5% Single-family 30% Duplex/SFA 65% Multi-family
Mobile Home/ Manufactured Home	42.93	12 DU/acre	513	95% Single-family 5% Duplex/SFA
TOTAL	613.63		6,085	

Figure 1 Buildable Residential Lots by TAZ in Florence

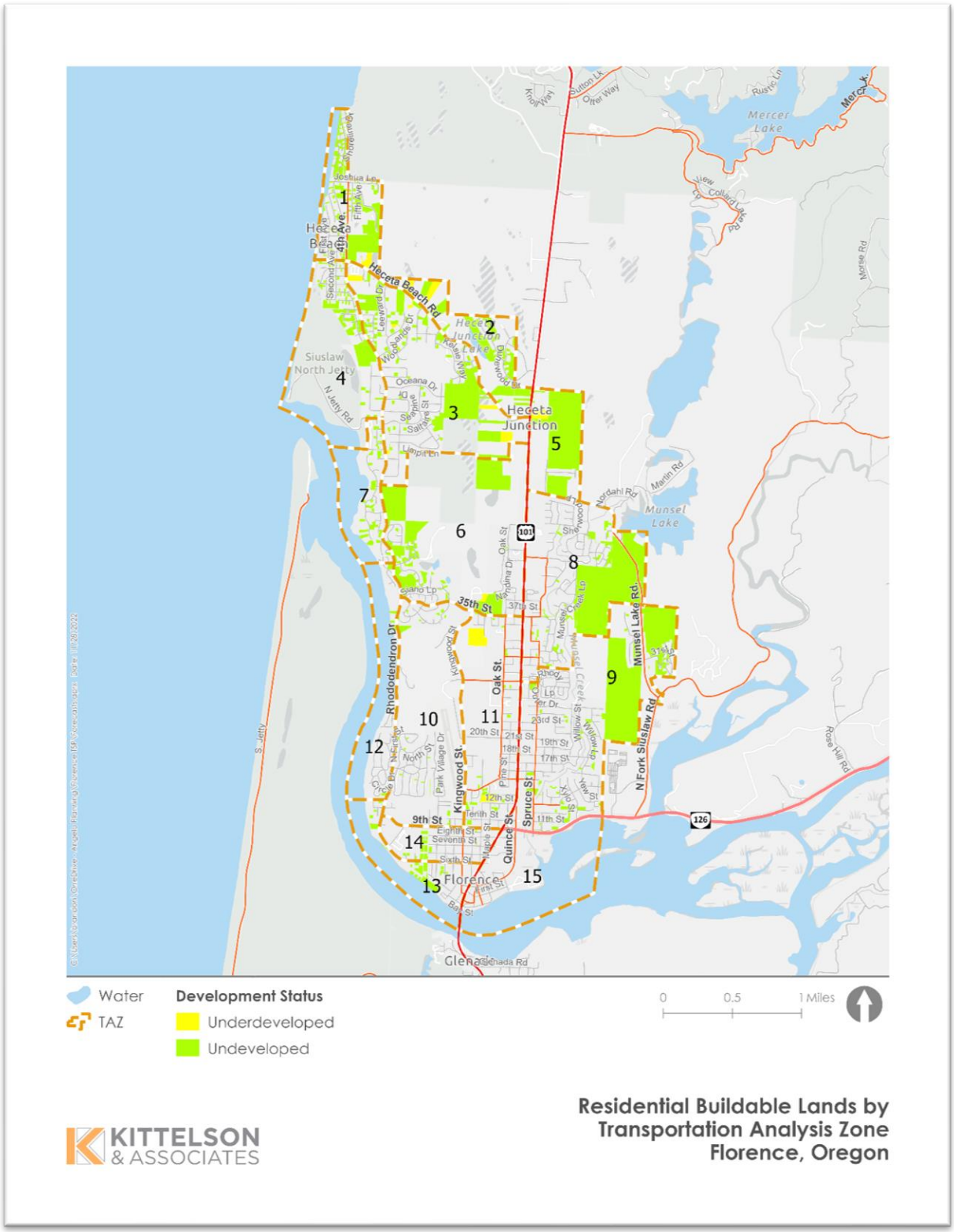

Table 7 shows the estimated population and number of households for all TAZs within the Florence UGB for 2020 and 2045. The populations for Census Blocks[3] that correspond with TAZs were used to estimate population growth within each TAZ by 2045. In addition, the average household size of 1.93 for 2020 was also assumed for 2045. Thus, the number of households for 2020 and 2045 was estimated by dividing the population estimate for each year by the 2020 average household size (1.93).

To account for housing capacity that is available to accommodate growth in Florence, the estimated city-wide population increase was redistributed among the TAZs based on the percentage of total housing capacity each TAZ contains. In other words, the projected population growth for each TAZ is proportionate to its housing capacity. As a result, TAZ 9, which currently has the highest population in the city, is projected to increase by about 300 people to a population of an estimated 2,862 people and is expected to remain the most populated TAZ. Meanwhile, TAZs 5, 6, and 8 are all expected to have the largest population increases. TAZ 5 is forecast to grow the most relative to its current population (it is projected to nearly triple) due to the TAZ's abundance of vacant residential land and capacity to accommodate growth. Table 8 shows each TAZ's estimated buildable land and housing capacity compared to their projected increase in number of households.

Table 7 also shows the assumed unit split for each TAZ. The unit split assumptions are based on the portion of residential zones in each TAZ. Most TAZs only have low-density or medium-density zoning designations and therefore reflect the unit split assumptions for those zones presented in Table 6. TAZ 11 mostly has high-density residential zoning, and therefore has the highest multi-family unit assumption (65%). A few TAZs have a small portion of high density residential (~5-10%), and therefore they are assumed to have a relatively small portion of multi-family housing (5%). Further, TAZs 14 and 15 have more even distributions of different residential zones (e.g., 50% high-density in TAZ 15), and therefore have a relatively more even mix of housing types compared to other TAZs.

Table 7: TAZ Population and Households

TAZ	2020 Population	2045 Population	Population Increase	2020 Households	2045 Households	Household Increase	Unit Split
1	307	497	190	159	258	98	95% Single-family 5% Duplex/SFA
2	138	229	91	71	118	47	95% Single-family 5% Duplex/SFA
3	1,051	1,305	254	545	676	131	95% Single-family 5% Duplex/SFA
4	265	361	96	137	187	50	95% Single-family 5% Duplex/SFA
5	236	630	394	122	327	204	95% Single-family 5% Duplex/SFA

[3] The 2020 population and households deviate from the estimates shown in Table 2 because the Census population estimates are slightly different from the PSU population estimates. The Census population estimates were used for the TAZ estimates because PSU only provides population estimates for the entire UGB, while Census block estimates can be extrapolated to the TAZ geography.

TAZ	2020 Population	2045 Population	Population Increase	2020 Households	2045 Households	Household Increase	Unit Split
6	720	1,283	563	373	665	292	90% Single-family 5% Duplex/SFA 5% Multi-family
7	210	242	32	109	125	16	95% Single-family 5% Duplex/SFA
8	1,444	2,108	664	748	1,092	344	95% Single-family 5% Duplex/SFA
9	2,557	2,862	305	1,325	1,483	158	90% Single-family 5% Duplex/SFA 5% Multi-family
10	1,210	1,241	31	627	643	16	90% Single-family 5% Duplex/SFA 5% Multi-family
11	1,470	1,650	180	762	855	93	5% Single-family 30% Duplex/SFA 65% Multi-family
12	467	481	14	242	249	7	95% Single-family 5% Duplex/SFA
13	330	347	17	171	180	9	95% Single-family 5% Duplex/SFA
14	587	618	31	304	320	16	50% Single-family 25% Duplex/SFA 25% Multi-family
15	350	350	--	181	181	-	25% Single-family 25% Duplex/SFA 50% Multi-family
TOTAL	11,342	14,204	2,861	5,877	7,359	1,482	

Figure 2 shows the location of Florence's projected 2045 population by TAZ.

Figure 2. Projected 2045 Florence Population by TAZ

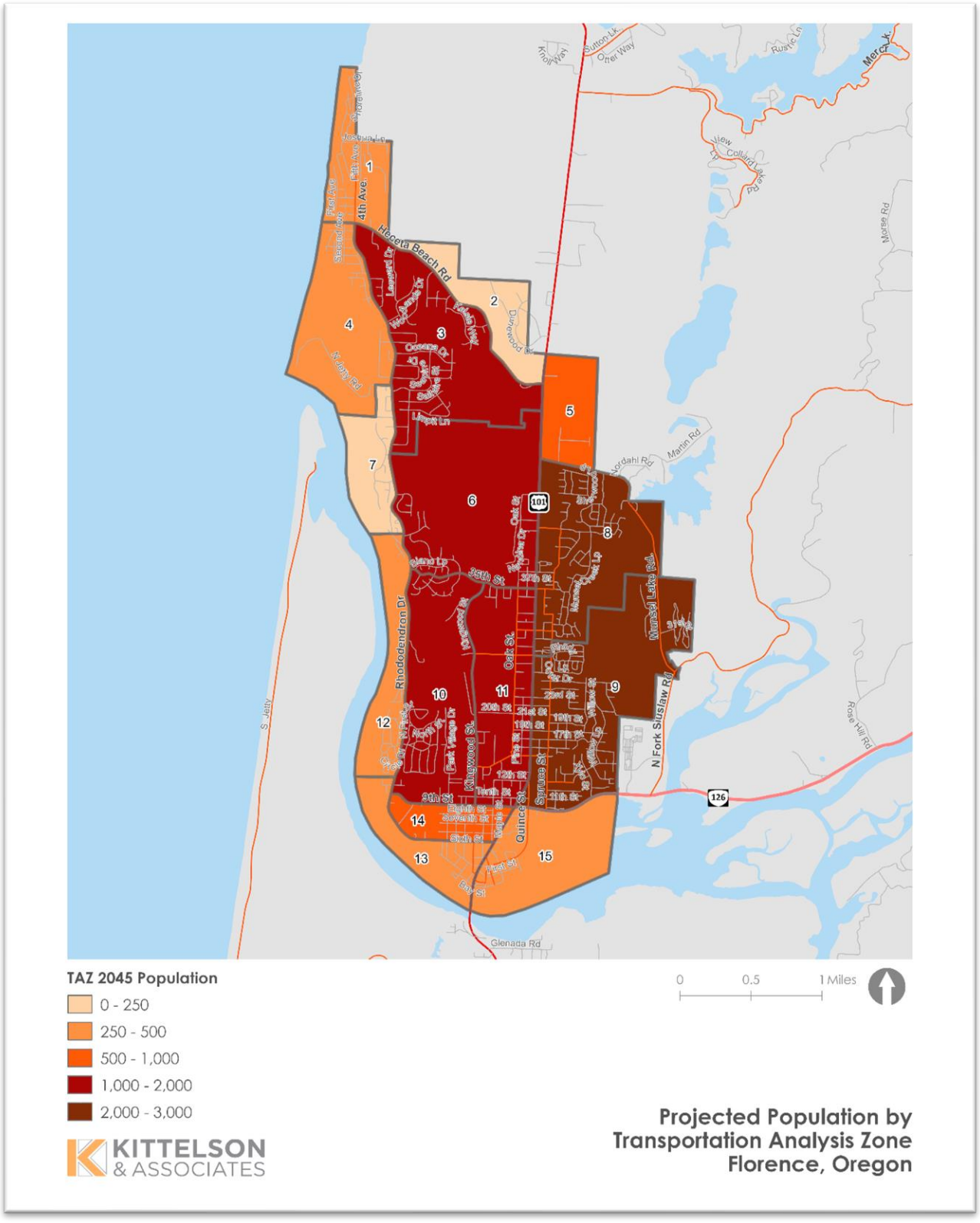

Table 8 shows the housing unit capacity and projected household increase by TAZ. Figure 3 shows the current housing capacity by TAZ. Based on current allowed density by residential zone and the City's supply of undeveloped and underdeveloped land, Florence's estimated current capacity to accommodate 6,085 units should be adequate to support an increase of approximately 1,500 households by 2045.

Table 8: TAZ Housing Capacity

TAZ	Net Buildable Acres	Housing Unit Capacity	Projected Household Increase	Single-family Detached	Duplex or Single-Family Attached	Multi-family
1	47.65	404	98	93	5	--
2	33.32	193	47	45	2	--
3	79.21	540	132	124	7	--
4	27.28	204	50	48	2	--
5	73.56	839	204	194	10	--
6	85.23	1,198	292	262	15	15
7	9.54	67	16	16	--	--
8	128.98	1,412	344	327	17	--
9	94.27	648	158	142	8	8
10	5.06	66	16	14	2	
11	16.19	382	93	5	28	60
12	2.50	29	7	7	--	--
13	5.97	37	9	9	--	--
14	4.86	66	16	8	4	4
15	--	--	--	--	--	--
TOTAL	613.63	6,085	1,482	1,294	100	87

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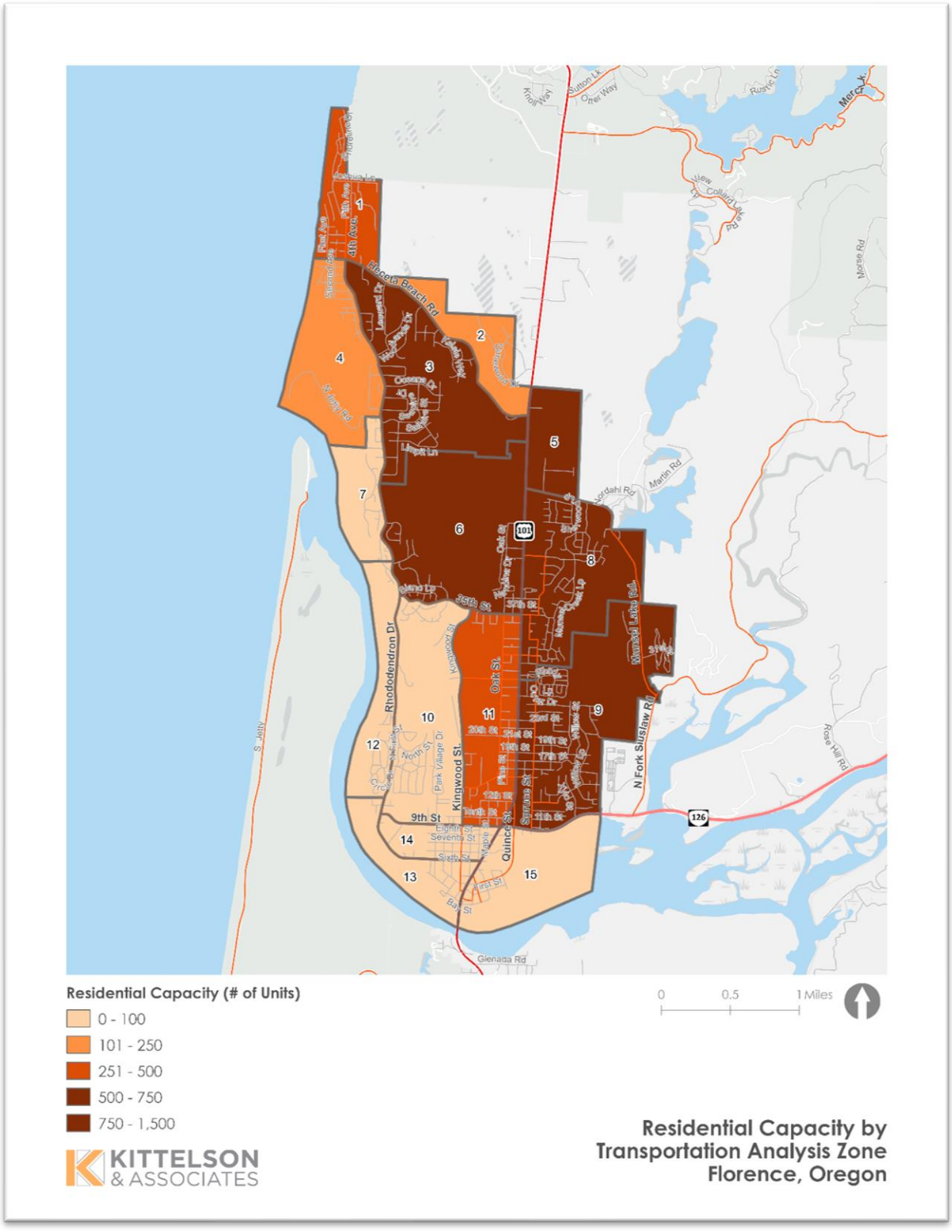
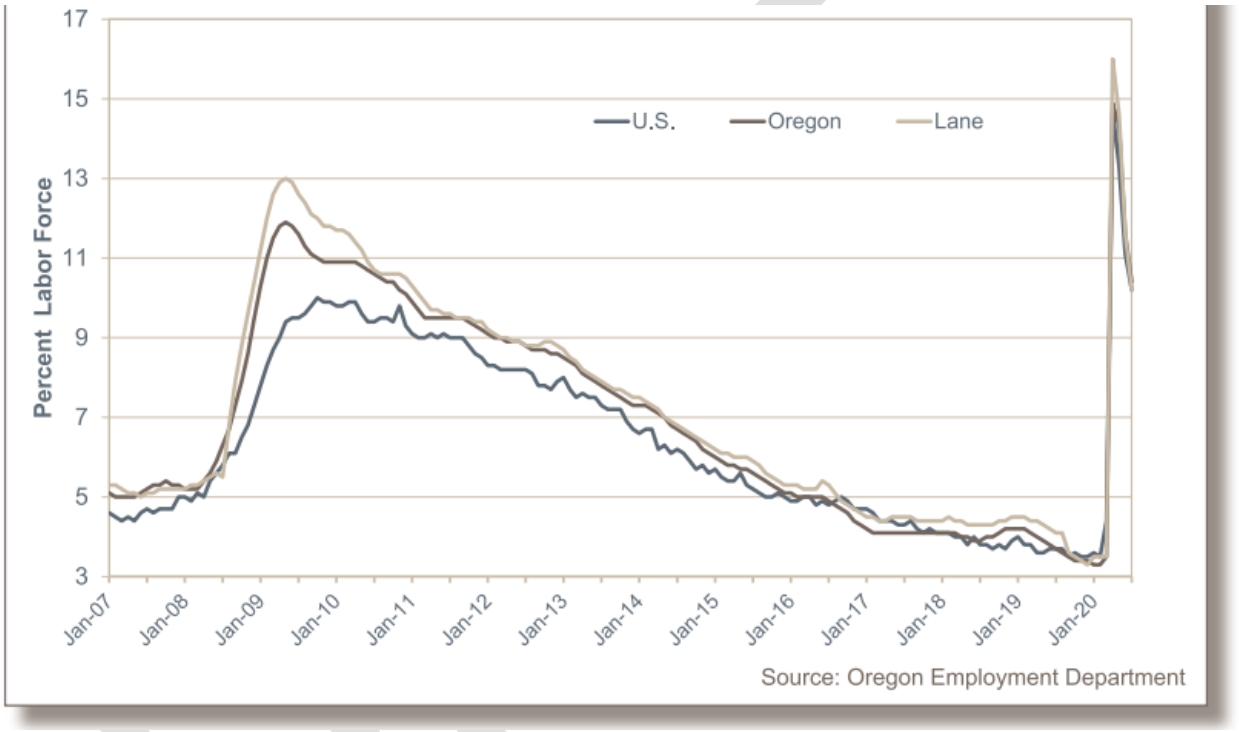
Figure 3. Current Housing Unit Capacity by TAZ



HISTORIC AND PROJECTED EMPLOYMENT GROWTH PATTERNS

This analysis evaluated historic and projected employment patterns in the Florence area to understand current and future transportation needs. The Oregon Employment Department (OED) publishes current employment trends specific to Lane County.[4] As shown Figure 4, unemployment rates in Oregon and Lane County spiked in 2020 because of the COVID-19 pandemic. Unemployment rates have been rapidly declining since the height of the pandemic, and if Lane County employment levels continue to increase, transportation needs within Florence may change.

Figure 4: Seasonally Adjusted Unemployment Rates, 2007 to Present – OED



PROJECTED EMPLOYMENT

The Oregon Employment Department Workforce and Economic Research Division publishes employment forecasts by industry. These ten-year forecasts are defined by regions (as opposed to counties or cities) and organize employment forecasts by primary industry. For Lane County, it is expected that the largest employment increases will occur in leisure and hospitality (44%) and accommodation and food services (44%). All industries are expected to experience an increase in employment except for federal government, as shown in the employment forecasts in Table 9.

[4] https://www.laneworkforce.org/wp-content/uploads/2020-State-of-the-Workforce.pdf

Table 9: Lane County Industry Employment Projections, 2020-2030[5]

Industry	2020	2030	Change	% Change
Total employment	162,100	186,000	23,900	15%
Total payroll employment	153,000	176,400	23,400	15%
Total private	126,100	147,300	21,200	17%
Natural resources and mining	2,500	2,600	100	4%
Mining and logging	800	800	0	0%
Construction	7,300	8,100	800	11%
Manufacturing	13,800	15,400	1,600	12%
Durable goods	8,900	9,900	1,000	11%
Wood product manufacturing	3,500	3,600	100	3%
Transportation equipment manufacturing	600	800	200	33%
Nondurable goods	4,900	5,500	600	12%
Trade, transportation, and utilities	28,500	31,700	3,200	11%
Wholesale trade	5,900	6,800	900	15%
Retail trade	19,300	21,000	1,700	9%
Transportation, warehousing, and utilities	3,300	3,900	600	18%
Information	2,000	2,100	100	5%
Financial activities	8,000	8,600	600	8%
Professional and business services	17,200	20,100	2,900	17%
Administrative and support services	7,500	9,000	1,500	20%
Private educational and health	28,000	33,100	5,100	18%
Private educational services	1,700	2,100	400	24%
Health care and social assistance	26,300	31,000	4,700	18%
Ambulatory health care services	20,300	24,100	3,800	19%
Leisure and hospitality	13,800	19,900	6,100	44%
Accommodation and food services	12,300	17,700	5,400	44%
Accommodation	1,300	2,100	800	62%
Food services and drinking places	11,000	15,600	4,600	42%
Other services	5,000	5,700	700	14%
Government	26,900	29,100	2,200	8%
Federal government	2,000	1,900	-100	-5%
State government	1,700	1,900	200	12%
Local government	23,200	25,300	2,100	9%
Local education	16,200	17,600	1,400	9%
Self-employment	9,100	9,600	500	5%

The most recent employment data by NAICS sector available for the City is provided from the American Community Survey (ACS) 5-year estimates of employment by industry, as shown in Table 10. This provides a general basis of comparison with the Oregon Employment

[5] Oregon Employment Department, Workforce and Economic Research Division

Department's employment forecast analysis. Florence employed 2,973 people in the year 2020. Over one-third of the jobs were related to education, health care, entertainment/recreation, or accommodation and food services.

Table 10: ACS Employment Estimates by Industry

Florence Jobs by Sector	2020
Civilian employed population 16 years and over	2,973
Agriculture, forestry, fishing and hunting, and mining	30
Construction	252
Manufacturing	193
Wholesale trade	9
Retail trade	392
Transportation and warehousing, and utilities	48
Information	25
Finance and insurance, and real estate and rental and leasing	149
Professional, scientific, and management, and administrative and waste management services	331
Educational services, and health care and social assistance	612
Arts, entertainment, and recreation, and accommodation and food services	696
Other services, except public administration	52
Public administration	184

Source: 2020 ACS 5-year Estimates, Table DP03

The following tables apply the State's growth forecast to employment and translates those employment figures to the amount of commercial and industrial building space needed using standard ratios of square feet per employee from the Urban Land Institute.

Table 11. Square Footage per Employee – Urban Land Institute

Employment Space Utilization							
	Commercial		Industrial				
				Avg. Space per Job			
Industry	Commercial Office Share	Avg. Space per Job	Industrial Share	Warehouse	General	Tech/ Flex	Weighted Avg.
Construction	2%	366	30%	0	400	117	517
Manufacturing	5%	366	95%	0	400	117	517
Wholesale Trade	5%	366	95%	1,350	0	47	1,397
Retail Trade	5%	366	0%	0	0	0	0
Transp. Warehouse. Util	30%	366	70%	2,000	0	0	2,000
Information	90%	366	10%	0	0	467	467

Employment Space Utilization							
	Commercial		Industrial				
				Avg. Space per Job			
Industry	Commercial Office Share	Avg. Space per Job	Industrial Share	Warehouse	General	Tech/ Flex	Weighted Avg.
Financial Activities	90%	366	0%	0	0	0	0
Professional & Business Services	90%	366	10%	0	0	467	467
Education & Health Services	40%	366	0%	0	0	0	0
Leisure & Hosp	25%	366	0%	0	0	0	0
Other Services	40%	366	60%	0	400	117	517
Government	85%	366	15%	675	0	234	909

The City of Florence is assumed to grow by an additional 1,862 jobs through the year 2045. This assumes that growth in Florence follows similar employment trends as forecasted in the State's Industry Employment Forecast. By applying the employment space utilization to the forecasted growth in employment, Florence is anticipated to increase its total office space by an additional 266,778 square feet and increase its total industrial space by an additional 122,855 square feet. The complete employment forecasts for each NAICS sector are shown in Table 12.

Table 12. Florence City-Wide Employment Forecasts

Jobs by NAICS Sector	2020 Jobs	2020 Commercial SF	2020 Industrial SF	2045 Jobs	2045 Commercial SF	2045 Industrial SF
Total, All	2,973	402,468	270,866	4,282	668,778	393,721
Agriculture, Forestry, Fishing, Hunting, and Mining	30	0	0	33	0	0
Construction	252	1,845	39,085	331	2,425	51,380
Manufacturing	193	3,532	94,792	287	5,252	140,966
Wholesale Trade	9	165	11,944	13	241	17,459
Retail Trade	392	7,174	-	488	8,930	-
Transportation, Warehousing, and Utilities	48	5,270	67,200	75	8,273	105,486
Information	25	8,235	1,168	28	9,329	1,323
Finance and Insurance	149	49,081	-	180	59,161	-
Professional, scientific, management, administrative, and Business Services	331	109,031	15,458	503	165,771	23,502

Jobs by NAICS Sector	2020 Jobs	2020 Commercial SF	2020 Industrial SF	2045 Jobs	2045 Commercial SF	2045 Industrial SF
Educational Services, health care, and social services	612	89,597	-	961	140,644	-
Arts, Entertainment, and Recreation, and accommodation and food services	696	63,684	-	2052	187,768	-
Other Services (excluding Public Administration)	52	7,613	16,130	74	10,777	22,835
Public Administration	184	57,242	25,088	226	70,208	30,771

Table 13 shows the estimated employment and industry square footage by TAZ. These figures include all employment estimates within the Florence UGB and are based on ACS Block Group employment estimates for 2020. Because these employment figures include UGB areas (i.e., areas outside the City limits and inside the UGB), the estimates are slightly higher than the City-wide estimates. In addition, the smallest geographic unit in which 2020 ACS employment data is available for Lane County is at the block group level. Block group boundaries do not perfectly align with the Florence TAZs, as several block groups extend beyond the UGB, thereby including employment figures outside of the study area. As a result, the employment estimates at the block group level will be slightly higher than the actual employment within the UGB.

Table 13. Forecasted Employment and Employment Square Footage by Transportation Analysis Zone

TAZ	2020 Employment	2045 Employment	2020 Square Footage	2045 Square Footage
1	71	107	14,047	20,766
2	73	111	14,531	21,482
3	276	511	89,715	139,056
4	146	220	28,945	42,790
5	332	538	90,311	133,087
6	314	582	102,114	158,274
7	65	98	12,889	19,054
8	110	134	15,163	18,498
9	596	907	171,860	254,298
10	302	580	51,722	88,054
11	688	1,456	130,290	228,605
12	122	226	21,453	35,587
13	165	297	26,022	43,851
14	132	236	20,618	34,692
15	255	401	53,329	78,795
TOTAL	3,648	6,402	843,008	1,316,890

Table 14 and Table15 further breakdown employment square footage by industry category by TAZ for 2020 and 2045. Office uses comprise the most square footage in most TAZs, and they are estimated to continue to be the most prominent employment type (in terms of area consumed) by 2045. TAZ 9 will continue to include most of the City's industrial employment activity.

Table 14. 2020 Estimated Employment Square Footage by Industry and TAZ

TAZ	Office	Institutional	FLEX	Gen. Industrial	Warehouse	Retail	*Total*
1	4,985	717	2,874	5,043	-	427	*14,047*
2	5,157	742	2,973	5,217	-	442	*14,531*
3	38,963	7,942	8,086	7,186	27,538	-	*89,715*
4	10,273	1,477	5,921	10,392	-	881	*28,945*
5	49,339	6,002	14,073	19,927	-	970	*90,311*
6	44,348	9,040	9,204	8,179	31,344	-	*102,114*
7	4,575	658	2,637	4,628	-	392	*12,889*
8	14,101	-	-	-	-	1,061	*15,163*
9	59,143	17,559	7,797	81,195	5,200	967	*171,860*
10	21,115	7,641	15,492	6,714	-	759	*51,722*
11	65,472	10,145	29,389	23,913	-	1,371	*130,290*
12	8,535	2,766	6,030	3,741	-	380	*21,453*
13	9,576	2,771	4,490	8,282	-	903	*26,022*
14	7,465	2,070	3,172	7,134	-	776	*20,618*
15	18,823	16,991	2,259	6,517	8,389	350	*53,329*
TOTAL	**361,870**	**86,522**	**114,396**	**198,069**	**72,470**	**9,681**	***843,008***

Table15.2045ForecastEstimatesforEmploymentSquareFootagebyIndustryandTAZ

TAZ	Office	Institutional	FLEX	Gen.Industrial	Warehouse	Retail	*Total*
1	6,589	1,125	5,177	7,342	-	532	*20,766*
2	6,817	1,164	5,356	7,595	-	550	*21,482*
3	50,602	12,467	22,532	10,227	43,228	-	*139,056*
4	13,578	2,319	10,668	15,128	-	1,096	*42,790*
5	66,192	9,422	27,496	28,769	-	1,207	*133,087*
6	57,595	14,191	25,646	11,640	49,202	-	*158,274*
7	6,046	1,033	4,751	6,737	-	488	*19,054*
8	17,177	-	-	-	-	1,321	*18,498*
9	83,041	27,563	15,989	118,339	8,162	1,204	*254,298*
10	29,741	11,994	36,171	9,204	-	945	*88,054*
11	89,962	15,926	86,650	34,360	-	1,706	*228,605*
12	11,894	4,342	13,623	5,256	-	474	*35,587*
13	13,782	4,350	12,625	11,970	-	1,124	*43,851*
14	10,782	3,250	9,354	10,340	-	967	*34,692*
15	23,290	26,672	6,662	8,568	13,168	436	*78,795*
TOTAL	**487,087**	**135,818**	**282,700**	**285,474**	**113,760**	**12,051**	***1,316,890***

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