

Cornelius Employment Capacity June 6, 1999

In 1998, the City determined a general employment capacity based on net vacant acres available within the City limits. This information is part of the 1998 Vacant Land Inventory and Population and Employment Update. The conclusion of the 1998 employment capacity determined that the City had a deficit of vacant commercial and industrial land to accommodate the employment needs for the City.

However, in 1999 the City conducted a more detailed analysis of the capacity of existing vacant commercial and industrial and the following information is a summary of this analysis. The analysis looks more closely at the actual capacity of individual vacant commercial and industrial parcels within the City of Cornelius. The summary is based on basic parameters established by Metro and the current Cornelius zoning code. Cornelius staff looked at the actual development that occurred between 1994 and 1998 and estimated the employment capacity. This information is summarized in Tables 4 and 5. Staff then looked at the remaining individual vacant commercial and industrial parcels and determined the employment capacity of each vacant parcel. Together, this information provides a solid foundation for decision-making within the City of Cornelius.

One assumption established by Metro is that development will occur at the maximum density allowed, which in the case of Cornelius is two-story. However, because two-story development has not generally occurred in the past, staff provides capacity calculations for two-story development and one-story development. Conclusions are based on one-story development.

Following the capacity determination for individual vacant parcels, the overall employment capacity of Cornelius is compared to the target allotments established by Metro. This comparison guides the City toward decision-making resulting in a balance of jobs and employment.

Determination of Employment Capacity for M1- General Industrial Zone

The determination of employment capacity on the vacant M1 industrial land is determined on a site by site basis. A summary of this information is found in Table 1.

The first step in determining the employment capacity of the M1 vacant land is to determine the gross area of each parcel. Following this determination, a gross-

to-net reduction for streets and right-of-way is applied to each parcel according to the standards established by Metro.

The right-of-way reductions are as follows. Areas less than or equal to 3/8 of one acre are given zero reduction for streets and right-of-way. Areas greater than 3/8 of one acre and less than one acre receive a 10% reduction for streets and right-of-way, and areas one acre or larger receive a 22% reduction for streets and right-of-way.

Once the right-of-way reductions are applied, each parcel is reduced by the applicable setbacks or landscaping requirements, whichever is more. In the M1 zone, the front setback is 20 feet unless the parcel is adjacent to a residential zone, in which case the front setback is 25 feet. M1 parcels located with side or rear yards adjacent to residential properties shall have a side or rear yard of 25 feet. If the side or rear yard of the parcel in question is adjacent to another property zoned M1, the setback is zero. Table 1 provides setback calculations for individual parcels.

Additional assumptions to determine employment capacity in the M1 zoning district include:

- 1,133 square feet per employee (Metro)
- One parking space per employee (Development Code)
- 350 square feet per parking space (Metro)
- Two permitted stories of development (Development Code)
- 15 percent landscaping (Development Code)

Following each of the above assumptions in parentheses, the source of the assumption is identified.

Based on the assumptions mentioned above, the maximum employment capacity per parcel is determined by the following equation, assuming a two-story capacity.

$$E = \frac{2((\text{net square footage}) - 350(E))}{(1,133 \text{ square feet per employee})}$$

"E" is employment capacity. The employment capacity based on this method is illustrated in Table 1.

While this method identifies the maximum square footage, and therefore the maximum employment, allowed by the code, it may not be realistic to expect industrial development to develop at this maximum, two-story density. Therefore, the following calculations remove the two-story assumption and assume development will occur primarily as one-story. This calculation provides an estimate of the number of jobs assuming all other factors remain the same. The equation used to determine this capacity is as follows:

$$E = \frac{\text{(net square footage)-(350E)}}{(1,133 \text{ square feet per employee})}$$

Table 1

M1 Employment Capacity Determination

Map #	Parcel #	Gross Area	Area after ROW Reduction	Area after Landscaping Reduction	Area after Setback Reduction	Maximum Employment Capacity- Two-Story Development	Maximum Employment Capacity- One-Story Development
1N 3 33DB	400	179031.6	139645	118698	134292	130	80
1N 3 33DB	300	129808.8	101251	86063	86581	94	58
1N 3 33DB	500	79279.2	61838	52562	60139	57	35
1N 3 33DB	600	73180.8	57081	48519	48007	52	32
1N 3 33DB	700	105850.8	82564	70179	79764	77	47
1N 3 33DB	1200	81457.2	63537	54006	51903	57	35
1N 3 33DB	1300	86684.4	67614	57472	62918	63	39
1N 3 33DB	1400	250470	195367	166062	178852	181	112
1N 3 33DB	1600	40946.4	31938	27147	30938	30	18
1N 3 33CA	100	156816	122316	103969	116316	113	70
1N 3 33CA	400	163350	127413	108301	115380	118	73
1N 3 33CA	600	266151.6	207598	176459	184398	193	119
1N 3 33CA	700	215186.4	167845	142669	167535	156	96
1N 3 33CA	900	547113.6	426749	362736	423149	396	245
1N 3 33CA	1001	115434	90039	76533	89439	84	52
1S 3 4D	1101	174240	135907	115521	125907	126	78
1S 3 4DB	2600	47916	37374	31768	34624	35	21
1S 3 4DB	2100	43560	33977	28880	30976	32	19
1N 3 33DA	2700	67518	52664	44764	41523	49	30
1N 3 34CB	100	130680	101930	86641	84230	95	58
Total Gross Vacant Area		67.83 acres					
Total Employment Capacity in M1 Zoning District						2135	1319

Table 1 provides a comparison of the maximum capacity of each parcel assuming both one-story development and two-story development.

Determination of Employment Capacity for C2- Highway Commercial

Determination of the employment capacity for the C2 zoning district follows the same methodology as the M1 capacity determination. First, the gross area of each parcel is determined. The gross-to-net reduction for streets and right-of-way is applied in the same manner as described under the M1 zoning district.

After the right-of-way reductions are applied, each parcel is reduced by the applicable setbacks or landscaping, whichever is greater. In the C2 zoning district, the standard front setback is 20 feet. No side yard shall be required except five feet where adjoining a residential property. In addition to these setbacks, the code reads as follows: "on all properties abutting the south side of Baseline Road, there shall be a front yard setback along Baseline Road of a distance equal to 5 percent of the average lot depth, but in no case less than four feet." These setback requirements are factored into the density calculations.

Additional assumptions to determine employment capacity in the C2 zoning district include:

- 735 square feet per employee (Metro)
- One parking space per 250 square feet of floor area (Development Code)
- 350 square feet per parking space (Metro)
- Two permitted stories of development (Metro)
- 15 percent landscaping (Development Code)

Based on these assumptions, the maximum employment capacity per parcel is determined as follows:

$$E = \frac{2((\text{net square footage}) - (2.94 * 350)(E))}{(735 \text{ square feet per employee})}$$

- "E" is employment capacity.
- 2.94 represents parking spaces per employee
- 350 represents square footage per parking space

However, based on the previous discussion, it may not be realistic to expect two-story commercial development. Therefore, Table 2 compares the maximum capacity assuming two-story development and the maximum capacity assuming one-story development.

Table 2									
C2 Employment Capacity Determination									
C2 Zone	Map #	Parcel #	Gross Area	Area after ROW Reduction	Area after Landscaping Reduction	Area after Setback Reduction	Employment Capacity- Assuming two-story development	Employment Capacity- Assuming one-story development	
1N 3 34DD	8100		64200	50076	42565	38326.00	30	24	
1N 3 34DD	7700		115870	90378	76822	77313.29	55	44	
1N 3 33CD	100		81000	63180	53703	57180.00	38	30	
1N 3 33CC	3600-7400		560350	437073	371512	410473.00	266	211	
1S 3 4BB	300		104108	81205	69024	70479.55	49	39	
1S 3 4BB	100		59241.6	46208	39277	40797.20	28	22	
1S 3 4BA	600		17424	17424	14810	15208.75	11	8	
1S 3 4AB	400		19000	19000	16150	16575.00	12	9	
1S 3 3BA	100		43560	33977	28880	29229.55	21	16	
1S 3 3AB	2600		5227.2	5227	4443	4235.20	3	3	
1S 3 3AB	100		21344.4	21344	18143	18080.40	13	10	
1S 3 3AA	300		5227.2	5227	4443	4875.20	3	3	
1S 3 3AA	200		23958	23958	20364	22398.00	15	12	
1S 3 2B	700		156816	122316	103969	115172.73	74	59	
1N 3 33CC	2500		7840.8	7841	6665	4240.80	5	4	
1N 3 33CC	2400		37461.6	33715	28658	26375.44	21	16	
1N 3 33CD	3600		13939.2	13939	11848	9699.20	6	7	
1N 3 33CD	3800		17136	17136	14566	14256.00	10	8	
1N 3 33CD	4100		21344.4	19210	16328	15409.96	12	9	
Gross Vacant Area			31.57						acres
Total Employment Capacity in C2 Zoning District (excluding commercial in the Main Street District)							675	534	

Determination of Employment Capacity in Main Street District

In 1997, the City of Cornelius, with the assistance of Metro, created a Main Street District and adopted a Main Street Plan. Part of this process was to determine employment capacity within the Main Street District. This employment estimate is included in the final calculation of employment capacity at the end of this document. The Main Street Employment Development Summary identifies an employment capacity of 260 employees within the Main Street District.

Determination of Employment Capacity in the CE District

The final non-residential zoning district to calculate the employment capacity is the CE District. Determination of the capacity in the CE District is based upon overall building coverage. The CE District allows 40% building coverage and two-stories of development. The CE District allows for a mix of commercial and light industrial uses. Based on this mix of uses, the square footage per employee estimate is an average of the commercial and industrial averages established by Metro, 858 square feet per employee.

Table 3 illustrates the existing capacity within the CE District.

		Table 3					
		CE Employment Capacity Determination					
CE Zone	Map #	Parcel #	Gross Area	Area after ROW Reduction	Area after Setback Reduction	Employment Capacity- Assuming two-story development	Employment Capacity- Assuming one-story development
	1N 3 34CD	300/300A1	495,277	386316	380316.06	355	177
	1N 3 34CD	100	402,494	313945	300880.32	281	140
	1N 3 34CD	200	19602	17642	11641.80	11	5
	1N 3 34CC	100	43560	33977	33976.80	32	16
	1N 3 34CC	300	62,291	48587	47586.98	44	22
	1N 3 34CC	400	59241.6	46208	43208.45	40	20
	1N 3 34CC	500	37462	33716	31615.80	29	15
	1N 3 34CD	301	21780	19602	17642.00	16	8
	1N 3 34DC	4500	98010	76448	74347.80	69	35
	1N 3 34DC	4600	171408.5	133699	118360.63	110	55
	1N 3 34DC	1801	42035	37832	30051.00	28	14
	1N 3 34DC	1802	34643	31179	21454.20	20	10
	1N 3 34DC	1901	20843	18759	12922.20	12	6
	1N 3 34DC	1900	115434	90039	83790.52	78	39
	Gross Vacant Area		37.28		acres		
Total Employment Capacity in CE Zoning District (excluding commercial in the Main Street District)						1126	563

Development Between 1994 and 1998

The final component to determining employment capacity is the development that occurred between 1994 and 1998. Table 4 is a summary of the square footage

of development between 1994 and 1996. Based on the square footage, an employee estimate is established and incorporated into the overall employment capacity calculations.

Table 4		
Commercial & Industrial Development 1994-1996		
	Square Footage	Employees Based on Square Footage
Industrial Development	190,563	168
Commercial Development	35,455	49
Public Buildings	35,942	51
Residential Care Facilities	6080	12
Total	268,040	280

Table 5 is a summary of the commercial and industrial development between 1996 and 1998. The square footage of all developments is identified and based on the square footage and estimate of employees is identified.

Table 5		
Commercial & Industrial Development 1996-1998		
Commercial and Industrial Development	Square Footage	Estimated Number of Employees
1. Villegas- Commercial Chevron C-Store	3,850	10
2. Commercial Auto Care Center-	3664	9
3. Public Works Modular Unit	840	3
4. Virginia Garcia - Clinic	4376	13
5. Stewart Stiles- Warehouse/offices	4800	5
6. Heikes Produce- Addition to Process Building	1274	1
7. Chevron Car Wash	1938	5
8. FG School- Daycare/pre-school	6640	5
9. Lubrication Facility	1507	4
10. Truss Components	1728	2
11. Echo Shaw Addition	6600	5
12. Emmaus School	12040	9
Total Number of Employees		71

Total Capacity

Metro has established a target job capacity for the City of Cornelius of 2,812 jobs. Table 6 compares the target established by Metro and the City capacity since 1994. Based on Table 6, the City exceeds the Metro allotment by 242 jobs. This allows the City some flexibility in assessing the employment needs of the community.

Table 6		
<u>Cornelius Employment Capacity</u>		
<u>Sep-98</u>		
	Maximum Capacity- Two-Story	Maximum Capacity One-Story
M1 Employment Capacity	2135	1319
C2 Employment Capacity (Excluding Main Street)	675	534
Main Street Employment Capacity	260	260
CE Employment Capacity	1008	504
Total Existing Employment Capacity	4078	2617
<u>Relationship to Target Job Capacity</u>		
Employment Target (Table 1 Urban Growth Management)	2812	2812
Credit for Projected Home-based Employment	-86	-86
Adjusted Employment Target	2726	2726
1994-1996 Estimated Employment Creation	280	280
1996-1998 Estimated Employment Creation	71	71
Remaining Job Target	2375	2375
Estimated Jobs Capacity on Vacant Land	4078	2617
Job Capacity Deficiency/ Surplus on Vacant Land	1703	242