ORDINANCE No. 117735

COUNCIL BILL No. 110810

AN ORDINANCE amending the City of Seattle Comprehensive Plan.

COMPTROLLER FILE No. _____

Introduced: JUL 24 1995	By: STREET
Referred: JUL 24 1995	To: PLANNING AND REGIONAL AFFAIRS
Referred:	To:
Referred:	To:
Reported:	Second Reading:
Third Reading:	Signed: JUL 31 1995
Presented to Mayor: AUG 31 1995	Approved: AUG 3 1995
Returned to City Clerk: AUG 3 1995	Published: F.T.
Vetoed by Mayor:	Veto Published:
Passed over Veto:	Veto Sustained: OK

Law Department

The City of Seattle–Legisla

REPORT OF COMMI

Honorable President:

Your Committee on PLANNING & REGIONAL AFFAIRS

to which was referred the within Council Bill No. 110810 report that we have considered the same and respectfully recomm

Pass as amended

7/25/95

2-0

Full Council vo

Jim Street

Committee Chair

SPEAD TO VSP 121.7

Law Department

The City of Seattle--Legisla

REPORT OF COMMIT

PLANNING & REGIONAL AFFAIRS

ed the within Council Bill No. 110810
considered the same and respectfully recomm

Pass as
amended
7/28/95
2-0

Full Council VOT

Committee Chair

ET

F.T.

OK

Law Department

The City of Seattle--Legislative Department

Date Reported and Adopted

REPORT OF COMMITTEE

Honorable President:

Your Committee on PLANNING & REGIONAL AFFAIRS

to which was referred the within Council Bill No. 110810
report that we have considered the same and respectfully recommend that the same:

Pass as
amended
7/28/95
2-0

Full Council VOTE 9-0

Committee Chair

NOTICE: IF THE DOCUMENT IN THIS FRAME IS LESS CLEAR THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE DOCUMENT.

RDT:rlh
June 28, 1995
CPAMEND.Ord
(Ver. 1)

ORDINANCE 117735

AN ORDINANCE amending the City of Seattle Comprehensive Plan.

WHEREAS on April 4, 1995, the Central Puget Sound Growth Management Hearings Board, in case number 94-3-0016, directed the City of Seattle to perform additional work related to the Comprehensive Plan by September 1, 1995, and

WHEREAS the City has completed the additional work and the City Council has decided that the Comprehensive Plan should be amended to reflect the results of that work, NOW, THEREFORE

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. The City of Seattle Comprehensive Plan is hereby amended as shown in Attachment 1 to this ordinance.

Section 2. This ordinance shall take effect and be in force thirty (30) days from and after its approval by the Mayor, but if not approved and returned by the Mayor within ten (10) days after presentation, it shall take effect as provided by Municipal Code Section 1.04.020.

Passed by the City Council the 31st day of July, 1995, and signed by me in open session in authentication of its passage this 31st day of July, 1995.

President _____ of the City Council

Approved by me this 3 day of August, 1995.

Norman B. Rice
Mayor

Filed by me this 3 day of August, 1995.

Judith E. Pippin
City Clerk

(Seal)

ATTACHMENT 1

to ORDINANCE _____

Amendments to The City of Seattle Comprehensive Plan

ATTACHMENT 1 CONTENTS

PART 1

LAND USE ELEMENT AND APPENDIX B

Additions to the Land Use Element are shown in underline, and deletions are shown in ~~strikethrough~~. Only those sections that are being changed are included.

Format changes were made to Land Use Appendix B to make the table more readable.

ATTACHMENT 1
to ORDINANCE _____

LAND USE ELEMENT

C. DISTRIBUTION OF GROWTH

GOALS

G31 Encourage ~~Distribute~~ the additional 50,000 - 60,000 households (52,500 - 63,000 dwelling units) and 131,400 - 146,600 jobs called for in this plan to locate in ~~among~~ the various areas of the city as shown in Figure 7. ~~follows:~~ Over the first six years of the period covered by the Plan, the City expects to add about 10,700 households and 48,000 jobs.

Land Use Figure 7

20-YEAR GROWTH TARGETS
GENERAL DISTRIBUTION OF GROWTH
~~INSIDE AND OUTSIDE CENTERS AND VILLAGES~~

Category Location	% of Citywide Residential Growth	% of Citywide Employment Growth
In Urban Centers	45% (22,500 - 26,700 hshlds)	65% (85,410 - 95,500 jobs)
In Manufacturing/Industrial Centers	No housing target	10% (13,140 - 14,660 jobs)
In Hub and Residential Urban Villages (adopted and unadopted)	30% (15,000 - 18,000 hshlds)	No target for Residential Urban Villages Hub Urban Villages Only: 15% (19,700 - 21,990 jobs)
Remainder of City	25% (12,500 - 15,300 hshlds)	No Specific Target
Totals	50,000 - 60,000 hshlds	131,400 - 146,600 jobs

B. CATEGORIES OF URBAN VILLAGES

URBAN CENTERS
POLICIES

L21 Promote the balance of uses in each urban center or urban center village indicated by one of the following functional designations, assig ed as follows:

Functional Designation	Urban Center/Urban Center Village
1. Primarily Residential	Denny Regrade Capitol Hill
2. Mixed, with a residential emphasis.	Pike/Pine
3. Mixed residential and employment.	Westlake Pioneer Square International District First Hill South Capitol Hill University District NW University Village Northgate* Seattle Center*
4. Mixed, with an employment emphasis.	Downtown Commercial Core University Campus

*These Urban Centers are not divided into urban center villages

RESIDENTIAL URBAN VILLAGES

POLICIES

L44 Preliminarily designate as residential urban villages the 18 areas identified in Land Use Figure 1, above, subject to further objective analysis through the neighborhood planning process.

OVERLAY AREAS

POLICIES

Add a new policy L127. Renumber all following policies.

L127 Generally, Council approval of a plan or program that lacks city-wide application will not be included within, or entail amendment of, the Comprehensive Plan. However, when the Plan is amended, plan maps or text may be updated to reflect Council action, as appropriate. For example, when the Council approves a local plan, such as that for an urban village, the final boundaries for the village may be depicted on Plan maps.

Format changes have been made to the following table to make it more readable. No information contained in the Table adopted 7/25/94 is altered.

LAND USE APPENDIX B

Growth Planning Estimates for Urban Centers, Center Villages, Hub Urban Villages, and Residential Urban Villages

Village	Land Area Acres	Households (HH)				Employment (Jobs)			
		Existing	Existing Density (HH/Acre)	Planning Estimate (HH Growth)	Estimated 2010 Density	Existing	Existing Density (Jobs/Acre)	Planning Estimate (Job Growth)	Estimated 2010 Density
URBAN CENTERS/CENTER VILLAGES									
Downtown Urban Center Total	**945**	**7,421**	**7.9**	**NA[1]**	**23.4**	**165,119**	**175**	**NA[1]**	**241**
Denny Regrade Village	*216*	*3,492*	*16.2*	*6,500*	*46.3*	*22,699*	*105*	*4,500*	*126*
Westlake Village	*143*	*514*	*3.6*	*3,500*	*28.1*	*22,010*	*154*	*23,600*	*319*
Commercial Core Village	*275*	*1,435*	*5.2*	*1,300*	*9.9*	*106,823*	*388*	*27,000*	*487*
Pioneer Square Village	*142*	*376*	*2.6*	*2,100[2]*	*17.4*	*9,113*	*64*	*4,800[2]*	*98*
International District Village	*169*	*1,604*	*9.5*	*1,300*	*17.2*	*4,474*	*26*	*2,800*	*43*
First Hill/Cap. Hill Center Total	**912**	**21,673**	**23.8**	**NA[1]**	**30.0**	**33,393**	**37**	**NA[1]**	**50**
First Hill Village	*225*	*5,896*	*26.2*	*2,400*	*36.9*	*20,626*	*85*	*6,100*	*119*
Capitol Hill Village	*396*	*12,450*	*31.4*	*1,980*	*36.4*	*5,284*	*13*	*3,000*	*21*
Pike/Pine Village	*131*	*2,349*	*18.0*	*620*	*22.7*	*3,963*	*30*	*1,400*	*41*
South Capitol Hill Village	*160*	*978*	*6.1*	*540*	*9.5*	*3,520*	*22*	*1,200*	*30*
Univ. Dist. Urban Center Total	**770**	**11,611**	**15.0**	**NA[1]**	**17.8**	**31,427**	**41**	**NA[1]**	**52**
University Dist. NW Village	*289*	*4,324*	*14.9*	*1,630*	*20.5*	*8,625*	*30*	*3,000*	*40*
University Village Village	*122*	*973*	*8.0*	*480*	*12.0*	*1,580*	*13*	*700*	*19*
University Campus Village	*359*	*6,313*	*17.6*	*0[3]*	*17.6*	*21,222*	*59*	*4,800*	*72*

LAND USE APPENDIX B

Growth Planning Estimates for Urban Centers, Center Villages, Hub Urban Villages, and Residential Urban Villages

Village	Land Area Acres	Households (HH)				Employment (Jobs)			
		Existing	Existing Density (HH/Acre)	Planning Estimate (HH Growth)	Estimated 2010 Density	Existing	Existing Density (Jobs/Acre)	Planning Estimate (Job Growth)	Estimated 2010 Density
Northgate Urb. Center Total	**410**	**3,291**	**8.0**	**NA[1]**	**15.3**	**11,366**	**28**	**NA[1]**	**50**
Sea. Center Urb. Center Total	**297**	**3,138**	**10.6**	**NA[1]**	**15.0**	**19,000**	**64**	**NA[1]**	**75**
HUB URBAN VILLAGES[4]									
Ballard	323	4,279	13.2	1,520	17.9	3,518	11	3,700	22
Fremont	339	3,766	11.1	820	13.5	6,937	20	1,700	25
Lake City	310	2,740	8.8	1,400	13.3	2,827	9	2,900	18
W. Seattle Junction	225	1,835	8.2	1,100	13.0	3,108	14	2,300	24
Aurora Ave N @ 130th St	344	2,271	6.6	1,260	10.3	4,027	12	2,800	20
Rainier Ave @ I-90	415	2,043	4.9	1,200	7.8	3,371	8	3,500	17
South Lake Union	446	461	1.0	1,700[5]	4.8	15,230	34	4,500	44
RESIDENTIAL URBAN VILLAGES[4]									
Aurora N @ 97th St	288	2,106	7.3	900	10.4	NA	NA	NA	NA
Greenwood	202	1,283	6.4	350	8.1	NA	NA	NA	NA
Upper Queen Anne	103	1,063	10.3	300	13.2	NA	NA	NA	NA
Eastlake	205	2,423	11.8	380	13.6	NA	NA	NA	NA
23rd Ave S @ S Jackson St	485	3,186	6.6	900	8.4	NA	NA	NA	NA

LAND USE APPENDIX B

Growth Planning Estimates for Urban Centers, Center Villages, Hub Urban Villages, and Residential Urban Villages

Village	Land Area Acres	Households (HH)				Employment (Jobs)			
		Existing	Existing Density (HH/Acre)	Planning Estimate (HH Growth)	Estimated 2010 Density	Existing	Existing Density (Jobs/Acre)	Planning Estimate (Job Growth)	Estimated 2010 Density
Admiral District	103	798	7.8	340	11.1	NA	NA	NA	NA
Green Lake	107	1,439	13.4	400	17.2	NA	NA	NA	NA
Roosevelt	160	1,007	6.3	340	8.4	NA	NA	NA	NA
Wallingford	245	1,973	8.1	200	8.9	NA	NA	NA	NA
Rainier Beach	227	1,482	6.5	740	9.8	NA	NA	NA	NA
Columbia City	313	1,639	5.2	740	7.6	NA	NA	NA	NA
SW Barton St @ 25th Ave S	278	1,654	6.0	700	8.5	NA	NA	NA	NA
Beacon Hill	171	1,844	10.8	550	14.0	NA	NA	NA	NA
Crown Hill	173	929	5.4	310	7.2	NA	NA	NA	NA
MLK Jr Wy S @ Holly St	380	1,247	3.3	300	5.4	NA	NA	NA	NA
South Park	264	997	3.8	350	5.1	NA	NA	NA	NA
21st Ave E @ E Madison St	145	1,486	10.3	400	13.0	NA	NA	NA	NA
California @ SW Morgan St	139	1,104	8.0	300	10.1	NA	NA	NA	NA

PART 2

CAPITAL FACILITIES ELEMENT

Additions to the Capital Facilities Element are shown in underline, and deletions are shown in ~~strikethrough.~~ In order to provide context for the changes, all text in the element is included. Text with no underline or strikethrough has not been changed.

CAPITAL FACILITIES ELEMENT

Table of Contents

A. CAPITAL FACILITIES POLICIES

This section does not apply to transportation or utilities capital facilities; please see those elements of the Plan for pertinent policies.

Goals:

G1. Provide capital facilities that will serve the most pressing needs of the greatest number of Seattle citizens, and that will enable the City to deliver services efficiently to its constituents.

G2. Preserve the physical integrity of the City's valuable capital assets and gradually reduce the major maintenance backlog.

G3. Make capital investments consistent with the vision of the Comprehensive Plan, including the urban village strategy.

G4. Site and design capital facilities so that they will be considered assets to the communities in which they are located.

G5. Provide capital facilities that will keep Seattle attractive to families with children.

G6. Encourage grass-root involvement in identifying desired capital projects for individual neighborhoods.

G7. Encourage community input to the siting of public facilities.

Policies:

1. Strategic Capital Investment

C1. Plan capital investments strategically. The City will ~~develop and begin to use by the middle of 1995 a new process by which it can make~~ use fiscal notes and policy analysis to assist in making informed capital investment choices to achieve the community's long-term goals. This process will provides guidance for capital budgeting and long-term capital facilities planning across all city departments, for identifying and balancing competing needs, and for developing short and long term capital finance plans for all of the City's capital investments. This process will includes defining desired outcomes of capital investments, evaluating potential investments on a citywide basis, applying standard criteria for assessing

alternative investments, and making more efficient use of all potential resources.

C2. ~~Develop and begin using by the middle of 1995~~ Continue to use a framework for assessing policy and fiscal implications of potential major new and expanded capital facilities, as part of the City's new process for making capital investment choices. The framework will applyies standard criteria, including the consideration of issues such as a capital project's consistency with the Comprehensive Plan and neighborhood plans, and its effects on Seattle's quality of life, the environment, social equity, and economic opportunity.

C3. Emphasize the maintenance of existing facilities. The City will budget sufficient funds to perform major and preventive maintenance of existing facilities that is considered cost effective. The City will adopt a maintenance plans for capital facilities ~~by the end of 1995~~. In general, oOnce such a plans are is adopted, the City will not fund maintenance consistent with the plans prior to acquisition or construction of major new capital facilities ~~unless the then current appropriation for the maintenance of existing facilities is consistent with the then current maintenance plan~~.

C4. Require fiscal impact analyses of all major capital projects considered for funding. Such analyses will include, but not be limited to, one-time capital costs, life-cycle operating and maintenance costs, revenues from the project, and costs of not doing the project.

C5. Make major project specific capital decisions by the Mayor and the Council through the adoption of the City's operating and capital budgets, and the six-year Capital Improvement Program (CIP).

C6 As neighborhood plans are prepared, the City will consider neighborhood identified capital facility improvements in light of other facility commitments and the availability of funding and will consider other funding sources such as a neighborhood capital facility bond.

2. Facility Siting

C6. Encourage the location of new community-based capital facilities, such as schools, libraries, little city halls, parks and playgrounds, community centers, clinics and human services facilities, in urban village areas. Written justification will be provided for proposals to locate a major capital facility outside of an urban village area. The City will consider providing capital

facilities or amenities in urban villages as an incentive to attract both public and private investments to an area.

C7 Seek to locate capital facilities where they are accessible to a majority of their expected users by walking, bicycling, car-pooling, and/or public transit. Other pedestrian or transit-oriented urban village strategies are included in the Transportation Element.

C8. Consider the recommendations from the neighborhood planning process in making locational decisions for new or expanded facilities. The needs of facility users will also be considered in making these decisions.

C9. Encourage quality development by requiring major City-funded capital improvement projects or projects proposed on City property located within the City of Seattle to be subject to a design review process of the Seattle Design Commission.

3. Relations With Other Public Entities Including the Seattle School District, the Port of Seattle, the Regional Transit Authority, Metropolitan King County, and the State of Washington

C10. Work together with other public and non-profit entities toward coordinated capital investment planning, including coordinated debt financing strategies, to achieve the goals of Seattle's Comprehensive Plan.

C11. Work together with other public and non-profit entities to include urban village location as a major criterion for selecting sites for new or expanded community-based facilities or public amenity related facilities.

C12. Work together with the School District to encourage siting, renovation, and expansion of school facilities in areas that are best equipped to accommodate growth.

C13. Work cooperatively with other public or non-profit agencies to identify and pursue new co-location and joint-use opportunities for the community's use of public facilities for programs, services, and community meetings.

4. Regional Funding Policy

C14. The City will work with other jurisdictions in King, Snohomish, and Pierce Counties to explore regional funding strategies for capital facilities, particularly for those that serve or benefit citizens throughout the region.

B. INVENTORY OF EXISTING PUBLIC CAPITAL FACILITIES

The inventory of public capital ~~facilities that is required by the Growth Management Act (GMA)~~ is contained in Appendix A to this element of the Plan, and for utilities (including water and drainage and wastewater) and transportation, in the appendices to those elements of the Plan. This inventory is provided both at a citywide level and for each of the Urban Centers.

C. FORECAST OF FUTURE NEEDS FOR CAPITAL FACILITIES

This section does not apply to transportation capital facilities; please see that element of the Plan for pertinent discussion.

Seattle is a highly urbanized area with a fully developed citywide network of the types of capital facilities necessary to accommodate growth ~~already a well built urban area~~. New households that are projected to locate in Seattle could occupy existing dwellings or new buildings. New buildings can be constructed in Seattle, and be served by the existing network of streets, water and sewer lines, drainage facilities and electrical grid. In addition, new residents can be served by existing and funded police, fire and school facilities. Forecasted future needs for police and fire protection and schools both for the six and twenty year timeframes are listed in Appendix A to this element of the Plan. Water, drainage and wastewater, City Light and solid waste facilities are detailed in Appendix A of the Utilities Element. The identified six year future needs for these facilities are included in the *City of Seattle Adopted 1995-2000 Capital Improvement Program and Long Range Capital Investment Plan* (CIP), and those lists are incorporated into this Plan Element by reference. ~~The basic infrastructure necessary to serve the current population and the small amount of growth expected in the next six years already exists. Significant major maintenance needs for our existing facilities have been identified, and the City is exploring ways to remedy the existing backlog over the next six years.~~

The City currently provides a good citywide system of libraries, parks and recreation facilities which are available and accessible for use by all the City's residents. An inventory of these facilities is also contained in Appendix B to this element. While additions to these facilities would enhance the City's quality of life, such additions are not necessary to accommodate new households. It is expected that during the neighborhood planning process, additions or expansions of these facilities may be identified. The City's ability to add to or expand these facilities will depend on neighborhood prioritization, funding availability and the willingness of residents to approve financing.

The City also provides other facilities, such as general government buildings, Seattle Center and Public Health facilities that are of a citywide or regional

The City also provides other facilities, such as general government buildings, Seattle Center and Public Health facilities that are of a citywide or regional benefit. While upgrading or replacement of some of these facilities may be funded over the next six years, such improvements are not necessitated by projected growth.

~~In addition, various departmental and citywide planning efforts in recent years have identified many capital enhancements that would be desirable in order to increase the services and opportunities that city government provides to our citizens. The city will seek additional resources to fund some of these desired amenities.~~

D. PROPOSED NEW OR EXPANDED CAPITAL FACILITIES

The project descriptions marked with a * in the 1995-2000 CIP identify the proposed locations and capacities of the new or expanded capital facilities the City contemplates funding in the next six years, and that designation of facilities is incorporated herein. Consistent with the overall plan, emergencies, other unanticipated events or opportunities, and voter approvals of ballot measures, may result in some departure from the adopted CIP. Other potential capital improvements that the City may fund over the next six years are found in Appendix D to this element. Additional information for transportation is found in that element.

E. SIX-YEAR FINANCE PLAN

The project information summaries (Six Year Financing Plan) in the 1995-2000 CIP show, for each new or expanded capital facility proposed by the City, the sources of funding the City anticipates using for that facility, and that listing is incorporated herein. These allocations may change over time. Emergencies and unanticipated circumstances may result in allocating resources to projects not listed. This six-year finance plan shows full funding for all improvements to existing facilities and for new or expanded facilities the City expects to be needed to serve the existing and projected population through 2000. Additionally, the CIP contains substantial funding for major maintenance and some funding for other improvements that will both maintain and enhance the City's existing facilities. Additional information for transportation is found in that element.

F. CONSISTENCY AND COORDINATION

Current projections show that probable funding will be sufficient to meet all the currently identified needs for new or expanded city capital facilities through the year 2000 to accommodate planned growth. Should anticipated funding not materialize, or should new needs be identified for which no funding is determined to be probable, the City will reassess the land use element of this Plan to ensure that it is coordinated with and consistent with this element, and in particular with the six-year finance plan. A review for coordination and consistency between this Element and the Land Use Element will be part of the City's annual budget review and Comprehensive Plan amendment processes.

G. SITING PROCESS FOR ESSENTIAL PUBLIC FACILITIES

1. The Growth Management Act provides that no comprehensive plan or development regulation may preclude the siting of an essential public facility. Accordingly this Plan and City zoning permit the establishment of public uses, consistent with the areas zoned for such uses and compliance with applicable development regulations.

2. The City will approve a specific list of essential public facilities by type, and facilities on the list will thereafter be subject to the siting process referred to in paragraph three below. In developing the list the City will consider: state and county lists of essential public facilities; and the extent to which the facility type has historically been difficult to site in the City of Seattle, based upon such factors as the availability of land, access to transportation, compatibility with neighboring uses, and impact upon the physical environment.

3. The City's siting process for essential public facilities on the City's specific list should contain the following components:

a. Interjurisdictional analysis: A review to determine the extent to which an interjurisdictional approach may be appropriate, including a consideration of possible alternative sites for the facility in other jurisdictions and an analysis of the extent to which the proposed facility is of a county-wide, regional or state-wide nature, and whether uniformity among jurisdictions should be considered.

b. Financial Analysis: A review to determine if the financial impact upon the City of Seattle can be reduced or avoided by intergovernmental agreement.

c. Special Purpose Districts: When the public facility is being proposed by a special purpose district, the City should consider the facility in the context of the district's overall plan and the extent to which the plan and facility are consistent with this Comprehensive Plan.

d. Measures to Facilitate Siting: The factors that make a particular facility difficult to site (e.g., see paragraph 2 above) should be considered when a facility is proposed, and measures should be taken to facilitate siting of the facility in light of those factors.

PART 3

CAPITAL FACILITIES APPENDICES

Additions to the Capital Facilities Appendices are shown in underline, and deletions are shown in ~~strikethrough.~~ In order to provide context for the changes, all text in the appendices is included.

The table on page 15, and Appendix C and D are entirely new. With these exceptions, text with no underline or strikethrough has not been changed.

CAPITAL FACILITIES APPENDICES

Table of Contents

APPENDIX A:
Inventory of Fire, Police and School Facilities, and Supplemental Capacity Information, and Future Facility Needs

The following sections contain the inventory, planning goals and future needs for Fire, Police and Schools. Information for Water, Drainage and Wastewater, Seattle City Light and Solid Waste is included in the Utilities Element Appendix. The following matrix summarizes the information found in this Appendix, including a summary of the planning goals, existing facilities, and identified six and twenty year needs.

MATRIX OF FIRE, POLICE & SCHOOL FACILITIES (entire table is new)

Facility	Planning Goal	Existing Facilities	Six Year Needs	Anticipated Twenty Year Needs
Fire	Maintain a 5 minute or less response time for first response to fire emergencies	33 existing Fire Stations currently provide a citywide response time of 4.36 minutes (1994)	Current facilities are adequate. No six year facility needs.	New station in Northgate and possibly downtown.
Police	Patrol units allocated around-the-clock based on calls for service. Location and size of facilities not critical to service provision. Facilities planning is based on guidelines for public safety office space.	4 Precincts, 2 Mobile Mini-precincts, Mounted Patrol, Kennel, Harbor Unit	Replace West Precinct and 911 Center	Expand North and South Precincts
Schools	*Elementary School* - 380-535 students, 4 ac. site size *Middle School* - 600 - 800 students, 12 ac.site size *High School* - 1,000 - 1,600 students, 17 ac. site size	61 Elementary Schools, 10 Middle Schools, 10 High Schools, 13 Alternative Schools, Admin. Buildings, Memorial Stadium, Closed schools	Current Capital Improvement Plan will renovate, replace, and/or add to 20 schools and Memorial Stadium.	The District's Facility Master Plan calls for all schools built before 1973 to be modernized or replaced over the next 20 years.

1. Fire Department

Inventory:
The Seattle Fire Department provides fire protection and emergency medical services throughout the city from 33 fire stations and Harborview Medical Center. Headquarters for the department are located at Fire Station 10 in Pioneer Square. Fire Department facilities and capacities are shown in Capital Facilities Figure A-5 and the location list provided below.

Each station provides a full range of fire protective services including fire suppression, emergency medical and salvage. While each station is equipped with at least one fire engine (except Fire Station 14, which has limited space), other equipment varies by facility. The Fire Department has 33 engine companies, 11 ladder truck companies, six medical units, six paramedic units and other specialized units distributed to serve existing development.

Planning Goals:
In 1994, the Seattle Fire Department maintained an average first-arrival response time to fire-related calls of 4.36 minutes. The fire fighting industry has set 5 minutes as a desirable response time.

Response time is influenced more directly by the availability of fire personnel, equipment, and traffic conditions than by the number of fire stations. However, firefighter and equipment requirements indirectly affect station requirements. Buildings and associated densities are critical factors in estimating fire fighter requirements. These requirements are estimated on an annual basis through the City's budget process.

Locations and Capacities of Fire Department Facilities

Station	Address	Capacity (Equipment)	Medic & Spec. Units
SFD 2	2334 4th Ave	1 Engine, 1 Ladder	Aid 2
SFD 5	925 Alaskan Way	1 Engine	Fireboat
SFD 6	101 23rd Ave S	1 Engine, 1 Ladder	
SFD 8	110 Lee St	1 Engine, 1 Ladder	
SFD 9	3829 Linden Ave N	1 Engine	Air 9
SFD 10	301 2nd Ave S	1 Engine, 1 Ladder	Aid-5, Haz-Mat Van
SFD 11	1514 SW Holden St	1 Engine	
SFD 13	3601 Beacon Ave S	1 Engine	
SFD 14	3224 4th Ave S	1 Ladder	Aid-14, Gas Truck
SFD 16	6846 Oswego Pl NE	1 Engine	Medic 16
SFD 17	1050 NE 50th St	1 Engine, 1 Ladder	Aid-17
SFD 18	1521 NW Market St	1 Engine, 1 Ladder	Aid-18, Salvage-18
SFD 20	3205 13th Ave W	1 Engine	
SFD 21	7304 Greenwood Ave N	1 Engine	
SFD 22	901 E Roanoke St	1 Engine	Communications Van
SFD 24	401 N 130th St	1 Engine	
SFD 25	1300 E Pine St	1 Engine, 1 Ladder	Aid-25, Power-25
SFD 26	800 S Cloverdale St	1 Engine	Air-26
SFD 27	1000 S Myrtle St	1 Engine	Foam-1
SFD 28	5968 Rainier Ave S	1 Engine, 1 Ladder	Medic/Aid-28
SFD 29	2139 Ferry Ave SW	1 Engine	
SFD 30	2931 S Mount Baker Blvd	1 Engine	
SFD 31	1319 N Northgate Way	1 Engine, 1 Ladder	Medic/Aid-31
SFD 32	3715 SW Alaska St	1 Engine, 1 Ladder	Medic/Aid-32, Air-32
SFD 33	9645 Renton Ave S	1 Engine	
SFD 34	633 32nd Ave E	1 Engine	Power-34A
SFD 35	8729 15th Ave NW	1 Engine	
SFD 36	3600 23nd Ave SW	1 Engine	Unit 99
SFD 37	7300 35th Ave SW	1 Engine	
SFD 38	5503 33rd Ave NE	1 Engine	
SFD 39	12705 30th Ave NE	1 Engine	
SFD 40	9401 35th Ave NE	1 Engine	
SFD 41	2416 34th Ave W	1 Engine	Medic 1, Medic 10

Existing Capacity and Anticipated Future Needs:
The current facilities and their distribution are adequate to maintain the desired response time to existing development and the small amount of new development expected over the next six years in the Urban Centers and throughout the City. In order to serve expected growth over the next 20 years, the Fire Department will need a new station in the Northgate area and may require one in the downtown area.

Over time, the Department may explore relocation options to promote service efficiencies or to address space needs for larger equipment. In addition, the Department is currently evaluating its emergency medical capabilities and staffing or equipment additions that may be desirable to improve emergency medical service.

2. Police Department

Inventory:
The Seattle Police Department currently provides law enforcement patrol services to the city from four precincts~~, each with its own police station~~. The locations and capacities of these precincts are shown in Figure A-30 and the list below:

1. North Precinct, at 10049 College Way North, serves the area north of the Ship Canal to the City limits and has a capacity of 16,779~~0~~ square feet (sq ft).

2. West Precinct, located in the Public Safety Building, serves Queen Anne, Magnolia, the downtown core, and the area west of I-5 and north of Spokane Street, and has a capacity of 9,930 ~~15,000~~ sq ft for patrol headquarters, 180,086 ~~94,500~~ sq ft for other administrative/storage space in the Public Safety Building and five other adjacent/nearby buildings.

3. East Precinct, located at 1519 12th Avenue, serves the area north of I-90 to the Ship Canal and east of I-5, including ~~plus~~ the Eastlake Community and has a capacity of 40,000 sq ft of office space.

4. South Precinct, at 3001 South Myrtle Street, serves the Duwamish Waterway area, West Seattle, ~~and in~~ Southeast Seattle, the area south of I-90 to the City limits and has a capacity of 13,688 sq ft.

Other Police facilities owned and/or operated by SPD ~~or the City's Department of Administrative Services~~ include:

1. The Facility for Mounted Patrol Unit at Discovery Park has a capacity of 12 full-time stalls and ~~5 temporary stalls and~~ the space for housing other related equipment and supplies.

2. The Kennel for the K-9 Unit of Police dogs, located at the SPD pistol range in south Seattle near Boeing Field, has a capacity of 6,464 sq ft, housing 6 dogs and 2 pups and related equipment and supplies.

3. The Harbor Unit facility on the north shore of Lake Union has a capacity of 3,706 ~~4,000~~ square feet for offices, shop, dock, and two boat sheds, plus docks which moor ~~housing~~ nine Patrol boats. The facility also has extra dock areas to moor temporary boats.

4. The Community Service Officer Unit, at 105 14th Avenue, has a capacity of 7,000 sq ft of office space.

The SPD ~~offices at the~~ Seattle Center component handles ~~, which make up the Special Activities Section for~~ events at the Center, as well as the Police Reserves ~~Unit~~. In addition to these permanent facilities, the Police Department has two mobile mini-precincts that they locate in various areas as activities dictate. One of the mobile mini-precincts is permanently assigned to West Seattle. The Police Department facilities are shown in Capital Facilities Figure A-6.

Planning Goals:
Uniform patrol law enforcement services are generally allocated based on workload, time and location. The exact location of facilities is usually not critical to the provision of uniform patrol services, since police officers are on patrol in the various sectors and calls for service are dispatched by radio or officers handle situations "on view". However, the location of facilities can be important because of distance traveled at shift change time and because good locations can enhance Police/Community interaction and communication.

Because of the many and changing factors that affect staffing and space objectives of police departments, there are no universally accepted planning goals for police facilities related to performance measures. The forecast of future needs is therefore based on guidelines for office space that incorporate special space requirements related to public safety, using the East Precinct as a model.

Existing Capacity and Anticipated Future Needs:
The West Precinct is currently overcrowded and does not satisfy the Police Department's desire for additional space. Plans are being considered to replace the current West Precinct and 911 Center with a new building in the South Lake Union neighborhood. With the replacement of the West Precinct building, police facilities are expected to be adequate to serve the existing population and that expected over the next six years.

In order to serve the growth forecast under the Comprehensive Plan over the next 20 years in the Urban Centers and throughout the City, it is anticipated that additional space may be required in the North and South Precincts. However, these improvements are not expected to be needed over the next six years. At this time the exact space requirements are not known and will depend on a variety of factors, as discussed under Planning Goals. As the City further considers community policing options the long range plans for police facilities may change.

3. Public Schools

Inventory:
District facilities include 10 high schools, 10 middle schools, 612 elementary schools, 130 alternative schools and Memorial Stadium. In addition, the District has six buildings used primarily for administration and a number of closed schools. Many of the school closures occurred during the 1970s and 1980s as a result of low enrollments. The closed schools are used for administration, as temporary schools during remodeling construction, leased to other organizations on a short- or long-term basis or remain unused. School locations are shown in Capital Facilities Figure A-10.

The capacity for school facilities varies by school type as follows: 380-535 students for elementary schools; 600-800 ~~700-900~~ students for middle schools; and 1,000-1,600 ~~1,200~~ students for high schools. Memorial stadium has a seating capacity of 12,000.

Planning Goals:
The School District has established the following planning goals for new or modernized school facilities:

	SCHOOL SIZE	SITE SIZE (Minimum)
ELEMENTARY SCHOOL	380, 445 or 535 students	4 acres
MIDDLE SCHOOL	600 to 800 students, except for alternative programs, which could be smaller	12 acres
HIGH SCHOOL	1,000 to 1,600 students, except for alternative programs, which could be smaller	17 acres

The District plans facilities based on where growth is expected in school age populations of children that would be expected to attend public school. Through the current "choice" student assignment plan, about 50% of the children that attend public schools choose and attend the school in their neighborhood and 50% choose other schools.

Existing Capacity and Anticipated Future Needs:
In 1991, the School District completed a six-year capital improvement program, known as CIP I. In preparation for the next CIP, the School Board adopted the long-range Facilities Master Plan and Capital Improvement

Program. The Capital Improvement Program was divided into several phases. Funding for the CIP was approved by the voters in February 1995.

The current CIP covers six years, 1995-2000, and contains 21 projects. The projects are for modernization, historic renovation, replacement and/or expansion of elementary and secondary schools and Memorial Stadium, to meet existing requirements. These improvements will add some capacity which will reduce the dependency on portable buildings to meet the expected population in the next six years.

For all Urban Centers except the University District, there is sufficient capacity to serve the existing student population. No capital improvements are stated for these areas in the next six years. According to the District's Facility Master Plan, it is expected that over the next six years there will be sufficient capacity for expected growth. For the University District Urban Center, the current shortfall of capacity to serve student population is being addressed through the use of portable buildings and capacity in nearby schools. Latona and Bryant Elementary schools are scheduled for increased capacity in the current Capital Improvement Program. With expected population growth, according to the District's Facility Master Plan, any shortfall of localized capacity will be handled through the use of portable buildings and capacity in nearby schools.

The School District's Facilities Master Plan (FMP) guides facilities decisions through the year 2010. Over the course of the next several anticipated capital improvement programs, capacity will be added to eliminate the need for portable buildings.

The schools outlined in the FMP are in locations that can serve Urban Centers, Urban Villages and the remainder of the city. The FMP recognizes that the shift in trends, as Urban Centers and Villages develop, could be gradual or rapid and will vary throughout the city. The District is committed to reviewing and adjusting its FMP every three years, as necessary, to be responsive to changing conditions.

APPENDIX B:
Inventory of Park & Recreation, Library, General Government, Seattle Center, Public Health and Publicly Assisted Housing Facilities and Supplemental Capacity Information

1. Parks and Recreation Facilities

The City maintains a system of parks and open areas that includes 6,189 acres, or about 10% of the City's total land area. This includes 5,343 developed acres. Over 6,000 acres of parks and open space are deemed adequate capacity to serve a population of at least 600,000. Planned open space capacity will increase by 210 acres over the next six years and will include natural areas, greenbelts, and parks expansions. Parks and open areas owned by the City and their capacities are summarized below:

Parks and Open Space	Size of Facility
61 Local parks	834 acres
17 Major urban or regional parks	2,554 acres
62 Squares, places, triangles	27 acres
33 Playfields	413 acres
38 Neighborhood playgrounds	135 acres
8 Shorelines (including 11swimming beaches)	24 miles
Biking and pedestrian trails	8 miles
18 Boulevards	22 miles (396 acres)
20 Green spaces	421 acres
18 Natural areas	69 acres

The City also owns a number of recreational facilities within the parks system. These structures total over a million square feet of building space. Five new community centers will expand the capacity by over 70,000 sq ft. Following is a list of park system structures:

24 Community centers
9 Swimming pools (including 1 outdoor), 27 wading pools
1 Waterfront aquarium
1 Zoo: 90 acres, 45 major exhibits and buildings
1 Stadium
1 Indoor tennis center (10 indoor courts and 4 outdoor courts)
151 Outdoor tennis courts (71 with lights)
185 Athletic fields
33 Playfields
5 Golf courses, including pitch/putt (449 acres)
2 Boating and sailing centers
2 Nature interpretive centers (Discovery Park and Camp Long)
6 Performing and visual art facilities
7 Historic buildings
90 Comfort stations
16 Residences and cabins
80 Picnic shelters and houses
12 Concession facilities
22 Administrative offices and headquarters
2 Museums
2 Amphitheaters
52 Miscellaneous facilities (including storage, maintenance, warehouses, chapel, visitor centers, beach/bath facilities, a rifle/pistol range and a police horse patrol barn, viewpoints and nature trails)

Parks facilities are shown in Capital Facilities Figure A-1 and most recreation facilities are included within the areas of the parks.

2. Seattle Public Library

The Seattle Public Library (SPL) operates the downtown library, 22 neighborhood libraries and a fleet of five bookmobiles. The State-funded Washington Library for the Blind and Physically Handicapped (WLBPH) is also administered by the SPL. The SPL rents space for three of the five facilities it does not own, and is provided with free space by the Seattle Housing Authority for two facilities. Locations of library facilities and their capacities are shown in Capital Facilities Figure A-2 and in the location list of Library facilities provided below.

Locations and Capacities of Library Facilities

Library Name	Address	Capacity Sq. Ft.
Broadview	12755 Greenwood Av N	8,405
Lake City	12501 28th Av NE	9,013
Ballard	5711 24th Av NW	7,296
Magnolia	2801 34th Av W	5,859
Queen Anne	400 W Garfield St	7,931
Fremont	731 N 35th	6,060
Green Lake	7364 E Green Lake Dr N	8,690
Greenwood	8016 Greenwood Av N	7,094
Henry	425 Harvard Av E	4,904
University	5009 Roosevelt Wy NE	8,140
Downtown	1000 4th Av	166,092
Mobile Services	425 Harvard Av E	5,056
Wash. Library for the Blind & Physically Handicapped	821 Lenora St	10,000
Madrona-Sally Goldmark	1134 33rd Av	1,701
Montlake	2300 24th Av E	1,535
North East	6801 35th Av NE	8,690
High Point	6338 32nd Av SW	2,067
South West	9010 35th Av SW	7,557
West Seattle	2306 42nd Av SW	10,007
Beacon Hill	2519 15th Av S	3,328
Columbia	4721 Rainier Av S	5,838
Douglass-Truth	23RD Av / E Yesler Wy	8,008
Holly Park	6805 32nd Av S	1,924
Rainier Beach	9125 Rainier Av S	9,006
Wallingford-Wilmot	N 45th St / Densmore	2,147

3. General Government

The City of Seattle currently owns six primary buildings with a capacity of 1.3 million square feet (sq ft) in the downtown core: the Municipal Building (238,000 sq ft), Public Safety Building (291,000 sq ft), City Light Building (200,000 sq ft), Dexter-Horton Building (350,000 sq ft), Arctic Building (101,000 sq ft) and Alaska Building (147,000 sq ft). The City also leases about 80,000 square feet in nearby buildings downtown. In addition, the City owns more than 100 other facilities located outside of downtown. The major general government facilities are shown in Capital Facilities Figure A-3.

The City also leases 10 storefront Neighborhood Service Centers located throughout the city. These offices range in size from 750 square feet to 2,000 square feet and serve as City information and community contact points, as well as bill payment depositories. These are shown in Capital Facilities Figure A-4.

4. Seattle Center

There are 24 buildings on the 74 acre Center grounds with a capacity of over 250,000 square feet of meeting and exhibition space in three dozen separate facilities that meet the cultural, educational, and recreational needs of the region. The Center House Conference Center, Mercer Forum, and Northwest Rooms host gatherings up to 800, and the Opera House has seating for 3,100. The Coliseum is currently under contruction and its capacity will be expanded from approximatly 15,000 to 17,000 seats.

The Fun Forest Amusement Park is located on the grounds, along with the International Fountain, Pottery Northwest, Northwest Crafts Center and various gardens. The Center has seven parking lots and a parking garage with a combined parking capacity of 2,800 stalls. Seattle Center facilities are shown in Capital Facilities Figure A-7

5. Public Health

The Health Department is a joint enterprise of the City of Seattle and the Metropolitan King County and is responsible for the supervision and control of all public health and sanitation affairs in Seattle/King County. The Seattle Division maintains a system of personal health services through seven health centers/clinics located in downtown, north and south Seattle. These health care facilities have a total capacity of 73,735 square feet. The capacity and ownership of individual facilities are listed below.

Health Facility	Size	Tenancy
Columbia Health Center	28,094 sf	own
Odessa Brown Building	3,810 sf	own
Downtown Public Health Center	19,078 sf	lease
North District Health Center	11,953 sf	owned by King Co.
Northwest Family Center	5,426 sf	owned by King Co.
Prefontaine Building	5,374 sf	owned by King Co.

Public Health facilities are shown in Capital Facilities Figure A-8.

68. Publicly-Assisted Housing

The following summary describes the publicly-assisted housing inventory of low- and moderate-income rental units that were built or preserved within the City of Seattle through 1992. The Comprehensive Plan Housing Element estimates that there were 25,744 publicly assisted housing units with a capacity for 25,744 households in the city. Of these units, 86% receive project-based assistance, where the subsidy is linked to a specific project and unit, regardless of the tenant. The remaining 14% receive tenant-based assistance, where the subsidy is linked to a specific tenant, not a specific unit.

Publicly Assisted Housing Facility	Number of Units
Project-Based Assistance:	
SHA Public Housing	6,927
SHA Other Housing	1,493
Federally Subsidized Housing*	4,942
DHHS Multifamily**	4,593
State Housing Program (HAP)	582
State Housing Bonds (WSHFC)	290
Federal Tax Credits (WSHFC)	3,436
Tenant-Based Assistance:	
Section 8 Certificates	2,590
Section 8 Vouchers	891
Total Units Assisted	25,744

* Federally subsidized projects include Section 8 (project based) Certificates, Section 202 Elderly, Section 811 Disabled, 221(d)(3), and 221(d)(4) projects.
** Levy Trust Fund assistance is included in the DHHS project based assistance count above.

The housing units tabulated above include both publicly and privately-owned units. The existing public housing facilities operated by the Seattle Housing Authority are shown in Capital Facilities Figure A-9.

APPENDIX C:
Inventory of Facilities Serving Urban Centers and Villages

Following is an inventory of facilities that serve Urban Centers and Urban Villages. Facilities do not have to be located within the boundaries or potential boundaries of the Centers or Villages in order to serve those areas. [Entire section is new]

URBAN CENTERS

Northgate

Existing Households (HH): 3,291
Expected 6-yr. HH Growth: 530
Expected 20-yr. HH Growth: 3,000
Land Area: 410 Acres

Existing Jobs: 11,366
Expected 6 yr. Jobs Growth: 3,038
Expected 20 yr. Job Growth: 9,300

Facility Type	Name	Location	Capacity
Fire Station	SFD 31	1319 N. Northgate Way	4.7 minute response time Engine, Ladder Co., Medic/Aid
Police Station	North Precinct	10049 College Way N.	32.04 sq mi service area, 1994 pop 228,659
Schools[1]	Olympic View Elementary Northgate Elementary Sacajawea Elementary All 10 Middle Schools All 10 High Schools	504 NE 95th St 11725 1st Ave. NE 9501 - 20th Ave. NE	414 students 299 students 230 students
Library	Lake City Branch	12501 28th Ave NE	9,013 sq ft 1990 pop 35,008; .26 sq ft/capita + .32 sq ft/capita for citywide facilities
Parks:	Thorton Creek Park #6 North Seattle Park Pinehurst P-Patch Lichton Springs Park	In Center Within 1/8 mi Within 1/8 mi Within 1/2 mi	5.0 ac 6.8 ac 2 ac. 6.3 ac

[1] Through the student assignment plan, several other Elementary Schools also serve the Center, as well as several alternative schools.

Seattle Center

Existing Households (HH): 3,138
Expected 6 Yr. HH Growth: 241
Expected 20 Yr. HH Growth: 1,312
Land Area: 297 Acres

Existing Jobs: 19,000
Expected 6 Yr. Job Growth: 1,078
Expected 20-Year Job Growth: 3,300

Facility Type	Name	Location	Capacity
Fire Station	SFD 8	110 Lee St.	#8 - 4.7 minute response time, Engine Co., Ladder Co.
	SFD 2	2334 4th Ave.	#2 - 3.8 minute response time Engine Co., Ladder Co., Aid Car
Police	West Precinct	600 3rd Ave	11.59 sq mi service area, 1994 pop 64,699
Schools[1]	John Hay Elementary All 10 Middle Schools All 10 High Schools	201 Garfield St	414 students
Library	Queen Anne Branch	400 W. Garfield St	7,931 sq ft 1990 pop served 30,977 or .26 sq ft/capita + .32 citywide
	Downtown Main Library	1000 4th Ave.	166,092 sq. ft.: Downtown pop 21,904 Citywide pop 1990 516,334 or .32 sq ft/capita
Community Center	Queen Anne	1901 1st Ave. W	15,337 sq ft, includes pool
Parks:	Elliot Bay Park	Within 1/8 mi	31.20 ac
	Myrtle Edwards Park	Within 1/8 mi	3.7 ac
	Kerry Park	Within 1/8 mi	1.4 ac
	Kinnear	Within 1/8 mi	14.0 ac
	Observatory Park	Within 1/8 mi	0.8 ac
	BhyKracke Park	Within 1/8 mi	1.5 ac
	Denny Park	Within 1/8 mi	5.0 ac
	Queen Anne Playground	Within 1/2 mi	7.4 ac

[1] Through the student assignment plan, several other Elementary Schools also serve the Center, as well as several alternative schools.

University Urban Center

Some facilities serve the entire Urban Center. These facilities are listed first. Facilities specifically serving the Urban Center Villages are listed under each village below.

Facility Type	Name	Location	Capacity
Fire Station	SFD 17	1050 NE 50th St.	#17 - 4.7 minute response time Engine Co., Ladder Co., Aid Unit, Battalion
	SFD 38	5503 33rd Av. NE	#38 - 5.2 minute response time Engine Co.
Police	North Precinct	10049 College Way N.	32.04sq mi service area, 1994 pop 228,659
Schools[1]	Green Lake Elementary	2400 N. 65th St.	230 students
	Latona Elementary	401 NE 42nd Ave	276 students
	Bryant Elementary	3311 NE 60th St.	483 students
	Laurelhurst Elementary	4530 NE 46th Ave..	299 students
	All 10 Middle Schools		
	All 10 High Schools		

University Campus

Existing Households: *6,313*
Expected 6 Yr. HH Growth: *0*
Expected 20-Yr. HH Growth: *0*
Land Area: *359 Acres*

Existing Jobs: *21,222*
Expected 6 Yr. Job Growth: *1,568*
Expected 20-Yr. Job Growth: *4,800*

The following facilities are in addition to those listed under the Urban Center, above:

Library	University Branch University of Washington Library	5009 Roosevelt Wy. NE	8,140 sq ft; 1990 pop served 22,714 or .27 sq ft/capita + .32 sq ft/capita citywide
Parks:	N. Passage Point Park	In Center Village	.79 ac
	Burke-Gilman Trail	Within 1/8 mi	--
	17th Av NE Centerstrip	Within 1/8 mi	.89 ac
	P-patch	Within 1/8 mi	--

[1] Through the student assignment plan, several other Elementary Schools also serve the Center, as well as several alternative schools.

University District NW

Existing Households:	*4,324*	*Existing Jobs:*	*8,625*
Expected 6 Yr. HH Growth:	*296*	*Expected 6Yr Job Growth:*	*980*
Expected 20 Yr. HH Growth:	*1,630*	*Expected 20 Yr. Job Growth:*	*3,000*
Land Area:	*289 Acres*		

The following facilities are in addition to those listed under the Urban Center, above:

Library	University Branch	5009 Roosevelt Wy. NE	8,140 sq ft; 1990 pop served 22,714 or .27 sq ft/capita + .32 sq ft/capita citywide
Parks:	University Playground	In Village	2.8 ac
	N. Passage Point Park	In Village	.79 ac
	17th Av NE Centerstrip	In Village	1.78 ac
	P-patch	In Village	--
	Christie Park	In Village	.11 ac
	Ravenna Blvd.	Within 1/8 mi	29.3 ac
	Cowen Park	Within 1/4 mi	8.4 ac

University Village

Existing Households:	*973*	*Existing Jobs:*	*1,580*
Expected 6 Yr HH Growth:	*8*	*Expected 6 Yr Job Growth:*	*229*
Expected 20 Yr HH Growth:	*80*	*Expected 20 Yr Job Growth:*	*700*
Land Area:	*122 Acres*		

The following facilities are in addition to those listed under the Urban Center, above:

Library	Northeast Branch	6801 35th Ave NE	7,042 sq ft: 1990 pop served 37,787 or .19 sq ft/capita
	University Branch	5009 Roosevelt Wy. NE	8,140 sq ft; 1990 pop 22,714 or .36 sq ft/capita Both +.32 sq ft/capita citywide
Parks:	Burke-Gilman Trail	In Village	--
	Ravenna Blvd.	Within 1/8 mi	29.3 ac
	Ravenna Park	Within 1/8 mi	52.7 ac

Downtown Urban Center
Some facilities serve the entire Urban Center. These facilities are listed first. Facilities specifically serving the Urban Center Villages are listed under each village below.

Facility Type	Name	Location	Capacity
Fire Station	SFD 10	301 2nd Ave. S	#10 - 3.7 minute response times Engine Co., Ladder Co., Batallion, Aid Co., Hazmat Van,
	SFD 5	925 Alaskan Way	# 5 - 3.6 minute response times Engine Co., Fireboat;
	SFD 2	2334 4th Ave.	#2 - 3.8 minute response time Engine Co., Ladder Co., Aid Co.
	SFD 25	1300 E. Pine St.	#25 - 4 minute response time Engine Co., Ladder Co., Batallion, Aid Car, Power Unit
Police	West Precinct	Public Safety Bldg., 610 3rd Ave.	11.59 sq mi service area, 1994 pop 64,099
Schools[1]	John Hay Elementary	201 Garfield	414 students
	Lowell Elementary	1058 E. Mercer St.	391 students
	Minor Elementary	1701 E. Union St.	391 students
	Gatzert Elementary	1301 E. Yesler Way	414 students
	All 10 Middle Schools		
	All 10 High Schools		

Pioneer Square/Kingdome

Existing Households:	*3,762*	*Existing Jobs:*	*9,113*
Expected 6 Yr HH Growth:	*347*	*Expected 6 Yr Job Growth:*	*1,568*
Expected 20 Yr HH Growth:	*2,100*	*Expected 20 Yr Job Growth:*	*4,800*
Land Area:	*142 Acres*		

The following facilities are in addition to those listed under the Urban Center, above:

Facility Type	Name	Location	Capacity
Library	Downtown Main Library	1000 4th Ave.	166,092 sq ft: Downtown pop 21,904 Citywide pop 1990 516,334 or .32 sq ft/capita
Parks:	Pioneer Square	In Village	.10 ac
	City Hall Park	In Village	.70 ac
	S. Washington Boat Dock	In Village	.43 ac
	Occidental Square	In Village	.61 ac
	Occidental Square Mall	In Village	.88 ac

[1] Through the student assignment plan, several other Elementary Schools also serve the Center, as well as several alternative schools.

Denny Regrade

Existing Households:	*3,492*	*Existing Jobs:*	*22,699*
Expected 6 Yr HH Growth:	*1,073*	*Expected 6 Yr Job Growth:*	*1,470*
Expected 20 Yr HH Growth:	*6,500*	*Expected 20 Yr Job Growth:*	*4,500*
Land Area:	*216 Acres*		

The following facilities are in addition to those listed under the Urban Center, above:

Facility Type	Name	Location	Capacity
Library	Downtown Main Library	1000 4th Ave.	166,092 sq ft: Downtown pop 21,904 Citywide pop 1990 516,334 or .32 sq ft/capita
Parks:	Regrade Park	In Village	.3 ac
	Myrtle Edwards	In Village	3.7 ac
	Belltown P-patch	In Village	.13 ac.
	Victor Steinbreuck Park	Within 1/8 mi	82 ac
	Denny Park	Within 1/4 mi	5.0 ac
	Westlake Park	Within 1/4 mi	1.0 ac
	Pier 61 & Aquarium	Within 1/4 mi	--

Westlake

Existing Households:	*514*	*Existing Jobs:*	*22,010*
Expected 6 Yr HH Growth:	*578*	*Expected 6 Yr Job Growth:*	*7,710*
Expected 20 Yr HH Growth:	*3,500*	*Expected 20 Yr Job Growth:*	*23,600*
Land Area:	*143 Acres*		

The following facilities are in addition to those listed under the Urban Center, above:

Facility Type	Name	Location	Capacity
Library	Downtown Main Library	1000 4th Ave.	166,092 sq ft: Downtown pop 21,904 Citywide pop 1990 516,334 or .32 sq ft/capita
Parks:	Westlake Park	Within 1/8 mi	1 ac
	Denny Park	Within 1/8 mi	5.0 ac
	Boren-Pike-Pine	Within 1/8 mi	.6 ac
	McGraw Square	Within 1/8 mi	.02 ac
	Regrade Park	Within 1/4 mi	.3 ac
	Freeway Park	Within 1/4 mi	5.0 ac

International District

Existing Households:	*1,604*	*Existing Jobs:*	*4,474*
Expected 6 Yr HH Growth:	*214*	*Expected 6 Yr Job Growth:*	*915*
Expected 20 Yr. HH Growth:	*1,300*	*Expected 20 Yr Job Growth:*	*2,800*
Land Area:	*169 Acres*		

The following facilities are in addition to those listed under the Urban Center, above:

Facility Type	Name	Location	Capacity
Library	Downtown Main Library	1000 4th Ave.	166,092 sq ft: Downtown pop 21,904 Citywide pop 1990 516,334 or .32 sq ft/capita
Community Center	Yesler Playfield & Comm. Center	903 Yesler Way	4,771 sq ft, 1.7 ac (SHA property)
Parks:	Kobe Terrace	In Village	1.1 ac.
	Hing Hay Park	In Village	.33 ac
	International Children's Park	In Village	.23 ac
	Beacon Place	In Village	.25 ac
	City Hall Park	Within 1/8 mi	.70 ac
	Prefontaine Place	Within 1/8 mi	.05 ac.
	Harborview Park	Within 1/8 mi	3.6 ac
	Greenbelt (Beacon Hill N.	Within 1/4 mi	4.47 ac

Commercial Core

Existing Households:	*1,435*	*Existing Jobs:*	*106,823*
Expected 6 Yr HH Growth:	*214*	*Expected 6 Yr Job Growth:*	*8,821*
Expected 20 Yr HH Growth:	*1,300*	*Expected 20 Yr Job Growth:*	*27,000*
Land Area:	*275 Acres*		

The following facilities are in addition to those listed under the Urban Center, above:

Facility Type	Name	Location	Capacity
Library	Downtown Main Library	1000 4th Ave.	166,092 sq ft: Downtown pop 21,904 Citywide pop 1990 516,334 or .32 sq ft/capita

Parks:	Freeway Park	In Village	5.00 ac
	Victor Steinbreuck Park	In Village	.82 ac
	Westlake Park	In Village	1.0 ac
	Waterfront Park	In Village	10.40 ac (includes underwater)
	Aquarium	In Village	--
	Piers 62 & 63	In Village	1.14 ac
	Kobe Terrace	Within 1/8 mi	1.1 ac
	City Hall Park	Within 1/8 mi	.70 ac
	Pioneer Square	Within 1/8 mi	.10 ac
	So. Washington Boat Dock	Within 1/8 mi	.43 ac
	McGraw Square	Within 1/4 mi	.02 ac
	Harborview Park	Within 1/4 mi	3.6 ac
	Occidental Parks	Within 1/4 mi	.61 ac

Capitol Hill/First Hill Urban Center

Some facilities serve the entire Urban Center. These facilities are listed first. Facilities specifically serving the Urban Center Villages are listed under each village below.

Facility Type	Name	Location	Capacity
Fire Station	SFD 25	1300 E. Pine St	#25 - 4 minute response time Engine Co., Ladder Co., Batallion, Aid Unit, Power Unit
	SFD 10	301 2nd Ave. S.	#10 - 3.7 minute response time Engine Co., Ladder Co., Deputy Chief, Aid Co., Hazmat Van
	SFD 22	901 E. Roanoke St.	#22 - 5.4 minute response time Engine, Communications van
Police	East Precinct	1519 12th Ave	8.45 sq mi service area, 1994 pop 82,265
Schools[1]	Lowell Elementary	1058 E. Mercer St	391 students
	TT Minor Elementary	1701 E. Union St.	391 students
	Gatzert Elementary	1301 E. Yesler Way	414 students
	All 10 Middle Schools		
	All 10 High Schools		

[1] Through the student assignment plan, several other Elementary Schools also serve the Center, as well as several alternative schools.

South Capitol Hill

Existing Households: 978
Expected 6 Yr HH Growth: 99
Expected 20 Yr HH Growth: 540
Land Area: 160 Acres

Existing Jobs: 3,520
Expected 6 Yr Job Growth: 392
Expected 20 Yr. Job Growth: 1,200

The following facilities are in addition to those listed under the Urban Center, above:

Facility Type	Name	Location	Capacity
Library	Downtown Main Library	1000 4th Ave.	166,092 sq ft: Downtown pop 21,904 Citywide pop 1990 516,334 or .32 sq ft/capita
	Douglass Truth Branch	2300 E. Yesler Way	8,008 sq ft: 1990 pop served 21,101 or .38 sq ft/capita + .32 sq ft/capita citywide
Comm. Ctr.	Yesler Playfield/Comm Ctr.	903 Yesler Way	4,771 sq ft, 1.7 ac (SHA property)
Parks:	McGilvra Place	In Village	.07 ac
	Spring Street Park	Within 1/8 mi	.33 ac
	Harborview Park	Within 1/4 mi	3.6 ac
	Park at Langston Hughes	Within 1/4 mi	1.2 ac
	Pratt Park	Within 1/2 mi	5.5 ac
	Firehouse Mill Park	Within 1/2 mi	.33 ac
Other	Langston Hughes Cult. Ctr.	16th & Yesler	8,418 sq ft

Capitol Hill

Existing Households: 12,450
Expected 6 Yr HH Growth: 361
Expected 20 Yr HH Growth: 1,980
Land Area: 396 Acres

Existing Jobs: 5,284
Expected 6 Yr Job Growth: 980
Jobs Growth: 3,000

The following facilities are in addition to those listed under the Urban Center, above:

Facility Type	Name	Location	Capacity
Library	Henry Branch	425 Harvard Ave E	4,904 sq ft: 1990 pop served 30,709 or .16 sq ft/capita + .32 sq ft/capita citywide
Community Center	Yesler Playfield & Community Center	903 Yesler Way	4,771 sq ft, 1.7 ac
Parks:	Tashkent Park	In Village	.46 ac
	Thomas St Park (Summit)	In Village	.32 ac
	Volunteer Park	In Village	44.5 ac
	Bobby Morris Playfield	Within 1/8 mi	4.5 ac
	Miller Playfield	Within 1/4 mi	7.9 ac
	Greenbelt along I-5 at N end of village	Within 1/4 mi	12.00 ac (10% public area)

First Hill

Existing Households:	*5,896*	*Existing Jobs:*	*20,626*
Expected 6 Yr HH Growth:	*438*	*Expected 6 Yr Job Growth:*	*1,993*
Expected 20 Yr HH Growth:	*2,400*	*Expected 20 Yr Job Growth:*	*6,100*
Land Area:	*225 Acres*		

The following facilities are in addition to those listed under the Urban Center, above:

Facility Type	Name	Location	Capacity
Library	Downtown Main Library	1000 Fourth Ave.	166,092 sq ft: Downtown pop 21,904 Citywide pop 1990 516,334 or .32 sq ft/capita
Community Center	Yesler Playfield & Community Center	903 Yesler Way	4,771 sq ft, 1.7 ac
Parks:	Freeway Park	In Village	5.0 ac
	Harborview Park	In Village	3.6 ac
	First Hill Park	In Village	.2 ac
	Boren-Pike-Pine Park	Within 1/8 mi	.6 ac
	Kobe Park	Within 1/8 mi	1.1 ac

Pike/Pine

Existing Households:	*2,349*	*Existing Jobs:*	*3,963*
Expected 6 Yr HH Growth:	*113*	*Expected 6 Yr Job Growth:*	*457*
Expected 20 Yr HH Growth:	*620*	*Expected 20 Yr Job Growth:*	*1,400*
Land Area:	*131 Acres*		

The following facilities are in addition to those listed under the Urban Center, above:

Facility Type	Name	Location	Capacity
Library	Henry Branch	425 Harvard Ave E	4,904 sq ft: 1990 pop served 30,709 or .16 sq ft/capita + .32 sq ft/capita citywide
	Downtown Main Library	1000 4th Ave.	166,092 sq ft: 1990 Downtown Pop 21,904, Citywide pop 516,334, or .32 sq ft/capita
Parks:	Bobby Morris Playfield	In Village	4.5 ac
	Boren-Pike-Pine Park	In Village	.6 ac
	Thomas St Park (Summit)	Within 1/8 mi	.32 ac
	McGilvra Place	Within 1/8 mi	.07 ac.
	First Hill Park	Within 1/4 mi	.2 ac
Other	Reservoir	By Bobby Morris Playfield (Water Dept.)	
	Seattle Central Community College		

MANUFACTURING/INDUSTRIAL CENTERS

Duwamish Manufacturing/Industrial Center

Existing Households: 469
Land Area: 4,936 Acres
Existing Jobs: 65,442
Expected 6 Yr Job Growth: 3,552
Expected 20 Yr Jobs Growth: 10,860

Facility Type	Name	Location	Capacity
Fire Station	SFD 5, 10,11, 14, 26, 27, 29, 36	925 Alaskan Way, 301 2nd Ave. S, 1514 SW Holden St, 3224 4th Ave S, 800 S. Cloverdale St, 1000 S Myrtle St, 9645 Renton Ave S, 3600 23rd Ave. SW	Citywide average response times 4.36 minutes 8 Engine Companies, 2 Ladder Companies, Battalion 1 & 7, Fireboat, 3 Aid Units, HazMat Van, Foam, Marine Response Van, Heavy Rescue Equipment, Confine Space Equipment, Mobile Air Supply
Police	South Precinct	3001 S. Myrtle St.	31.87 sq mi service area, 1994 pop 155,777
Parks	Georgetown Playfield	In Center	5.4 ac

North Seattle Manufacturing/Industrial Center

Existing Households: 389
Land Area: 971 Acres
Existing Jobs: 15,113
Expected 6 Yr Job Growth: 1,224
Expected 20 Yr Job Growth: 3,800

Facility Type	Name	Location	Capacity
Fire Station	SFD 2,8,9,18,20	2334 4th Ave, 110 Lee St., 3829 Linden Ave. N, 1521 NW Market St, 3205 13th Ave W	Citywide average response time 4.36 minutes 5 Engine Companies, 3 Ladder Trucks, Battalion, 2 Aid Units, Salvage, Air
Police	West Precinct	Public Safety Bldg., 610 3rd Ave.	11.59 sq mi service area, 1994 pop 64,699
	North Precinct	10049 College Way N	32.04 sq mi service area, 1994 pop 228,659
Parks	Interbay Playfield	In Village	10.2 ac
	Interbay Golf Course	In Village	29.0 ac

APPENDIX D: Potential Future Discretionary Projects

Besides the facilities that are included in the CIP, the City is considering a number of discretionary capital projects for which various levels of planning have been done. They are included here to give a broad view of the City's potential capital spending.

Convention Center Expansion
Frederick & Nelson Parking Garage
Pike/Pine Corridor Improvements
Promenade 23 improvements
Neighborhood Projects
Dearborn/Hiawatha Property
Housing Levy
Holly Park
National Mobile Home Park
Sand Point
South Lake Union Plan Improvements (e.g., park, transportation improvements)
African-American Museum
Green Lake Path
Hendrix Museum
Libraries Master Plan
New Memorial Stadium
Parks Master Plan
Seattle Center Master Plan
SPU Stadium
UIATF (People's Lodge)
Gas Works Park Clean-up
Open Space
Central Waterfront Bike Path
Galer St. Gradecrossing
LINC
Multi-modal Terminal
Spokane St. Viaduct
Downtown Criminal Justice Facilities
Mounted Patrol
Neighborhood Public Safety Facilities
Seismic Improvements
Sobering Center
City Downtown Office Buildings (e.g., Gateway Center)
Homeless Day Center
Aquarium Improvements
Baseball Stadium
Kingdome Repairs
South Downtown Study Area Improvements
SW Harbor (APL)
Duwamish Coalition Study Area Improvements

PART 4

UTILITIES ELEMENT AND APPENDICES

Additions to the Utilities Element and Appendices are shown in underline, and deletions are shown in ~~strikethrough.~~ In order to provide context for the changes, all text in the both the element and appendices is included. Text with no underline or strikethrough has not been changed.

UTILITIES ELEMENT

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UTILITIES ELEMENT

A. INTRODUCTION

The Growth Management Act (GMA) requires the utilities element of the Comprehensive Plan to include the general location, proposed location, and capacity of all existing and proposed utilities (Section 36.70A.070(4)). Seattle is served by the following City utilities: Seattle City Light, Seattle Water Department, Drainage and Wastewater Utility, and Solid Waste Utility (the Street Utility is mentioned in the Transportation Element). Seattle is served by the following investor-owned utilities: Washington Natural Gas, US WEST Communications, US WEST/New Vector and McCaw Cellular; Viacom Cablevision, TCI Cablevision and Summit Cablevision, and Seattle Steam.

City utilities are overseen by the Mayor and the City Council. The Council establishes operational guidelines and requirements for City utilities through various resolutions and ordinances. Investor-owned utilities, on the other hand, are regulated by various public entities. The natural gas and telephone utilities are regulated by the Washington Utilities and Transportation Commission, while the cellular telephone communication companies are licensed by the Federal Communications Commission. Franchise agreements with the City shape the operation of the cable communication companies and Seattle Steam.

B. GOALS

G1 Provide reliable service at lowest cost consistent with the City's aims of environmental stewardship, social equity, and economic development.

G2 Maintain the service reliability of the City's utility infrastructure.

G3 Maximize the efficient use of resources by utility customers.

G4 Minimize the cost and public inconvenience of road and right-of-way trenching activities.

G5 Operate City utilities consistent with regional growth plans.

G6 Achieve universal access to state-of-the-art telecommunication services. (Policies relating to telecommunication technology and services are in the economic development element).

C. UTILITY POLICIES

1. Utility Service

Discussion: State law generally requires utilities to serve all customers requesting service. The following policies address utility service and recovery of the costs of meeting new growth.

POLICIES

U1 Continue to provide service to existing and new customers in all areas of the city, consistent with the legal obligation of City utilities to provide service.

U2 Consider financial mechanisms to recover from new growth, the costs of new City utility facilities necessitated by such service.

2D. Utility Infrastructure

Discussion: Adequate utility service relies on sound facilities. The following policies address the reliability and maintenance of the City's utility infrastructure.

POLICIES

U3 Maintain the reliability of the City's utility infrastructure as the first priority for utility capital expenditures.

U4 Continue to provide for critical maintenance of and remedying existing deficiencies in City utility capital facilities.

3E. Utility Capital Expenditure Planning

Discussion: City utilities plan their own capital expenditures. The following policies address coordination and the inclusion of recurring costs in utility capital expenditure planning.

POLICIES

U5 Coordinate City utility capital expenditure planning with capital investment planning by other City departments.

U6 Consider the operation and maintenance costs of new City utility facilities in developing such facilities.

4F. Environmental Stewardship

Discussion: Environmental sensitivity in developing new resources and the efficient use of services by utility customers are key elements of the City's commitment to environmental stewardship. The following policies address the implementation of these elements by City utilities.

POLICIES

U7 Promote environmental stewardship in meeting City utility service needs and encourage the efficient use of resources by utility customers.

U8 Use cost-effective demand-side management to meet City utility resource needs and support such practices by wholesale customers of City utilities.

U9 Consider short-term and long-term external environmental impacts and costs in the acquisition of new resources.

U10 Encourage waste reduction and cost-effective reuse and recycling through appropriate policies and programs.

5G. Utility Facility Siting and Design

Discussion: Public input in facility siting and design is a critical part of the business of City utilities. The following policies address siting and design of utility facilities in the city.

POLICIES

U11 Work with neighborhood and community representatives in siting utility facilities.

U12 Continue to subject all above-grade City utility capital improvement projects to review by the Seattle Design Commission.

U13 Consider opportunites for incorporating accessible open space in the siting and design of City utility facilities.

6H. Utility Relationships

Discussion: Coordination of activities among utilities operating in the city can result in additional public benefits. The following policies address road and right-of-way maintenance and the operation of non-City utilities in Seattle.

~~POLICIES~~

U14 Provide timely and effective notification to other interested utilities of planned road and right-of-way trenching, maintenance, and upgrade activities.

U15 Promote the City's goals of environmental stewardship, social equity, and economic development in the operation of non-City utilities providing service in Seattle.

D. INVENTORY OF EXISTING PUBLIC INFRASTRUCTURE

The inventory of public infrastructure that is required by the Growth Management Act (GMA) is contained in Appendix A to this element of the Plan.

E. FORECAST OF FUTURE INFRASTRUCTURE NEEDS

Seattle is a highly urbanized area with a fully developed infrastructure network throughout the City. New buildings can be constructed in Seattle, and be served by the existing network of streets, water and sewer lines, drainage facilities and electrical grid. Forecasted future needs for the City owned utilities: Water, Drainage and Wastewater, City Light and Solid Waste both for the six- and twenty-year timeframes are listed in Appendix A to this element of the Plan. The identified six-year future needs for these basic facilities are included in the *City of Seattle Adopted 1995-2000 Capital Improvement Program and Long Range Capital Investment Plan* (CIP), and those lists are incorporated into this Plan Element by reference.

F. PROPOSED NEW OR EXPANDED CAPITAL FACILITIES

The project descriptions marked with a ✱ in the 1995-2000 CIP identify the proposed locations and capacities of the new or expanded capital facilities the City contemplates funding in the next six years, and that designation of facilities is incorporated here. Emergencies, other unanticipated events or opportunities, and voter approvals of ballot measures, may result in some departure from the adopted CIP; however, in such circumstances, the City shall favor decisions that are consistent with the Comprehensive Plan.

G. SIX YEAR FINANCE PLAN

The project information summaries (Six-Year Financing Plan) in the 1995-2000 CIP show, for each new or expanded capital facility proposed by the City, the sources of funding the City anticipates using for that facility, and that listing is incorporated here. These allocations may change over time. Emergencies and unanticipated circumstances may result in allocating resources to projects not listed. The six-year finance plan shows full funding for all improvements to existing basic facilities and for new or expanded basic facilities the City expects to need to serve the existing and projected population through 2000. Additionally, the CIP contains substantial funding for major maintenance of the City's existing facilities.

HI. ADDITIONAL RESOURCES

Consult the following resources for further information:

Seattle City Light 1990-91 Strategic Corporate Plan
Seattle City Light Capital Improvement Program

Seattle Water Department Water Supply Plan
Seattle Water Department Capital Improvement Program

Seattle Drainage and Wastewater Utility Comprehensive Drainage Plan
Seattle Drainage and Wastewater Utility Capital Improvement Program

Seattle Solid Waste Utility Integrated Solid Waste Management Plan
Seattle Solid Waste Utility Capital Improvement Program

Washington Natural Gas, Seattle, Washington

US WEST Communications, Seattle, Washington

Cellular One, Seattle, Washington
US WEST/New Vector Group, Seattle, Washington

Viacom Cablevision, Seattle, Washington
TCI Cablevision of Washington, Seattle, Washington
Summit Cablevision, Seattle, Washington

Seattle Steam Company, Seattle, Washington

UTILITIES APPENDICES

UTILITIES APPENDICES

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UTILITIES APPENDICES~~X~~

APPENDIX A:
Inventory of City Utilities, Capacity Information and Future Facility Needs

Seattle City Light

Seattle City Light (SCL) is the City-owned electric utility serving approximately 131 square miles, including all of Seattle and some portions of King County north and south of the City limits.

Inventory:
SCL generates 70% of the energy that it sells to retail customers from its own facilities. The largest facilities are the Skagit Project (which includes three dams on the Skagit River~~), Newhalem Dam on Newhalem Creek in the northwest part of the state,~~ and Boundary Dam on the Pend Oreille River in northeast Washington. The Cedar Falls Dam on the Cedar River is a smaller generating facility. City Light also holds an 8% interest in the Centralia coal-fired generating plant in southwest Washington. In addition to these power sources, SCL purchases power from the Bonneville Power Administration (BPA) and holds firm power purchase contracts with a number of other suppliers in the Pacific Northwest.

SCL owns and maintains approximately 649 miles of transmission lines which carry power from the Skagit and Cedar Falls generating facilities to 14 principal substations. Power is distributed from these principal substations via high voltage feeder lines to numerous smaller distribution substations and pole transformers which reduce voltage to required levels for customers. SCL owns and maintains 2,750 circuit-miles of distribution lines within Seattle that deliver power from the 14 principal substations to 265,732 customers. A capacity addition is in progress at City Light's Canal substation. (See Utilities Figures A-1 and A-2).

Existing Capacity
SCL's current generation capability (owned and contracted) is adequate to serve existing customers. Because of the nature of City Light's hydro system, the utility is not presently constrained by its ability to meet peak loads (typically referred to as capacity), but rather by its ability to carry load over the 15 heavy load hours during the winter (7 a.m. to 10 p.m.) Even though there is sufficient generation capability to serve the peak load, the utility sometimes purchases energy on the spot market to meet its heavy load hour requirements.

The capability of SCL's transmission and distribution system to serve the demands of its customers is limited by the capacity of the distribution substations. Currently two substations, North and Viewland, have peak winter demands over 100 percent capacity. A capacity addition is in progress at the Canal substation which will permit excess load to be transferred from the North and Viewland substations.

Anticipated Future Facilities:
SCL currently uses 100 percent of its firm (or guaranteed) owned and contracted generation capability to meet its own load, with Bonneville Power Administration (BPA) making up the balance. Under its current contract with BPA, which extends until 2001, Seattle is obligated to cover its own load growth.

For the transmission and distribution components of SCL's system, projected growth will be accommodated by planned transmission and distribution capacity additions. The addition of a transformer at the Bothell Substation in Snohomish County will serve the principal substations from the Snohomish County line to the Lake Washington Ship Canal. Within the Comprehensive Plan's 20-year timeframe a new principal substation will be necessary downtown, with an underground transmission line connection to the South substation. Capacity would also be expanded at the North and Creston substations (Figure 7-5).

Seattle Water Department

The Seattle Water Department (SWD) serves retail customers of Seattle and portions of King County. In addition, SWD sells wholesale water to more than two dozen suburban water districts, municipalities, and nonprofit water associations ("purveyors") which serve retail water customers in most of the urban areas in north, east, and south King County, and a small part of southwest Snohomish county. (See Utilities Figures A-~~3 and A-4~~). The City Water Department operates under an Operator's Certificate granted by the State Department of Health.

Inventory:
SWD supplies drinking water from three water supply sources--the Cedar River Watershed, the South Fork of the Tolt River Watershed, and the Highline Well Field. The Cedar River and South Fork of the Tolt River Watersheds are in the Cascade Mountains, while the Highline Well Field is located north of Seattle-Tacoma International Airport. Transmission pipelines carry the water to various reservoirs, standpipes, and tanks for further distribution. (See Utilities Figure A-4)

Existing Capacity:
The SWD service area extends beyond the City's boundaries, making it impossible to allocate capacity figures to the supply sources and transmission lines solely for in-city service. The snowpack level and temperature in the watershed areas are important natural factors that determine when and how much runoff will fill the reservoirs. Affecting SWD's water supply is the environmental impact of the dams on the stream flows. Business, environmental, agricultural, recreational, tribal, and fisheries groups all have interests in the level of water in the streams. The City, however, under normal circumstances, expects water supply to be adequate to serve the City's existing and forecast population for at least the next six years.

Distribution and storage facilities that serve Seattle residents are located within and beyond the city limits. These facilities have adequate capacity to serve the city; however, some areas have substandard mains or experience low water pressure.

Low pressure areas include Scenic Heights (Charlestown Standpipe), Maple Leaf (Maple Leaf Tank), Phinney Ridge (Woodland Park Standpipe), and Queen Anne Hill (Queen Anne Standpipe). These areas are all located near or above the standpipe/tank overflow elevation and, therefore, receive water at below the design standard of 30 pounds per square inch (psi). New pump station construction for each of these areas is included in SWD's current six-year CIP.

Substandard mains in need of replacement have been identified and prioritized. The replacement schedule is included in the SWD six-year CIP. Potential substandard fire protection is a concern in various areas throughout the City, resulting from changes in standards. Deficiencies include aging pipes and inadequate pipe diameter. These improvements are also incorporated in the department's six-year CIP.

Anticipated Future Facilities:
A new water supply source is likely to be needed within the next ten to fifteen years. The City expects that population growth occurring outside the direct service area will be

the primary determinant for the addition of a new source. Within the city, most of the new households that will be added will be in multifamily units, which have a much lower per capita water demand than single family households.

The major impact of the growth envisioned by the Comprehensive Plan on the City's Water facilities will be in the distribution system. Rehabilitation and improvements to the existing distribution system will be needed to support growth over the twenty year life of the Plan. Improvements to the capacity of the distribution facilities in the Urban Centers over the next six years are included in the current six-year CIP.

Seattle Drainage and Wastewater Utility

Seattle's Drainage and Wastewater Utility (DWU) was created in 1987 as a division of the Seattle Engineering Department (SED), adding drainage responsibilities to the existing SED sewer utility. DWU is charged with managing drainage, surface runoff, and sewer systems to meet public safety, water quality, and resource protection goals. DWU's service area ~~includes~~ covers the City of Seattle. Additionally, DWU provides sewer service to ~~and~~ some areas north of the city limits.

Inventory:
Although a few small areas are still served by septic systems, almost all areas of the city are served by sanitary sewers. Three types of drainage and waste water systems are used in Seattle: combined sanitary/storm water sewer, partially separated sanitary/storm water sewer, and separate sanitary and storm water sewer systems. The DWU system collects residential, commercial, and industrial waste water and delivers it to interceptor lines operated by the regional sewage treatment agency. The sewage is then treated at the West Point Sewage Treatment Plant ~~three major sewage treatment plants in the city~~ before being discharged into Puget Sound. Two other plants, Alki and Carkeek, are being converted to treat wet weather flows only. (See Utilities Figure A-5).

Existing Capacity:
City Drainage and Wastewater System:

The capacity of the wastewater system in some areas is limited when peak stormwater flows enter the combined systems. During or following intense or prolonged periods of rainfall some of the systems cannot accommodate the combined runoff and sanitary sewage flows, resulting in combined sewer overflows (CSOs) being discharged into area waters. CSOs occur in both the regional and the City systems. Seattle's CSO Control Plan, adopted in 1988, addresses specific storage and separation projects to control CSOs and describes costs and schedules in a twenty-year timeframe. DWU has already completed improvements to 69 of the 83 CSO locations and by the year 2000, Seattle will have reduced CSO volumes by at least 79 percent. Funding for these improvements is included in the Department's six-year CIP.

Regional Wastewater Treatment System:
The West Point Treatment Plant is presently under expansion and conversion from a primary to a secondary treatment operation. Planned capacity is for the secondary treatment of 133 million gallons per day (MGD), monthly average flow. It is designed to handle a peak flow capacity of 440 MGD, with 300 MGD receiving secondary treatment and the remainder primary treatment.

The West Point Treatment Plant is projected to serve 1.3 million people including residents of Seattle, King County north of Seattle, and South Snohomish County.

Anticipated Future Facilities:
City Facilities: Generally, the drainage and wastewater facilities in Seattle have been planned and sized to serve the maximum or build-out conditions under existing zoning and will be adequate to serve the level of increased growth proposed in the Plan. The capacity of the wastewater system is limited only in specific areas of the city, where there have been historic hydraulic and system backup problems. These problems are being addressed by DWU programs in the Department's CIP.

Regional Facilities: Seattle's share of the increased wastewater flows would produce approximately an 8% increase in base flows over the current projected

level. The estimated base flow for the Comprehensive Plan is limited to the service basins within the City of Seattle and to the 2010 planning horizon. The regional system design, however, requires consideration of all service basins which contribute to the base flows treated at any one plant and also consideration of residential, commercial, and industrial growth for a much longer planning horizon. Thus, given the Plan's goals, a longer planning horizon and growth in all basins contributing to the treatment plants serving Seattle, it is likely that the West Point Treatment plant will need to be enlarged earlier than originally expected and that construction of key conveyance facilities will be accelerated.

Seattle Solid Waste Utility

The Solid Waste Utility (SWU) was created in 1961 as a division of the Seattle Engineering Department (SED). SWU contracts with private firms for the collection of residential garbage, recyclables, and yard waste within the city. Collection of commercial solid waste is handled by private carriers and facilities; however, SWU provides for disposal of all garbage generated in the city.

Inventory:
The solid waste transfer system consists of four transfer stations. The two City-owned transfer stations receive residential solid waste, while the two privately-owned transfer stations receive both in-city commercial solid waste and solid waste from outside Seattle. Garbage is compacted into containers which are trucked to the Argo Intermodal Facility; from there, the containers are loaded onto trains for long-haul transport to a ~~the~~ landfill owned and operated by Oregon Waste Systems in Gilliam County, Oregon. Most rRecyclable materials are handled by two privately-owned facilities. Household hazardous wastes can be brought to one of two facilities operated by SWU. (See Utilities Figure A-6).

Existing Capacity:
Solid Waste Collection and Transfer Facility Capacity
The North and South Recycle and Disposal Stations have existing design capacities to handle 1,000 tons of garbage per day (or 365,000 tons per year). Approximately 267,500 tons of waste were disposed through the transfer stations in 1988. This decreased to 225,000 tons in 1990, largely as a result of increased recycling by City residents.

Commercial garbage generated in the City is delivered to the two private transfer stations. These two facilities handle garbage (as well as construction and demolition debris (CDL)) from both inside and outside Seattle. In 1988, these facilities handled approximately 198,200 tons of garbage from Seattle businesses, and another 80,000 of CDL from in-City construction activity. Despite substantial growth, commercial waste disposed in 1994 actually decreased from 1988 (196,000 tons), largely as a result of increased recycling in the commercial sector. CDL disposal has remained steady. The two private transfer facilities have the capability to handle 300,000-400,000 tons of waste per year including waste from Seattle's businesses. These facilities are located in South Seattle, near the City's South Recycling and Disposal Station.

Recycling Processing Facilities:

Two private "material recovery facilities" (MRFs) serve as the processing and transfer facilities for most of the recyclable materials collected from in-City residents and businesses. These facilities, Recycle Seattle and Recycle America, process and transfer a large proportion of the 300,000 tons of recyclable material that was collected through the City's solid waste system in

1994. Both of these facilities are located in South Seattle, near the City's South Recycling and Disposal Station.

Disposal Facilities
Waste is compacted at the transfer stations into containers that are trucked directly to the railhead for long-haul to the landfill in Oregon. Presently, approximately 60 containers per day (each holding 25-28 tons), five days a week, are trucked to the railhead. The train to the landfill operates 3 times per week, with about 100 containers per trip. Seattle and Washington Waste Systems (WWS) have a contract extending through March 31, 2028, and the terms of the contract are more than adequate to handle the additional waste volumes generated by projected growth.

Future Facilities:
The region's landfill capacity is large enough to last for at least the next 40-80 years. SWU and in-city private transfer facilities have the capacity to handle any amount of garbage that the planned population would generate. Although the overall amount of waste generated in the city will increase with projected residential and employment growth, the percentage of waste that will need to be hauled to Oregon is expected to decrease due to higher anticipated rates of recycling. Seattle has adopted goals to recycle 60 percent of its overall waste by 1998.

Residential waste is anticipated to comprise a decreasing share of the future combined waste stream. Commercial waste is projected to comprise a larger share of Seattle's waste stream in the future. Increased commercial sector waste disposal needs and an increased demand for recycling contractor services will be handled by private contractors and facilities. Representatives from both private transfer stations have indicated that the increased amount of waste can be handled within the existing facilities.

The two private materials processing facilities will handle a major share of the increase in volumes of recyclable material that will occur with projected growth. These businesses are dealing with services and markets at a regional level, so the specific impacts of increased Seattle tonnage are difficult to predict.

APPENDIX B:
Description and Inventory of Investor-owned Utilities Serving Seattle

Washington Natural Gas

Washington Natural Gas Company (WNG) is an investor-owned natural gas utility serving more than 400,000 customers in five Western Washington counties--Snohomish, King, Pierce, Thurston, and Lewis. WNG is the largest of five subsidiaries that comprise Washington Energy Company. WNG's distribution of natural gas involves system pressure regulation and the development and maintenance of a network of gas mains to serve the utility's customers.

WNG is supplied by Northwest Pipeline Corporation, a natural gas wholesaler with interstate pipeline facilities extending from Canada to New Mexico. Two underground transmission lines branch off from the pipeline to serve the 108,942 customers in the Seattle area via 1,345 miles of underground gas mains. (See Utilities Figure A-7).

US WEST Communications

US WEST Communications (US WEST) is the telephone company subsidiary of US WEST, Incorporated--one of the seven regional holding companies resulting from the divestiture of AT&T. US WEST is the principal provider of local telephone and related services in Seattle.

Of the 11 central switching offices (COs) serving Seattle, 10 are located within the city limits (see Utilities Figure A-8). For local exchange, the COs switch calls in and between the line exchange groupings (these groupings are addressed uniquely by an area code and the first three digits of a phone number). For long distance, the COs switch calls and mediate between the long-distance network and the local originating/terminating network. Due to advances in technology, additional capacity is easily and quickly added to the system.

Four main cable routes emanate from each CO, running north, south, east, and west. Connected to these main feeder routes are branch feeder routes which support thousands of local loops providing dial tone service to individual subscribers. The COs are connected by inter-exchange trunk lines that may be aerial or buried, and copper or fiber optic line.

Cellular Communications

Seattle is served by two cellular telephone companies: Cellular One and US WEST/New Vector. Cellular telephones are radios which send and receive signals from low-power, ultra-high frequency antennas positioned at several

cellular communication ("cell") sites. The "cellular" name is derived from the manner in which coverage is provided by the cell sites. Each cell site has a signal radius, or coverage area, of only a few miles (depending upon terrain and capacity demand for service). As a cellular telephone user passes from one cell to the next, the call is transferred to an available channel at an adjacent cell site.

Cellular One currently has 22 cell sites in Seattle and US WEST/New Vector has 16 cell sites (see Utilities Figures A-9 and A-10). The cell sites are linked to a Mobile Telephone Switching Office which ties the cellular network into the conventional telephone system.

Cable Television

Three cable communications companies hold City franchises for serving Seattle residents--Viacom Cablevision, TCI Cablevision of Washington, Inc., and Summit Cablevision. The City has begun a franchise renewal process with Viacom and TCI involving negotiations over future capacity, number of channels, construction schedules, and other criteria. The Summit franchise expires in February 1998. (See Utilities Figure A-11).

One of the primary components of a cable system is the head-end site--an electronic control center where the information signal is processed for distribution through the cable system. This signal can be received off a hard line (cable), a satellite dish, microwave antennae, and/or a TV antenna. Viacom has three head-end sites in Seattle and 545 miles of distribution lines serving 55,374 households. TCI has one head-end site in Seattle, along with 541 miles of coaxial cable plant and 21 miles of fiber-optic cable serving 76,054 households. Summit has one receive site/head-end site in Seattle, along with 110 miles of coaxial cable and 15 miles of fiber-optic cable serving 9,200 households.

Seattle Steam

Seattle Steam is a district heating utility franchised by the City. Its service area encompasses roughly a square-mile area of the Central Business District, extending from Blanchard Street to King Street and from the waterfront to 14th Avenue, crossing over First Hill (see Utilities Figure A-12). The company provides steam to commercial, residential, and institutional customers for space and hot water heating, along with other uses.

Two steam-generating plants supply the network. The primary plant is located on Western Avenue at University Street. The secondary plant is located on Western Avenue near Yesler Way--the site of the original plant built in 1893. Total steam generation capacity is 850,000 pounds per hour, with boilers designed to burn either natural gas or residual oil. The network of insulated steel

pipe encompasses a total length of over 18 miles beneath city streets and currently serves 240 customers.

PART 5

(MSL 7/27/95)

TRANSPORTATION APPENDICES

In Transportation Appendix A, new text and two new Figures are being added as shown below; no text or Figures are being deleted.

In Transportation Appendix C, all the existing text of the Appendix is being deleted, and new text and two new Figures are being substituted as shown below.

In Transportation Appendix D, the existing text under the heading "Impacts on Adjacent Jurisdictions" is being deleted, and new text and one new Figure are being substituted as shown below.

TRANSPORTATION APPENDIX A:
Inventory of Existing Facilities and Services

[Add the following new text on page A30, at the end of the first paragraph of Appendix A (after ". . . and 7,029 non-arterial intersections.").]

Transportation Figure A-1a shows the locations of traffic and pedestrian crossing signals in Seattle. The "state signals" are managed by the Washington State Department of Transportation and are located mostly at freeway on- and off-ramps. Fire station signals and railroad crossing signals are not included. Transportation Figure A-1b shows the distribution of the more than 60,000 street lights along rights-of-way in, and along the borders of, Seattle. The numbers in the Figure indicate the number of city-operated street lights in each one-quarter-square-mile area.

TRANSPORTATION APPENDIX C:
Traffic Forecasts

[Delete all the existing text of Transportation Appendix C on page A47, and substitute the following new text.]

To analyze the traffic impacts of the Comprehensive Plan, the City modeled both the Plan itself and an Alternative Scenario. The Alternative Scenario assumes the same total growth in population and employment Citywide as in the Plan, but distributes that growth based on zoning capacity alone, without regard to Urban Center or Urban Village designations. In addition, the Alternative Scenario excludes policies included in the Plan that discourage use of single-occupant cars and encourage transit and non-motorized modes, which affect mode split assumptions.

Region-wide and city-limit traffic volume forecasts for the Comprehensive Plan and for the Alternative Scenario are as follows:[1]

Total vehicle miles-of-travel (VMT) for the region (per day):		
1990 estimate		70 million
2010 forecasts:	Comprehensive Plan	93 million (+ 33%)
	Alternative Scenario	100 million (+ 43%)
Traffic volume at north city limit (vehicles per day):		
1990 estimate		327,000
2010 forecasts:	Comprehensive Plan	374,000 (+ 14%)
	Alternative Scenario	430,000 (+ 31%)
Traffic volume at south city limit (vehicles per day):		
1990 estimate		409,000
2010 forecasts:	Comprehensive Plan	476,000 (+ 16%)
	Alternative Scenario	564,000 (+ 38%)
Traffic volume at east city limit (SR 520 and I-90) (vehicles per day):		
1990 estimate		237,000
2010 forecasts:	Comprehensive Plan	271,000 (+ 14%)
	Alternative Scenario	290,000 (+ 22%)
Regional transit trips as a percent of total motorized trips:		
1990 estimate		3 percent
2010 forecasts:	Comprehensive Plan	6 percent
	Alternative Scenario	3 percent (no change)

[1] The 1990 estimates shown differ slightly from the 1990 estimates included in the Comprehensive Plan as adopted in 1994 because of updates to the transportation model, including a revised zone structure and revised employment estimates.

To analyze the transportation effects of the Comprehensive Plan goals and policies on the City's arterial streets in Urban Centers and in Urban Village areas, traffic conditions were analyzed for a system of 42 screenlines, shown in Transportation Figure A-12. These screenlines functionally cover the entire City, including Urban Centers and areas identified for future designation as Urban Villages. The Comprehensive Plan's level-of-service (LOS) system uses a similar screenline system, with 30 of the same screenlines. Twelve screenlines were added for this traffic forecast analysis to supplement the data in Urban Centers.

Traffic volumes were forecasted for arterial streets for the year 2010 under both the Comprehensive Plan and the Alternative Scenario. These forecasted volumes were summed for all arterials crossing a particular screenline, and this screenline volume was compared to the sum of the "planning capacities" for the arterials crossing the screenline, yielding a ratio of volume-to-capacity (v/c) for each direction of traffic for each screenline.

The screenline methodology was used both for the Comprehensive Plan's level-of-service system to judge the performance of the arterial system, and for the traffic forecast analysis described in this Appendix. This system was selected because it steps back from the micro-level focus of traditional intersection LOS analysis, and recognizes explicitly the broader geographic impacts of development and travel patterns. The system recognizes that no single intersection or arterial operates in isolation. Motorists have choices, and they select particular routes based on a wide variety of factors. If traffic congestion on one arterial increases, it may not make sense to expand the capacity of that arterial. The City, instead, may want to shift traffic to a nearby under-used arterial, or to expand capacity on a different nearby arterial, or to implement measures to reduce travel demand -- or a combination of these strategies. Accordingly, this analytic methodology focuses on a "traffic-shed," an area where arterials among which drivers logically can choose are organized for functional analysis.

Transportation Figure A-13 lists, for each screenline, the forecasted year 2010 v/c ratio with the Comprehensive Plan, and the forecasted year 2010 v/c ratio with the Alternative Scenario. (This Figure supplements the more limited information provided in Transportation Figure 3 in Section E. of the Comprehensive Plan Transportation Element.[2])

[2] As with the region-wide and city-limit traffic volume forecasts described earlier in this Appendix, the v/c ratios in Transportation Figure A-13 are based on the output of the City's transportation model. The traffic volume values produced from the model for this analysis differ slightly from values produced in preparing the Comprehensive Plan adopted in July 1994 because of updates to the model, including a revised zone structure and revised employment estimates.

As can be seen in Transportation Figure A-13, the forecasted screenline v/c ratios for the year 2010 under the Comprehensive Plan range from 0.23 to 1.13. For each screenline that serves as a level-of-service (LOS) screenline, the forecasted year 2010 v/c ratio is below the LOS standard established for that screenline. For all screenlines, the forecasted year 2010 v/c ratio under the Alternative Scenario is higher than the corresponding v/c ratio under the Comprehensive Plan. For some screenlines, the year 2010 v/c ratio values under the Alternative Scenario exceed the established LOS standa

By analyzing the forecas. ea. 2010 v/c ratios under the Comprehensive Plan at screenlines in or near Urban ters, one can evaluate the effects of the Comprehensive Plan goals and policies on the transportation systems in the Urban Centers. Each of the five Urban Centers is addressed below.

Downtown: Screenlines 10.11, 12.12, A1, A2, and A3 pass through or along the edge of the Downtown Urban Center, some encompassing north-south avenues, and some encompassing east-west streets. For all five of these screenlines, the year 2010 v/c ratios under the Comprehensive Plan are below 1.0. This means that for screenlines 10.11 and 12.12, the year 2010 v/c ratios are also below the established LOS standards of 1.0 for screenline 10.11 and 1.2 for screenline 12.12.

Seattle Center: For the Seattle Center Urban Center, screenline A4 is an east-west screenline while screenline A5 is drawn north-south through the Urban Center. For both of these screenlines, the year 2010 v/c ratios under the Comprehensive Plan are well below 1.0.

First Hill/Capitol Hill: Screenlines A6, A7, and A8 are drawn through the First Hill/ Capitol Hill Urban Center. Screenline 12.12, on the east edge of the Downtown Urban Center, is on the west edge of the First Hill/Capitol Hill Urban Center. For all four of these screenlines, the year 2010 v/c ratios under the Comprehensive Plan are well below 1.0.

University District: For the University District Urban Center, screenlines 5.16 and 13.13 cover the south and west boundaries of the Urban Center, while screenline A9 passes east-west through the Center and screenline A10 is drawn north-south through the Center. The year 2010 v/c ratios under the comprehensive Plan for all four of these screenlines are below 1.0. The forecasted year 2010 v/c ratios for screenline 5.16 are nearly 1.0, compared to the LOS standard of 1.2. These high v/c ratios reflect traffic congestion around the University District, much of which is due to through traffic.

Northgate: For the Northgate Urban Center, screenline A11 is drawn east-west through the Center, while screenline A12 passes north-south through the Center. The year 2010 v/c ratios for both of these screenlines are well below 1.0.

The Comprehensive Plan includes policies to improve transit service and related transit capital facilities, as well as to improve non-motorized transportation facilities, to afford ways for people to avoid the traffic congestion inherent in dense Urban Centers and Urban Village areas. In this way, people may avoid the congestion reflected in higher v/c ratios across some screenlines.

As this analysis of transportation impacts demonstrates, the forecasted year 2010 screenline volume-to-capacity ratios under the Comprehensive Plan do not exceed the established LOS standards for any screenlines. For the additional screenlines created for this traffic forecast analysis, the forecasted year 2010 v/c ratios are similarly within acceptable ranges. As provided in Comprehensive Plan Policy T23, when the calculated v/c ratio for a screenline approaches the LOS standard for that screenline, the City will pursue strategies to reduce vehicular travel demand across the screenline and/or increase the operating capacity across the screenline. Based on the analysis of screenlines described here, there are currently no additional capacity or facility needs necessitated by the Plan.

TRANSPORTATION APPENDIX D:
Intergovernmental Coordination Efforts

[Delete the existing paragraph on page A49 under the heading, "Impacts on Adjacent Jurisdictions," and substitute the following new text.]

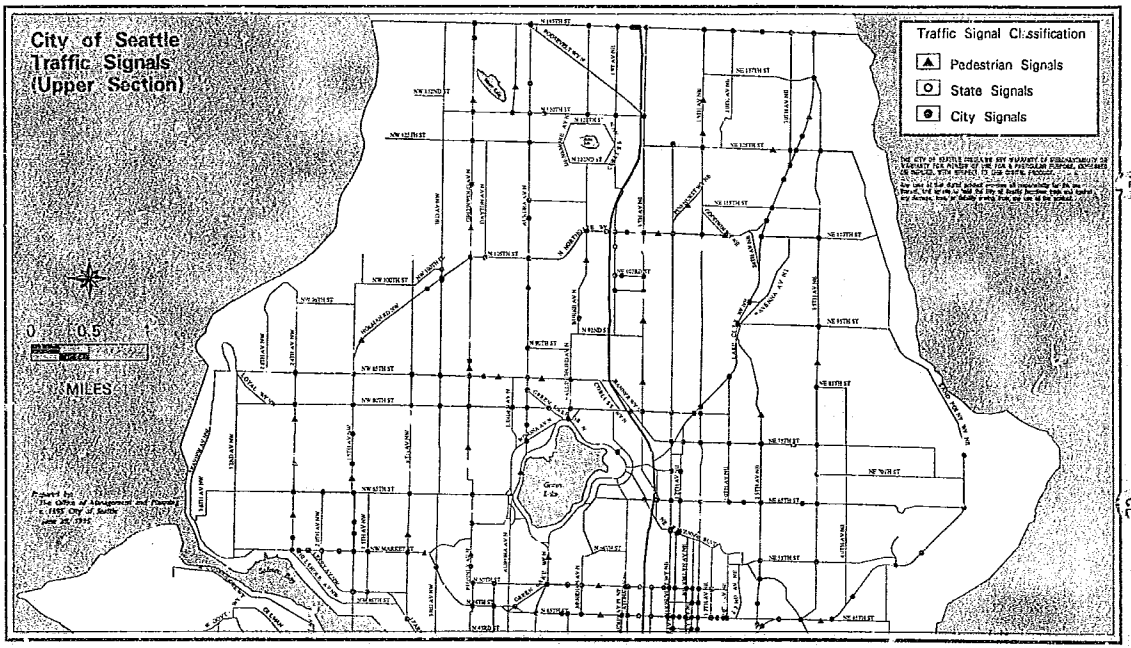
Impacts on Adjacent Jurisdictions

Four jurisdictions are adjacent to the City of Seattle: the City of Shoreline, King County, and the City of Lake Forest Park along Seattle's north boundary, and the City of Tukwila and King County along Seattle's south boundary. In consultation with adjacent jurisdictions, several major arterials that lie within these jurisdictions near the Seattle border were selected for analysis. For each arterial, the existing p.m. peak hour traffic volume and forecasted year 2010 traffic volume were compared to the "planning capacity" of the arterial, yielding a volume-to-capacity (v/c) ratio. The results of this analysis are shown in Transportation Figure A-14.

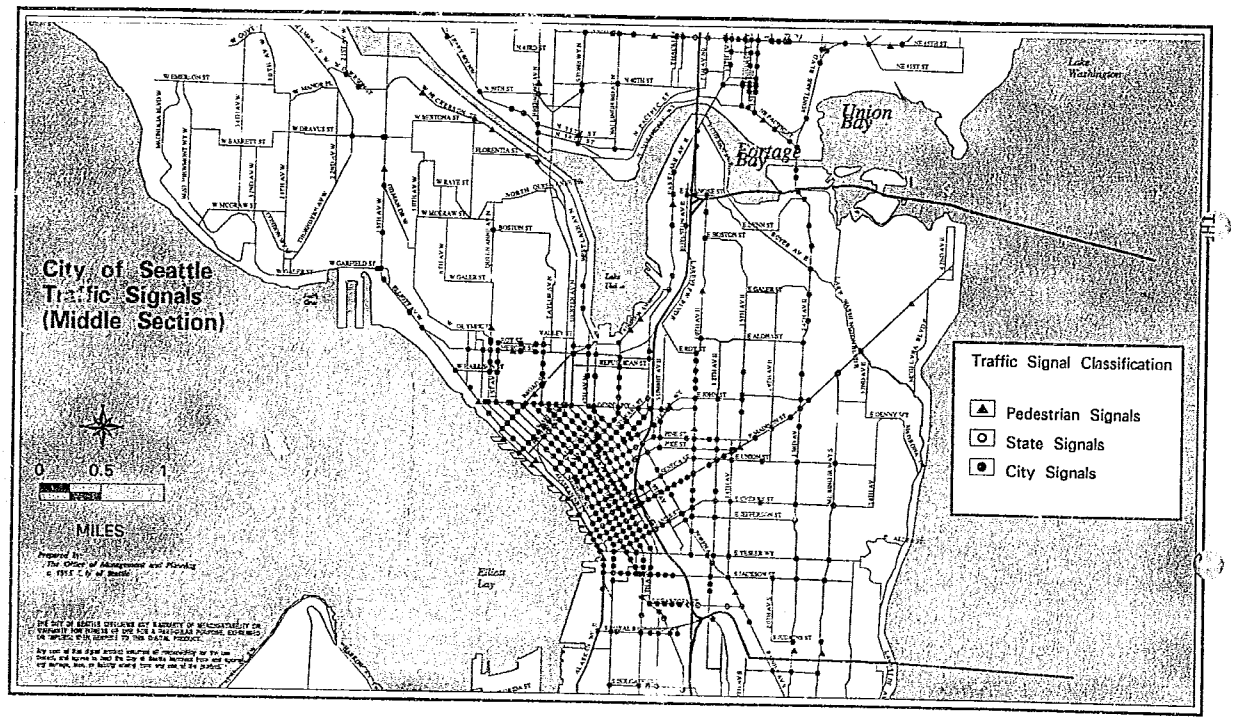
For all but one of the arterials shown in Transportation Figure A-14, the p.m. peak hour v/c ratio is below 1.0, indicating that there is remaining traffic capacity currently and forecasted for the future. The exception is Bothell Way N.E. just north of N.E. 145th Street, where the existing v/c is estimated to be 1.03, and the forecasted year 2010 v/c is estimated to be 1.10.

These traffic volume and v/c figures reflect not only growth under Seattle's Comprehensive Plan, but also growth in the adjacent jurisdictions and throughout the central Puget Sound region. Much of the traffic on these arterials is through traffic, with neither an origin nor a destination near the arterial.

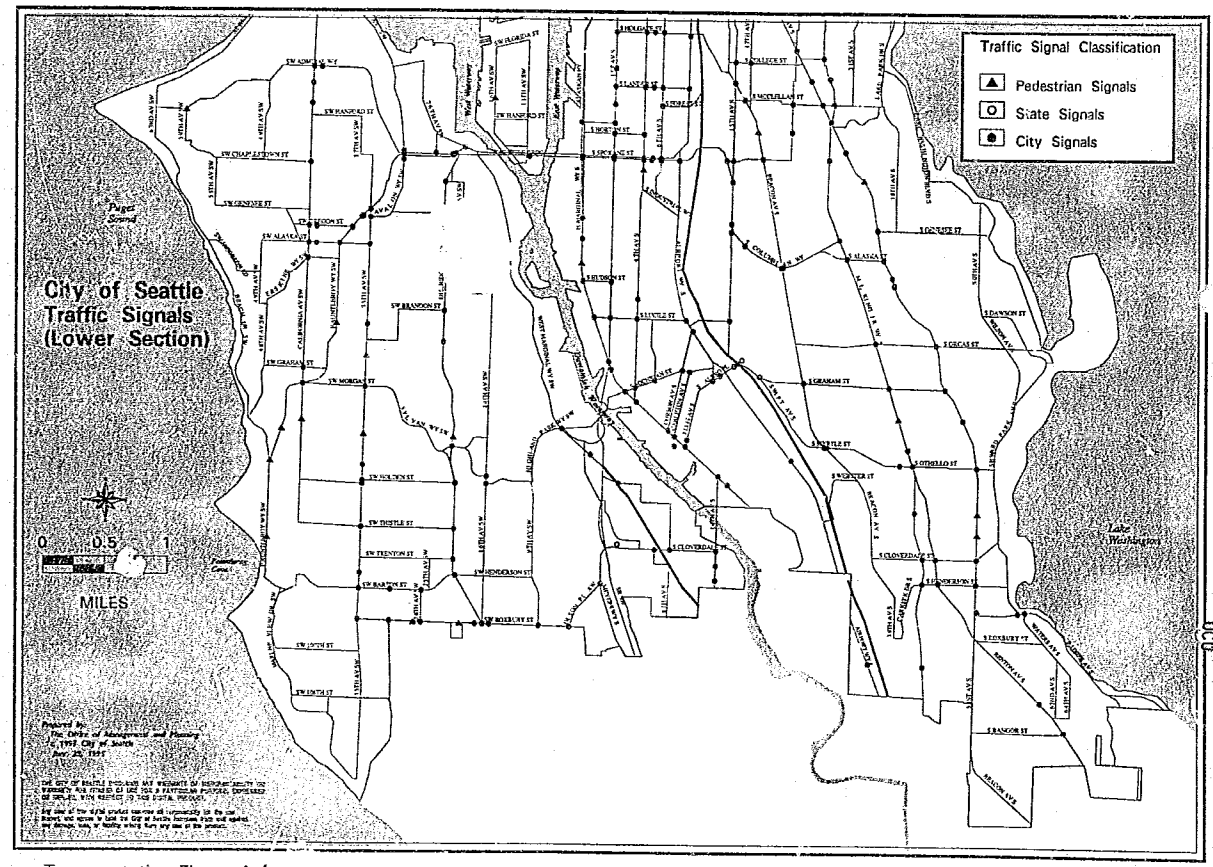
In addition to the City of Seattle's analysis of transportation impacts on adjacent jurisdictions, as described in this section, Seattle continues to work with the adjacent jurisdictions to coordinate traffic operations and to minimize cross-boundary impacts.



Transportation Figure A-1a
Traffic Signals (North Seattle)



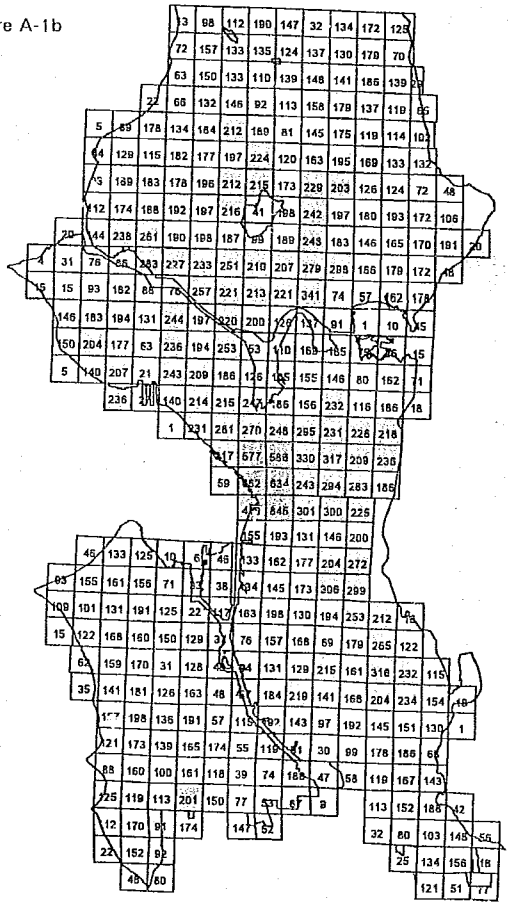
Transportation Figure A-1a
Traffic Signals (Central Seattle)



Transportation Figure A-1a
Traffic Signals (South Section)

Transportation Figure A-1b

Street Lights



Street Lights by Quarter Section
- 1 - 200
- 201 - 400
- 401 - 845

Source: Seattle City Light

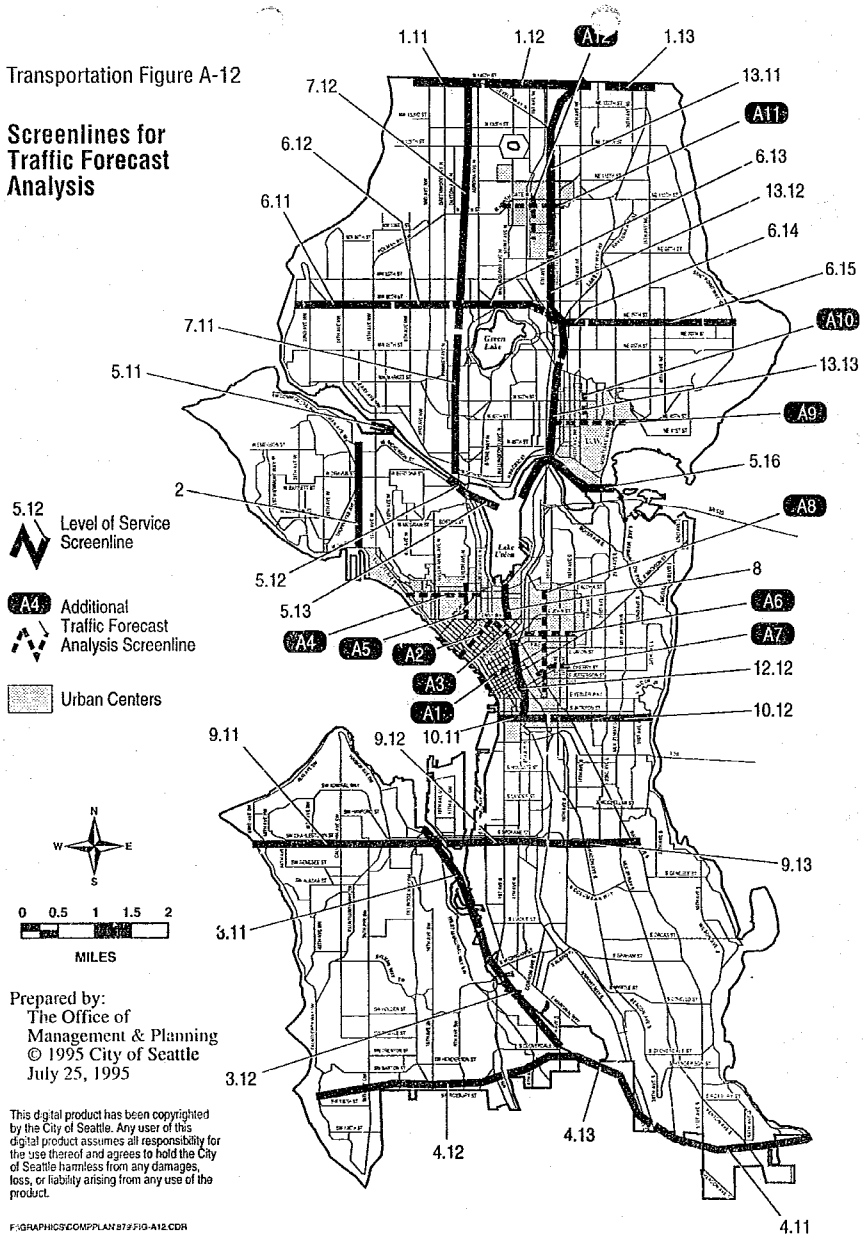
Prepared by:
The Office of Management
and Planning
1995 City of Seattle

N W E S

23 0 23 46 Miles

Transportation Figure A-12

Screenlines for Traffic Forecast Analysis



Prepared by:
The Office of
Management & Planning
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July 25, 1995

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Transportation Figure A-13
SCREENLINE VOLUME-TO-CAPACITY RATIOS

Level-of-Service Screenline No.	Screenline Location	Segment	LOS Standard	Direction	2010 V/C Ratios Comp Plan	2010 V/C Ratios Alternative
1.11	North City Limit	3rd Ave NW to Aurora Av N	1.20	NB	1.05	1.29
				SB	0.57	0.70
1.12	North City Limit	Meridian Av N to 15th Av NE	1.20	NB	0.86	1.12
				SB	0.36	0.41
1.13	North City Limit	30th Av NE to Lake City Wy NE	1.20	NB	1.02	1.20
				SB	0.66	0.72
2	Magnolia		1.00	EB	0.52	0.58
				WB	0.68	0.74
3.11	Duwamish River	West Seattle Fwy and Spokane St	1.20	EB	0.50	0.59
				WB	0.91	1.09
3.12	Duwamish River	1st Ave S and 16th Ave S	1.20	NB	0.55	0.66
				SB	0.86	1.05
4.11	South City Limit	ML King Jr Wy to Rainier Av S	1.00	NB	0.33	0.39
				SB	0.49	0.77
4.12	South City Limit	Marine Dr SW to Meyers Wy S	1.00	NB	0.28	0.33
				SB	0.42	0.52
4.13	South City Limit	SR 99 to Airport Wy S	1.00	NB	0.24	0.31
				SB	0.54	0.78
5.11	Ship Canal	Ballard Bridge	1.20	NB	1.13	1.33
				SB	0.72	0.81
5.12	Ship Canal	Fremont Bridge	1.20	NB	1.00	1.29
				SB	0.75	0.99
5.13	Ship Canal	Aurora Av N	1.20	NB	0.95	1.18
				SB	0.67	0.80
5.16	Ship Canal	University and Montlake Bridges	1.20	NB	0.98	1.19
				SB	0.96	1.13
6.11	South of NW 80th St	Seaview Av NW to 15th Av NW	1.00	NB	0.47	0.54
				SB	0.32	0.37
6.12	South of N(W) 80th St	8th Av NW to Greenwood Av N	1.00	NB	0.47	0.65
				SB	0.27	0.37
6.13	South of N(E) 80th St	Linden Av N to 1st Av NE	1.00	NB	0.65	0.78
				SB	0.48	0.55
6.14	South of NE 80th St	5th Av NE to 15th Av NE	1.00	NB	0.81	0.99
				SB	0.36	0.41
6.15	South of NE 80th St	20th Av NE to Sand Point Wy NE	1.00	NB	0.43	0.57
				SB	0.28	0.35
7.11	West of Aurora Ave	Fremont Pl N to N 65th St	1.00	EB	0.48	0.49
				WB	0.62	0.70
7.12	West of Aurora Ave	N 80th St to N 145th St	1.00	EB	0.40	0.46
				WB	0.57	0.64
8	South of Lake Union		1.20	EB	0.86	0.92
				WB	0.94	1.01
9.11	South of Spokane St	Beach Dr SW to W Marginal Wy SW	1.00	NB	0.48	0.52
				SB	0.69	0.81
9.12	South of Spokane St	E Marginal Wy S to Airport Wy S	1.00	NB	0.44	0.53
				SB	0.58	0.76
9.13	South of Spokane St	15th Av S to Rainier Av S	1.00	NB	0.44	0.57
				SB	0.79	1.02
10.11	South of S Jackson St	Alaskan Wy S to 4th Av S	1.00	NB	0.68	0.78
				SB	0.66	0.80
10.12	South of S Jackson St	12th Av S to Lakeside Av S	1.00	NB	0.39	0.50
				SB	0.71	0.93
12.12	East of CBD		1.20	EB	0.59	0.67
				WB	0.55	0.58
13.11	East of I-5	NE Northgate Wy to NE 145th St	1.00	EB	0.74	0.83
				WB	0.61	0.70
13.12	East of I-5	NE 65th St to NE 80th St	1.00	EB	0.46	0.55
				WB	0.49	0.58
13.13	East of I-5	NE Pacific St to NE Ravenna Blvd	1.00	EB	0.59	0.69
				WB	0.76	0.88

Transportation Figure A-13 (con't)
SCREENLINE VOLUME-TO-CAPACITY RATIOS

Traffic Forecast Analysis Screenline No.	Screenline Location	Segment	Direc-tion	2010 V/C Ratios	
				Comp Plan	Alter-native
A1	North of Seneca St	1st Av to 6th Av	NB	0.82	0.92
			SB	0.93	1.12
A2	North of Blanchard	Elliott Av to Westlake Av	NB	0.39	0.46
			SB	0.40	0.53
A3	East of 9th Av	Lenora St to Pike St	EB	0.40	0.53
			WB	0.23	0.29
A4	South of Mercer St	Elliott Av W to Aurora Av N	NB	0.71	0.82
			SB	0.63	0.75
A5	East of 5th Av N	Denny Wy to Valley St	EB	0.35	0.40
			WB	0.44	0.51
A6	North of Pine St	Melrose Av to 15th Av	NB	0.56	0.64
			SB	0.48	0.59
A7	North of James St-E Cherry St	Boren Av to 14th Av	NB	0.64	0.73
			SB	0.79	1.00
A8	West of Broadway	Yesler Wy to E Roy St	EB	0.63	0.75
			WB	0.56	0.59
A9	South of NE 45th St	7th Av NE to Montlake Blvd NE	NB	0.78	0.93
			SB	0.55	0.64
A10	East of 15th Ave NE	NE 45th St to NE 52nd St	EB	0.66	0.79
			WB	0.83	0.98
A11	South of Northgate Way-N 110th St	N Northgate Wy to Roosevelt Wy NE	NB	0.51	0.73
			SB	0.47	0.49
A12	East of 1st Av NE	NE 100th St to NE Northgate Wy	EB	0.69	0.86
			WB	0.44	0.50

Transportation Figure A-14. Adjacent Jurisdiction Major Arterials: PM Peak Hour Capacities, Volumes and v/c Ratios

A. Major arterials just north of Seattle / King County-Shoreline-Lake Forest Park Border (145th St)

Arterial	Existing - PM Peak Hour						Comprehensive Plan - PM Peak Hour					
	Outbound			Inbound			Outbound			Inbound		
	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio
Greenwood Ave N	760	430	0.57	760	340	0.45	760	700	0.92	760	620	0.82
Westminster Way N	2600	1710	0.66	2600	930	0.36	2600	2030	0.78	2600	1000	0.38
Aurora Ave N	3060	1720	0.56	3060	910	0.30	3060	1860	0.61	3060	1000	0.33
Meridian Ave N	1030	820	0.80	1030	380	0.37	2160	930	0.43	2160	310	0.14
5th Ave NE	760	580	0.76	760	300	0.39	2160	660	0.31	2160	160	0.07
15th Ave NE	2160	1520	0.70	2160	500	0.23	2160	1830	0.85	2160	670	0.31
25th Ave NE	740	420	0.57	740	200	0.27	740	490	0.66	740	190	0.26
Bothell Way NE	2450	2520	1.03	2450	1650	0.67	2450	2690	1.10	2450	1910	0.78

A. Major arterials just south of Seattle / King County Border

Arterial	Existing - PM Peak Hour						Comprehensive Plan - PM Peak Hour					
	Outbound			Inbound			Outbound			Inbound		
	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio
SW 106th St	1030	330	0.32	1030	550	0.53	1030	340	0.33	1030	530	0.51
25th Ave SW	760	580	0.76	760	380	0.50	760	630	0.83	760	400	0.53
17th Ave SW	1930	110	0.06	1930	110	0.06	1930	270	0.14	1930	190	0.10
16th Ave SW	2160	410	0.19	2160	270	0.13	2160	460	0.21	2160	390	0.18
4th Ave SW	760	590	0.78	760	410	0.54	760	650	0.86	760	480	0.63
Myers Way S	1320	280	0.21	1320	90	0.07	1320	630	0.48	1320	120	0.09
6th Ave S	760	280	0.37	760	120	0.16	760	350	0.46	760	100	0.13
Military Rd S	2600	440	0.17	2600	350	0.13	1930	480	0.25	1930	250	0.13
14th Ave S	2600	1050	0.40	2600	540	0.21	2600	1250	0.48	2600	390	0.15
Beacon Ave S	760	140	0.18	760	40	0.05	760	160	0.21	760	50	0.07
Renton Ave S	1930	500	0.26	1930	210	0.11	1930	530	0.27	1930	230	0.12
Cornell Ave S	760	20	0.03	760	20	0.03	760	20	0.03	760	20	0.03
Rainier Ave S	2160	1120	0.52	2160	560	0.26	2160	1300	0.60	2160	680	0.31

C. Major arterials just south of Seattle/Tukwila Border

Arterial	Existing - PM Peak Hour						Comprehensive Plan - PM Peak Hour					
	Outbound			Inbound			Outbound			Inbound		
	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio
E Marginal Way S	1800	670	0.37	1800	740	0.41	1800	740	0.41	1800	640	0.36
Airport Way S	2200	1250	0.57	2200	690	0.31	2200	1520	0.69	2200	400	0.18
M L King Jr Way S	2700	1200	0.44	2700	1100	0.41	2700	1610	0.60	2700	1150	0.43
51st Ave S	1980	250	0.13	1980	320	0.16	1980	280	0.14	1980	320	0.16

Notes:

1. Outbound and inbound directions relative to Seattle.
2. Capacities for King County, Shoreline and Lake Forest Park are from King County traffic model, Forecast Years 1993 (Existing) and 2012 (Comp Plan).
3. Capacities for Tukwila are from Seattle traffic model - Forecast Years 1990 (Existing) and 2010 (Comp Plan).
4. All volumes are from Seattle traffic model - Forecast Years 1990 (Existing) and 2010 (Comp Plan).
5. v/c ratio = volume divided by capacity.
6. 5th Ave NE location north of I5 on-ramp.
7. Volumes rounded to nearest ten.

Sources: Seattle OMP; King County Transportation Planning Section

B. INVENTORY OF EXISTING PUBLIC CAPITAL FACILITIES

The inventory of public capital ~~facilities that is required by the Growth Management Act (GMA)~~ is contained in Appendix A to this element of the Plan, and for utilities (including water and drainage and wastewater) and transportation, in the appendices to those elements of the Plan. This inventory is provided both at a citywide level and for each of the Urban Centers.

C. FORECAST OF FUTURE NEEDS FOR CAPITAL FACILITIES

This section does not apply to transportation capital facilities; please see that element of the Plan for pertinent discussion.

Seattle is a highly urbanized area with a fully developed citywide network of the types of capital facilities necessary to accommodate growth ~~already a well built urban area~~. New households that are projected to locate in Seattle could occupy existing dwellings or new buildings. New buildings can be constructed in Seattle, and be served by the existing network of streets, water and sewer lines, drainage facilities and electrical grid. In addition, new residents can be served by existing police, fire and school facilities. Forecasted future needs for police and fire protection and schools both for the six and twenty year timeframes are listed in Appendix A to this element of the Plan. Water, drainage and wastewater, City Light and solid waste facilities are detailed in Appendix A of the Utilities Element. The identified six year future needs for these basic facilities are included in the *City of Seattle Adopted 1995-2000 Capital Improvement Program and Long Range Capital Investment Plan* (CIP), and those lists are incorporated into this Plan Element by reference. ~~The basic infrastructure necessary to serve the current population and the small amount of growth expected in the next six years already exists. Significant major maintenance needs for our existing facilities have been identified, and the City is exploring ways to remedy the existing backlog over the next six years.~~

The City currently provides a good citywide system of libraries, parks and recreation facilities which are available and accessible for use by all the City's residents. An inventory of these facilities is also contained in Appendix B to this element. While additions to these facilities would enhance the City's quality of life, such additions are not necessary to accommodate new households. It is expected that during the neighborhood planning process, desired additions or expansions of these facilities may be identified. The City's ability to add to or expand these facilities will depend on neighborhood prioritization, funding availability and the willingness of residents to approve financing.

D. PROPOSED NEW OR EXPANDED CAPITAL FACILITIES

The project descriptions marked with a * in the 1995-2000 CIP identify the proposed locations and capacities of the new or expanded capital facilities the City contemplates funding in the next six years, and that designation of facilities is incorporated herein. Consistent with the overall plan, emergencies, other unanticipated events or opportunities, and voter approvals of ballot measures, may result in some departure from the adopted CIP. Other potential capital improvements that the City may fund over the next six years are found in Appendix D to this element. Additional information for transportation is found in that element.

E. SIX-YEAR FINANCE PLAN

The project information summaries (Six Year Financing Plan) in the 1995-2000 CIP show, for each new or expanded capital facility proposed by the City, the sources of funding the City anticipates using for that facility, and that listing is incorporated herein. These allocations may change over time. Emergencies and unanticipated circumstances may result in allocating resources to projects not listed. This six-year finance plan shows full funding for all improvements to existing basic facilities and for new or expanded basic facilities the City expects to be needed to serve the existing and projected population through 2000. Additionally, the CIP contains substantial funding for major maintenance and some funding for other improvements that will both maintain and enhance the City's existing facilities. Additional information for transportation is found in that element.

F. CONSISTENCY AND COORDINATION

Current projections show that probable funding will be sufficient to meet all the currently identified needs for new or expanded city capital facilities through the year 2000 to accommodate planned growth. Should anticipated funding not materialize, or should new needs be identified for which no funding is determined to be probable, the City will reassess the land use element of this Plan to ensure that it is coordinated with and consistent with this element, and in particular with the six-year finance plan. A review for coordination and consistency between this Element and the Land Use Element will be part of the City's annual budget review and Comprehensive Plan amendment processes.

APPENDIX A:
Inventory of Fire, Police and School Facilities, and Supplemental Capacity Information, and Future Facility Needs

The following sections contain the inventory, planning goals and future needs for Fire, Police and Schools. Information for Water, Drainage and Wastewater, Seattle City Light and Solid Waste is included in the Utilities Element Appendix. The following matrix summarizes the information found in this Appendix, including a summary of the planning goals, existing facilities, and identified six and twenty year needs.

MATRIX OF FIRE, POLICE & SCHOOL FACILITIES (entire table is new)

Facility	Planning Goal	Existing Facilities	Six Year Needs	Anticipated Twenty Year Needs
Fire	Maintain a 5 minute or less response time for first response to fire emergencies	33 existing Fire Stations currently provide a citywide response time of 4.36 minutes (1994)	Current facilities are adequate. No six year facility needs.	(Under review)
Police	Patrol units allocated around-the-clock based on calls for service. Location and size of facilities not critical to service provision. Facilities planning is based on guidelines for public safety office space.	4 Precincts, 2 Mobile Mini-precincts, Mounted Patrol, Kennel, Harbor Unit	Replace West Precinct and 911 Center	Expand North and South Precincts
Schools	*Elementary School* - 380-535 students, 4 ac. site size *Middle School* - 600 - 800 students, 12 ac.site size *High School* - 1,000 - 1,600 students, 17 ac. site size	61 Elementary Schools, 10 Middle Schools, 10 High Schools, 13 Alternative Schools, Admin. Buildings, Memorial Stadium, Closed schools	Current Capital Improvement Plan will renovate, replace, and/or add to 20 schools and Memorial Stadium.	The District's Facility Master Plan calls for all schools built before 1973 to be modernized or replaced over the next 20 years.

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UTILITIES APPENDICESX

APPENDIX A:
Inventory of City Utilities, Capacity Information and Future Facility Needs

Seattle City Light

Seattle City Light (SCL) is the City-owned electric utility serving approximately 131 square miles, including all of Seattle and some portions of King County north and south of the City limits.

Inventory:
SCL generates 70% of the energy that it sells to retail customers from its own facilities. The largest facilities are the Skagit Project (which includes three dams on the Skagit River and a small facility on Newhalem Creek), Newhalem Dam on Newhalem Creek in the northwest part of the state, and Boundary Dam on the Pend Oreille River in northeast Washington. The Cedar Falls Dam on the Cedar River is a smaller generating facility. City Light also holds an 8% interest in the Centralia coal-fired generating plant in southwest Washington. In addition to these power sources, SCL purchases power from the Bonneville Power Administration (BPA) and holds firm power purchase contracts with a number of other suppliers in the Pacific Northwest.

SCL owns and maintains approximately 649 miles of transmission lines which carry power from the Skagit and Cedar Falls generating facilities to 14 principal substations. Power is distributed from these principal substations via high voltage feeder lines to numerous smaller distribution substations and pole transformers which reduce voltage to required levels for customers. SCL owns and maintains 2,750 circuit-miles of distribution lines within Seattle that deliver power from the 14 principal substations to 265,732 customers. A capacity addition is in progress at City Light's Canal substation. (See Utilities Figures A-1 and A-2).

Existing Capacity
SCL's current generation capability (owned and contracted) is adequate to serve existing customers. Because of the nature of City Light's hydro system, the utility is not presently constrained by its ability to meet peak loads (typically referred to as capacity), but rather by its ability to carry load over the 15 heavy load hours during the winter (7 a.m. to 10 p.m.) Even though there is sufficient generation capability to serve the peak load, the utility sometimes has difficulty meeting the heavy load hour requirements solely from its own facilities and is able to purchase energy on the spot market.

The capability of SCL's transmission and distribution system to serve the demands of its customers is quantified by the capacity of the distribution substations. Currently two substations, North and Viewland, have peak winter demands over 100 percent capacity. A capacity addition is in progress at the Canal substation which will permit excess load to be transferred from the North and Viewland substations.

Anticipated Future Facilities:
SCL currently uses 100 percent of its firm (or guaranteed) owned and contracted generation capability to meet its own load, with Bonneville Power Administration (BPA) making up the balance. Under its current contract with the BPA, Seattle is obligated to cover its own load growth or to offer resources to BPA to cover it. BPA contracts are currently being renegotiated, and the outcome of those negotiations is uncertain with respect to whether and how BPA will cover load growth of its customers.

SCL's 1992 Energy Resources Strategy calls for the acquisition of approximately 109 aMW of energy through conservation, intended to meet load through 2003, and another 100 aMW of system efficiency and generation to cover, in part, expiring contracts. Without further action, Seattle's loads are expected to grow, resulting in a likely need for both further conservation and generation.

For the transmission and distribution components of SCL's system, projected growth will be accommodated by planned transmission and distribution capacity additions. The addition of a transformer at the Bothell Substation in Snohomish County will serve the principal substations from the Snohomish County line to the Lake Washington Ship Canal. Within the Comprehensive Plan's 20-year timeframe a new principal substation will be necessary downtown, with an underground transmission line connection to the South substation. Capacity would also be expanded at the North and Creston substations (Figure 7-5).

Seattle Water Department

The Seattle Water Department (SWD) serves retail customers of Seattle and portions of King County. In addition, SWD sells wholesale water to more than two dozen suburban water districts, municipalities, and nonprofit water associations ("purveyors") which serve retail water customers in most of the urban areas in north, east, and south King County, and a small part of southwest Snohomish county. (See Utilities Figures ~~A-3 and A-4~~). The City Water Department operates under an Operator's Certificate granted by the State Department of Health based on the approved Water Supply Plan. The Water Supply Plan guides development of water supply and improvements and maintenance of transmission and distribution systems through the year 2015.

Inventory:
SWD supplies drinking water from three water supply sources--the Cedar River Watershed, the South Fork of the Tolt River Watershed, and the Highline Well Field. The Cedar River and South Fork of the Tolt River Watersheds are in the Cascade Mountains, while the Highline Well Field is located north of Seattle-Tacoma International Airport. Transmission pipelines carry the water to various reservoirs, standpipes, and tanks for further distribution. (See Utilities Figure A-4)

Existing Capacity:
The SWD service area extends beyond the City's boundaries, making it impossible to allocate capacity figures to the supply sources and transmission lines solely for in-city service. The snowpack level and temperature in the watershed areas are important natural factors that determine when and how much runoff will fill the reservoirs. SWD practice is to maintain levels of supply in the reservoirs at 98 percent reliability, so that statistically there is a two percent chance each year that water supply could fall below need. Affecting SWD's ability to reserve this much water is the environmental impact of the dams on the stream flows. Business, environmental, agricultural, recreational, tribal, and fisheries groups all have interests in the level of water in the streams. The City, however, expects water supply to be adequate to serve the City's existing and forecast population for at least the next six years.

Distribution and storage facilities that serve Seattle residents are located within and beyond the city limits. These facilities have adequate capacity to serve the city; however, some areas have substandard mains or experience low water pressure.

Low pressure areas include Scenic Heights (Charlestown Standpipe), Maple Leaf (Maple Leaf Tank), Phinney Ridge (Woodland Park Standpipe), and Queen Anne Hill (Queen Anne Standpipe). These areas are all located near or above the standpipe/tank overflow elevation and, therefore, receive water at below the design standard of 30 pounds per square inch (psi). New pump station construction for each of these areas is included in SWD's current six-year CIP.

Substandard mains in need of replacement have been identified and prioritized. The replacement schedule is included in the SWD six-year CIP. Potential substandard fire protection is a concern in various areas throughout the City, resulting from changes in standards. Deficiencies include aging pipes and inadequate pipe diameter. These improvements are also incorporated in the department's six-year CIP.

Anticipated Future Facilities:
By the year 2010 a new water supply source is likely to be needed. The City expects that population growth occurring outside the direct service area will be

the primary determinant for the addition of a new source. Within the city, most of the new households that will be added will be in multifamily units, which have a much lower water demand than single family households.

The 1993 Water Supply Plan's "Multiple Action Plan" provides for a number of actions to be taken over the next fifteen years to ensure that future regional water needs are met. These actions include: development and implementation of conservation programs and pricing, various projects such as Highline Recharge, North Fork Tolt Project, Upper Snoqualmie Valley/North Bend Aquifer and the Tolt Well Field, and development of local Groundwater Sources.

The major impact of the growth envisioned by the Comprehensive Plan on the City's Water facilities will be in the distribution system. Rehabilitation and improvements to the existing distribution system will be needed to support growth over the twenty year life of the Plan. Needed improvements to increase volumes in distribution facilities in the Urban Centers over the next six years are included in the Department's current CIP. Improvements needed beyond six years are included in the Water Supply Plan.

Seattle Drainage and Wastewater Utility

Seattle's Drainage and Wastewater Utility (DWU) was created in 1987 as a division of the Seattle Engineering Department (SED), adding drainage responsibilities to the existing SED sewer utility. DWU is charged with managing drainage, surface runoff, and sewer systems to meet public safety, water quality, and resource protection goals. DWU's service area includes covers the City of Seattle. Additionally, DWU provides sewer service to and some areas north of the city limits.

Inventory:
Although a few small areas are still served by septic systems, almost all areas of the city are served by sanitary sewers. Three types of drainage and waste water systems are used in Seattle: combined sanitary/storm water sewer, partially separated sanitary/storm water sewer, and separate sanitary and storm water sewer systems. The DWU system collects residential, commercial, and industrial waste water and delivers it to interceptor lines operated by the regional sewage treatment agency. The sewage is then treated at the West Point Sewage Treatment Plant ~~three major sewage treatment plants in the city~~ before being discharged into Puget Sound. Two other plants, Alki and Carkeek, are being converted to treat wet weather flows only. (See Utilities Figure A-5).

Existing Capacity:
City Drainage and Wastewater System:

The capacity of the wastewater system in some areas is limited when peak stormwater flows enter the combined systems. During or following intense or prolonged periods of rainfall some of the systems cannot accommodate the combined runoff and sanitary sewage flows, resulting in combined sewer overflows (CSOs) being discharged into area waters. CSOs occur in both the regional and the City systems. Seattle's CSO Control Plan, adopted in 1988, addresses specific storage and separation projects to control CSOs and describes costs and schedules in a twenty-year timeframe. DWU has already completed improvements to 69 of the 83 CSO locations and by the year 2000, Seattle will have reduced CSO volumes by at least 79 percent. Funding for these improvements is included in the Department's six-year CIP.

Regional Wastewater Treatment System:
The West Point Treatment Plant is presently under expansion and conversion from a primary to a secondary treatment operation. Planned capacity is for the secondary treatment of 133 million gallons per day (MGD), monthly average flow. It is designed to handle a peak flow capacity of 440 MGD, with 300 MGD receiving secondary treatment and the remainder primary treatment.

The West Point Treatment Plant is projected to serve 1.3 million people including residents of Seattle, King County north of Seattle, and South Snohomish County. The capacity of the West Point treatment plant is expected to be adequate to serve the projected population through the year 2026.

Anticipated Future Facilities:
City Facilities: Generally, the drainage and wastewater facilities in Seattle have been planned and sized to serve the maximum or build-out conditions under existing zoning and will be adequate to serve the level of increased growth proposed in the Plan. The capacity of the wastewater system is limited only in specific areas of the city, where there have been historic hydraulic and system backup problems. These problems are being addressed by DWU programs in the Department's CIP.

While some Urban Centers and Villages are located in areas with existing or potential stormwater runoff and/or wastewater facility problems, this factor is not considered an important constraint on growth. The Seattle Grading, Drainage and Stormwater Control Ordinance requires on-site stormwater detention and strictly limits the rate of stormwater runoff from developing properties. New development proposed in areas with combined wastewater systems or facility limitations is required to detain stormwater on-site. New development may, therefore, help alleviate overall system capacity problems in areas with combined wastewater systems.

Regional Facilities: Seattle's share of the increased wastewater flows would produce approximately an 8% increase in base flows over the current projected

level. The estimated base flow for the Comprehensive Plan is limited to the service basins within the City of Seattle and to the 2010 planning horizon. The regional system design, however, requires consideration of all service basins which contribute to the base flows treated at any one plant and also consideration of residential, commercial, and industrial growth for a much longer planning horizon. Thus, given the Plan's goals, a longer planning horizon and growth in all basins contributing to the treatment plants serving Seattle, it is likely that the West Point Treatment plant will need to be enlarged earlier than originally expected, and that construction of key conveyance facilities will be accelerated.

Seattle Solid Waste Utility

The Solid Waste Utility (SWU) was created in 1961 as a division of the Seattle Engineering Department (SED). SWU contracts with private firms for the collection of residential garbage, recyclables, and yard waste within the city. Collection of commercial solid waste is handled by private carriers and facilities; however, SWU provides for disposal of all garbage generated in the city.

Inventory:
The solid waste transfer system consists of four transfer stations. The two City-owned transfer stations receive residential solid waste, while the two privately-owned transfer stations receive both in-city commercial solid waste and solid waste from outside Seattle. Garbage is compacted into containers which are trucked to the Argo Intermodal Facility; from there, the containers are loaded onto trains for long-haul transport to a the landfill owned and operated by Oregon Waste Systems in Gilliam County, Oregon. Most rRecyclable materials are handled by two privately-owned facilities. Household hazardous wastes can be brought to one of two facilities operated by SWU. (See Utilities Figure A-6).

Existing Capacity:
Solid Waste Collection and Transfer Facility Capacity
The North and South Recycle and Disposal Stations have existing design capacities to handle 1,000 tons of garbage per day (or 365,000 tons per year). Approximately 267,500 tons of waste were disposed through the transfer stations in 1988. This decreased to 225,000 tons in 1990, largely as a result of increased recycling by City residents.

Commercial garbage generated in the City is delivered to the two private transfer stations. These two facilities handle garbage (as well as construction and demolition debris (CDL)) from both inside and outside Seattle. In 1988, these facilities handled approximately 198,200 tons of garbage from Seattle businesses, and another 80,000 of CDL from in-City construction activity. Despite substantial growth, commercial waste disposed in 1994 actually decreased from 1988 (196,000 tons), largely as a result of increased recycling in the commercial sector. CDL disposal has remained steady. The two private transfer facilities have the capability to handle 300,000-400,000 tons of waste per year including waste from Seattle's businesses. These facilities are located in South Seattle, near the City's South Recycling and Disposal Station.

Recycling Processing Facilities:

Two private "material recovery facilities" (MRFs) serve as the processing and transfer facilities for most of the recyclable materials collected from in-City residents and businesses. These facilities, Recycle Seattle and Recycle America, process and transfer a large proportion of the 300,000 tons of

recyclable material that was collected through the City's solid waste system in 1994. Both of these facilities are located in South Seattle, near the City's South Recycling and Disposal Station.

Disposal Facilities
Waste is compacted at the transfer stations into containers that are trucked directly to the railhead for long-haul to the landfill in Oregon. Presently, approximately 60 containers per day (each holding 25-28 tons), five days a week, are trucked to the railhead. The train to the landfill operates 3 times per week, with about 100 containers per trip. Seattle and Washington Waste Systems (WWS) have a contract extending through March 31, 2028, and the terms of the contract are more than adequate to handle the additional waste volumes generated by projected growth.

Future Facilities:
The region's landfill capacity is large enough to last for at least the next 40-80 years. SWU and in-city private transfer facilities have the capacity to handle any amount of garbage that the planned population would generate. Although the overall amount of waste generated in the city will increase with projected residential and employment growth, the percentage of waste that will need to be hauled to Oregon is expected to decrease due to higher anticipated rates of recycling. Seattle has adopted goals to recycle 60 percent of its overall waste by 1998.

The two City-owned transfer stations are anticipated to be sufficient for future residential and self-haul customers, even if recycling does not meet the 60% goal. Residential waste is anticipated to comprise a decreasing share of the future combined waste stream. Commercial waste is projected to comprise a larger share of Seattle's waste stream in the future. Increased commercial sector waste disposal needs and an increased demand for recycling contractor services will be handled by private contractors and facilities. Representatives from both private transfer stations have indicated that the increased amount of waste can be handled within the existing facilities.

The two private materials processing facilities will handle a major share of the increase in volumes of recyclable material that will occur with projected growth. These businesses are dealing with services and markets at a regional level, so the specific impacts of increased Seattle tonnage are difficult to predict.

TRANSPORTATION APPENDIX A:
Inventory of Existing Facilities and Services

[Add the following new text on page A30, at the end of the first paragraph of Appendix A (after ". . . and 7,029 non-arterial intersections.").]

Transportation Figure A-1a shows the locations of traffic and pedestrian crossing signals in Seattle. The "state signals" are managed by the Washington State Department of Transportation and are located mostly at freeway on- and off-ramps. Fire station signals and railroad crossing signals are not included. Transportation Figure A-1b shows the distribution of the more than 60,000 street lights along rights-of-way in, and along the borders of, Seattle. The numbers in the Figure indicate the number of city-operated street lights in each one-quarter-square-mile area.

TRANSPORTATION APPENDIX C:
Traffic Forecasts

[Delete all the existing text of Transportation Appendix C on page A47, and substitute the following new text.]

To analyze the traffic impacts of the Comprehensive Plan, the City modeled both the Plan itself and an Alternative Scenario. The Alternative Scenario assumes the same total growth in population and employment Citywide as in the Plan, but distributes that growth based on zoning capacity alone, without regard to Urban Center or Urban Village designations. In addition, the Alternative Scenario excludes policies included in the Plan that discourage use of single-occupant cars and encourage transit and non-motorized modes, which affect mode split assumptions.

Region-wide and city-limit traffic volume forecasts for the Comprehensive Plan and for the Alternative Scenario are as follows:[1]

Total vehicle-miles-of-travel (VMT) for the region (per day):

1990 estimate		70 million
2010 forecasts:	Comprehensive Plan	93 million (+ 33%)
	Alternative Scenario	100 million (+ 43%)

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[1] The 1990 estimates shown differ slightly from the 1990 estimates included in the Comprehensive Plan as adopted in 1994 because of updates to the transportation model, including a revised zone structure and revised employment estimates.

Traffic volume at north city limit (vehicles per day):

1990 estimate		327,000
2010 forecasts:	Comprehensive Plan	374,000 (+ 14%)
	Alternative Scenario	430,000 (+ 31%)

Traffic volume at south city limit (vehicles per day):

1990 estimate		409,000
2010 forecasts:	Comprehensive Plan	476,000 (+ 16%)
	Alternative Scenario	564,000 (+ 38%)

Traffic volume at east city limit (SR 520 and I-90) (vehicles per day):

1990 estimate		237,000
2010 forecasts:	Comprehensive Plan	271,000 (+ 14%)
	Alternative Scenario	290,000 (+ 22%)

Regional transit trips as a percent of total motorized trips:

1990 estimate		3 percent
2010 forecasts:	Comprehensive Plan	6 percent
	Alternative Scenario	3 percent (no change)

To analyze the transportation effects of the Comprehensive Plan goals and policies on the City's arterial streets in Urban Centers and in Urban Village areas, traffic conditions were analyzed for a system of screenlines, shown in Transportation Figure A-12. These screenlines functionally cover the entire City, including Urban Centers and areas identified for future designation as Urban Villages. The Comprehensive Plan's level-of-service (LOS) system uses a similar screenline system, with most of the same screenlines. Some screenlines were added for this traffic forecast analysis to supplement the data in Urban Centers.

Traffic volumes were forecasted for arterial streets for the year 2010 under both the Comprehensive Plan and the Alternative Scenario. These forecasted volumes were summed for all arterials crossing a particular screenline, and this screenline volume was compared to the sum of the "planning capacities" for the arterials crossing the screenline, yielding a ratio of volume-to-capacity (v/c) for each direction of traffic for each screenline.

The screenline methodology was used both for the Comprehensive Plan's level-of-service system to judge the performance of the arterial system, and for the traffic forecast analysis described in this Appendix. This system was selected because it steps back from the micro-level focus of traditional intersection LOS analysis, and recognizes explicitly the broader geographic impacts of development and travel patterns. The system recognizes that no single intersection or arterial operates in isolation. Motorists have choices, and they select particular routes based on a wide variety of factors. If traffic congestion on one arterial increases, it may not make sense to expand the capacity of that arterial. The City, instead, may want to shift

traffic to a nearby under-used arterial, or to expand capacity on a different nearby arterial, or to implement measures to reduce travel demand -- or a combination of these strategies. Accordingly, this analytic methodology focuses on a "traffic-shed," an area where arterials among which drivers logically can choose are organized for functional analysis.

Transportation Figure A-13 lists, for each screenline, the forecasted year 2010 v/c ratio with the Comprehensive Plan, and the forecasted year 2010 v/c ratio with the Alternative Scenario. (This Figure supplements the more limited information provided in Transportation Figure 3 in Section E. of the Comprehensive Plan Transportation Element.[2])

As can be seen in Transportation Figure A-13, the forecasted screenline v/c ratios for the year 2010 under the Comprehensive Plan range from 0.24 to 1.13. For each screenline, the forecasted year 2010 v/c ratio is below the level-of-service (LOS) standard established for that screenline. For all screenlines, the forecasted year 2010 v/c ratio under the Alternative Scenario is higher than the corresponding v/c ratio under the Comprehensive Plan. For some screenlines, the year 2010 v/c ratio values under the Alternative Scenario exceed the established LOS standards.

By analyzing the forecasted year 2010 v/c ratios under the Comprehensive Plan at screenlines in or near Urban Centers, one can evaluate the effects of the Comprehensive Plan goals and policies on the transportation systems in the Urban Centers. Each of the five Urban Centers is addressed below.

Downtown, Seattle Center, and First Hill/Capitol Hill: The Downtown, Seattle Center, and First Hill/Capitol Hill Urban Centers are all located in the central part of the City. Screenlines 8, 10.11, and 12.12 are closest to these three Urban Centers. The year 2010 v/c ratios under the Comprehensive Plan for these three screenlines are all well below the established LOS standards of 1.0 for screenline 10.11, and 1.2 for screenlines 8 and 12.12.

University District: For the University District Urban Center, screenlines 5.16 and 13.13 cover the south and west boundaries of the Urban Center. The forecasted year 2010 v/c ratios for screenline 5.16 are nearly 1.0, compared to the LOS standard of 1.2. These high v/c ratios reflect the higher-density development and associated traffic congestion around the University District. For screenline 13.13, the forecasted year 2010 v/c ratios are well below the LOS standard of 1.0.

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[2] As with the region-wide and city-limit traffic volume forecasts described earlier in this Appendix, the v/c ratios in Transportation Figure A-13 are based on the output of the City's transportation model. The traffic volume values produced from the model for this analysis differ slightly from values produced in preparing the Comprehensive Plan because of updates to the model, including a revised zone structure and revised employment estimates.

Northgate: For the Northgate Urban Center, screenline 13.11 is nearby. For this screenline, the year 2010 forecasted v/c ratio is well below the established LOS standard of 1.0.

The Comprehensive Plan includes policies to improve transit service and related transit capital facilities, as well as to improve non-motorized transportation facilities, to afford ways for people to avoid the traffic congestion inherent in dense Urban Centers and Urban Village areas. In this way, people may avoid the congestion reflected in higher v/c ratios across screenlines.

As this analysis of transportation impacts demonstrates, the forecasted year 2010 screenline volume-to-capacity ratios under the Comprehensive Plan do not exceed the established LOS standards for any screenlines. For the additional screenlines created for this traffic forecast analysis, the forecasted year 2010 v/c ratios are similarly within acceptable ranges. As provided in Comprehensive Plan Policy T23, when the calculated v/c ratio for a screenline approaches the LOS standard for that screenline, the City will pursue strategies to reduce vehicular travel demand across the screenline and/or increase the operating capacity across the screenline. Based on the analysis of screenlines described here, there are currently no additional capacity or facility needs necessitated by the Plan.

TRANSPORTATION APPENDIX D:
Intergovernmental Coordination Efforts

[Delete the existing paragraph on page A49 under the heading, "Impacts on Adjacent Jurisdictions," and substitute the following new text.]

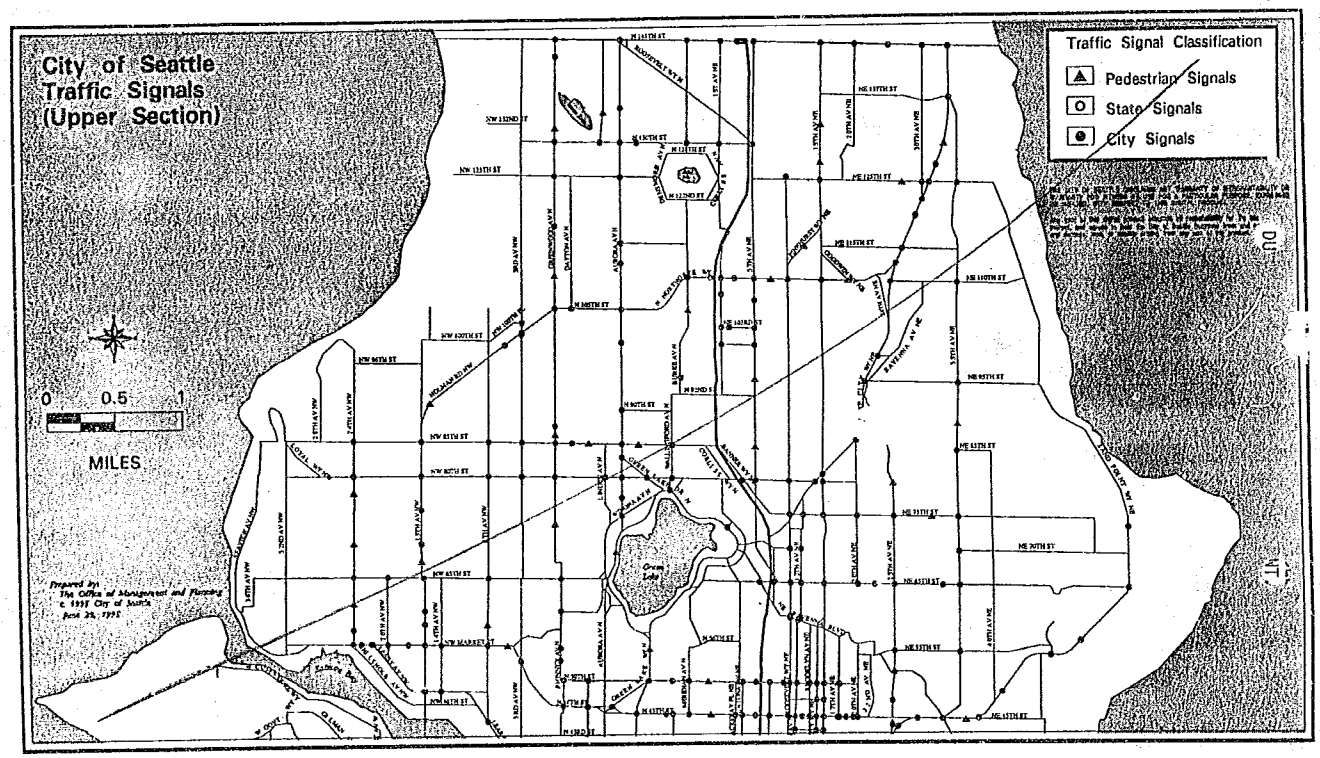
Impacts on Adjacent Jurisdictions

Four jurisdictions are adjacent to the City of Seattle: the City of Shoreline, King County, and the City of Lake Forest Park along Seattle's north boundary, and the City of Tukwila and King County along Seattle's south boundary. In consultation with adjacent jurisdictions, several major arterials that lie within these jurisdictions near the Seattle border were selected for analysis. For each arterial, the existing p.m. peak hour traffic volume and forecasted year 2010 traffic volume were compared to the "planning capacity" of the arterial, yielding a volume-to-capacity (v/c) ratio. The results of this analysis are shown in Transportation Figure A-14.

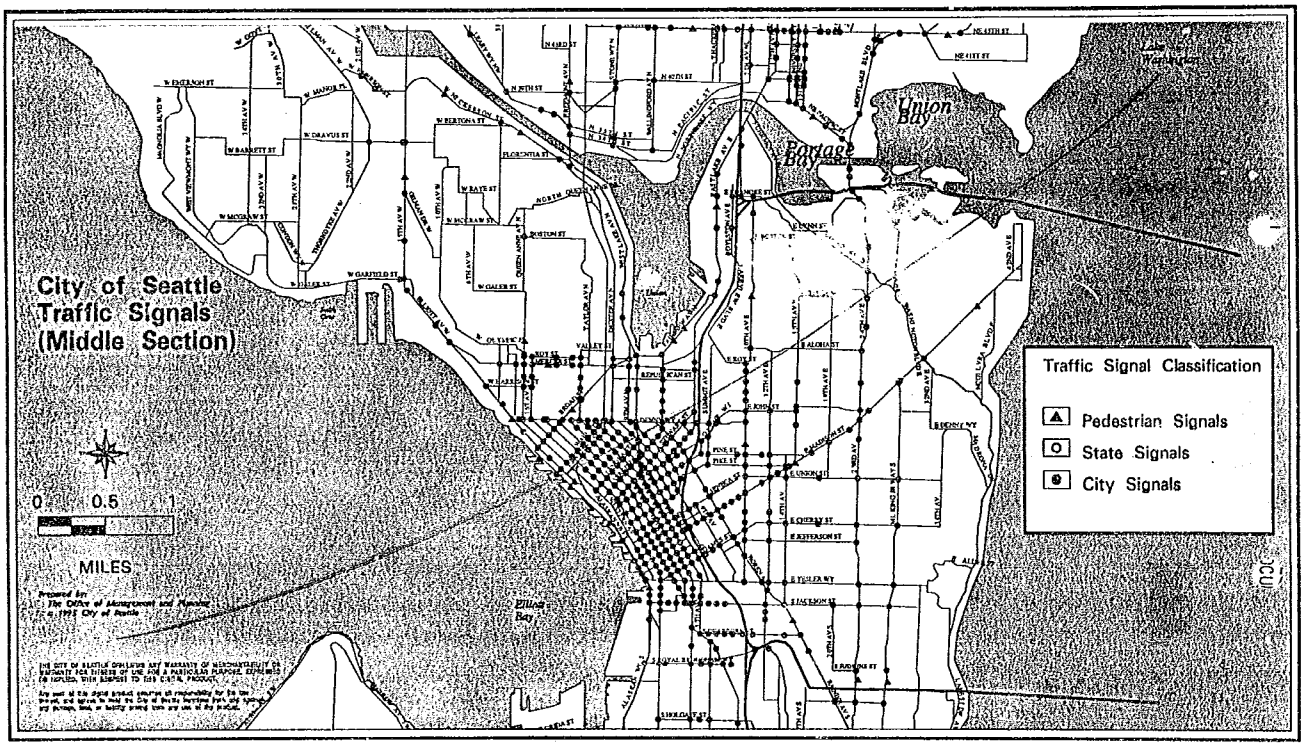
For all but one of the arterials shown in Transportation Figure A-14, the p.m. peak hour v/c ratio is below 1.0, indicating that there is remaining traffic capacity currently and forecasted for the future. The exception is Bothell Way N.E. just north of N.E. 145th Street, where the existing v/c is estimated to be 1.03, and the forecasted year 2010 v/c is estimated to be 1.10.

These traffic volume and v/c figures reflect not only growth under Seattle's Comprehensive Plan, but also growth in the adjacent jurisdictions and throughout the central Puget Sound region. Much of the traffic on these arterials is through traffic, with neither an origin nor a destination near the arterial. Thus, this traffic analysis is just one tool with which to evaluate traffic impacts caused by new development and Comprehensive Plan goals and policies.

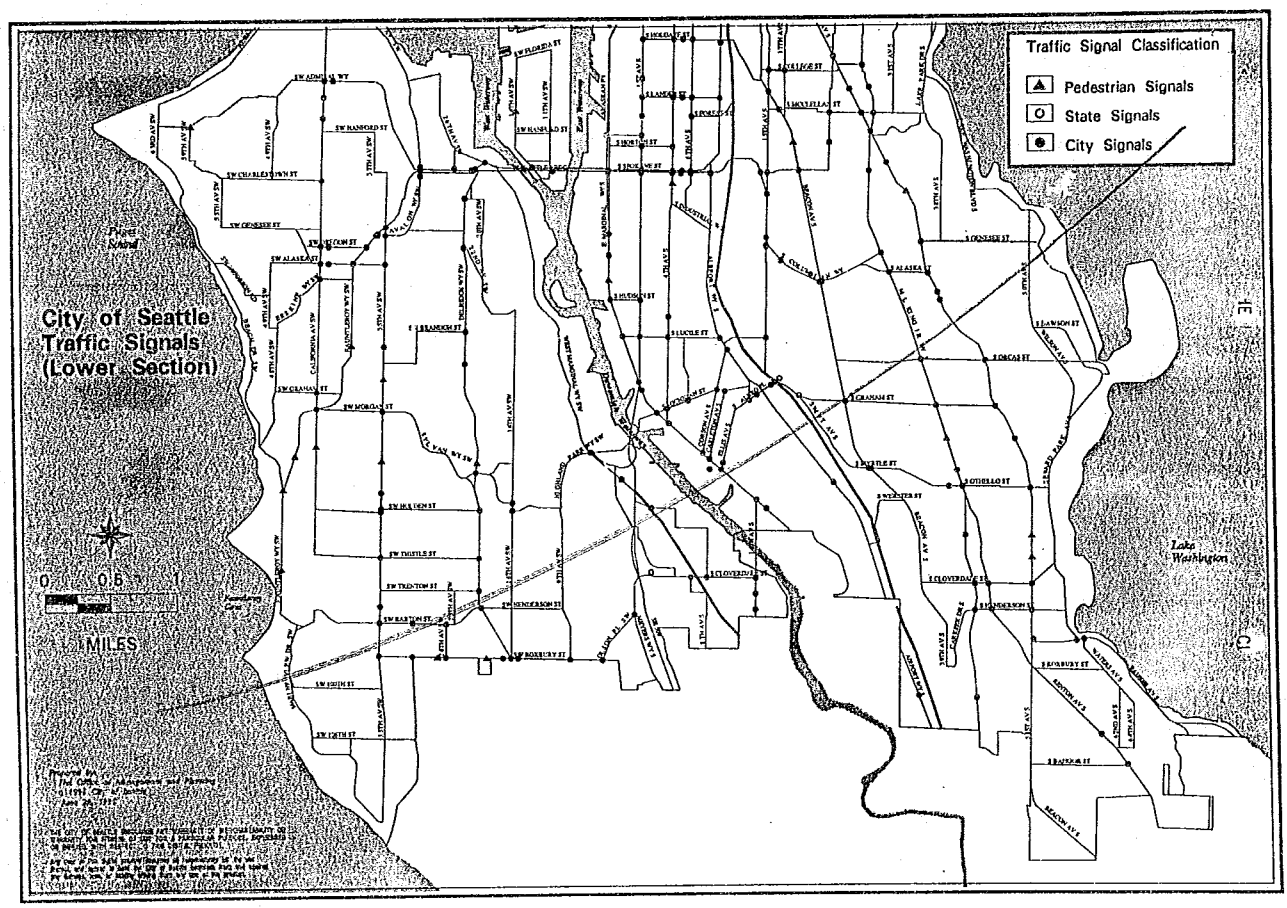
In addition to the City of Seattle's analysis of transportation impacts on adjacent jurisdictions, as described in this section, Seattle continues to work with the adjacent jurisdictions to coordinate traffic operations and to minimize cross-boundary impacts.



Transportation Figure ~~A-12a~~ A-1a (north)
Traffic Signals (North Seattle)

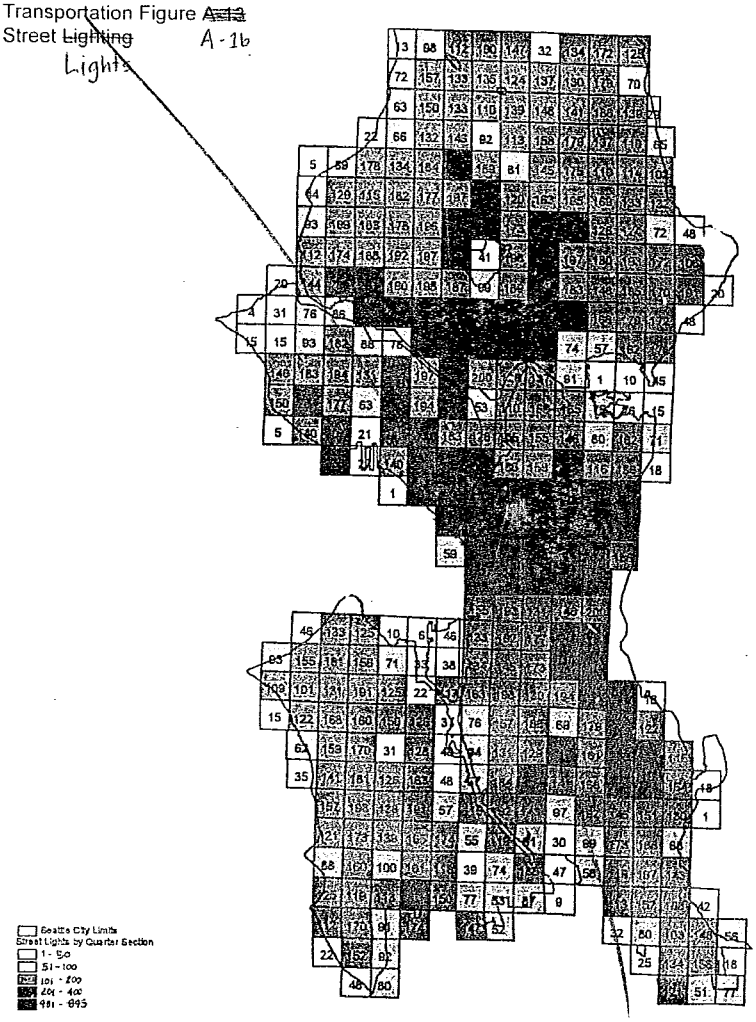


Transportation Figure ~~A-12b~~ A-1a (Central)
Traffic Signals (Central Seattle)



Transportation Figure ~~A-12~~ A-1a (south)
Traffic Signals (South Seattle)

Transportation Figure ~~A-13~~
Street ~~Lighting~~ A-16
Lights



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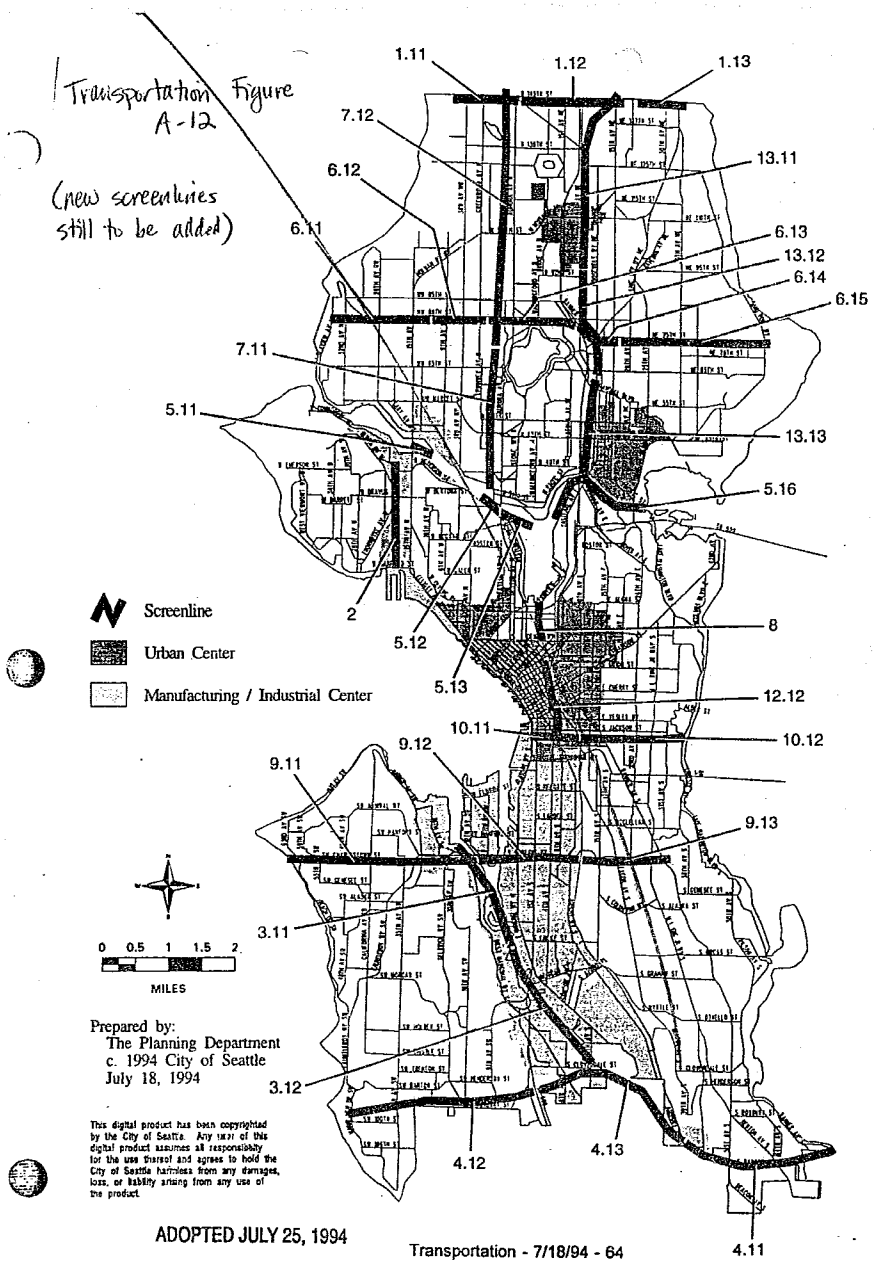
IT IS DUE TO THE QUALITY OF THE DOCUMENT.

Transportation Figure A-12

(new screenlines still to be added)



Prepared by:
The Planning Department
c. 1994 City of Seattle
July 18, 1994

ADOPTED JULY 25, 1994

Transportation Figure A-13

(still to come)

Transportation Figure A-14. Adjacent Jurisdiction Major Arterials: PM Peak Hour Capacities, Volumes and v/c Ratios

A. Major arterials just north of Seattle / King County-Shoreline-Lake Forest Park Border (145th St)

Arterial	Existing - PM Peak Hour						Comprehensive Plan - PM Peak Hour					
	Outbound			Inbound			Outbound			Inbound		
	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio
Greenwood Ave N	760	430	0.57	760	340	0.45	760	700	0.92	760	620	0.82
Westminster Way N.	2600	1710	0.66	2600	930	0.36	2600	2030	0.78	2600	1000	0.38
Aurora Ave N	3060	1720	0.56	3060	910	0.30	3060	1860	0.61	3060	1000	0.33
Meridian Ave N	1030	820	0.80	1030	380	0.37	2160	930	0.43	2160	310	0.14
5th Ave NE	760	580	0.76	760	300	0.39	2160	660	0.31	2160	160	0.07
15th Ave NE	2160	1520	0.70	2160	500	0.23	2160	1830	0.85	2160	670	0.31
25th Ave NE	740	420	0.57	740	200	0.27	740	490	0.66	740	190	0.26
Bothell Way NE	2450	2520	1.03	2450	1650	0.67	2450	2690	1.10	2450	1910	0.78

A. Major arterials just south of Seattle / King County Border

Arterial	Existing - PM Peak Hour						Comprehensive Plan - PM Peak Hour					
	Outbound			Inbound			Outbound			Inbound		
	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio
SW 106th St	1030	330	0.32	1030	550	0.53	1030	340	0.33	1030	530	0.51
2F n Ave SW	760	580	0.76	760	380	0.50	760	630	0.83	760	400	0.53
7 7th Ave SW	1930	110	0.06	1930	110	0.06	1930	270	0.14	1930	190	0.10
16th Ave SW	2160	410	0.19	2160	270	0.13	2160	460	0.21	2160	390	0.18
4th Ave SW	760	590	0.78	760	410	0.54	760	650	0.86	760	480	0.63
Myers Way S	1320	280	0.21	1320	90	0.07	1320	630	0.48	1320	120	0.09
8th Ave S	760	280	0.37	760	120	0.16	760	350	0.46	760	100	0.13
Military Rd S	2600	440	0.17	2600	350	0.13	1930	480	0.25	1930	250	0.13
14th Ave S	2600	1050	0.40	2600	540	0.21	2600	1250	0.48	2600	390	0.15
Beacon Ave S	760	140	0.18	760	40	0.05	760	160	0.21	760	50	0.07
Renton Ave S	1930	500	0.26	1930	210	0.11	1930	530	0.27	1930	230	0.12
Cornell Ave S	760	20	0.03	760	20	0.03	760	20	0.03	760	20	0.03
Rainier Ave S	2160	1120	0.52	2160	560	0.26	2160	1300	0.60	2160	680	0.31

C. Major arterials just south of Seattle/Tukwila Border

Arterial	Existing - PM Peak Hour						Comprehensive Plan - PM Peak Hour					
	Outbound			Inbound			Outbound			Inbound		
	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio
E Marginal Way S	1800	670	0.37	1800	740	0.41	1800	740	0.41	1800	640	0.36
Airport Way S	2200	1250	0.57	2200	690	0.31	2200	1520	0.69	2200	400	0.18
M L King Jr Way S	2700	1200	0.44	2700	1100	0.41	2700	1610	0.60	2700	1150	0.43
51st Ave S	1980	250	0.13	1980	320	0.16	1980	280	0.14	1980	320	0.16

Notes:

1. Outbound and inbound directions relative to Seattle.
2. Capacities for King County, Shoreline and Lake Forest Park are from King County traffic model, Forecast Years 1993 (Existing) and 2012 (Comp Plan).
3. Capacities for Tukwila are from Seattle traffic model - Forecast Years 1990 (Existing) and 2010 (Comp Plan).
4. All volumes are from Seattle traffic model - Forecast Years 1990 (Existing) and 2010 (Comp Plan).
5. v/c ratio = volume divided by capacity.
6. 5th Ave NE location north of I5 on-ramp.
7. Volumes rounded to nearest ten.

Sources: Seattle OMP; King County Transportation Planning Section

Seattle City Council
Memorandum

Date: July 28, 1995

To: P&RA Committee Members

From: Bob Morgan and Martha Lester, Central Staff

Subject: Response to Growth Management Hearings Board Decision

Staff recommends amendments to (the attachment to) Council Bill 110810. The attachment to the CB includes amendments to the Comprehensive Plan that are proposed to respond to the Growth Management Hearings Board's decision on the City's plan.

Therefore the following amendments to the attachment constitute changes to the proposed Comp Plan amendments, or, if you will, amendments to the amendments.

Substitute pages for the Council Bill's attachment are attached for your information. We recommend the following changes:

I. Housekeeping Amendments to:

   A. Insert a table of contents and pages explaining the format with which amendments are displayed;
   B. Deleting the terms "basic" and "desired" from pages 10 and 12 where they were inadvertently retained after the distinction between basic and desired facilities from earlier drafts was dropped;
   C. Clarify on page 10 that certain existing *and funded* facilities can serve new residents - rather than simply *existing* facilities.
   D. Provide additional information on page 15 indicating that a new fire stations at Northgate and possibly downtown are anticipated twenty year needs, rather than state that anticipated twenty year needs are "under review."
   E. Make several editorial changes to the Utilities Element recommended by Council staff, utilities staff and other executive staff.

II. Replacement of the amendments to the transportation appendices (new pages 57 - 71) (because the transportation portion of the amendments was not quite in final form when the CB was introduced).

CS #20.3

SUBSTITUTE PAGES

FOR THE ATTACHMENT TO

CB 110810

ATTACHMENT 1

to ORDINANCE _____

Amendments to The City of Seattle Comprehensive Plan

ATTACHMENT 1 CONTENTS

INSERT BEFORE PAGE 1

PART 1

LAND USE ELEMENT AND APPENDIX B

Additions to the Land Use Element are shown in underline, and deletions are shown in ~~strikethrough~~. Only those sections that are being changed are included.

Format changes were made t Land Use Appendix B to make the table more readable.

INSERT BEFORE PAGE 1

PART 2

CAPITAL FACILITIES ELEMENT

Additions to the Capital Facilities Element are shown in underline, and deletions are shown in ~~strikethrough~~. In order to provide context for the changes, all text in the element is included. Text with no underline or strikethrough has not been changed.

INSERT AFTER PAGE 5

SUBSTITUTE PAGE 10

B. INVENTORY OF EXISTING PUBLIC CAPITAL FACILITIES

The inventory of public capital ~~facilities that is required by the Growth Management Act (GMA)~~ is contained in Appendix A to this element of the Plan, and for utilities (including water and drainage and wastewater) and transportation, in the appendices to those elements of the Plan. This inventory is provided both at a citywide level and for each of the Urban Centers.

C. FORECAST OF FUTURE NEEDS FOR CAPITAL FACILITIES

This section does not apply to transportation capital facilities; please see that element of the Plan for pertinent discussion.

Seattle is a highly urbanized area with a fully developed citywide network of the types of capital facilities necessary to accommodate growth ~~already a well built urban area~~. New households that are projected to locate in Seattle could occupy existing dwellings or new buildings. New buildings can be constructed in Seattle, and be served by the existing network of streets, water and sewer lines, drainage facilities and electrical grid. In addition, new residents can be served by existing and funded police, fire and school facilities. Forecasted future needs for police and fire protection and schools both for the six and twenty year timeframes are listed in Appendix A to this element of the Plan. Water, drainage and wastewater, City Light and solid waste facilities are detailed in Appendix A of the Utilities Element. The identified six year future needs for these facilities are included in the *City of Seattle Adopted 1995-2000 Capital Improvement Program and Long Range Capital Investment Plan* (CIP), and those lists are incorporated into this Plan Element by reference. ~~The basic infrastructure necessary to serve the current population and the small amount of growth expected in the next six years already exists. Significant major maintenance needs for our existing facilities have been identified, and the City is exploring ways to remedy the existing backlog over the next six years.~~

The City currently provides a good citywide system of libraries, parks and recreation facilities which are available and accessible for use by all the City's residents. An inventory of these facilities is also contained in Appendix B to this element. While additions to these facilities would enhance the City's quality of life, such additions are not necessary to accommodate new households. It is expected that during the neighborhood planning process, additions or expansions of these facilities may be identified. The City's ability to add to or expand these facilities will depend on neighborhood prioritization, funding availability and the willingness of residents to approve financing.

The City also provides other facilities, such as general government buildings, Seattle Center and Public Health facilities that are of a citywide or regional

SUBSTITUTE PAGE 12

D. PROPOSED NEW OR EXPANDED CAPITAL FACILITIES

The project descriptions marked with a * in the 1995-2000 CIP identify the proposed locations and capacities of the new or expanded capital facilities the City contemplates funding in the next six years, and that designation of facilities is incorporated herein. Consistent with the overall plan, emergencies, other unanticipated events or opportunities, and voter approvals of ballot measures, may result in some departure from the adopted CIP. Other potential capital improvements that the City may fund over the next six years are found in Appendix D to this element. Additional information for transportation is found in that element.

E. SIX-YEAR FINANCE PLAN

The project information summaries (Six Year Financing Plan) in the 1995-2000 CIP show, for each new or expanded capital facility proposed by the City, the sources of funding the City anticipates using for that facility, and that listing is incorporated herein. These allocations may change over time. Emergencies and unanticipated circumstances may result in allocating resources to projects not listed. This six-year finance plan shows full funding for all improvements to existing facilities and for new or expanded facilities the City expects to ~~be~~ needed to serve the existing and projected population through 2000. Additionally, the CIP contains substantial funding for major maintenance and some funding for other improvements that will both maintain and enhance the City's existing facilities. Additional information for transportation is found in that element.

F. CONSISTENCY AND COORDINATION

Current projections show that probable funding will be sufficient to meet all the currently identified needs for new or expanded city capital facilities through the year 2000 to accommodate planned growth. Should anticipated funding not materialize, or should new needs be identified for which no funding is determined to be probable, the City will reassess the land use element of this Plan to ensure that it is coordinated with and consistent with this element, and in particular with the six-year finance plan. A review for coordination and consistency between this Element and the Land Use Element will be part of the City's annual budget review and Comprehensive Plan amendment processes.

PART 3

CAPITAL FACILITIES APPENDICES

Additions to the Capital Facilities Appendices are shown in underline, and deletions are shown in ~~strikethrough.~~ In order to provide context for the changes, all text in the appendices is included.

The table on page 15, and Appendix C and D are entirely new. With these exceptions, text with no underline or strikethrough has not been changed.

INSERT AFTER P. 13

APPENDIX A:
Inventory of Fire, Police and School Facilities, ~~and~~ Supplemental Capacity Information, and Future Facility Needs

The following sections contain the inventory, planning goals and future needs for Fire, Police and Schools. Information for Water, Drainage and Wastewater, Seattle City Light and Solid Waste is included in the Utilities Element Appendix. The following matrix summarizes the information found in this Appendix, including a summary of the planning goals, existing facilities, and identified six and twenty year needs.

MATRIX OF FIRE, POLICE & SCHOOL FACILITIES (entire table is new)

Facility	Planning Goal	Existing Facilities	Six Year Needs	Anticipated Twenty Year Needs
Fire	Maintain a 5 minute or less response time for first response to fire emergencies	33 existing Fire Stations currently provide a citywide response time of 4.36 minutes (1994)	Current facilities are adequate. No six year facility needs.	New station in Northgate and possibly downtown.
Police	Patrol units allocated around-the-clock based on calls for service. Location and size of facilities not critical to service provision. Facilities planning is based on guidelines for public safety office space.	4 Precincts, 2 Mobile Mini-precincts, Mounted Patrol, Kennel, Harbor Unit	Replace West Precinct and 911 Center	Expand North and South Precincts
Schools	*Elementary School* - 380-535 students, 4 ac. site size *Middle School* - 600 - 800 students, 12 ac.site size *High School* - 1,000 - 1,600 students, 17 ac. site size	61 Elementary Schools, 10 Middle Schools, 10 High Schools, 13 Alternative Schools, Admin. Buildings, Memorial Stadium, Closed schools	Current Capital Improvement Plan will renovate, replace, and/or add to 20 schools and Memorial Stadium.	The District's Facility Master Plan calls for all schools built before 1973 to be modernized or replaced over the next 20 years.

SUBSTITUTE PAGE 15
(CHANGE TO ROW 2, COLUMN 5)

PART 4

UTILITIES ELEMENT AND APPENDICES

Additions to the Utilities Element and Appendices are shown in underline, and deletions are shown in ~~strikethrough.~~ In order to provide context for the changes, all text in the both the element and appendices is included. Text with no underline or strikethrough has not been changed.

INSERT AFTER P.38

UTILITIES APPENDICES

Table of Contents

SUBSTITUTE PAGES 45-53

UTILITIES APPENDICES~~X~~

APPENDIX A:
Inventory of City Utilities, Capacity Information and Future Facility Needs

Seattle City Light

Seattle City Light (SCL) is the City-owned electric utility serving approximately 131 square miles, including all of Seattle and some portions of King County north and south of the City limits.

Inventory:
SCL generates 70% of the energy that it sells to retail customers from its own facilities. The largest facilities are the Skagit Project (which includes three dams on the Skagit River~~), Newhalem Dam on Newhalem Creek in the northwest part of the state,~~ and Boundary Dam on the Pend Oreille River in northeast Washington. The Cedar Falls Dam on the Cedar River is a smaller generating facility. City Light also holds an 8% interest in the Centralia coal-fired generating plant in southwest Washington. In addition to these power sources, SCL purchases power from the Bonneville Power Administration (BPA) and holds firm power purchase contracts with a number of other suppliers in the Pacific Northwest.

SCL owns and maintains approximately 649 miles of transmission lines which carry power from the Skagit and Cedar Falls generating facilities to 14 principal substations. Power is distributed from these principal substations via high voltage feeder lines to numerous smaller distribution substations and pole transformers which reduce voltage to required levels for customers. SCL owns and maintains 2,750 circuit-miles of distribution lines within Seattle that deliver power from the 14 principal substations to 265,732 customers. A capacity addition is in progress at City Light's Canal substation. (See Utilities Figures A-1 and A-2).

Existing Capacity
SCL's current generation capability (owned and contracted) is adequate to serve existing customers. Because of the nature of City Light's hydro system, the utility is not presently constrained by its ability to meet peak loads (typically referred to as capacity), but rather by its ability to carry load over the 15 heavy load hours during the winter (7 a.m. to 10 p.m.) Even though there is sufficient generation capability to serve the peak load, the utility sometimes purchases energy on the spot market to meet its heavy load hour requirements.

The capability of SCL's transmission and distribution system to serve the demands of its customers is quantified by the capacity of the distribution substations. Currently two substations, North and Viewland, have peak winter demands over 100 percent capacity. A capacity addition is in progress at the Canal substation which will permit excess load to be transferred from the North and Viewland substations.

Anticipated Future Facilities:
SCL currently uses 100 percent of its firm (or guaranteed) owned and contracted generation capability to meet its own load, with Bonneville Power Administration (BPA) making up the balance. Under its current contract with BPA, which extends until 2001, Seattle is obligated to cover its own load growth or to offer resources to BPA to cover it.

For the transmission and distribution components of SCL's system, projected growth will be accommodated by planned transmission and distribution capacity additions. The addition of a transformer at the Bothell Substation in Snohomish County will serve the principal substations from the Snohomish County line to the Lake Washington Ship Canal. Within the Comprehensive Plan's 20-year timeframe a new principal substation will be necessary downtown, with an underground transmission line connection to the South substation. Capacity would also be expanded at the North and Creston substations (Figure 7-5).

Seattle Water Department

The Seattle Water Department (SWD) serves retail customers of Seattle and portions of King County. In addition, SWD sells wholesale water to more than two dozen suburban water districts, municipalities, and nonprofit water associations ("purveyors") which serve retail water customers in most of the urban areas in north, east, and south King County, and a small part of southwest Snohomish county. (See Utilities Figures ~~A-3 and A-4~~). The City Water Department operates under an Operator's Certificate granted by the State Department of Health.

Inventory:
SWD supplies drinking water from three water supply sources--the Cedar River Watershed, the South Fork of the Tolt River Watershed, and the Highline Well Field. The Cedar River and South Fork of the Tolt River Watersheds are in the Cascade Mountains, while the Highline Well Field is located north of Seattle-Tacoma International Airport. Transmission pipelines carry the water to various reservoirs, standpipes, and tanks for further distribution. (See Utilities Figure A-4)

Existing Capacity:
The SWD service area extends beyond the City's boundaries, making it impossible to allocate capacity figures to the supply sources and transmission lines solely for in-city service. The snowpack level and temperature in the watershed areas are important natural factors that determine when and how much runoff will fill the reservoirs. Affecting SWD's water supply is the environmental impact of the dams on the stream flows. Business, environmental, agricultural, recreational, tribal, and fisheries groups all have interests in the level of water in the streams. The City expects water supply to be adequate for the next six years.

Distribution and storage facilities that serve Seattle residents are located within and beyond the city limits. These facilities have adequate capacity to serve the city; however, some areas have substandard mains or experience low water pressure.

Low pressure areas include Scenic Heights (Charlestown Standpipe), Maple Leaf (Maple Leaf Tank), Phinney Ridge (Woodland Park Standpipe), and Queen Anne Hill (Queen Anne Standpipe). These areas are all located near or above the standpipe/tank overflow elevation and, therefore, receive water at below the design standard of 30 pounds per square inch (psi). New pump station construction for each of these areas is included in SWD's current six-year CIP.

Substandard mains in need of replacement have been identified and prioritized. The replacement schedule is included in the SWD six-year CIP. Potential substandard fire protection is a concern in various areas throughout the City, resulting from changes in standards. Deficiencies include aging pipes and inadequate pipe diameter. These improvements are also incorporated in the department's six-year CIP.

Anticipated Future Facilities:
By the year 2010 a new water supply source is likely to be needed. The City expects that population growth occurring outside the direct service area will be

the primary determinant for the addition of a new source. Within the city, most of the new households that will be added will be in multifamily units, which have a much lower per capita water demand than single family households.

The major impact of the growth envisioned by the Comprehensive Plan on the City's Water facilities will be in the distribution system. Rehabilitation and improvements to the existing distribution system may be needed to support growth over the twenty year life of the Plan. Improvements to increase volumes in distribution facilities in the Urban Centers over the next six years are included in the Department's current CIP.

Seattle Drainage and Wastewater Utility

Seattle's Drainage and Wastewater Utility (DWU) was created in 1987 as a division of the Seattle Engineering Department (SED), adding drainage responsibilities to the existing SED sewer utility. DWU is charged with managing drainage, surface runoff, and sewer systems to meet public safety, water quality, and resource protection goals. DWU's service area ~~includes~~ covers the City of Seattle. Additionally, DWU provides sewer service to ~~and~~ some areas north of the city limits.

Inventory:
Although a few small areas are still served by septic systems, almost all areas of the city are served by sanitary sewers. Three types of drainage and waste water systems are used in Seattle: combined sanitary/storm water sewer, partially separated sanitary/storm water sewer, and separate sanitary and storm water sewer systems. The DWU system collects residential, commercial, and industrial waste water and delivers it to interceptor lines operated by the regional sewage treatment agency. The sewage is then treated at the West Point Sewage Treatment Plant ~~three major sewage treatment plants in the city~~ before being discharged into Puget Sound. Two other plants, Alki and Carkeek, are being converted to treat wet weather flows only. (See Utilities Figure A-5).

Existing Capacity:
City Drainage and Wastewater System:

The capacity of the wastewater system in some areas is limited when peak stormwater flows enter the combined systems. During or following intense or prolonged periods of rainfall some of the systems cannot accommodate the combined runoff and sanitary sewage flows, resulting in combined sewer overflows (CSOs) being discharged into area waters. CSOs occur in both the regional and the City systems. Seattle's CSO Control Plan, adopted in 1988, addresses specific storage and separation projects to control CSOs and describes costs and schedules in a twenty-year timeframe. DWU has already completed improvements to 69 of the 83 CSO locations and by the year 2000, Seattle will have reduced CSO volumes by at least 79 percent. Funding for these improvements is included in the Department's six-year CIP.

Regional Wastewater Treatment System:
The West Point Treatment Plant is presently under expansion and conversion from a primary to a secondary treatment operation. Planned capacity is for the secondary treatment of 133 million gallons per day (MGD), monthly average flow. It is designed to handle a peak flow capacity of 440 MGD, with 300 MGD receiving secondary treatment and the remainder primary treatment.

The West Point Treatment Plant is projected to serve 1.3 million people including residents of Seattle, King County north of Seattle, and South Snohomish County.

Anticipated Future Facilities:
City Facilities: Generally, the drainage and wastewater facilities in Seattle have been planned and sized to serve the maximum or build-out conditions under existing zoning and will be adequate to serve the level of increased growth proposed in the Plan. The capacity of the wastewater system is limited only in specific areas of the city, where there have been historic hydraulic and system backup problems. These problems are being addressed by DWU programs in the Department's CIP.

Regional Facilities: Seattle's share of the increased wastewater flows would produce approximately an 8% increase in base flows over the current projected

level. The estimated base flow for the Comprehensive Plan is limited to the service basins within the City of Seattle and to the 2010 planning horizon. The regional system design, however, requires consideration of all service basins which contribute to the base flows treated at any one plant and also consideration of residential, commercial, and industrial growth for a much longer planning horizon. Thus, given the Plan's goals, a longer planning horizon and growth in all basins contributing to the treatment plants serving Seattle, it is likely that the West Point Treatment plant will need to be enlarged earlier than originally expected and that construction of key conveyance facilities will be accelerated.

Seattle Solid Waste Utility

The Solid Waste Utility (SWU) was created in 1961 as a division of the Seattle Engineering Department (SED). SWU contracts with private firms for the collection of residential garbage, recyclables, and yard waste within the city. Collection of commercial solid waste is handled by private carriers and facilities; however, SWU provides for disposal of all garbage generated in the city.

Inventory:
The solid waste transfer system consists of four transfer stations. The two City-owned transfer stations receive residential solid waste, while the two privately-owned transfer stations receive both in-city commercial solid waste and solid waste from outside Seattle. Garbage is compacted into containers which are trucked to the Argo Intermodal Facility; from there, the containers are loaded onto trains for long-haul transport to a ~~the~~ landfill owned and operated by Oregon Waste Systems in Gilliam County, Oregon. Most rRecyclable materials are handled by two privately-owned facilities. Household hazardous wastes can be brought to one of two facilities operated by SWU. (See Utilities Figure A-6).

Existing Capacity:
Solid Waste Collection and Transfer Facility Capacity
The North and South Recycle and Disposal Stations have existing design capacities to handle 1,000 tons of garbage per day (or 365,000 tons per year). Approximately 267,500 tons of waste were disposed through the transfer stations in 1988. This decreased to 225,000 tons in 1990, largely as a result of increased recycling by City residents.

Commercial garbage generated in the City is delivered to the two private transfer stations. These two facilities handle garbage (as well as construction and demolition debris (CDL)) from both inside and outside Seattle. In 1988, these facilities handled approximately 198,200 tons of garbage from Seattle businesses, and another 80,000 of CDL from in-City construction activity. Despite substantial growth, commercial waste disposed in 1994 actually decreased from 1988 (196,000 tons), largely as a result of increased recycling in the commercial sector. CDL disposal has remained steady. The two private transfer facilities have the capability to handle 300,000-400,000 tons of waste per year including waste from Seattle' businesses. These facilities are located in South Seattle, near the City's So Recycling and Disposal Station.

Recycling Processing Facilities:

Two private "material recovery facilities" (MRFs) serve as the processing and transfer facilities for most of the recyclable materials collected from in-City residents and businesses. These facilities, Recycle Seattle and Recycle America, process and transfer a large proportion of the 300,000 tons of recyclable material that was collected through the City's solid waste system in

1994. Both of these facilities are located in South Seattle, near the City's South Recycling and Disposal Station.

Disposal Facilities
Waste is compacted at the transfer stations into containers that are trucked directly to the railhead for long-haul to the landfill in Oregon. Presently, approximately 60 containers per day (each holding 25-28 tons), five days a week, are trucked to the railhead. The train to the landfill operates 3 times per week, with about 100 containers per trip. Seattle and Washington Waste Systems (WWS) have a contract extending through March 31, 2028, and the terms of the contract are more than adequate to handle the additional waste volumes generated by projected growth.

Future Facilities:
The region's landfill capacity is large enough to last for at least the next 40-80 years. SWU and in-city private transfer facilities have the capacity to handle any amount of garbage that the planned population would generate. Although the overall amount of waste generated in the city will increase with projected residential and employment growth, the percentage of waste that will need to be hauled to Oregon is expected to decrease due to higher anticipated rates of recycling. Seattle has adopted goals to recycle 60 percent of its overall waste by 1998.

Residential waste is anticipated to comprise a decreasing share of the future combined waste stream. Commercial waste is projected to comprise a larger share of Seattle's waste stream in the future. Increased commercial sector waste disposal needs and an increased demand for recycling contractor services will be handled by private contractors and facilities. Representatives from both private transfer stations have indicated that the increased amount of waste can be handled within the existing facilities.

The two private materials processing facilities will handle a major share of the increase in volumes of recyclable material that will occur with projected growth. These businesses are dealing with services and markets at a regional level, so the specific impacts of increased Seattle tonnage are difficult to predict.

PART 5 (MSL 7/27/95)

TRANSPORTATION APPENDICES

In Transportation Appendix A, new text and two new Figures are being added as shown below; no text or Figures are being deleted.

In Transportation Appendix C, all the existing text of the Appendix is being deleted, and new text and two new Figures are being substituted as shown below.

In Transportation Appendix D, the existing text under the heading "Impacts on Adjacent Jurisdictions" is being deleted, and new text and one new Figure are being substituted as shown below.

SUBSTITUTE PAGES 57-71

TRANSPORTATION APPENDIX A:
Inventory of Existing Facilities and Services

[Add the following new text on page A30, at the end of the first paragraph of Appendix A (after ". . . and 7,029 non-arterial intersections.").]

Transportation Figure A-1a shows the locations of traffic and pedestrian crossing signals in Seattle. The "state signals" are managed by the Washington State Department of Transportation and are located mostly at freeway on- and off-ramps. Fire station signals and railroad crossing signals are not included. Transportation Figure A-1b shows the distribution of the more than 60,000 street lights along rights-of-way in, and along the borders of, Seattle. The numbers in the Figure indicate the number of city-operated street lights in each one-quarter-square-mile area.

TRANSPORTATION APPENDIX C:
Traffic Forecasts

[Delete all the existing text of Transportation Appendix C on page A47, and substitute the following new text.]

To analyze the traffic impacts of the Comprehensive Plan, the City modeled both the Plan itself and an Alternative Scenario. The Alternative Scenario assumes the same total growth in population and employment Citywide as in the Plan, but distributes that growth based on zoning capacity alone, without regard to Urban Center or Urban Village designations. In addition, the Alternative Scenario excludes policies included in the Plan that discourage use of single-occupant cars and encourage transit and non-motorized modes, which affect mode split assumptions.

Region-wide and city-limit traffic volume forecasts for the Comprehensive Plan and for the Alternative Scenario are as follows:[1]

Total vehicle-miles-of-travel (VMT) for the region (per day):		
1990 estimate		70 million
2010 forecasts:	Comprehensive Plan	93 million (+ 33%)
	Alternative Scenario	100 million (+ 43%)
Traffic volume at north city limit (vehicles per day):		
1990 estimate		327,000
2010 forecasts:	Comprehensive Plan	374,000 (+ 14%)
	Alternative Scenario	430,000 (+ 31%)
Traffic volume at south city limit (vehicles per day):		
1990 estimate		409,000
2010 forecasts:	Comprehensive Plan	476,000 (+ 16%)
	Alternative Scenario	564,000 (+ 38%)
Traffic volume at east city limit (SR 520 and I-90) (vehicles per day):		
1990 estimate		237,000
2010 forecasts:	Comprehensive Plan	271,000 (+ 14%)
	Alternative Scenario	290,000 (+ 22%)
Regional transit trips as a percent of total motorized trips:		
1990 estimate		3 percent
2010 forecasts:	Comprehensive Plan	6 percent
	Alternative Scenario	3 percent (no change)

[1] The 1990 estimates shown differ slightly from the 1990 estimates included in the Comprehensive Plan as adopted in 1994 because of updates to the transportation model, including a revised zone structure and revised employment estimates.

To analyze the transportation effects of the Comprehensive Plan goals and policies on the City's arterial streets in Urban Centers and in Urban Village areas, traffic conditions were analyzed for a system of 42 screenlines, shown in Transportation Figure A-12. These screenlines functionally cover the entire City, including Urban Centers and areas identified for future designation as Urban Villages. The Comprehensive Plan's level-of-service (LOS) system uses a similar screenline system, with 30 of the same screenlines. Twelve screenlines were added for this traffic forecast analysis to supplement the data in Urban Centers.

Traffic volumes were forecasted for arterial streets for the year 2010 under both the Comprehensive Plan and the Alternative Scenario. These forecasted volumes were summed for all arterials crossing a particular screenline, and this screenline volume was compared to the sum of the "planning capacities" for the arterials crossing the screenline, yielding a ratio of volume-to-capacity (v/c) for each direction of traffic for each screenline.

The screenline methodology was used both for the Comprehensive Plan's level-of-service system to judge the performance of the arterial system, and for the traffic forecast analysis described in this Appendix. This system was selected because it steps back from the micro-level focus of traditional intersection LOS analysis, and recognizes explicitly the broader geographic impacts of development and travel patterns. The system recognizes that no single intersection or arterial operates in isolation. Motorists have choices, and they select particular routes based on a wide variety of factors. If traffic congestion on one arterial increases, it may not make sense to expand the capacity of that arterial. The City, instead, may want to shift traffic to a nearby under-used arterial, or to expand capacity on a different nearby arterial, or to implement measures to reduce travel demand -- or a combination of these strategies. Accordingly, this analytic methodology focuses on a "traffic-shed," an area where arterials among which drivers logically can choose are organized for functional analysis.

Transportation Figure A-13 lists, for each screenline, the forecasted year 2010 v/c ratio with the Comprehensive Plan, and the forecasted year 2010 v/c ratio with the Alternative Scenario. (This Figure supplements the more limited information provided in Transportation Figure 3 in Section E. of the Comprehensive Plan Transportation Element.[2])

[2] As with the region-wide and city-limit traffic volume forecasts described earlier in this Appendix, the v/c ratios in Transportation Figure A-13 are based on the output of the City's transportation model. The traffic volume values produced from the model for this analysis differ slightly from values produced in preparing the Comprehensive Plan adopted in July 1994 because of updates to the model, including a revised zone structure and revised employment estimates.

As can be seen in Transportation Figure A-13, the forecasted screenline v/c ratios for the year 2010 under the Comprehensive Plan range from 0.23 to 1.13. For each screenline that serves as a level-of-service (LOS) screenline, the forecasted year 2010 v/c ratio is below the LOS standard established for that screenline. For all screenlines, the forecasted year 2010 v/c ratio under the Alternative Scenario is higher than the corresponding v/c ratio under the Comprehensive Plan. For some screenlines, the year 2010 v/c ratio values under the Alternative Scenario exceed the established LOS standards.

By analyzing the forecasted year 2010 v/c ratios under the Comprehensive Plan at screenlines in or near Urban Centers, one can evaluate the effects of the Comprehensive Plan goals and policies on the transportation systems in the Urban Centers. Each of the five Urban Centers is addressed below.

Downtown: Screenlines 10.11, 12.12, A1, A2, and A3 pass through or along the edge of the Downtown Urban Center, some encompassing north-south avenues, and some encompassing east-west streets. For all five of these screenlines, the year 2010 v/c ratios under the Comprehensive Plan are below 1.0. This means that for screenlines 10.11 and 12.12, the year 2010 v/c ratios are also below the established LOS standards of 1.0 for screenline 10.11 and 1.2 for screenline 12.12.

Seattle Center: For the Seattle Center Urban Center, screenline A4 is an east-west screenline while screenline A5 is drawn north-south through the Urban Center. For both of these screenlines, the year 2010 v/c ratios under the Comprehensive Plan are well below 1.0.

First Hill/Capitol Hill: Screenlines A6, A7, and A8 are drawn through the First Hill/ Capitol Hill Urban Center. Screenline 12.12, on the east edge of the Downtown Urban Center, is on the west edge of the First Hill/Capitol Hill Urban Center. For all four of these screenlines, the year 2010 v/c ratios under the Comprehensive Plan are well below 1.0.

University District: For the University District Urban Center, screenlines 5.16 and 13.13 cover the south and west boundaries of the Urban Center, while screenline A9 passes east-west through the Center and screenline A10 is drawn north-south through the Center. The year 2010 v/c ratios under the comprehensive Plan for all four of these screenlines are below 1.0. The forecasted year 2010 v/c ratios for screenline 5.16 are nearly 1.0, compared to the LOS standard of 1.2. These high v/c ratios reflect traffic congestion around the University District, much of which is due to through traffic.

Northgate: For the Northgate Urban Center, screenline A11 is drawn east-west through the Center, while screenline A12 passes north-south through the Center. The year 2010 v/c ratios for both of these screenlines are well below 1.0.

The Comprehensive Plan includes policies to improve transit service and related transit capital facilities, as well as to improve non-motorized transportation facilities, to afford ways for people to avoid the traffic congestion inherent in dense Urban Centers and Urban Village areas. In this way, people may avoid the congestion reflected in higher v/c ratios across some screenlines.

As this analysis of transportation impacts demonstrates, the forecasted year 2010 screenline volume-to-capacity ratios under the Comprehensive Plan do not exceed the established LOS standards for any screenlines. For the additional screenlines created for this traffic forecast analysis, the forecasted year 2010 v/c ratios are similarly within acceptable ranges. As provided in Comprehensive Plan Policy T23, when the calculated v/c ratio for a screenline approaches the LOS standard for that screenline, the City will pursue strategies to reduce vehicular travel demand across the screenline and/or increase the operating capacity across the screenline. Based on the analysis of screenlines described here, there are currently no additional capacity or facility needs necessitated by the Plan.

TRANSPORTATION APPENDIX D:
Intergovernmental Coordination Efforts

[Delete the existing paragraph on page A49 under the heading, "Impacts on Adjacent Jurisdictions," and substitute the following new text.]

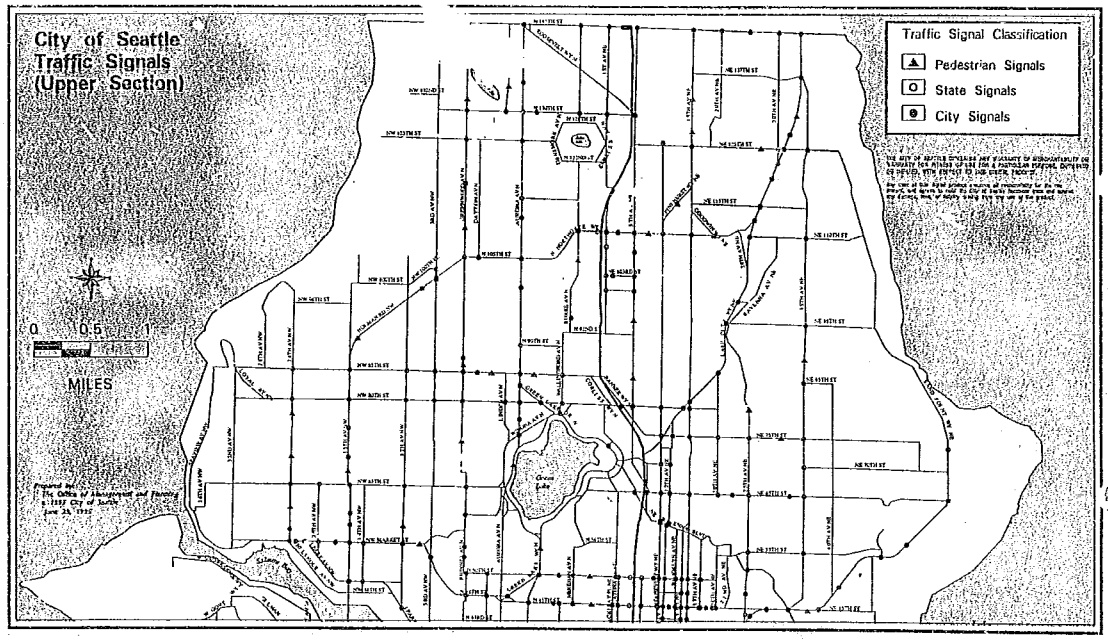
Impacts on Adjacent Jurisdictions

Four jurisdictions are adjacent to the City of Seattle: the City of Shoreline, King County, and the City of Lake Forest Park along Seattle's north boundary, and the City of Tukwila and King County along Seattle's south boundary. In consultation with adjacent jurisdictions, several major arterials that lie within these jurisdictions near the Seattle border were selected for analysis. For each arterial, the existing p.m. peak hour traffic volume and forecasted year 2010 traffic volume were compared to the "planning capacity" of the arterial, yielding a volume-to-capacity (v/c) ratio. The results of this analysis are shown in Transportation Figure A-14.

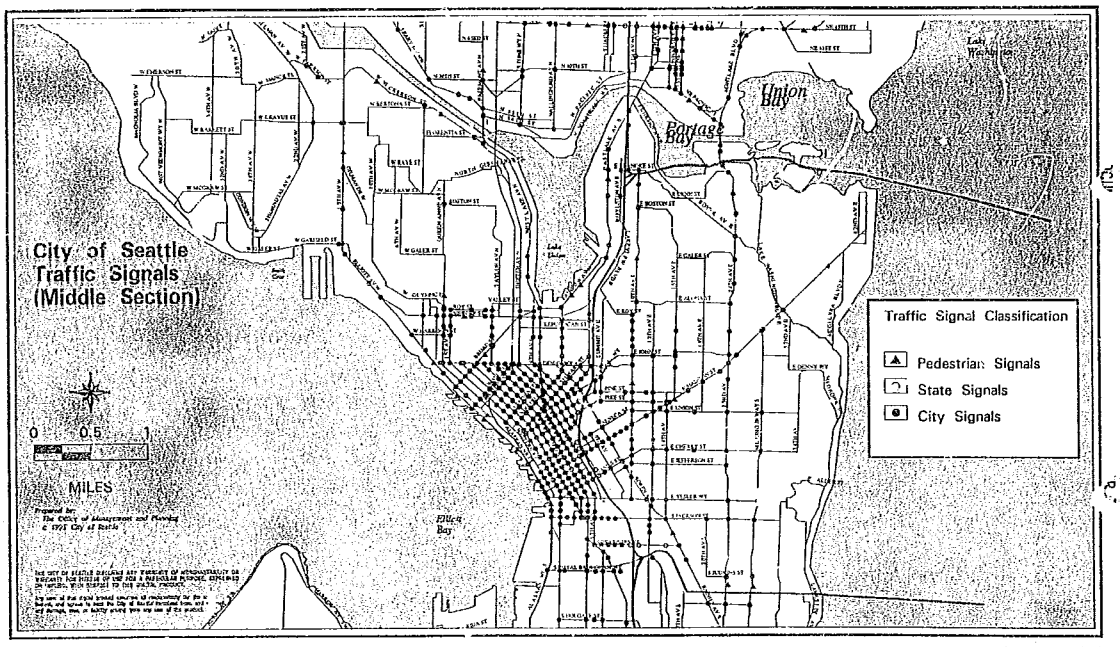
For all but one of the arterials shown in Transportation Figure A-14, the p.m. peak hour v/c ratio is below 1.0, indicating that there is remaining traffic capacity currently and forecasted for the future. The exception is Bothell Way N.E. just north of N.E. 145th Street, where the existing v/c is estimated to be 1.03, and the forecasted year 2010 v/c is estimated to be 1.10.

These traffic volume and v/c figures reflect not only growth under Seattle's Comprehensive Plan, but also growth in the adjacent jurisdictions and throughout the central Puget Sound region. Much of the traffic on these arterials is through traffic, with neither an origin nor a destination near the arterial.

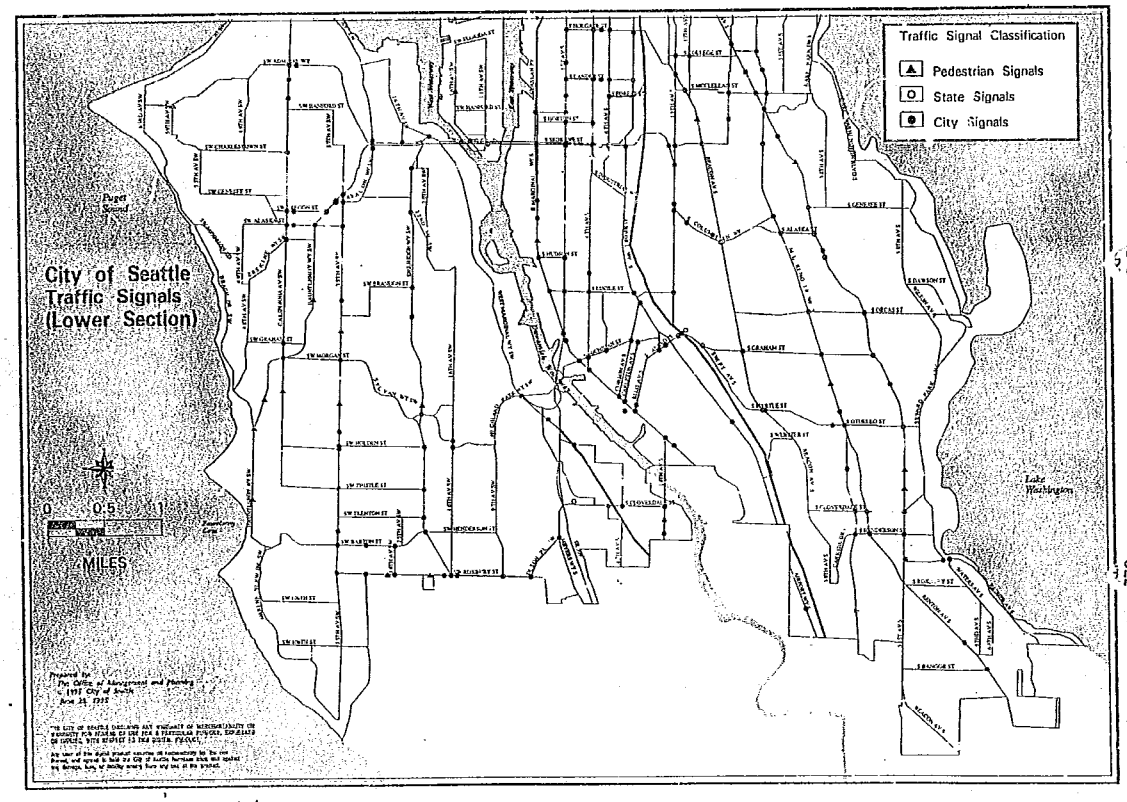
In addition to the City of Seattle's analysis of transportation impacts on adjacent jurisdictions, as described in this section, Seattle continues to work with the adjacent jurisdictions to coordinate traffic operations and to minimize cross-boundary impacts.



Transportation Figure A-1a
Traffic Signals (North Seattle)



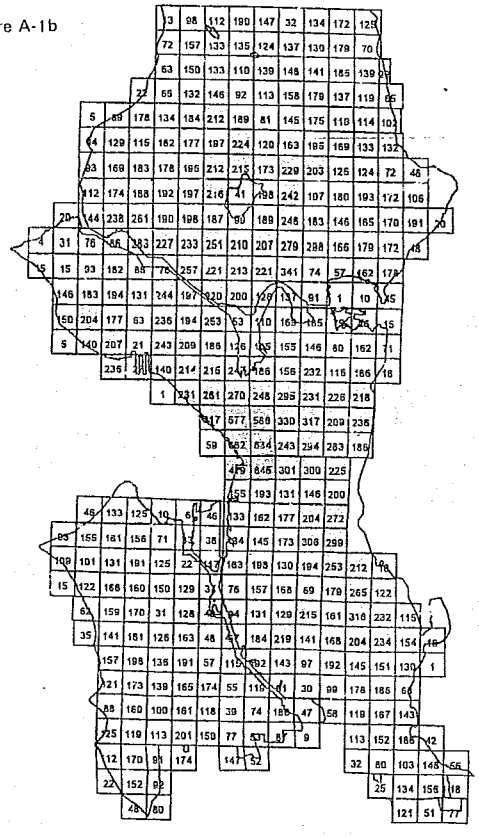
Transportation Figure A-1a
Traffic Signals (Central Seattle)



Transportation Figure A-1a
Traffic Signals (South Seattle)

Transportation Figure A-1b

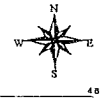
Street Lights



Street Lights by Quarter Section
- 1 - 200
- 201 - 430
- 431 - 845

Source: Seattle City Light

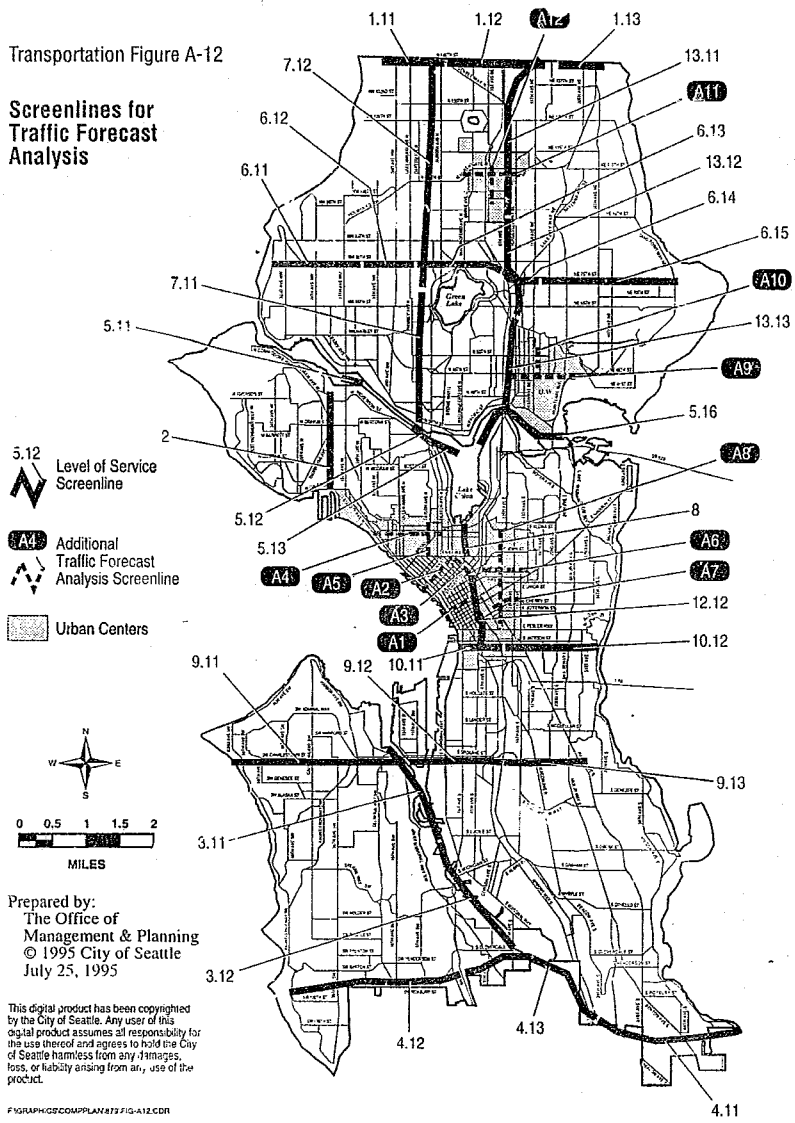
Prepared by:
The Office of Management and Planning
1995 City of Seattle



2.3 0 2.3 4.6 Miles

Transportation Figure A-12

Screenlines for Traffic Forecast Analysis



Prepared by:
The Office of
Management & Planning
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July 25, 1995

FYGRAPH/GIS/COMPPLAN/873/FIG-A12.CDR

Transportation Figure A-13
SCREENLINE VOLUME-TO-CAPACITY RATIOS

Level-of-Service Screenline No.	Screenline Location	Segment	LOS Standard	Direction	2010 V/C Ratios	
					Comp Plan	Alternative
1.11	North City Limit	3rd Ave NW to Aurora Av N	1.20	NB	1.05	1.29
				SB	0.57	0.70
1.12	North City Limit	Meridian Av N to 15th Av NE	1.20	NB	0.86	1.12
				SB	0.36	0.41
1.13	North City Limit	30th Av NE to Lake City Wy NE	1.20	NB	1.02	1.20
				SB	0.66	0.72
2	Magnolia		1.00	EB	0.52	0.58
				WB	0.66	0.74
3.11	Duwamish River	West Seattle Fwy and Spokane St	1.20	EB	0.50	0.59
				WB	0.91	1.09
3.12	Duwamish Riv	1st Ave S and 16th Ave S	1.20	NB	0.55	0.66
				SB	0.86	1.05
4.11	South City Lin	ML King Jr Wy to Rainier Av S	1.00	NB	0.33	0.39
				SB	0.49	0.77
4.12	South City Limit	Marine Dr SW to Meyers Wy S	1.00	NB	0.28	0.33
				SB	0.42	0.52
4.13	South City Limit	SR 99 to Airport Wy S	1.00	NB	0.24	0.31
				SB	0.54	0.78
5.11	Ship Canal	Ballard Bridge	1.20	NB	1.13	1.33
				SB	0.72	0.81
5.12	Ship Canal	Fremont Bridge	1.20	NB	1.00	1.28
				SB	0.75	0.99
5.13	Ship Canal	Aurora Av N	1.20	NB	0.95	1.18
				SB	0.67	0.80
5.16	Ship Canal	University and Montlake Bridges	1.20	NB	0.98	1.19
				SB	0.96	1.13
6.11	South of NW 80th St	Seaview Av NW to 15th Av NW	1.00	NB	0.47	0.54
				SB	0.32	0.37
6.12	South of N(W) 80th St	8th Av NW to Greenwood Av N	1.00	NB	0.47	0.65
				SB	0.27	0.37
6.13	South of N(E) 80th St	Linden Av N to 1st Av NE	1.00	NB	0.65	0.78
				SB	0.48	0.55
6.14	South of NE 80th St	5th Av NE to 15th Av NE	1.00	NB	0.81	0.99
				SB	0.36	0.41
6.15	South of NE 80th St	20th Av NE to Sand Point Wy NE	1.00	NB	0.43	0.57
				SB	0.28	0.35
7.11	West of Aurora Ave	Fremont Pl N to N 65th St	1.00	EB	0.48	0.49
				WB	0.62	0.70
7.12	West of Aurora Ave	N 80th St to N 145th St	1.00	EB	0.40	0.46
				WB	0.57	0.64
8	South of Lake Union		1.20	EB	0.86	0.92
				WB	0.94	1.01
9.11	South of Spokane St	Beach Dr SW to W Marginal Wy SW	1.00	NB	0.48	0.52
				SB	0.69	0.81
9.12	South of Spokane St	E Marginal Wy S to Airport Wy S	1.00	NB	0.44	0.53
				SB	0.58	0.76
9.13	South of Spokane St	15th Av S to Rainier Av S	1.00	NB	0.44	0.57
				SB	0.79	1.02
10.11	South of S Jackson St	Alaskan Wy S to 4th Av S	1.00	NB	0.68	0.78
				SB	0.66	0.80
10.12	South of S Jackson St	12th Av S to Lakeside Av S	1.00	NB	0.39	0.50
				SB	0.71	0.93
12.12	East of CBD		1.20	EB	0.59	0.67
				WB	0.55	0.58
13.11	East of I-5	NE Northgate Wy to NE 145th St	1.00	EB	0.74	0.83
				WB	0.61	0.70
13.12	East of I-5	NE 65th St to NE 80th St	1.00	EB	0.46	0.55
				WB	0.49	0.58
13.13	East of I-5	NE Pacific St to NE Ravenna Blvd	1.00	EB	0.59	0.69
				WB	0.76	0.88

Transportation Figure A-13 (con't)
SCREENLINE VOLUME-TO-CAPACITY RATIOS

Traffic Forecast Analysis Screenline No.	Screenline Location	Segment	Direction	2010 V/C Ratios	
				Comp Plan	Alternative
A1	North of Seneca St	1st Av to 6th Av	NB	0.82	0.92
			SB	0.93	1.12
A2	North of Blanchard	Elliott Av to Westlake Av	NB	0.39	0.46
			SB	0.40	0.53
A3	East of 9th Av	Lenora St to Pike St	EB	0.40	0.53
			WB	0.23	0.29
A4	South of Mercer St	Elliott Av W to Aurora Av N	NB	0.71	0.82
			SB	0.63	0.75
A5	East of 5th Av N	Denny Wy to Valley St	EB	0.35	0.40
			WB	0.44	0.51
A6	North of Pine St	Melrose Av to 15th Av	NB	0.56	0.64
			SB	0.48	0.59
A7	North of Jam[illegible] St-E Cherry St	Boren Av to 14th Av	NB	0.64	0.73
			SB	0.79	1.00
A8	W[illegible] Broadway	Yesler Wy to E Roy St	EB	0.63	0.75
			WB	0.56	0.59
A9	S[illegible]th of NE 45th St	7th Av NE to Montlake Blvd NE	NB	0.78	0.93
			SB	0.55	0.64
A10	East of 15th Ave NE	NE 45th St to NE 52nd St	EB	0.66	0.79
			WB	0.83	0.98
A11	South of Northgate Way-N 110th St	N Northgate Wy to Roosevelt Wy NE	NB	0.51	0.73
			SB	0.47	0.49
A12	East of 1st Av NE	NE 100th St to NE Northgate Wy	EB	0.69	0.86
			WB	0.44	0.50

Transportation Figure A-14. Adjacent Jurisdiction Major Arterials: PM Peak Hour Capacities, Volumes and v/c Ratios

A. Major arterials just north of Seattle / King County-Shoreline-Lake Forest Park Border (145th St)

Arterial	Existing - PM Peak Hour						Comprehensive Plan - PM Peak Hour					
	Outbound			Inbound			Outbound			Inbound		
	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio
Greenwood Ave N	760	430	0.57	760	340	0.45	760	700	0.92	760	620	0.82
Westminster Way N	2600	1710	0.66	2600	930	0.36	2600	2030	0.78	2600	1000	0.38
Aurora Ave N	3060	1720	0.56	3060	910	0.30	3060	1860	0.61	3060	1000	0.33
Meridian Ave N	1030	820	0.80	1030	380	0.37	2160	930	0.43	2160	310	0.14
5th Ave NE	760	580	0.76	760	300	0.39	2160	660	0.31	2160	150	0.07
15th Ave NE	2160	1520	0.70	2160	500	0.23	2160	1830	0.85	2160	670	0.31
25th Ave NE	740	420	0.57	740	200	0.27	740	490	0.66	740	190	0.26
Bothell Way NE	2450	2520	1.03	2450	1650	0.67	2450	2690	1.10	2450	1910	0.78

A. Major arterials just south of Seattle / King County Border

Arterial	Existing - PM Peak Hour						Comprehensive Plan - PM Peak Hour					
	Outbound			Inbound			Outbound			Inbound		
	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio
SW 106th St	1030	330	0.32	1030	550	0.53	1030	340	0.33	1030	530	0.51
26th Ave SW	760	580	0.76	760	380	0.50	760	630	0.83	760	400	0.53
17th Ave SW	1930	110	0.06	1930	110	0.06	1930	270	0.14	1930	190	0.10
16th Ave SW	2160	410	0.19	2160	270	0.13	2160	460	0.21	2160	390	0.18
4th Ave SW	760	590	0.78	760	410	0.54	760	650	0.86	760	480	0.63
Myers Way S	1320	280	0.21	1320	90	0.07	1320	630	0.48	1320	120	0.09
8th Ave S	760	280	0.37	760	120	0.16	760	350	0.46	760	100	0.13
Military Rd S	2600	440	0.17	2600	350	0.13	1930	480	0.25	1930	250	0.13
14th Ave S	2600	1050	0.40	2600	540	0.21	2600	1250	0.48	2600	390	0.15
Beacon Ave S	760	140	0.18	760	40	0.05	760	160	0.21	760	50	0.07
Renton Ave S	1930	500	0.26	1930	210	0.11	1930	530	0.27	1930	230	0.12
Cornell Ave S	760	20	0.03	760	20	0.03	760	20	0.03	760	20	0.03
Rainier Ave S	2160	1120	0.52	2160	560	0.26	2160	1300	0.60	2160	680	0.31

C. Major arterials just south of Seattle/Tukwila Border

Arterial	Existing - PM Peak Hour						Comprehensive Plan - PM Peak Hour					
	Outbound			Inbound			Outbound			Inbound		
	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio	Capacity	Volume	v/c Ratio
E Marginal Way S	1800	670	0.37	1800	740	0.41	1800	740	0.41	1800	640	0.36
Airport Way S	2200	1250	0.57	2200	690	0.31	2200	1520	0.69	2200	400	0.18
M L King Jr Way S	2700	1200	0.44	2700	1100	0.41	2700	1610	0.60	2700	1150	0.43
51st Ave S	1980	250	0.13	1980	320	0.16	1980	280	0.14	1980	320	0.16

Notes:

1. Outbound and inbound directions relative to Seattle.
2. Capacities for King County, Shoreline and Lake Forest Park are from King County traffic model, Forecast Years 1993 (Existing) and 2012 (Comp Plan).
3. Capacities for Tukwila are from Seattle traffic model - Forecast Years 1990 (Existing) and 2010 (Comp Plan).
4. All volumes are from Seattle traffic model - Forecast Years 1990 (Existing) and 2010 (Comp Plan).
5. v/c ratio = volume divided by capacity.
6. 5th Ave NE location north of I5 on-ramp.
7. Volumes rounded to nearest ten.

Sources: Seattle OMP, King County Transportation Planning Section

TIME AND DATE STAMP

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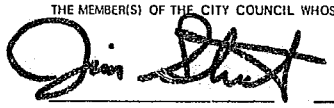

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PRESIDENT'S SIGNATURE

C.S. 20.28

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STATE OF WASHINGTON - KING COUNTY

58713
City of Seattle,City Clerk

—ss.

No. ORDINANCE IN

Affidavit of Publication

City of Seattle
ORDINANCE 117735

AN ORDINANCE amending the City of Seattle Comprehensive Plan.

WHEREAS on April 4, 1995, the Central Puget Sound Growth Management Hearings Board, in Case Number 94-3-0016, directed the City of Seattle to perform additional work related to the Comprehensive Plan by September 1, 1995, and

WHEREAS the City has completed the additional work and the City Council has decided that the Comprehensive Plan should be amended to reflect the results of that work, NOW, THEREFORE

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. The City of Seattle Comprehensive Plan is hereby amended as shown in Attachment 1 to this ordinance.

Section 2. This ordinance shall take effect and be in force thirty (30) days from and after its approval by the Mayor, but if not approved and returned by the Mayor within ten (10) days after presentation, it shall take effect as provided by Municipal Code Section 1.04.020.

Passed by the City Council the 31st day of July, 1995, and signed by me in open session in authentication of its passage this 31st day of July, 1995.

JIM STREET,
President of the City Council.
Approved by me this 3rd day of August, 1995.
NORMAN B. LICE,
Mayor.
Filed by me this 3rd day of August, 1995.
(Seal) JUDITH E. PIPPIN,
City Clerk.
Publication ordered by JUDITH PIPPIN, City Clerk.
Date of official publication in Daily Journal of Commerce, Seattle, August 7, 1995.
8/7(58713)

ındersigned, on oath states that he is an
tative of The Daily Journal of Commerce, a
ıich newspaper is a legal newspaper of general
now and has been for more than six months
ublication hereinafter referred to, published in
: continuously as a daily newspaper in Seattle,
ngton, and it is now and during all of said time
office maintained at the aforesaid place of
ıewspaper. The Daily Journal of Commerce
of June, 1941, approved as a legal newspaper
rt of King County.

: exact form annexed, was published in regular
Journal of Commerce, which was regularly
ıscribers during the below stated period. The

735

The amount of the fee charged for the foregoing publication is the sum of $, which amount has been paid in full.

Subscribed and sworn to before me on 08/07/95

Notary Public for the State of Washington, residing in Seattle

Affidavit of Publication

STATE OF WASHINGTON - KING COUNTY

58713
City of Seattle,City Clerk —ss.

No. ORDINANCE IN

AND DOOR REPAIR
AT SEVEN BRANCH LIBRARIES

DATE OF BID OPENING:
August 17, 1995

PROJECT DESCRIPTION:
Exterior Painting
and Exterior Door Repairs

The Seattle Public Library Board
receive sealed bids from qualified cons
contractors ONLY until 10:00 A. M., J
gust 17, 1995, in the Level A Conferer
Room at the Downtown Library located
tween Madison and Spring Streets a
Fourth and Fifth Avenues at 1000 Fou
Avenue, Seattle, Washington 98104. Bi
hand-delivered will be logged in starting
9:30 A. M., August 17, 1995. Bids hai
delivered before 9:30 A. M. shall be to t
Capital Projects Office at the Downto
Library. BIDS RECEIVED AFTER 10:
A. M. WILL NOT BE ACCEPTED.

The Seattle Public Library is an Equ
Opportunity Employer. Bids will be r
jected as unresponsive if they do not com
ly with the Affirmative Action Bid Speci
cations (SMC 20.44) and the utilization
8% Women and 16% Minority Certifi
Business as defined in the bid specific
tions.

No bid will be considered unless accon
panied by a certified or bank cashier
check, or by a bid bond from a stat
licensed surety company in an amount n
less than five percent (5%) of the Base Bi
made payable to the SEATTLE PUBLI
LIBRARY BOARD, Seattle, Washington.

A maximum of two sets of plans may b
obtained at the CAPITAL PROJECTS OI
FICE by each contractor upon deposit of
check made payable to the SEATTLE PUB
LIC LIBRARY for the amount of $50.0
each plan. Bid documents will be availabl
on Monday, August 7, 1995, at the Capita
Projects office of the Seattle Public Li
brary, 1000 Fourth Avenue, Seattle, Wash
ington 98104.

Affidavit of Publication

The undersigned, on oath states that he is an authorized representative of The Daily Journal of Commerce, a daily newspaper, which newspaper is a legal newspaper of general circulation and it is now and has been for more than six months prior to the date of publication hereinafter referred to, published in the English language continuously as a daily newspaper in Seattle, King County, Washington, and it is now and during all of said time was printed in an office maintained at the aforesaid place of publication of this newspaper. The Daily Journal of Commerce was on the 12th day of June, 1941, approved as a legal newspaper by the Superior Court of King County.

The notice in the exact form annexed, was published in regular issues of The Daily Journal of Commerce, which was regularly distributed to its subscribers during the below stated period. The annexed notice, a

CT:ORD 117735

was published on

08/07/95

The amount of the fee charged for the foregoing publication is the sum of $, which amount has been paid in full.

Subscribed and sworn to before me on

08/07/95

Notary Public for the State of Washington,
residing in Seattle

Affidavit of Publication

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