CITY OF NEWBERG





Typical Characteristics of Industrial Sites

For Newberg Targeted Industrial Uses

City of Newberg Planning Division

March 2013



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Typical Characteristics of Industrial Sites For Newberg Targeted Industrial Uses

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Purpose

The purpose of this study is to determine the site characteristics that are typical of Newberg's targeted industrial uses. The study looks at similar size communities near Newberg, and investigates the characteristics of industrial districts where Newberg targeted industrial uses have located within the last 40 years. These site characteristics may then be designating new industrial areas within Newberg. This study seeks to determine typical site characteristics, and does not go further to determine whether the characteristic is necessary for a particular industrial use to operate, as this will be done through the Newberg Economic Opportunities Analysis.

Background

Statewide Planning Goals and Implementing Rules

Oregon's Statewide Planning Goal 9, Economic Development, is "[t]o provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens." That goal directs local government to:

- "3. Provide for at least an adequate supply of sites of suitable sizes, types, locations, and service levels for a variety of industrial and commercial uses consistent with plan policies;
- 4. Limit uses on or near sites zoned for specific industrial and commercial uses to those which are compatible with proposed uses."

According to OAR 660 Division 9, local governments are to prepare economic opportunities analyses (EOAs) as part of their comprehensive land use plans. As part of that analysis, local governments are supposed to identify the type of sites and the characteristics of those sites that would be typical of expected uses. OAR 660-009-0015(2) states:

"(2) Identification of Required Site Types. The economic opportunities analysis must identify the number of sites by type reasonably expected to be needed to accommodate the expected employment growth based on the **site characteristics typical of expected uses**. Cities and counties are encouraged to examine existing firms in the planning area to identify the types of

sites that may be needed for expansion. Industrial or other employment uses with compatible site characteristics may be grouped together into common site categories." [bold added]

OAR 660-009-0005(11) defines "site characteristics" as follows:

"Site Characteristics' means the attributes of a site necessary for a particular industrial or other employment use to operate. Site characteristics include, but are not limited to, a minimum acreage or site configuration including shape and topography, visibility, specific types or levels of public facilities, services or energy infrastructure, or proximity to a particular transportation or freight facility such as rail, marine ports and airports, multimodal freight or transshipment facilities, and major transportation routes."

In addition, the Oregon Land Use Board of Appeals has ruled:

"If the words 'attributes of a site necessary for a particular industrial or other employment use to operate," in the definition of 'site characteristics' are viewed in context with the language of 660-009-0015(2), we believe the site characteristics are properly viewed as attributes that are (1) typical of the industrial or employment use and (2) have some meaningful connection with the operation of the industrial or employment use." (Friends of Yamhill County v. City of Newberg, Or LUBA (August, 2010)).

The Court of Appeals held on appeal:

"In that statutory and regulatory context, we agree with LUBA that 'site characteristics' need not be 'indispensable' to a particular use in order to be 'necessary for a particular industrial or other employment use to operate.' The intent of Division 9 is to ensure that there is an 'adequate supply of land for economic development and employment growth in Oregon,' OAR 660-009-0000, which is vital to the health, welfare, and prosperity of the state. ... That overriding intent to allow and plan for anticipated economic growth – in part, through the identification of 'site characteristics' that make the land 'suitable' to meet the needs of anticipated growth – suggests something other than petitioners' strict 'indispensability' test that would take into consideration only those 'site characteristics' without which particular industry and employment uses could not operate. Rather, the planning scheme (based on projections and economic trends) suggests, as LUBA adopted, a more pragmatic approach toward accommodating economic growth: That 'necessary' site characteristics are those attributes that are reasonably necessary to the successful operation of particular industrial or employment uses, in the sense that they bear some important relationship to that operation." (Friends of Yamhill County v. City of Newberg, Or App (February 16, 2011)).

This study seeks to determine the first part of the above two part test: what is "typical of the industrial or employment use" for Newberg's targeted industries projected to locate within new industrial areas. Note that this report does not investigate the second of the two part test: whether the characteristic has some meaningful connection with the operation of the industrial use. This will be done through the Newberg Economic Opportunities Analysis.

Newberg's Targeted Industries

Newberg has identified the targeted industries, as shown in Table 1 on page 5. Almost all the manufacturing uses, aviation related, and agriculture uses identified above, as well as some of the service uses, are anticipated to locate within industrially zoned areas. Some will reuse or infill within existing industrial sites. However, existing sites cannot accommodate all anticipated employment over the planning period. Thus, new industrial land will need to be designated. This study will determine what characteristics industrial sites have where such as those industrial uses have found.

Table 1: Newberg Targeted Industries

Business Cluster	Targeted business types	Likely to locate in new industrial districts?
Manufacturing and	Industry	
	Semiconductors/silicon, imaging & display technology	Yes
High Tech	Nano & micro technology, cyber-security,	Yes
Manufacturing	health/medical information technology	
	Biotech/bioscience (medical devices, bioinfomatics,	Yes
	pharmaceuticals, genomics, anti-virals)	
	Dental equipment	Yes
	Metals, machinery, transportation equipment	Yes
	Lumber and wood products (value added)	Yes
General	Sustainable industries (renewable energy, resource	Yes
Manufacturing	efficiency technologies, sustainable building materials,	
	green chemistry)	
	Distribution & logistics	Yes
	Sports apparel/recreation-related products	Yes
Aviation related	Specialty aircraft equipment, aircraft repair, machine	Yes, near Airpark
Aviation related	shops, small entrepreneur business	
	Wineries	Yes, mostly
Agriculture	Specialty foods and food processing	Yes
	Nursery and agricultural products (value added)	Yes
	Professional services architecture, engineering, legal	Some
Services	and financial services, etc.	
	Creative services (advertising, public relations, film	Some
	and video, web/internet content and design)	
Health Care	Duradida and Madical Contact	NI -
	Providence Medical Center Expansion, medical offices,	No
Higher Education	senior services	
Tilgifer Education	Portland Community College campus, George Fox	No
	University expansion, high school vocational training	
	and college preparedness, private post-secondary	
	training	
Wine/Tourism		
	Wineries and tasting rooms, restaurants, art studios,	Most larger
	theater and entertainment, recreation (golf, bowling),	wineries
	conference facilities, specialty retail	

A Brief History of Industrial Siting in the Willamette Valley and Newberg

Industry has played an important part of the development of the Willamette Valley. Some understanding of the past is important in knowing why industrial sites are where they are today, much like understanding the development of typewriters is necessary in understanding why Qwerty keyboards are used in computers today.

While resource based industries always have been important in the valley, industry has diversified significantly through several eras since European settlement. All these eras are represented in Newberg.

European settlement to the coming of the railroad

Industry from the first European settlement to the coming of railroad primarily related to lumber, agriculture, and fishing. These industrial sites were typically located close to waterways for energy, water, waste disposal and transportation. The first U.S. sawmill in the valley was built by Ewing Young in Newberg along Chehalem Creek. Later a flour mill was located on the creek. In the valley today are many former mill sites located along rivers, some of which continue to be used for forest product or other industrial uses.

Railroad to World War II

The coming of the railways to the Willamette Valley in the latter part of the 19th Century played a major role in industrial siting. The rail lines became a major transportation source for shipping in of raw materials and shipping out of finished products.

During this time period, most industry in the valley was resource related. Food processing plants were constructed near rail lines. Wagons and trucks would bring in crops from the fields to these plants, which would process and package them for shipment to markets. Lumber mills would receive logs floated down streams, process them, and then ship out the lumber by rail. Many industries began making secondary products, such as paper, plywood, furniture, and clothing.

Because of the importance of the rail lines for commerce and travel, many Willamette Valley cities grew up along the rail line. Many downtowns and residential areas surrounded the rail based industrial areas. While a few of these areas still retain their original purposes, many have been transformed to other industrial uses or converted to more commercial uses.

In Newberg, this era saw construction of the Allen Fruit plant (where PPM stands today) on Illinois Street in 1892, the Newberg Brick and Terra Cotta Company (where Ewing Young Park is today) in 1892, the Chehalem Valley Mill in 1902, the Spaulding Pulp and Paper mill (where S.P. Newsprint is today) near the turn of the century, and the Springbrook Packing plant (where Austin Industries is today) in the 1920s.

World War II to the High Tech Era

The post war years saw the growth of both heavy and light manufacturing in the valley. World War II had sparked a number of manufacturing operations, attracted by the good shipping and

abundant power provided by the Columbia River. The Albany paper mill opened in 1955. Cascade Steel Rolling Mills opened in McMinnville in 1968. Canning and frozen food industries thrived. Many of these industries located along rail lines to take advantage of shipping in and out. Many of these were located on expanded lumber mill or cannery sites. Secondary wood products, metals manufacturing, clothing, and other manufacturing grew.

In Newberg, Publishers Paper constructed a plant at the old Spaulding Mill site in the late 1960s. Newberg Steel located along Main Street to take advantage of the rail line there. Allen Fruit and Springbrook Packing continued to expand and thrive.

High Tech Era

Some high tech and precision manufacturing began in the Willamette Valley immediately following World War II, but the High Tech Era did not begin in earnest until the 1970s. Companies such as Tektronix, Nike and Hewlett-Packard grew into world-wide leaders, and many related companies flourished. While some of these located on historic industrial or agricultural processing sites, many sought new industrial areas. Rail transport became much less important; good road access, including access to the interstate highway system, became much more important. Finding large, level sites with room for expansion, and areas that don't disturb the neighbors were priorities.

In Newberg, this era saw the growth of A-dec, Climax Portable Machine Tools, Harris Thermal, Technical Images (now part of the A-dec campus), and other companies.

Industry Today

Industry today in the Willamette Valley is located on a wide variety of sites. Many existing industries have reused old lumber or agricultural processing sites, rail or water access sites, and small sites tucked in downtown areas largely due to historical happenstance. Where such recycled sites are not available, industries are looking to expand on large level industrial districts with good road access and few neighbor conflicts.

Methodology

This study sought to determine the characteristics of industrial districts in similar communities where the types of industries Newberg's targeted industry list have located since the 1970's. To do this, this study used the following methodology.

First, the study selected communities that were good comparables with Newberg. The following communities were used for comparison because of their similar size and close location to Newberg:

- Canby
- Forest Grove
- McMinnville
- Newberg (existing industrial sites)

- Tualatin
- Sherwood
- Wilsonville
- Woodburn

Second, the study identified all industrial areas within these communities. The study used the zoning and comprehensive plan maps from the communities to identify industrial areas.

Third, the study examined each of these industrial areas and determined whether they either initially developed or had significant redevelopment since 1970, and whether they contained primarily the industries expected to locate in industrial areas shown in Table 1. Fourth, the study then examined those areas for the following characteristics:

- **Distance to major road** (arterial street or state highway). The study considered the distance from the industrial district to an arterial or state highway street. Note that in some cases individual industrial sites access through interior industrial streets. As long as those sites could access the major road through these interior streets, the distance to the major road was measured as the distance from the district boundary to that road.
- Access through residential¹ areas. The study considered whether truck traffic from the
 district could reach an arterial or state highway without traveling through or past
 residential areas.
- Residential boundary. The study measured the percentage of each industrial district's
 perimeter that is adjacent to residential areas without adequate buffers. Adequate
 buffers included arterial streets or highways, rail lines, parks, stream corridors, and
 natural areas.
- **Typical site size**. This reported the typical size of individual industrial sites. This was reported in several broad categories: 0-2 acres, 2-5 acres, 5-10 acres, 10-30 acres, and 30-50 acres. This data was collected for information purposes only. Note that many areas include some lots much larger than the typical site size.
- Industrial district size. This measured the total area of the contiguous industrial district.
- Industrial/Commercial Proximity. This measured whether the industrial district was next to another industrial or large commercial area.

¹ For these purposes, residential areas include land that is within urban residential comprehensive plan or zoning district, and rural residential zoned land with a 2.5 acre or smaller minimum lot size or developed predominantly with residential lots of 2.5 acres or less.

• **Topography**. This measured the overall topography of each district in terms of site slope. The study looked at the predominant topography. The study did not include undeveloped portions of the areas, such as stream valleys.

Fifth, the study compiled and reported the results, and determined which characteristics were typical of the sites reviewed. Note that "typical" does not mean "universal;" there may be sites that do not have those characteristics. Sites that were atypical were noted.

Findings

The study found 25 industrial districts within the eight communities studied that had new industrial development since the 1970s, and that contained Newberg targeted industrial uses. The following reports the findings from the study for each characteristic.

Distance to Major Road

Of the 25 industrial districts studied, 19 had immediate access to a major road (arterial or state highway). Four districts had access to a major road within 1/8 mile. Only two districts had access further than 1/8 mile, and they both had access within ¼ mile. No districts had access more than ¼ mile away. See Figure 1.

Note that many industrial districts contain internal driveways or industrial roads, so not every individual lot within the district had immediate access to major road.

20 18 16 14 12 10 8 6 4 2 Immediate > 0 mile and > 1/8 mile Access > 1/4 Access <1/8 mile and < 1/4 mile mile

Figure 1: Distance from Study Districts to Arterial or State Highway

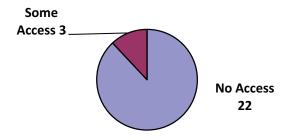
Conclusion. Typical industrial districts have access to a state highway or arterial street within 1/4 mile.

Access through residential areas

Of the 25 industrial districts studied, 22 (88%) had access to an arterial or state highway without going through or adjacent to residential areas. See Figure 2. One of the three districts that did

have such access, one was in Newberg: the Suntron site. The Suntron site has access to a major collector street, but is across the street from a residential area for a nominal distance. The Adec site has access direct access to an arterial street, although across the street is residential. Both of these industrial sites were developed before the intervening residential development. The two other districts are in Forest Grove. One has one access road about 250 feet long between a rail line and the state highway that passes next to a residential area. The other, per a conversation with Forest Grove Community Director Jon Holan, has experienced some conflict issues, has required reconstruction of the road, and would not be the type of industrial area that community would seek in the future.

Figure 2: Industrial Districts with Access through Residential Areas

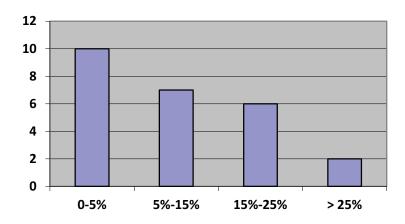


Conclusion: Typical industrial districts do not access through residential areas.

Residential Boundary

Of the 25 districts studied, 17 (68%) had less than 15% of the boundary with residential areas. 23 (92%) had less than 25% of the boundary with residential areas. See Figure 3. One district that had a larger boundary was the west Tualatin industrial area. This was one of the largest industrial areas in the study and had one of the largest perimeters. The other was the Forest Grove 23rd Avenue area.

Figure 3: Industrial District Boundaries with Residential Areas

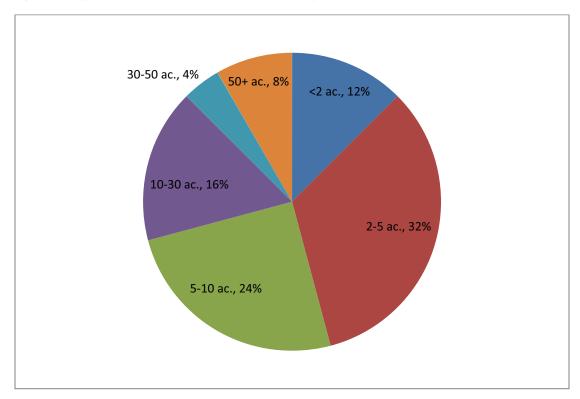


Conclusion. Typical industrial districts have less than 25% of the boundary to residential areas.

Typical Size of Industrial Parcels

Table 1 below shows the typical size of industrial parcels within the study areas.

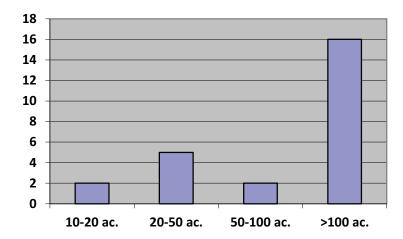
Figure 4: Typical Size of Industrial Parcels in Study Area



Typical Industrial District Size

Of the 25 industrial districts studied, 16 (64%) were over 100 acres in size. 23 (92%) were over 20 acres in size. See Figure 5. The smallest district in the study was the Suntron site in Newberg. This site is adjacent to an undeveloped site that allows medical industrial uses, and adjacent to a commercial area.

Figure 5: Industrial District Size



Conclusion. Typical industrial districts are at least 20 acres in size.

Industrial/Commercial Proximity

Of the 25 industrial districts studied, 23 or 92%, were adjacent to a large commercial area , were over 50 acres in size, or were both. The 23^{rd} Avenue Site in Forest Grove is within 100 feet of a commercial area. The A-dec site in Newberg is next to a smaller tourist commercial center that has not yet been developed. Two sites that were neither were the Steel Tek site in Sherwood, and the 16^{th} Street site in Forest Grove.

2

| > 50 acres + Adjacent to Commercial
| > 50 acres, Not Adjacent to Commercial
| < 50 acres + Adjacent to Commercial
| < 50 acres , Not adjacent to Commercial
| < 50 acres , Not adjacent to Commercial

Figure 6: Commercial/Industrial Proximity and District Size

Conclusion. Typical industrial districts are adjacent to a large commercial area, are over 50 acres in size, or are both.

Topography

All 25 districts studied were predominantly less than 5% slope. See Figure 7.

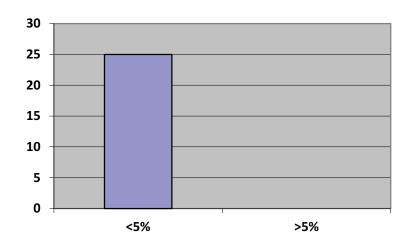


Figure 7: Predominant Slope of Industrial Districts

Conclusion. Typical industrial districts are predominantly under 5% slope.

Overall Conclusion

Industrial uses in Newberg's targeted industry list have located in communities similar to Newberg within industrial districts that have the following typical characteristics:

- The district has access to a state highway or arterial street within 1/4 mile.
- The district has access to a state highway or arterial street without passing through or adjacent to residential areas.
- The district has less than 25% of its boundary to residential areas, excluding boundaries with adequate buffers.
- The district is at least 20 acres in size. The district is adjacent to a large commercial area, is over 50 acres in size, or is both.
- The developed land is predominantly under 5% slope.

Appendices

Typical Industrial Sites Characteristics Table Maps of Study Districts

Typical Characteristics of Industrial Sites

					Appendix K
	Notes				Site is just over 1/8 mile from arterial, and passes a residential area for about 100 feet, and is within 500 feet of another large industrial area. It is within 100 feet of a large commercial area.
	Topog.	~5%	%S>	~2%	%5>
	Adjacent to Com- mercial	>	>		
	Industrial District Size	>100 ac.	>100 ac.	20-50 ac.	50-100 ac.
	Typical Site Size	2-5 ac.	10-30 ac.	2-5 ac.	2-5 ac.
	Residential Boundary	20%-25%	5%-10%	20%-25%	40%-50%
	Distance Access to Major through Road resi- dential?	0.00	0.00	0.00	0.15
	Uses	General Mfg., warehousing	General Mfg.; High Tech Mfg.; Warehouse; Repair	Waste transfer, ministorage, one general mfg.	General Mfg., Food Processing
	Site Name	Canby west side	Pioneer Industrial Park	16th Ave.	23rd Ave.
)	City	Canby	Canby	Forest Grove	Forest Grove

				Арр	endix K
Notes		One access road travels 250' next to a residential area to reach the highway	Adjacent to large commercial area	Adjacent to large commercial area	
Topog.	%5>	% 29%	%S>	%S>	
Adjacent to Com- mercial	>		>	>	
Industrial District Size	>100 ac.	>100 ac.	20-50 ac.	20-50 ac.	
Typical Site Size	2-5 ac.	10-30 ac.	< 2 ac.	5-10 ac.	
Residential Boundary	10%-15%	0-5%	0-5%	0-5%	
Distance Access to Major through Road resi- dential?	00.00	> 90.0	0.04	00.0	
Uses	General Mfg.	High Tech & General Mfg.; Transportation & Utilities	General Mfg., Winery, Warehouse	Industrial Warehouse & Mfg., Food processing	
Site Name	24th Ave.	South of Hwy 47	Alpine Ave.	Booth Bend Rd.	
City	Forest Grove	Forest Grove	McMinnville	McMinnville	

				Appendix	K
Notes		Residential across arterial street. Near future tourist commercial.		Adjacent to large commercial area and medical industrial parcel.	
Topog.	% 5 %	%2°V	%5>	%2°	
Adjacent to Com- mercial	>		>	>	
Industrial District Size	>100 ac.	>100 ac.	>100 ac.	10-15 ac.	
Typical Site Size	< 2 ac.	50+ ac.	2-5 ac.	10-30 ac.	
Residential Boundary	15%-20%	15%-20%	10%-15%	20%-25%	
Distance Access to Major through Road resi- dential?	0.00	00.00	0.00	№ 60.00	
Uses	General & High Tech Mfg.	Manufacturing	Light mfg., repair	Electronics Mfg.	
Site Name	Orchard Ave.	A-dec Industrial area	Springbrook & Wynooski Industrial Area	Suntron	
City	McMinnville	Newberg	Newberg	Newberg	

				Appendix K
Notes		One entire lot on east side of district is a wooded buffer area from residential.	Measurement for contiguous district that extends into Tigard	Adjacent to large commercial area
Topog.	~5%	~22 %	%2 >	~22%
Adjacent to Com- mercial	>		>	>
Industrial District Size	>100 ac.	15-20 ac.	>100 ac.	20-50 ac.
Typical Site Size	2-5 ac.	5-10 ac.	10-30 ac.	2-5 ac.
Residential Boundary	10%-15%	20%-25%	10%-15%	0-5%
Access through resi- dential?				6
Distance to Major Road	00.0	00.00	0.00	0.19
Uses	General Mfg.	General Manufacturing	General Mfg., Software, High Tech Mfg.	Logistics & Distribution, Storage
Site Name	East Sherwood	Steel Tek	Boones Ferry Rd.	McEwan Rd.
City	Sherwood	Sherwood	Tualatin	Tualatin

				Ap	pendix K
Notes	Access through commercial area to arterial street				
Topog.	<5%	<5%	~2%	~22%	
Adjacent to Com- mercial	>	>	>	>	
Industrial District Size	20-50 ac.	>100 ac.	>100 ac.	>100 ac.	
Typical Site Size	< 2 ac.	2-5 ac.	5-10 ac.	30-50 ac.	
Residential	0-5%	25%-30%	0-5%	10%-15%	
Distance Access to Major through Road residential?	0.09	0.00	0.00	0.00	
Uses	General Mfg., High Tech Mfg., repair	General Mfg., Auto Repair, Wholesale Trade, Storage	Warehouse and Distribution, General Mfg., utilities	High Tech Mfg.	
Site Name	Rosewood	West Tualatin	Barber & 95th	Canyon Creek	
City	Tualatin	Tualatin	Wilsonville	Wilsonville	

				Ap	pendix K
Notes		Separated from additional industrial area by police station parcel			
Topog.	% 20 8	%	% 20 8	V25%	
Industrial Adjacent District to Com- Size mercial	>100 ac.	50-100 ac. ⋖	>100 ac.	>100 ac.	
Typical Inc	5-10 ac. >1	5-10 ac. 50	5-10 ac. >1	10-30 ac. >1	
Residential Boundary	0-5%	10%-15%	0-5%	%5-0	
Distance Access to Major through Road residential?	0.00	0.00	0.00	0.00	
Uses	Transportation, Food Packing, Water Treatment Plant	Food processing	General Mfg., Construction materials mfg.	Food Products packaging and distribution	
Site Name	Industrial Way	Commerce Way	Hwy 99E North	Hwy 99E South	
City	Wilsonville	Woodburn	Woodburn	Woodburn	

Notes	
Topog.	~5 %
Adjacent to Com- mercial	>
Industrial District Size	>100 ac.
Typical Site Size	50+ ac.
Residential Boundary	%5-0
Access through resi- dential?	
Distance to Major Road	0.00
Uses	Warehouse & Distribution
Site Name	Woodland Ave.
City	Woodburn



Maps of Study Districts	

City of Canby

Current Zoníng Map

Low Density Residential - R1
Medium Density Residential - R1.5
High Density Residential - R2
Downtown Commercial - C1
Highway Commercial - C2
Heavy Commercial/Manufacturing - CM

Residential Commercial - CR

Light Industrial - M1 Heavy Industrial - M2



City Limits

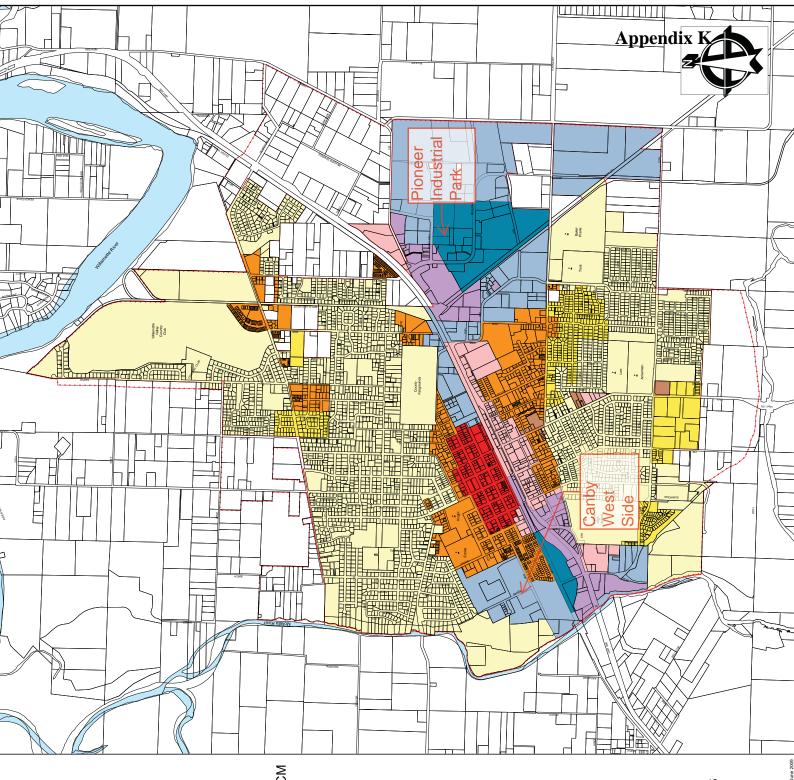
Urban Growth Boundary

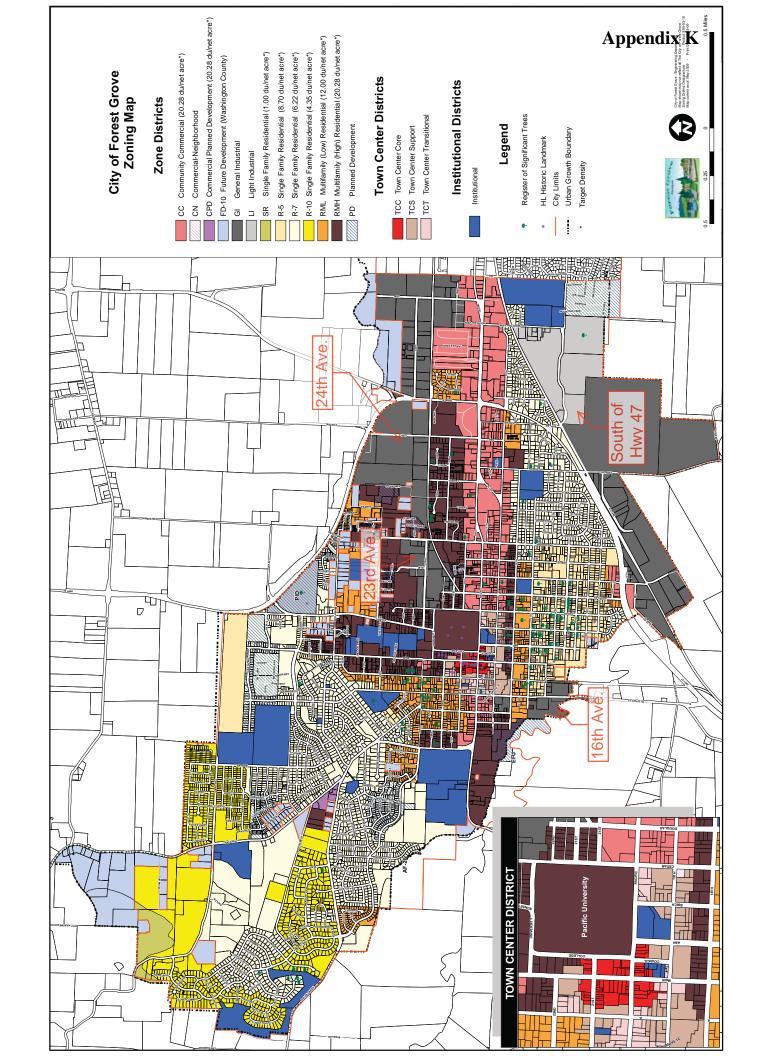




CITY OF CANBY GEOGRAPHIC INFORMATION SYSTEMS

This map and other information have been compiled only for preliminary and general purposes. They are not intended to be compiled only for preliminary and general purposes. They are not intended to be compiled and a supplied by the information in not intended to be compiled by the information in not intended to be compiled for they do not also prefixed to the compiled to the comp





Appendix K City of McMinnville Zoning Booth Bend Rd.

