2 - CAPITAL IMPROVEMENT PLAN

2.1 POPULATION ESTIMATES

The design period for this report is January 2004 – January 2019.

In recent history, the population of Philomath has increased by approximately 2.8% per year. If this growth rate continues, the City can anticipate the following populations:

Table 2-1: Population Estimates

Year	Estimated Population
2004	4466
2005	4591
2006	4719
2007	4851
2008	4987
2019	6757

Note: Elsewhere in this report, traffic loads are estimated in terms of "Equivalent Dwelling Units", i.e., *a single-family home. The City has historically used a population density of* ***2.54 people / single-family home.***

It can be seen the estimated 2019 population is 51% greater than the 2004 population. The increase in Philomath residents will create an associated additional load on City streets.

2.2 PROPOSED STREET IMPROVEMENTS

The City does not presently have the funds to construct all the recommended street system improvements, therefore it is important to identify the projects most urgently needed. Some improvements are not required at present, but will be required as development progresses.

2.2.1 Priority Categories

City staff have reviewed development patterns and adjacent street conditions, and derived three categories of urgency:

Table 2-2
Project Priority Categories

Priority 1	Near Term Improvements Projects associated with existing system deficiencies or problem areas needy of immediate attention. Schedule It is recommended that Priority 1 improvements be constructed as soon as practical considering financing, construction time requirements and timing associated with other projects.
Priority 2	Vital Future Improvements Projects that will be needed in the future to meet projected development conditions. Schedule It is recommended that Priority 2 improvements be constructed after all Priority 1 projects have been completed, as finances allow. As development progresses, appropriate Priority 2 improvements should be upgraded to Priority 1.
Priority 3	Long Term Improvements / Possible Future Need Projects needed to improve system reliability if and when development reaches zone maxima. These projects may be considered as elements of long-term City planning, but o They are not considered critical at the present, or o they may be deemed less desirable due to high cost : benefit ratios, or o they may be deemed less desirable due to other undesirable features or complications.

2.2.2 SUMMARY OF PROPOSED IMPROVEMENTS

Anticipated development and existing street conditions have been considered in developing recommendations for street improvement projects; these projects are listed in Tables 2-3, 2-4 and 2-5.

There are three general types of projects proposed:

- **Build** a new street. Some of these projects will also require acquisition of street Right-Of-Way ("**ROW**"); refer to Tables 2-8 and 2-9 for costs.
- **Rebuild** an existing substandard street
- Place new asphalt **Overlay** on existing paved street.

Table 2-3
Recommended Priority 1 Street Improvements
These projects are illustrated in **Figure 1.**

Project	Section	Project Type	Length	Estimated Costruction Cost
Cedar to Willow	15th – 17th	ROW/Build	1400 feet	$164,934
Cedar Street	Cedar Pl. – 13th Street	Build	350	$41,233
Pioneer Street	9th – 12th	Rebuild	1160	$136,660
Applegate Street	15th – 19th	Overlay	2360	$104,925
Applegate Street	23rd – 31st	Overlay	2825	$125,599
24th Street	Applegate - Main	Overlay	935	$41,570
20th Street	Main – College	Build	178	$20,970
		Total Priority 1:		**$635,892**

Note: "ROW" refers to acquisition of street Right-Of-Way. Associated estimated costs are summarized in Table 2-7.

Cedar / Willow Street improvements involve the construction of a new street, an extension of Cedar to Willow Street, and improvement of Willow Street to current City standards.

Cedar Street between Cedar Place and 13th Street involves construction of a street with curb and gutter.

Pioneer Street between 9th and 12th Streets involves improvement of this block to current City standards. Because of the present deteriorated condition of the street in these blocks, and to correspond to anticipated street improvements west of 9th Street, it is recommended this project be considered a complete reconstruction rather than an overlay.

Applegate Street between 15th and 19th Streets involves overlay of existing pavement.

Applegate Street between 23rd and 31st Streets involves overlay of existing pavement.

24th Street between Applegate and Main Streets involves overlay of existing pavement.

20th Street between Main and College Streets involves an asphalt overlay of existing gravel road surface, the north half of the block.

Table 2-4
Recommended Priority 2 Street Improvements
These projects are illustrated in **Figure 2.**

Priority 2

Project	Section	Project Class	Length	Estimated Cost
12th Street	Pioneer to north term.	Build	4600 ft	$541,926
13th & Industrial	New connection	ROW / Build	5000	$589,050
3 cross links	12th – 13th Streets	Build	1400	$164,934
			Total Priority 2:	**$1,295,910**

12th Street from Pioneer to northern terminus involves asphalt overlay on existing gravel surface.

13th Street and Industrial Way involves a new connection between 13th Street and Industrial Way, and construction of new street with full improvements.

Three cross link streets between 12th and 13th Streets involves construction of new paved streets on existing gravel surfaces.

Table 2-5
Recommended Priority 3 Street Improvements
These projects are illustrated in **Figure 3.**

Priority 3

Project	Section	Project Class	Length	Estimated Cost
26th Street	Hy 20/34 to Clemens	ROW / Build	2300 ft	$270,963
Pioneer Street	18th – 19th Streets	ROW / Build	425	$50,069
9th Street	Old City Limit to Quail Glenn Dr.	ROW/Build	1400	$164,934
			Total Priority 3:	**$485,966**

26th Street from Highways 20 and 34 to Clemens Mill Road involves obtaining right-of-way and constructing a street with curb and gutter.

Pioneer Street between 18th and 19th Streets involves obtaining right-of-way and constructing a street with curb and gutter.

9th Street between the old City limit and Quail Glen Drive involves obtaining some right-of-way and constructing a street with curb and gutter.

2.2.3 Estimated Costs of Improvements

Tables 2-2 to 2-5 include estimated costs for each recommended project. Those estimates are based on the following unit and administrative costs:

Table 2-6
Estimated Costs for Improving Gravel or Soil Streets
And Rebuilding Existing Streets

Work Item	Quantity	Units	Unit Cost	Estimated Cost Per Foot
Excavation	1.36	cy	$5	$6.79
10" rock	1.36	cy	$23	$31.23
4" AC	0.83	ton	$48	$39.60
curb & gutter	2	feet	$6.50	$13.00
Subtotal				**$90.62**
Contingency	10	percent		$9.06
Engineering	15	percent		$13.59
Administration	5	percent		$4.53
Total				**$117.81**

Table 2-7
Estimated Costs for
Overlaying Existing Streets

Work Item	Quantity	Units	Unit Cost	Estimated Cost Per Foot
Surface preparation	36	square ft	$0.10	$3.60
2" AC	0.41	ton	$48.00	$19.80
Sand and seal	36.00	square ft	$0.25	$9.00
Sweep	36	square ft	$0.05	$1.80
Subtotal				**$34.20**
Contingency	10	percent		$3.42
Engineering	15	percent		$5.13
Administration	5	percent		$1.71
Total				**$44.46**

2.2.4 Estimated Cost of Right-of-Way Acquisition

Some projects listed in Tables 2-3, 2-4 and 2-5 include the need to acquire right-of-way for construction of new streets or to widen existing substandard streets.

The following estimates for associated costs are based on personal communication with local real estate appraisers and real estate agents. It must be recalled these are estimates. The actual sales price for real property in Philomath, as anywhere, will be due to type of land, property owner's motivation to sell, the street's value to property owner, and market characteristics.

It is recommended the City monitor costs of land acquisition as projects are constructed and right-of-way purchased, and update System Development Charges if these estimates are significantly different from actual costs.

Table 2-8 summarizes property values used in deriving Street System Development Charges for this report. Refer also to Appendix 3.

Table 2-8
Approximate Land Values
In Lower, Flat Regions of Philomath

		Notes
Home lot	$40,000	*Typical value, if City utilities are available, regardless of acreage.*
Undeveloped land	$0.60 per square foot	*Typical value, if City utilities are <u>not</u> available.*

Two projects (extending Willow Street and extending Pioneer Street) involve construction of streets in areas surrounded by development with improved streets and existing utilities. The proposed street segments do <u>not</u> presently have utilities and improvements, however, and these projects could be considered to increase the value of adjacent property. For these reasons the lower land value ($0.60 per square foot) has been assigned.

One project (widening 9th Street from former City limits to Quail Glen Drive) involves construction where there are existing utilities and streets. However, this project does not create additional –nor reduce the number of– home sites. Consequently, the lower land value ($0.60 per square foot) has been assigned.

The value of $40,000 her home lot is provided for reference only; there is no project in the December 2003 Master Plan that is deemed to occupy a home lot.

Table 2-9 summarizes estimated land values for each project requiring acquisition of right-of-way. Refer also to Appendix 3.

Table 2-9
Approximate Land Values
For Projects Requiring Right-of-Way Acquisition

Project	Land Type	Land Required	Estimated Cost
Priority 1			
Cedar to Willow	Undeveloped land	70,000 square feet	$42,000
Priority 2			
13th Street extended to Industrial Way	Undeveloped land	250,000 square ft	$150,000
Priority 3			
Hy 20/34 to Clemens Mill Rd.	Undeveloped land	115,000 square ft	$69,000
Pioneer Street, From 18th to 19th	Undeveloped land	21,250 square ft	$12,750
9th Street, from Old City Limits to Quail Glen Drive	Widen existing Right-of-Way. Considered as Undeveloped land	19,600 square ft (approximate)	$11,760
		Total:	**$285,510**