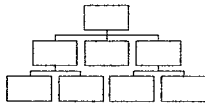


Appendices
June 15, 1994

CITY OF PORTLAND
SPAN OF CONTROL STUDY



Prepared for the City of Portland Audit Services Division by
Public Knowledge, Inc. and The Kemp Consulting Group

APPENDICES

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APPENDIX 1
Organization Charts

APPENDIX 1
ORGANIZATION CHARTS
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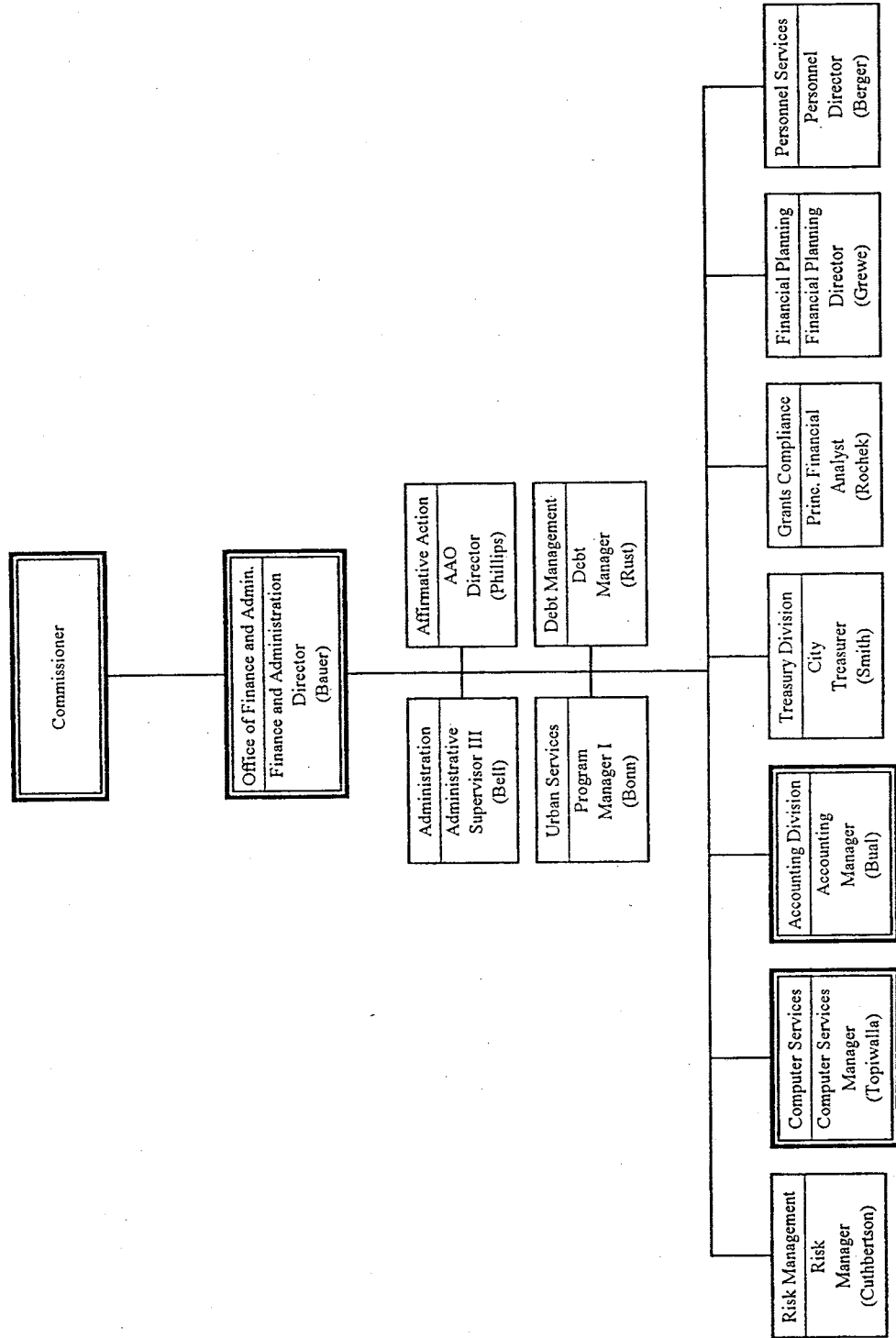
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ORGANIZATION CHARTS

**Office of Finance and Administration
Accounting Division**

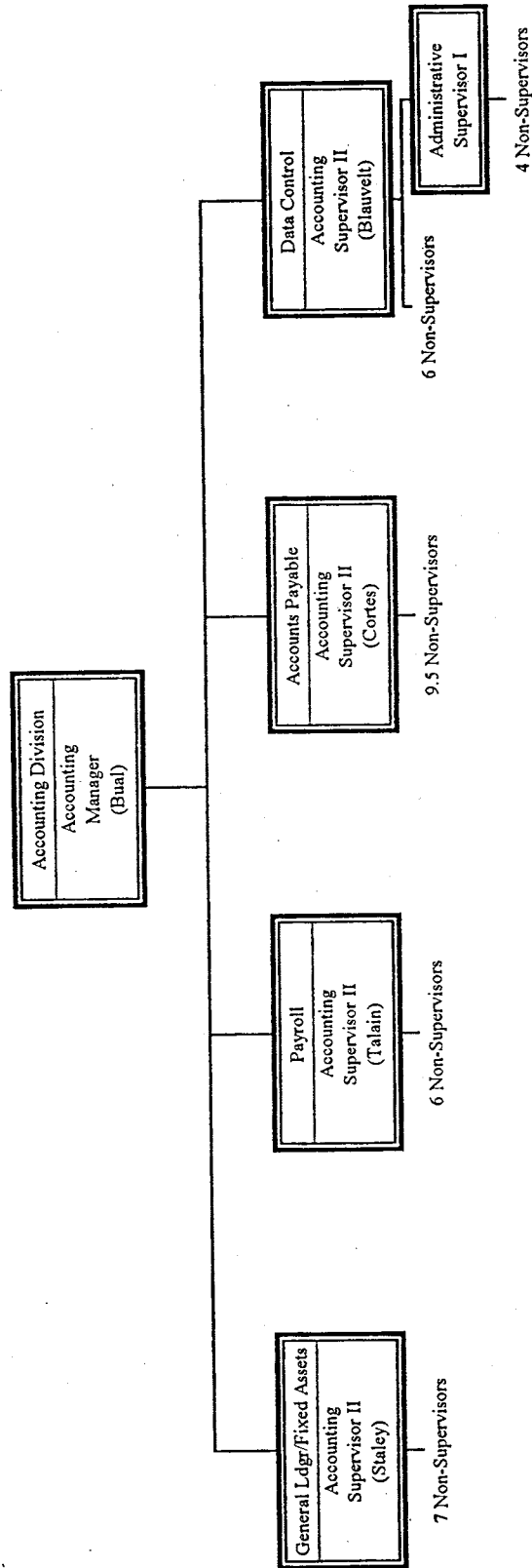
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Office of Finance and Administration

Organization Chart
Levels 1 - 3



CITY OF PORTLAND
Office of Finance and Administration
Accounting Division

Organization Chart
Levels 3 - 6

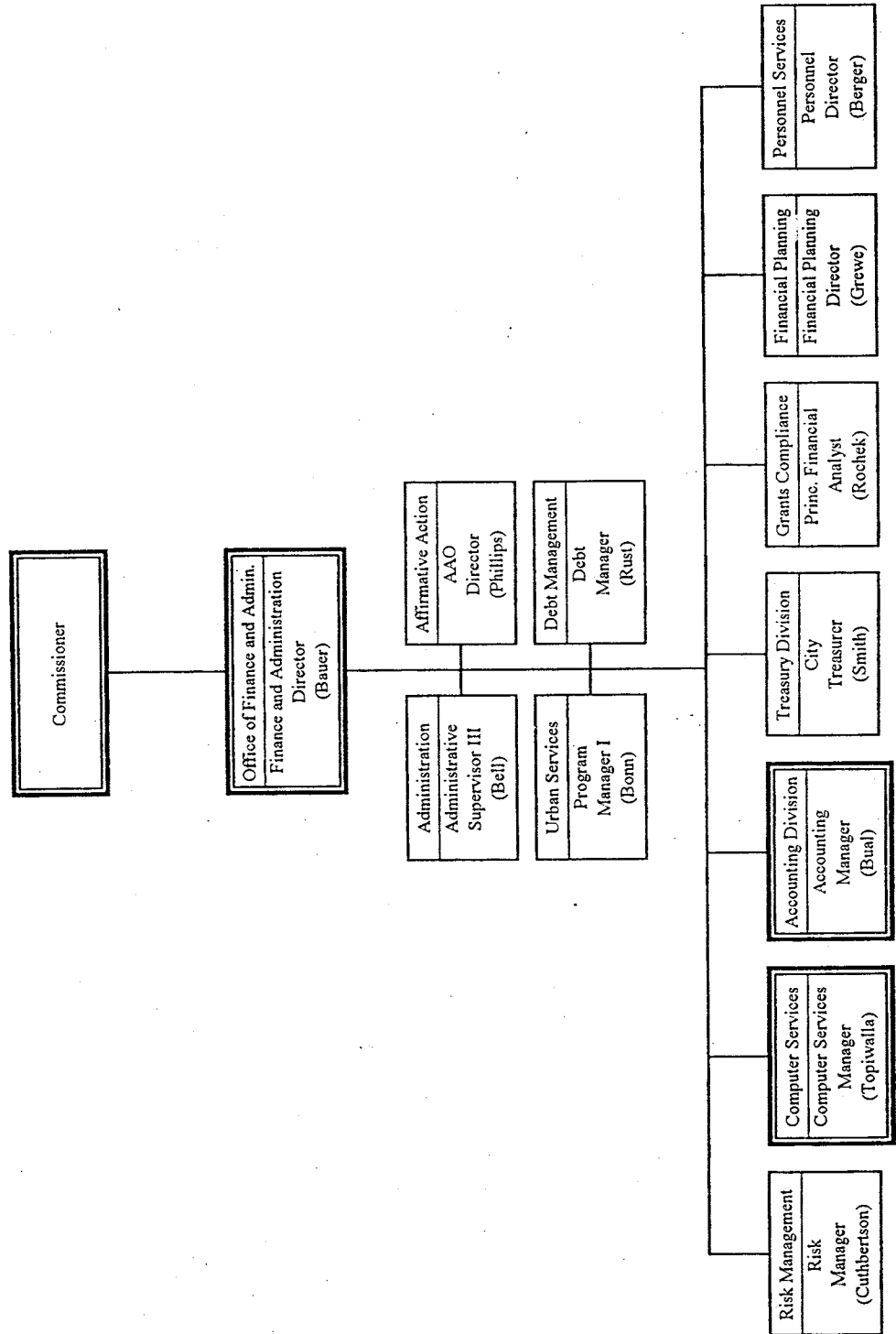


ORGANIZATION CHARTS

**Office of Finance and Administration
Computer Services Division**

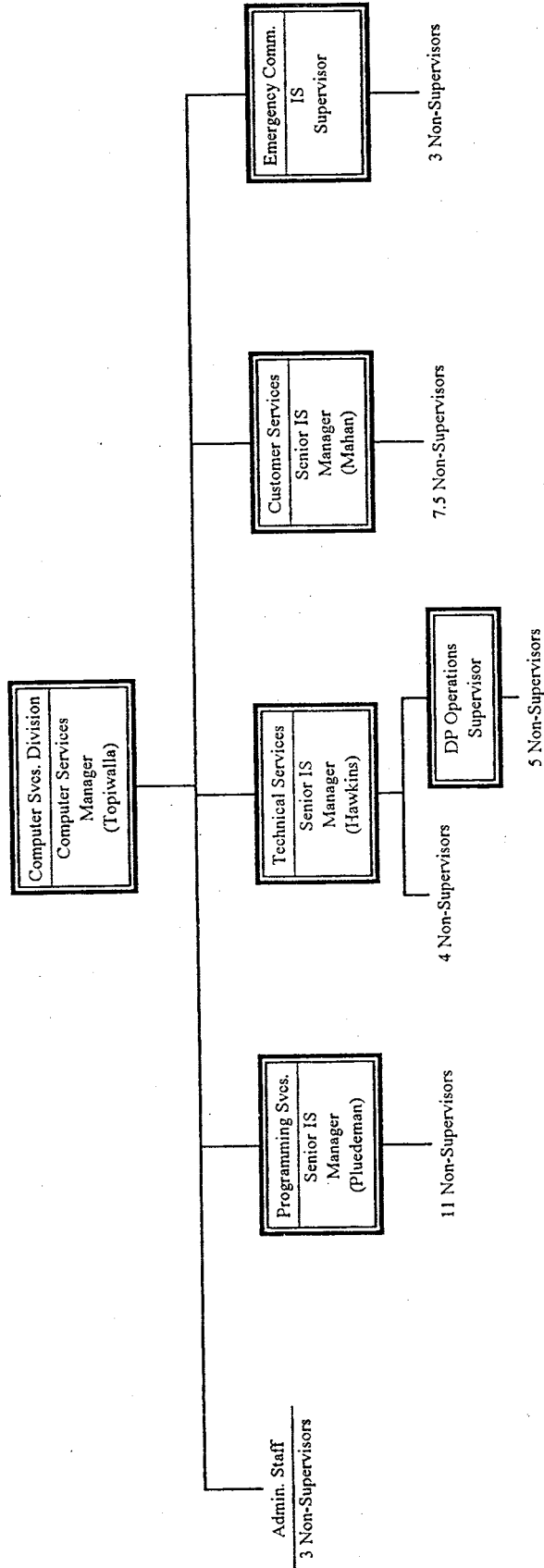
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Office of Finance and Administration

Organization Chart
Levels 1 - 3



CITY OF PORTLAND
Office of Finance and Administration
Computer Services Division

Organization Chart
Levels 3 - 6

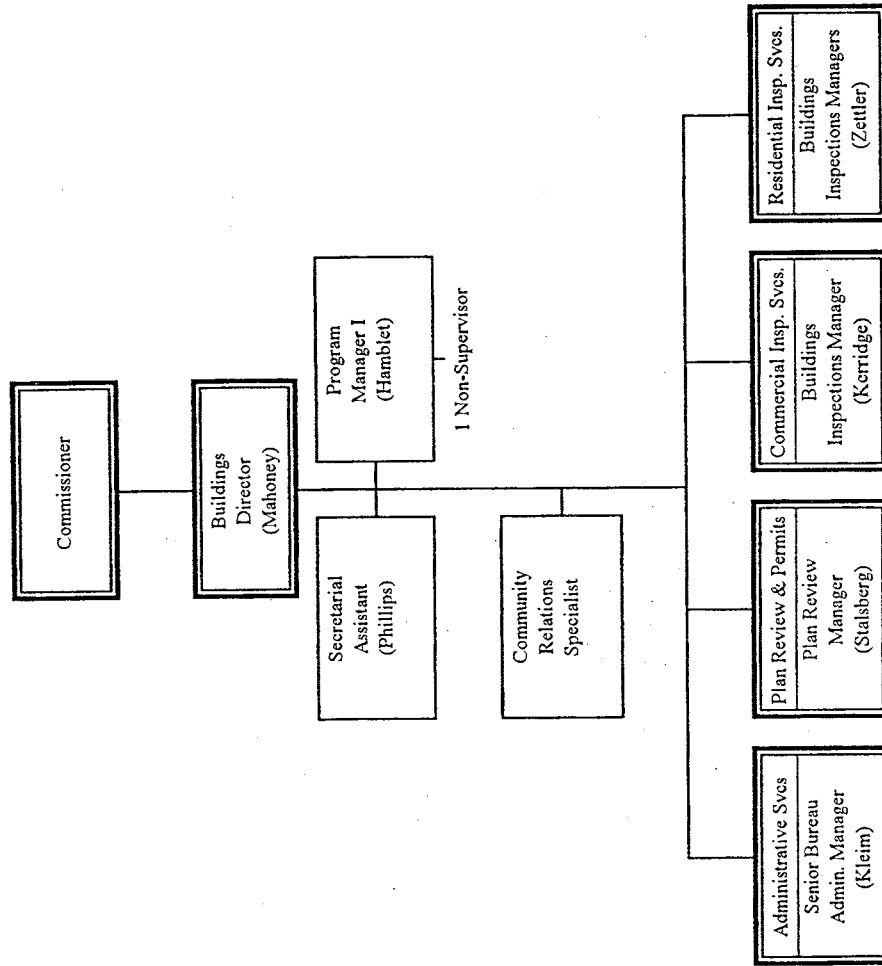


ORGANIZATION CHARTS

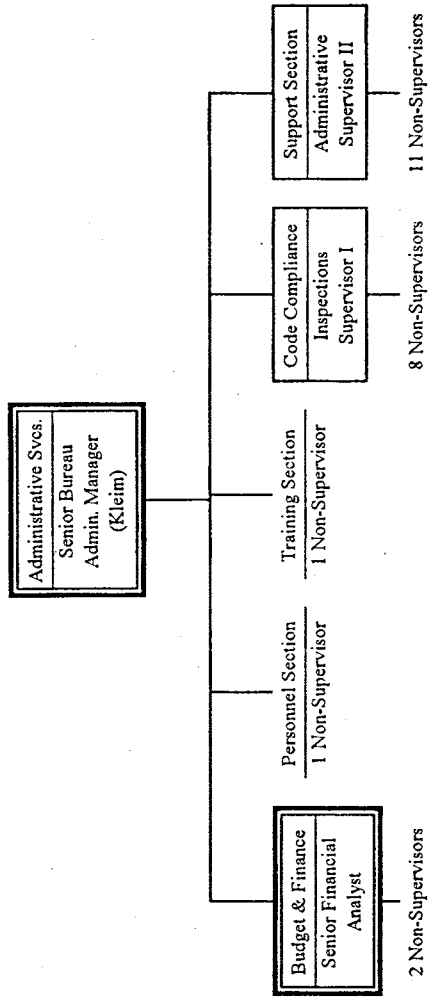
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(Selected Functions)**

CITY OF PORTLAND
Bureau of Buildings

Organization Chart
Levels 1 - 3

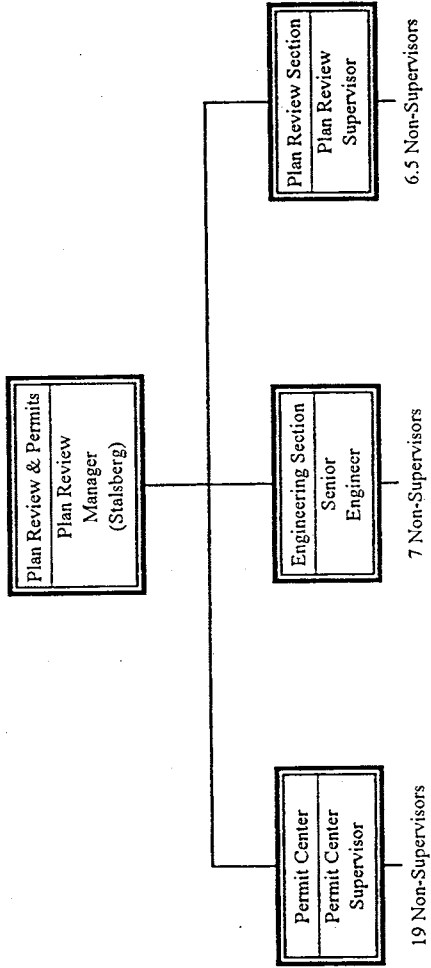


CITY OF PORTLAND
Bureau of Buildings
Organization Chart
Levels 3 - 5



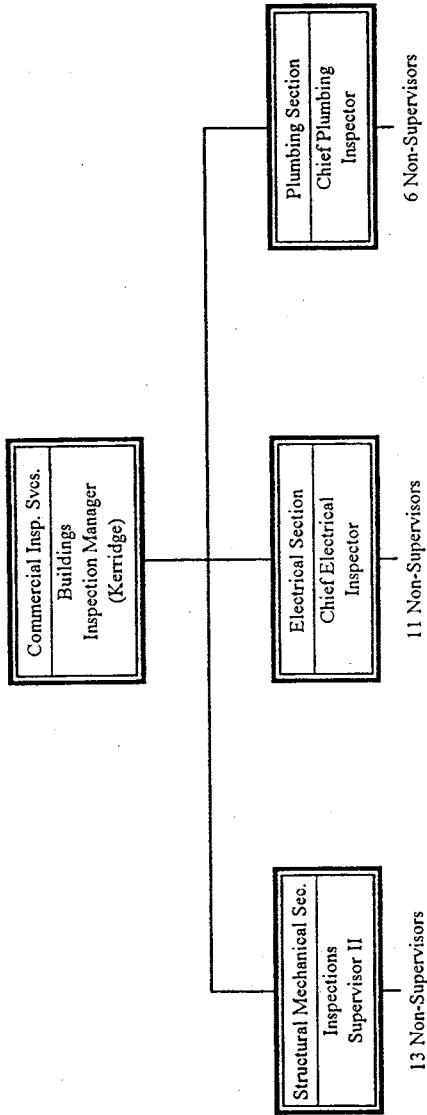
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Bureau of Buildings

Organization Chart
Levels 3 - 5



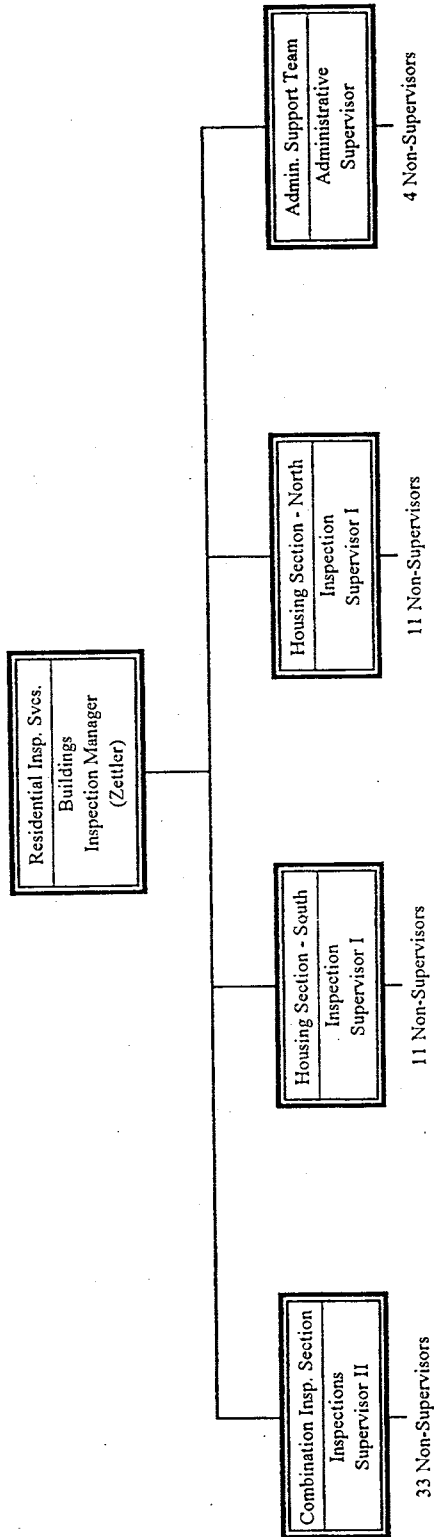
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Bureau of Buildings

Organization Chart
Levels 3 - 5



CITY OF PORTLAND
Bureau of Buildings

Organization Chart
Levels 3 - 5

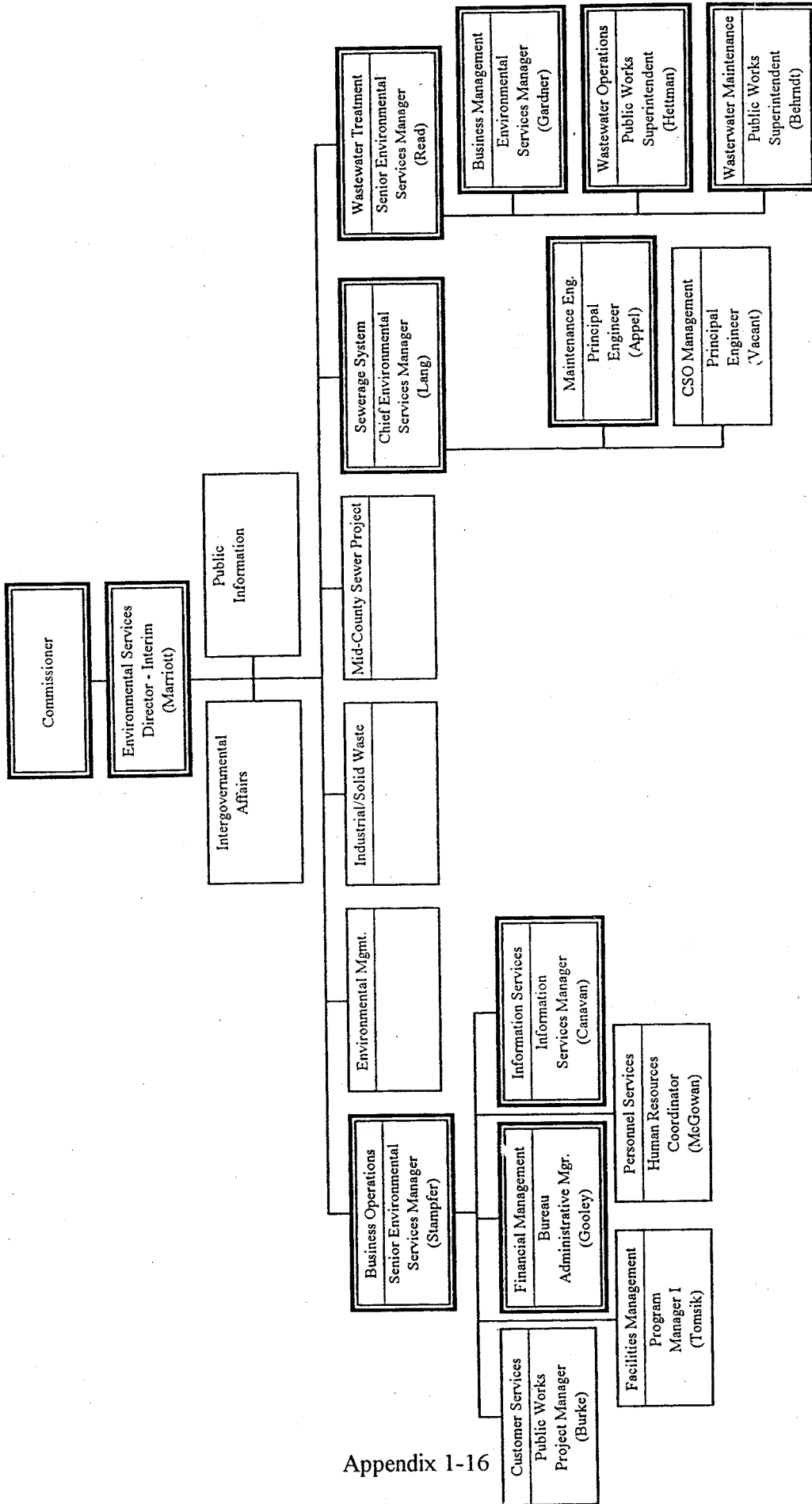


ORGANIZATION CHARTS

**Bureau of Environmental Services
(Selected Functions)**

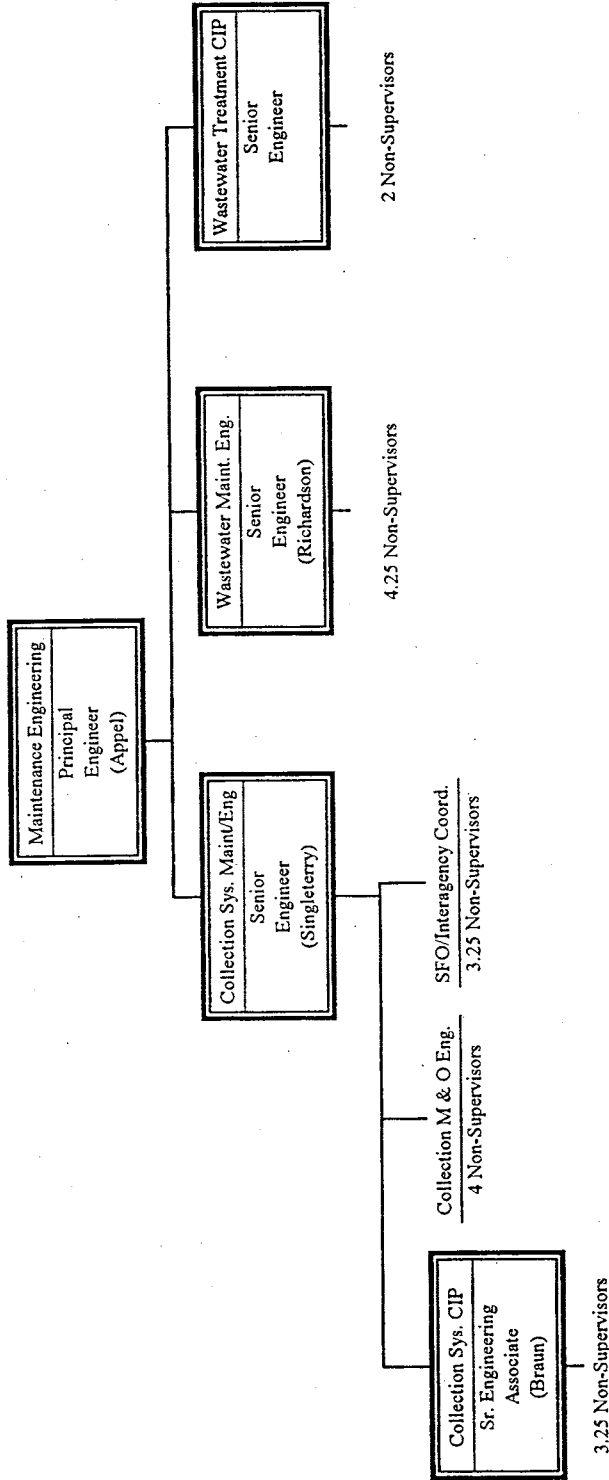
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Bureau of Environmental Services

Organization Chart
Levels 1 - 4



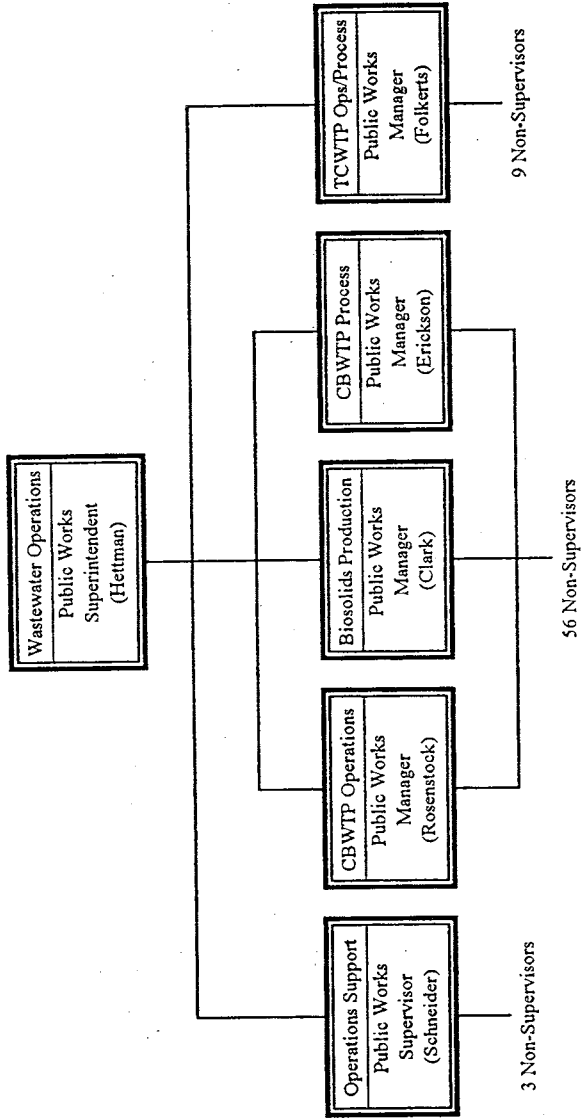
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Bureau of Environmental Services

Organization Chart
Levels 4 - 7



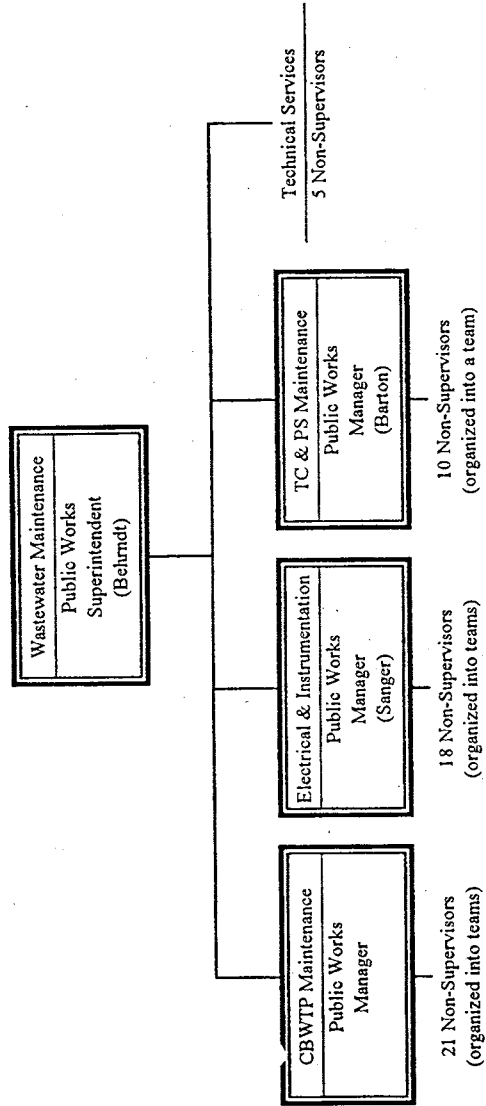
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Bureau of Environmental Services

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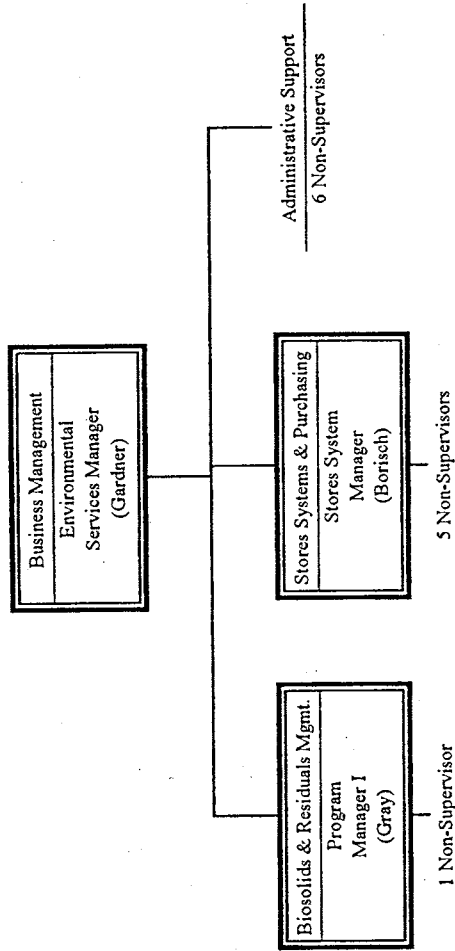
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 Bureau of Environmental Services

Organization Chart
 Levels 4 - 6



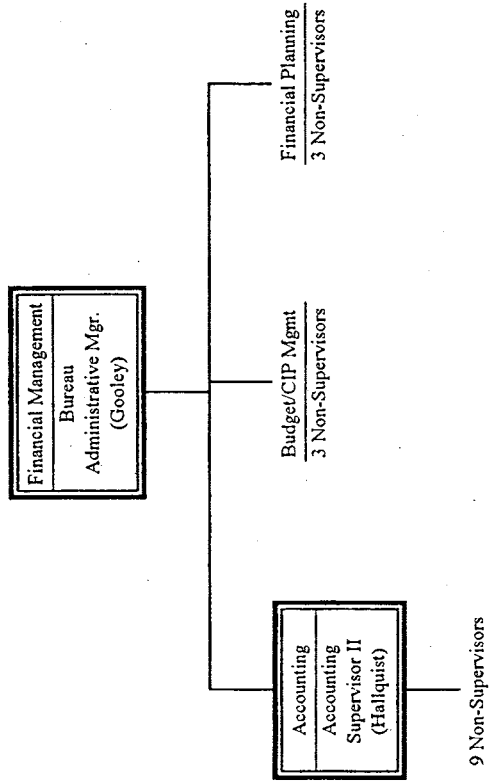
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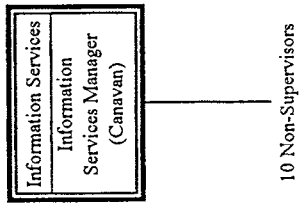
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Bureau of Environmental Services

Organization Chart
Levels 4 - 6



CITY OF PORTLAND
Bureau of Environmental Services

Organization Chart
Levels 4 - 5

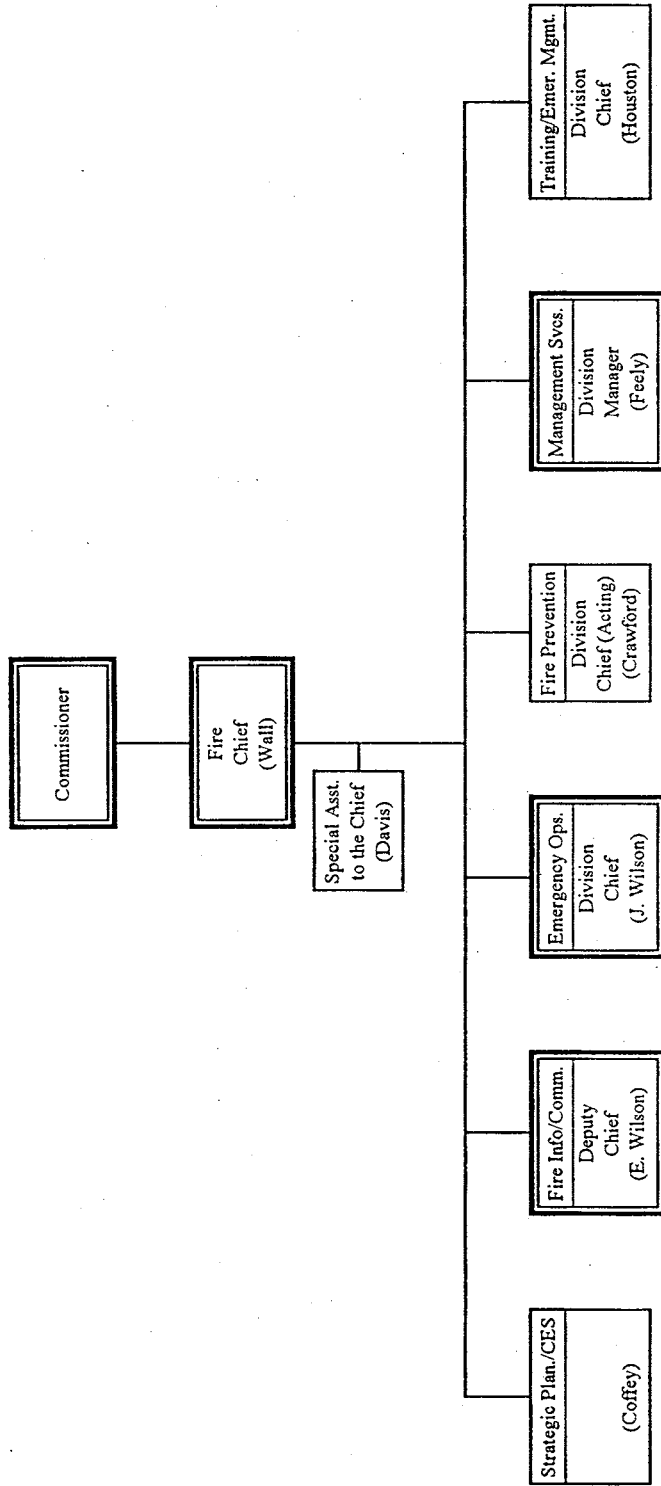


ORGANIZATION CHARTS

**Bureau of Fire
(Selected Functions)**

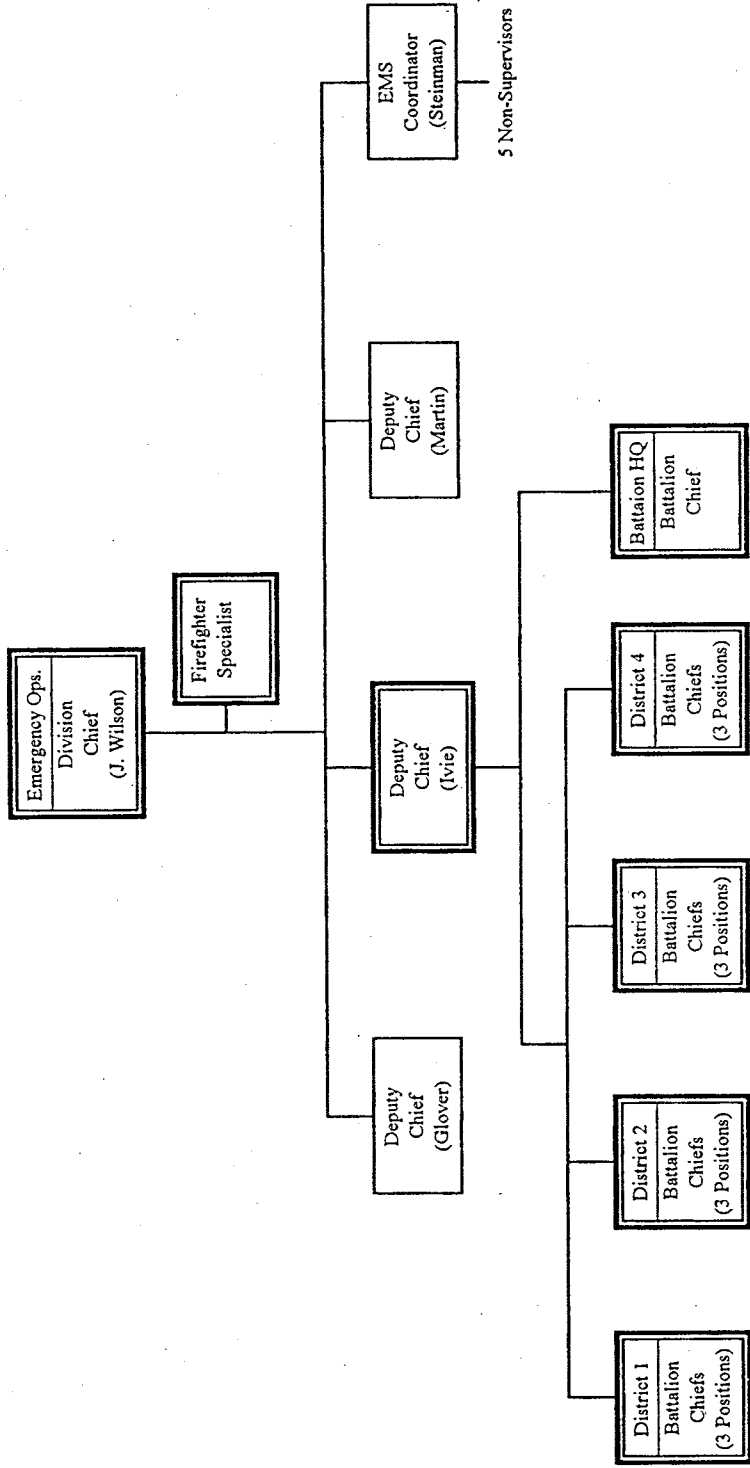
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Bureau of Fire

Organization Chart
Levels 1 - 3



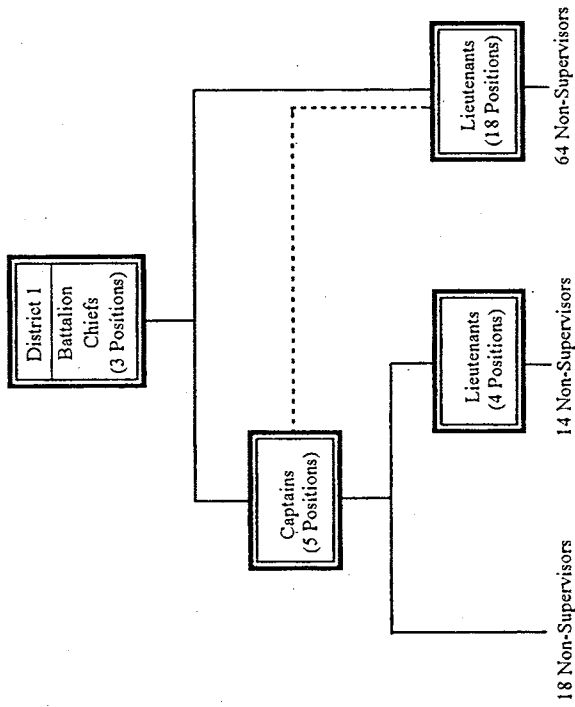
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Bureau of Fire

Organization Chart
Levels 3 - 5



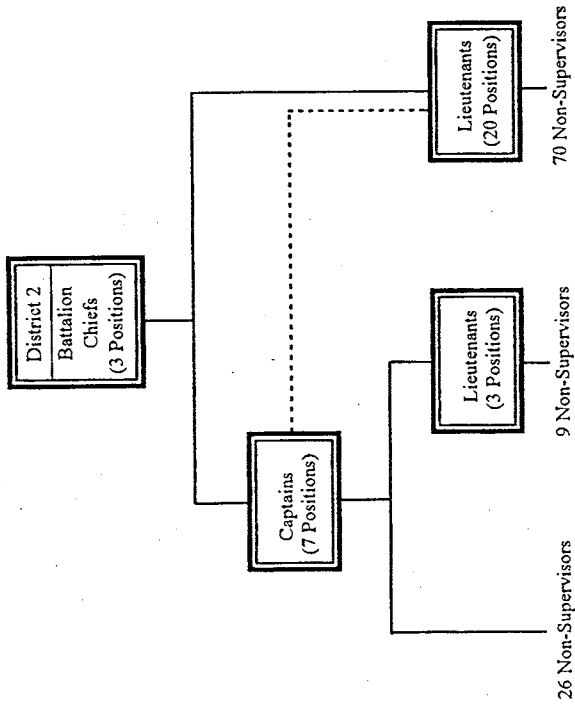
CITY OF PORTLAND
Bureau of Fire

Organization Chart
Levels 5 - 8



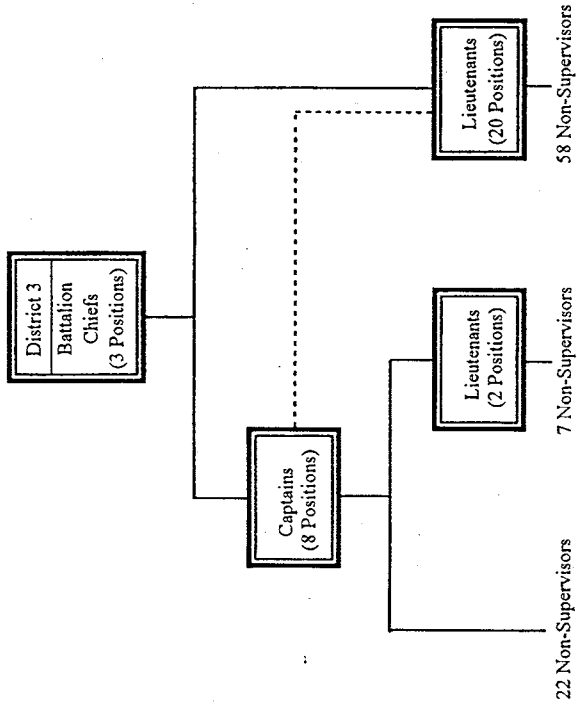
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Bureau of Fire

Organization Chart
Levels 5 - 8



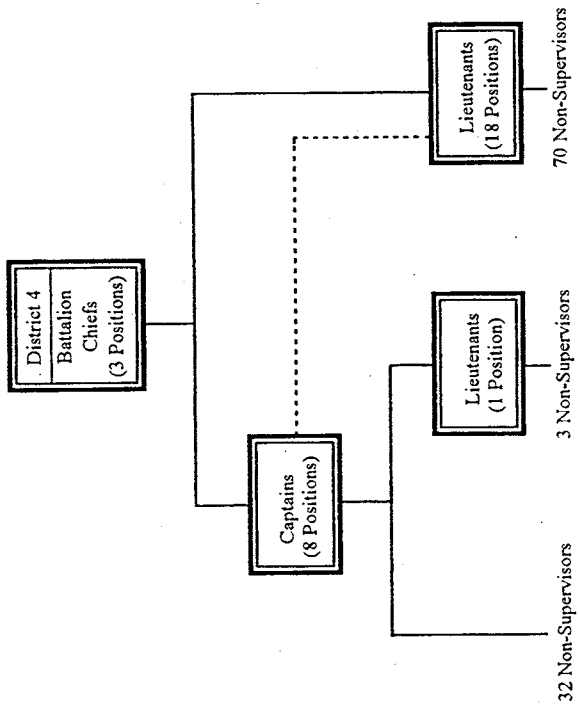
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Organization Chart
Levels 5 - 8



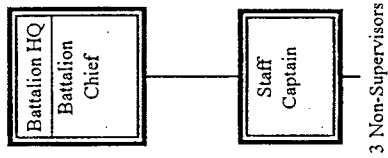
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Bureau of Fire

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Levels 5 - 8



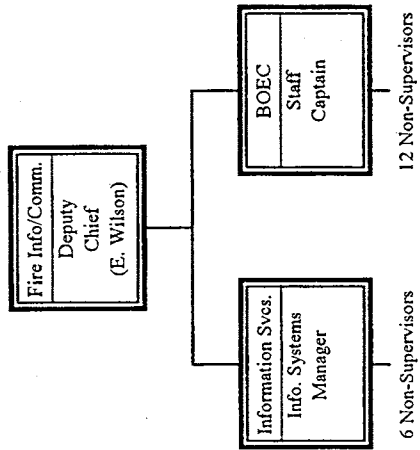
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Bureau of Fire

Organization Chart
Levels 5 - 7



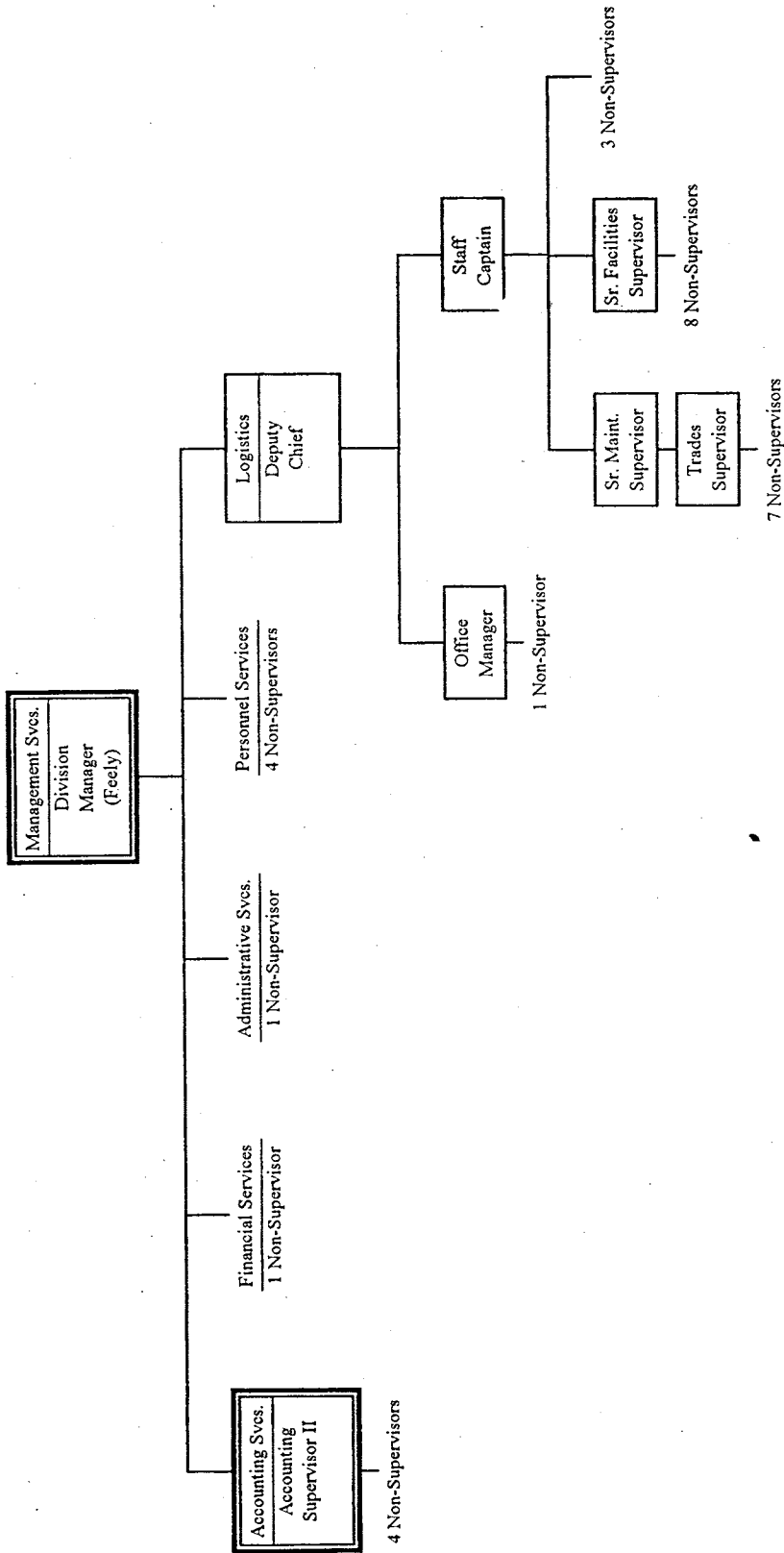
CITY OF PORTLAND
Bureau of Fire

Organization Chart
Levels 3 - 5



CITY OF PORTLAND
Bureau of Fire

Organization Chart
Levels 3 - 7

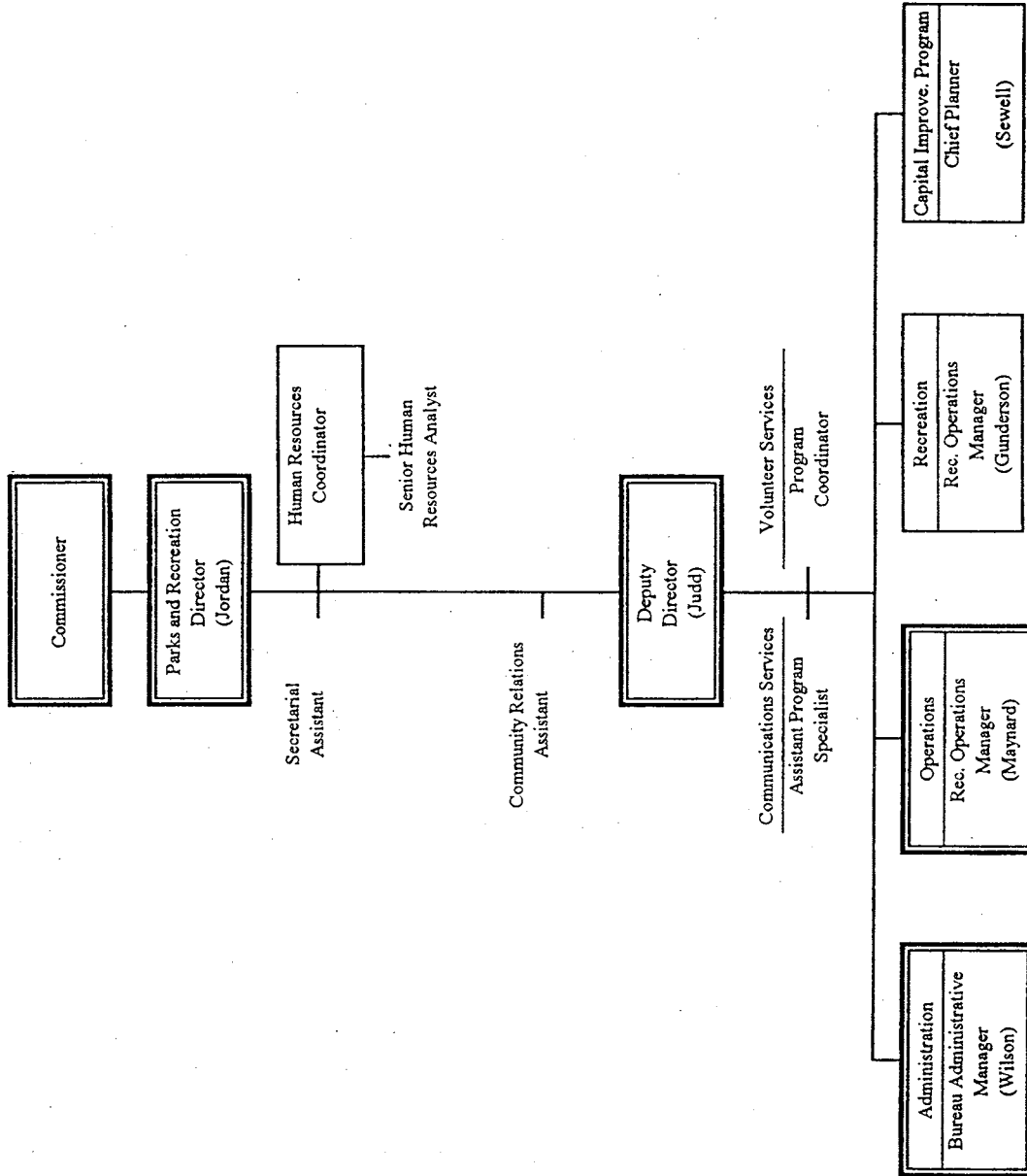


ORGANIZATION CHARTS

**Bureau of Parks and Recreation
(Selected Functions)**

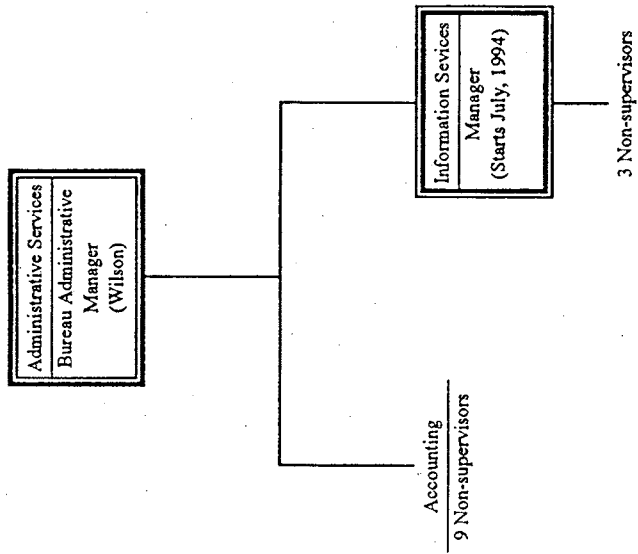
CITY OF PORTLAND
Bureau of Parks and Recreation

Organization Chart
Levels 1 - 4



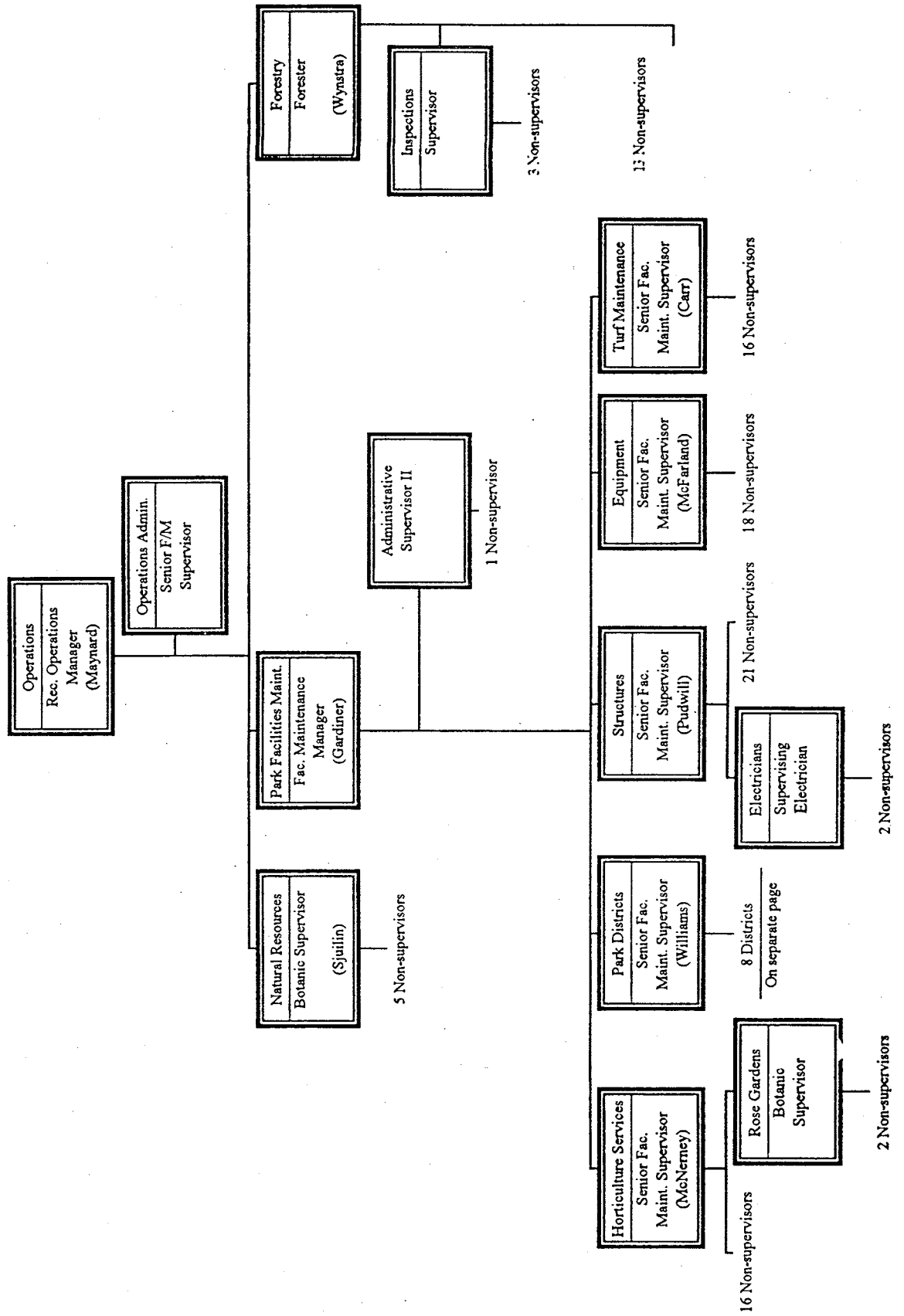
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Bureau of Parks and Recreation

Organization Chart
Levels 4 - 6



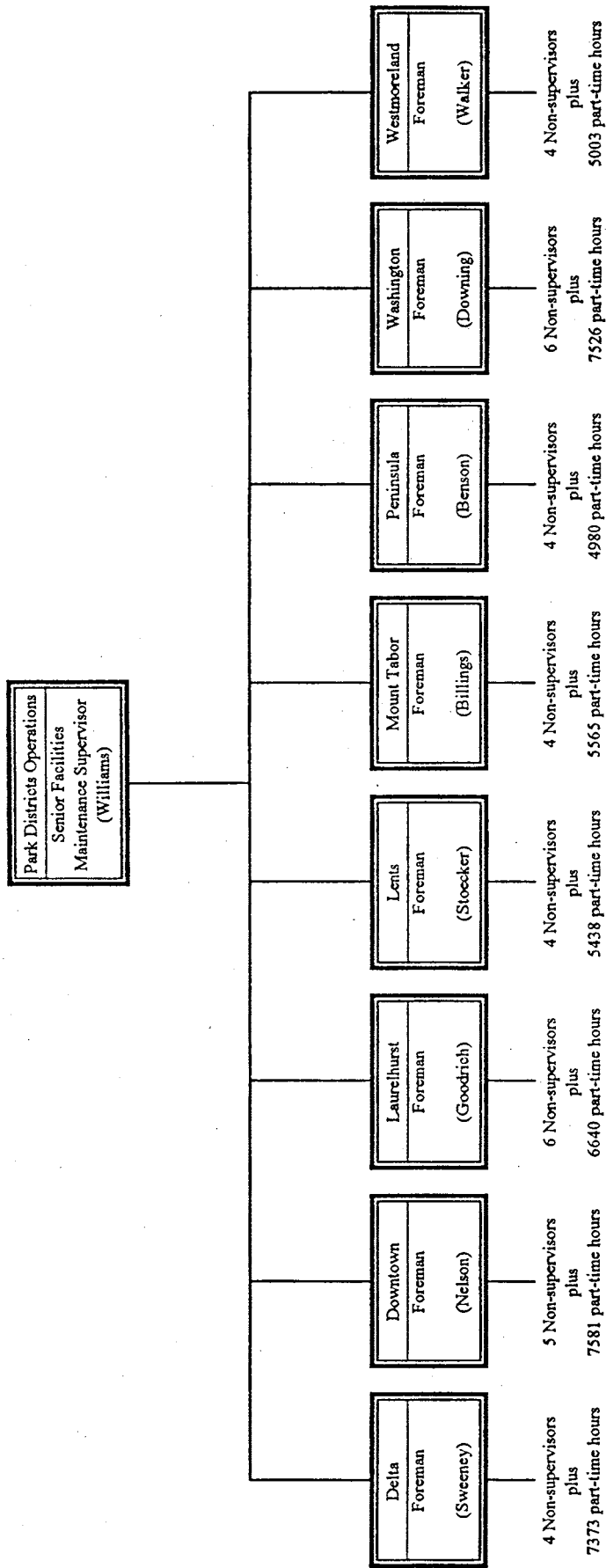
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Bureau of Parks and Recreation

Organization Chart
Levels 4 - 8



CITY OF PORTLAND
Bureau of Parks and Recreation

Organization Chart
Levels 6 - 8

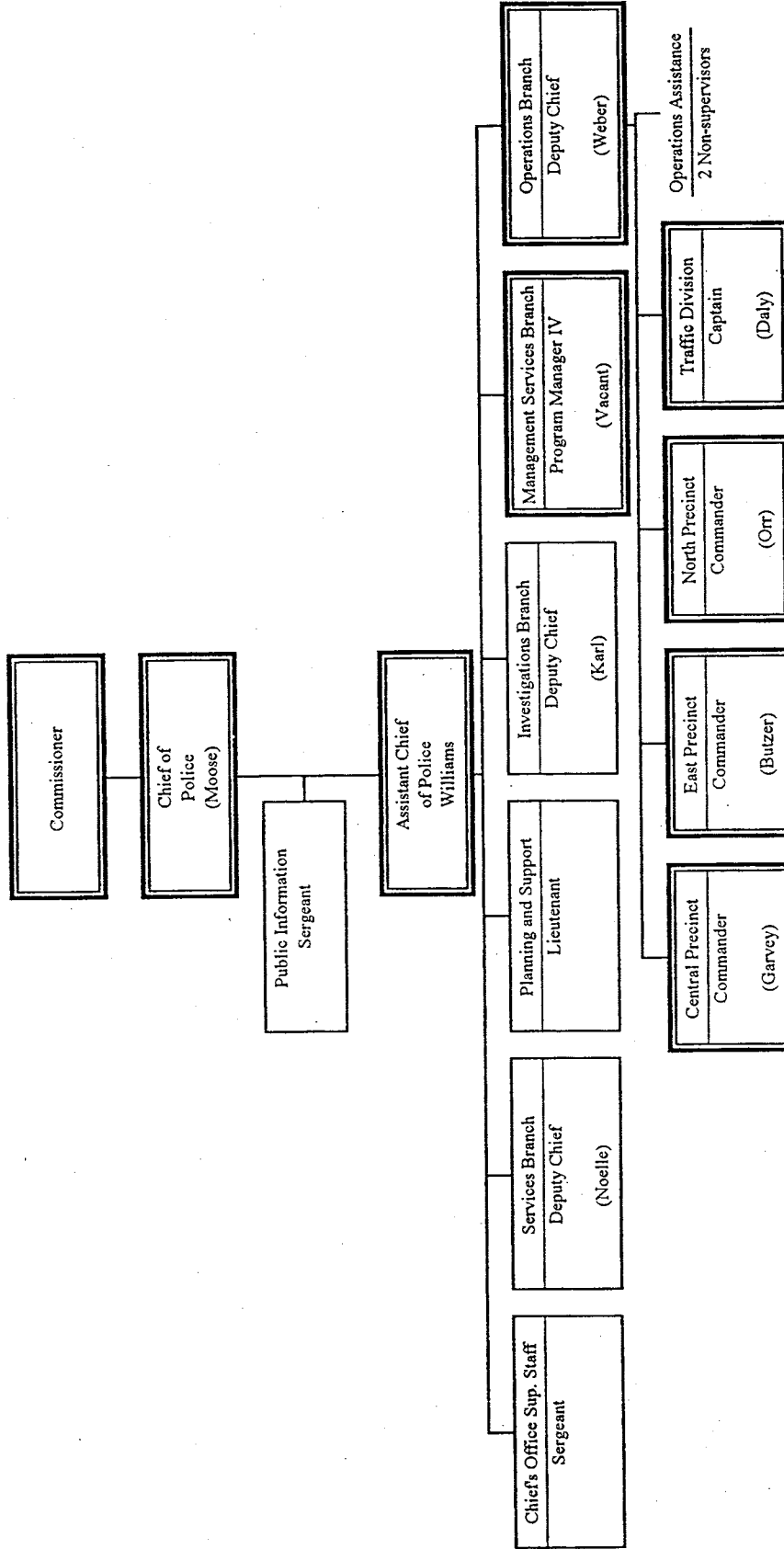


ORGANIZATION CHARTS

**Bureau of Police
(Selected Functions)**

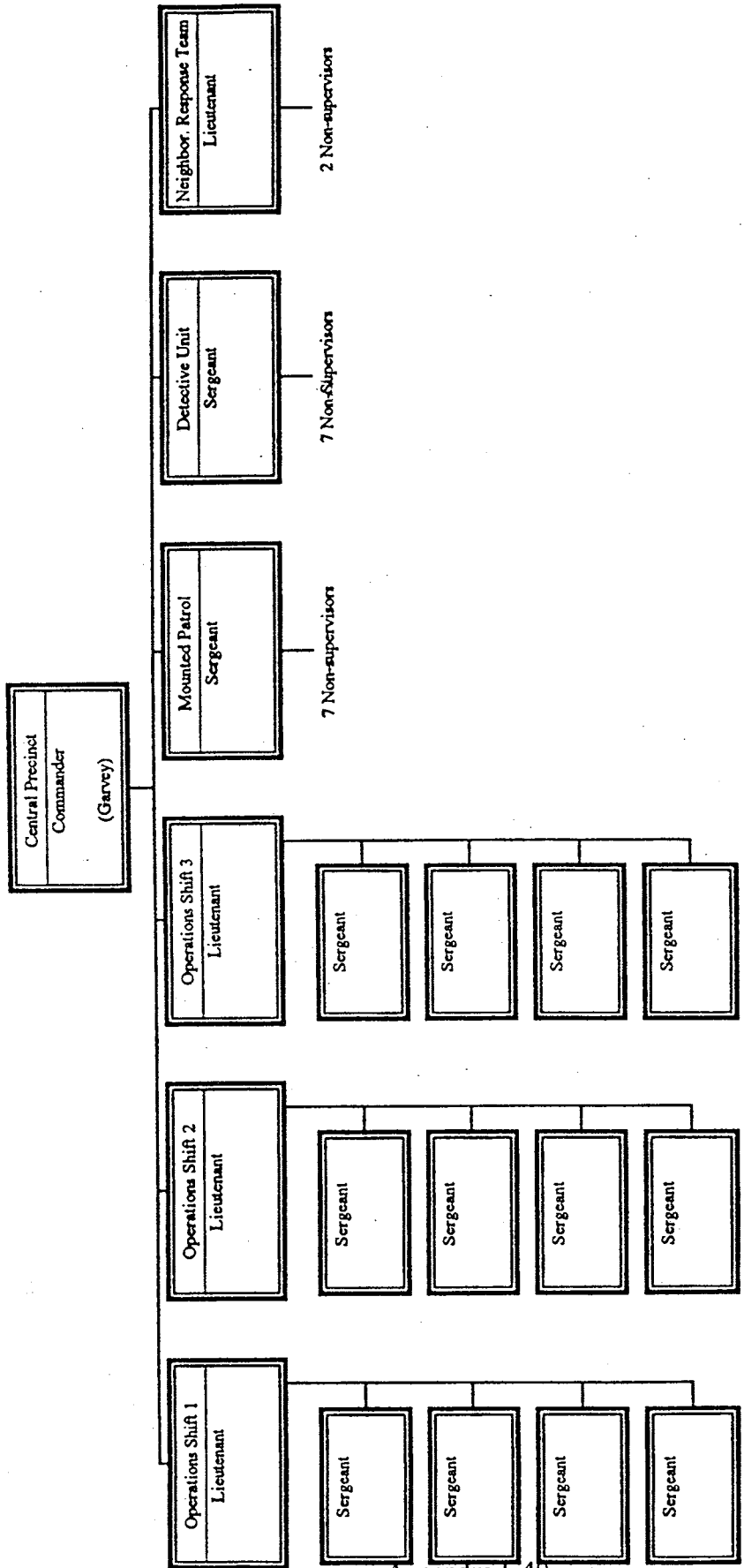
CITY OF PORTLAND
Bureau of Police

Organization Chart
Levels 1 - 5



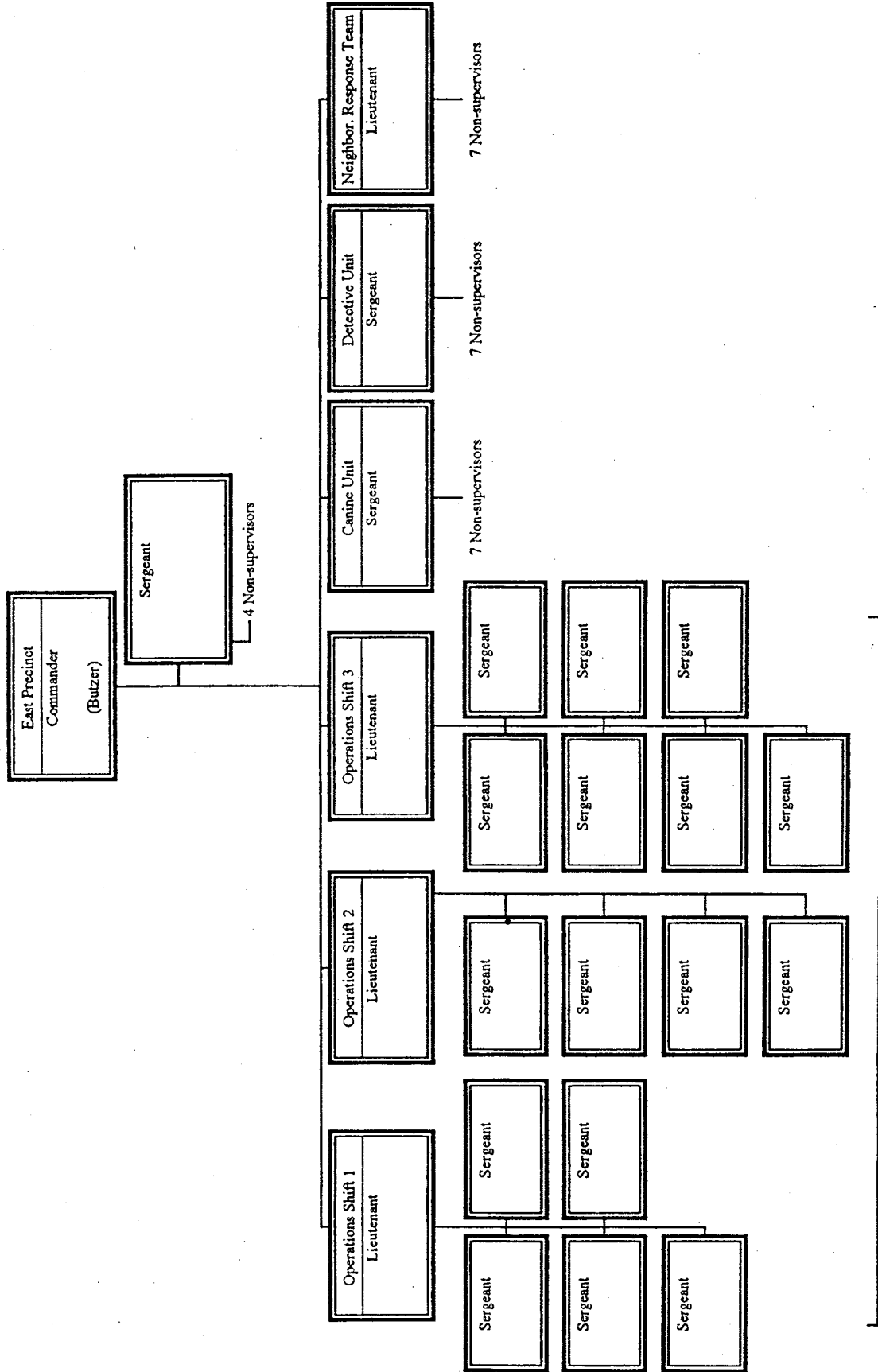
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Bureau of Police

Organization Chart
Levels 5 - 8



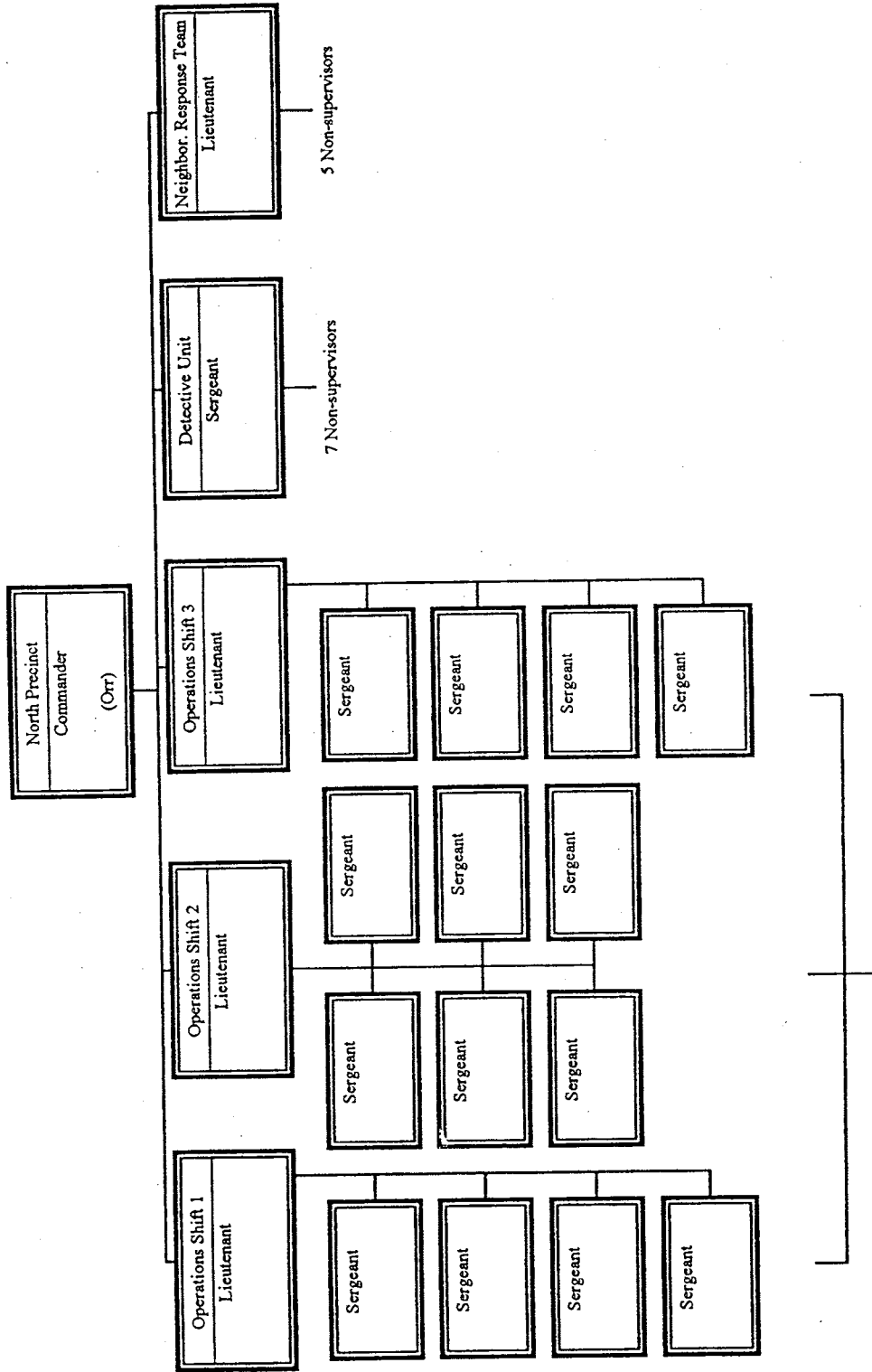
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Bureau of Police

Organization Chart
Levels 5 - 8



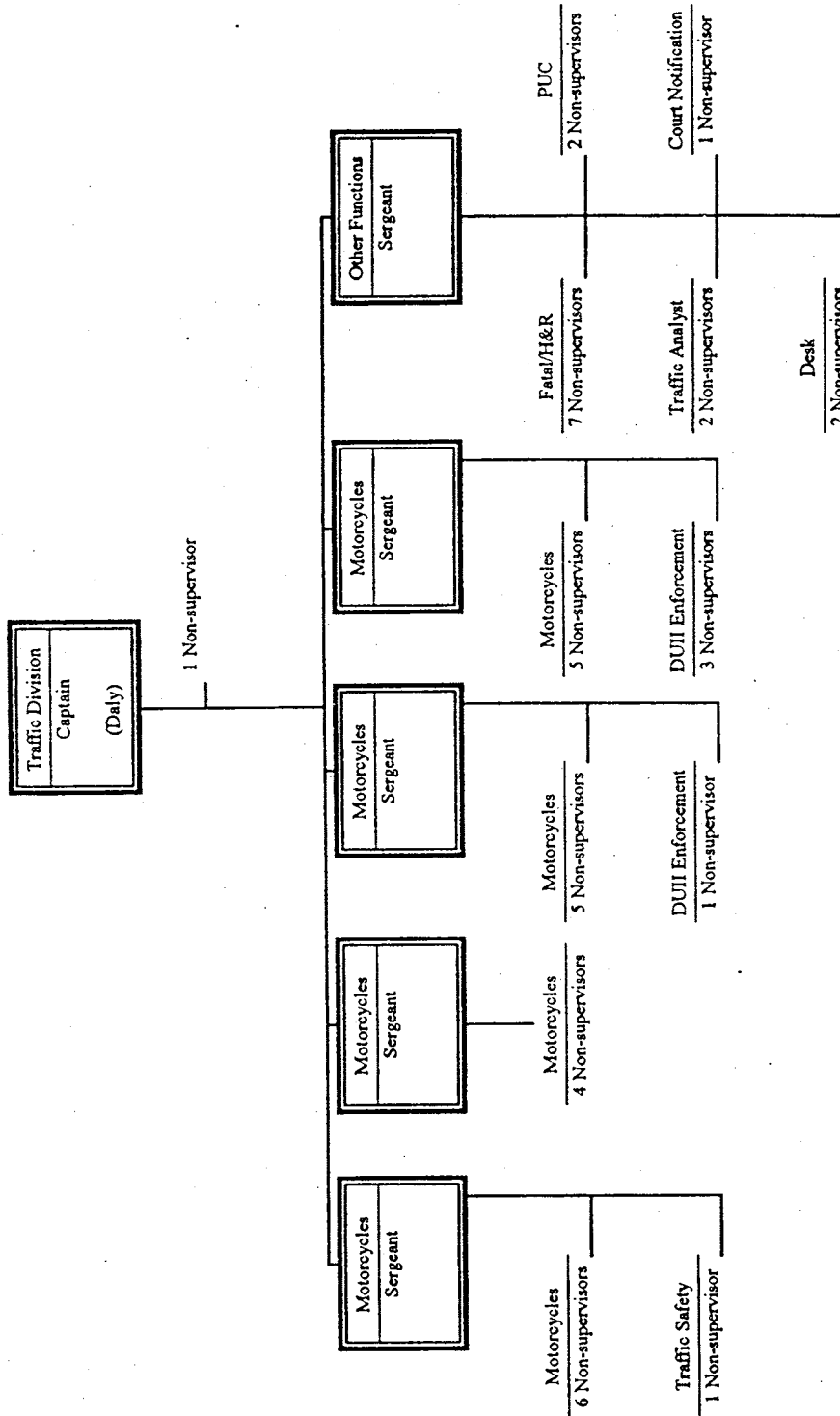
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Bureau of Police

Organization Chart
Levels 5 - 8



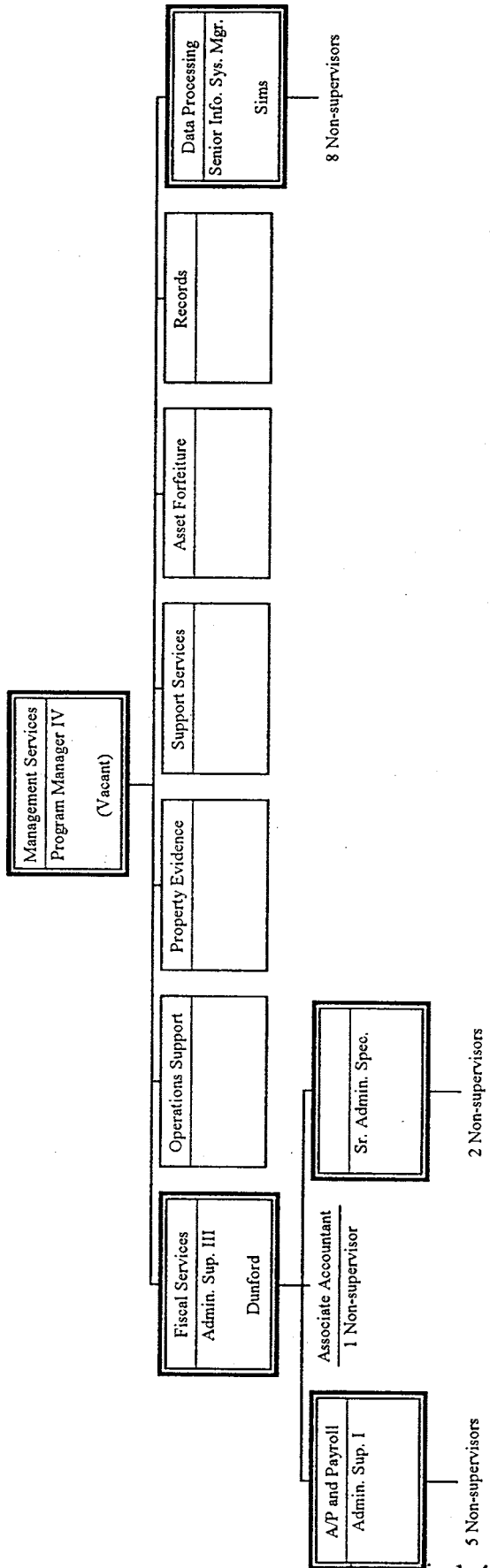
CITY OF PORTLAND
Bureau of Police

Organization Chart
Levels 5 - 7



CITY OF PORTLAND
Bureau of Police

Organization Chart
Levels 4 - 7



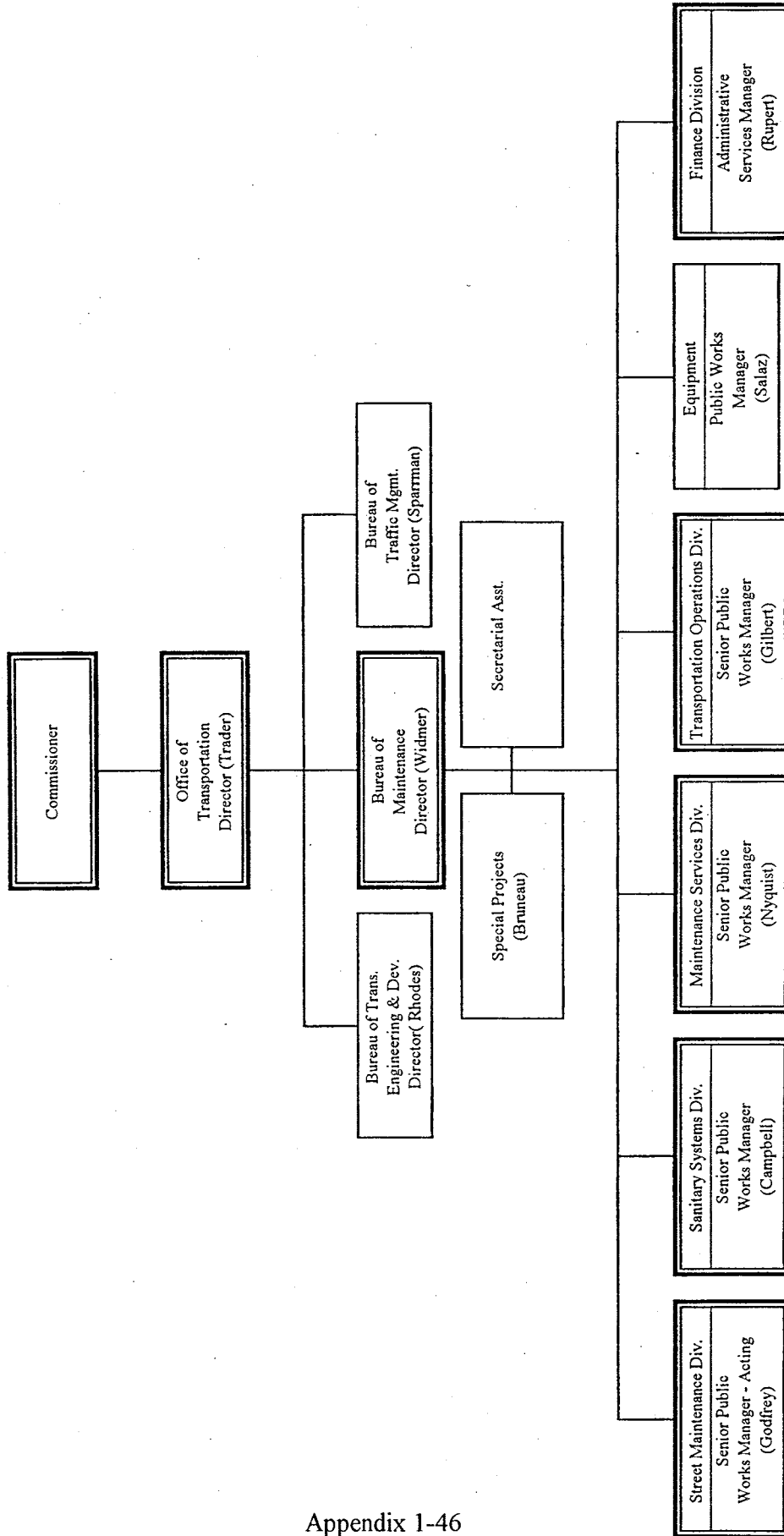
Appendix 1-44

ORGANIZATION CHARTS

**Office of Transportation
(Selected Functions)**

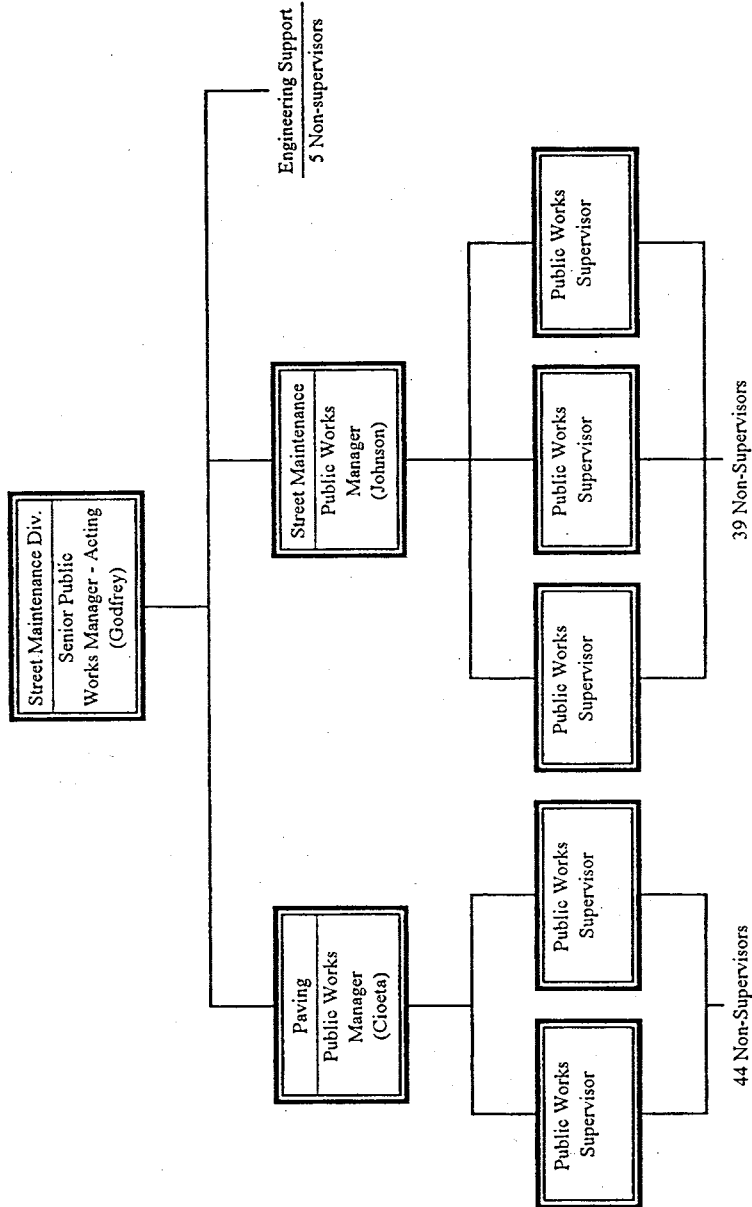
CITY OF PORTLAND
Office of Transportation

Organization Chart
Levels 1 - 4



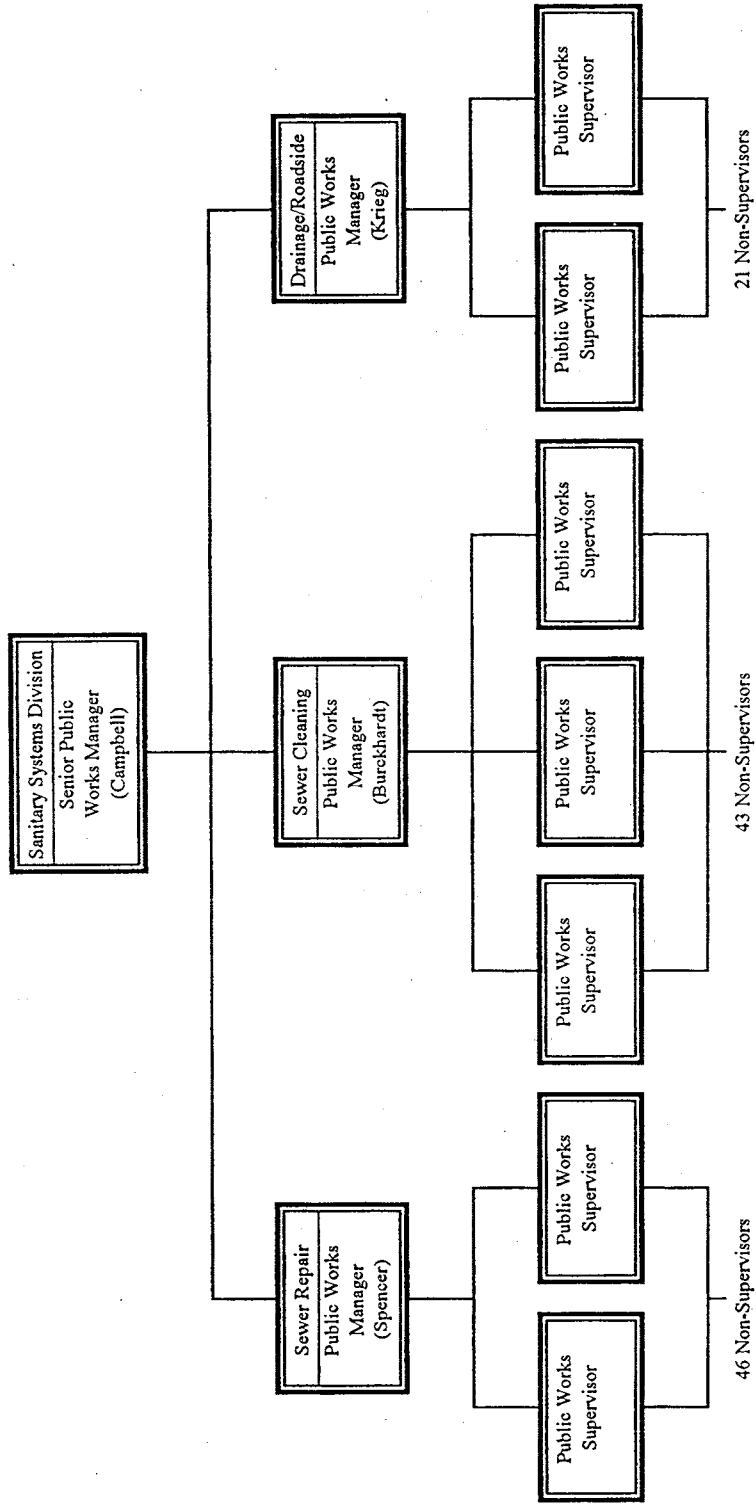
CITY OF PORTLAND
Office of Transportation

Organization Chart
Levels 4 - 7



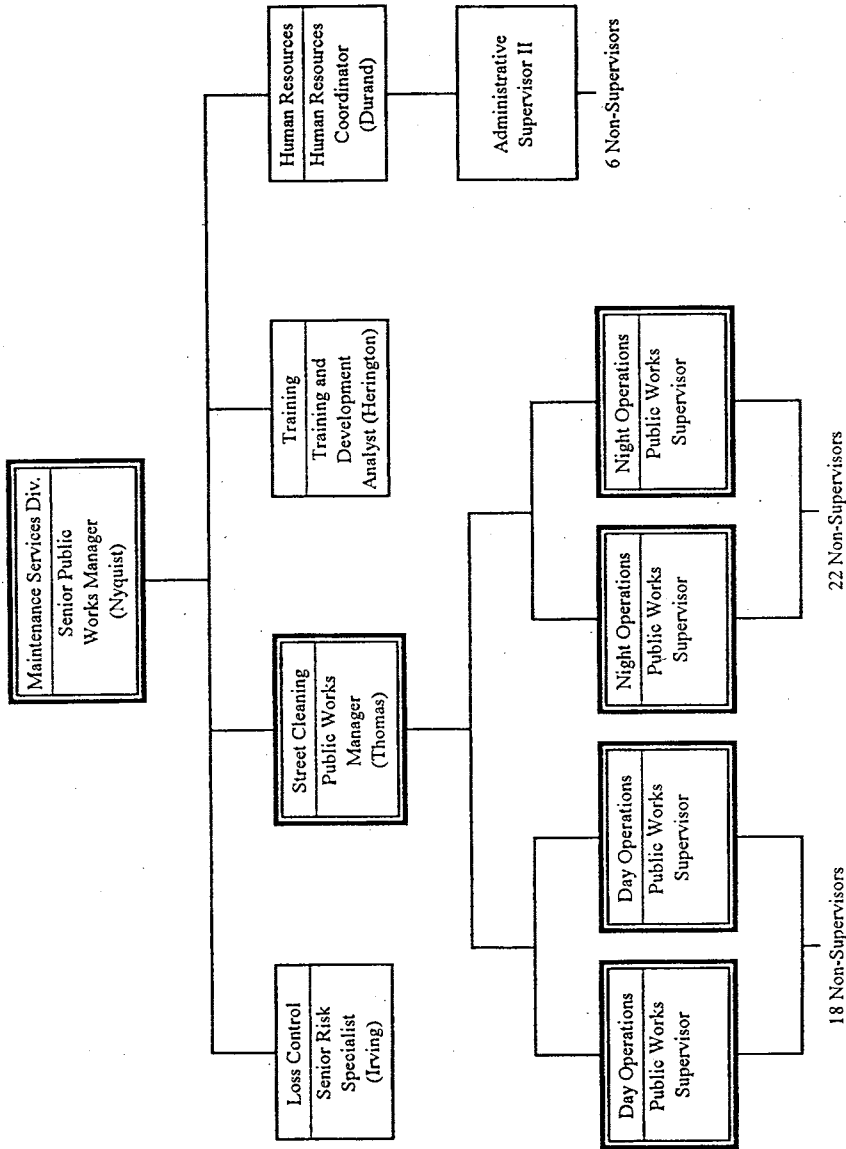
CITY OF PORTLAND
Office of Transportation

Organization Chart
Levels 4 - 7



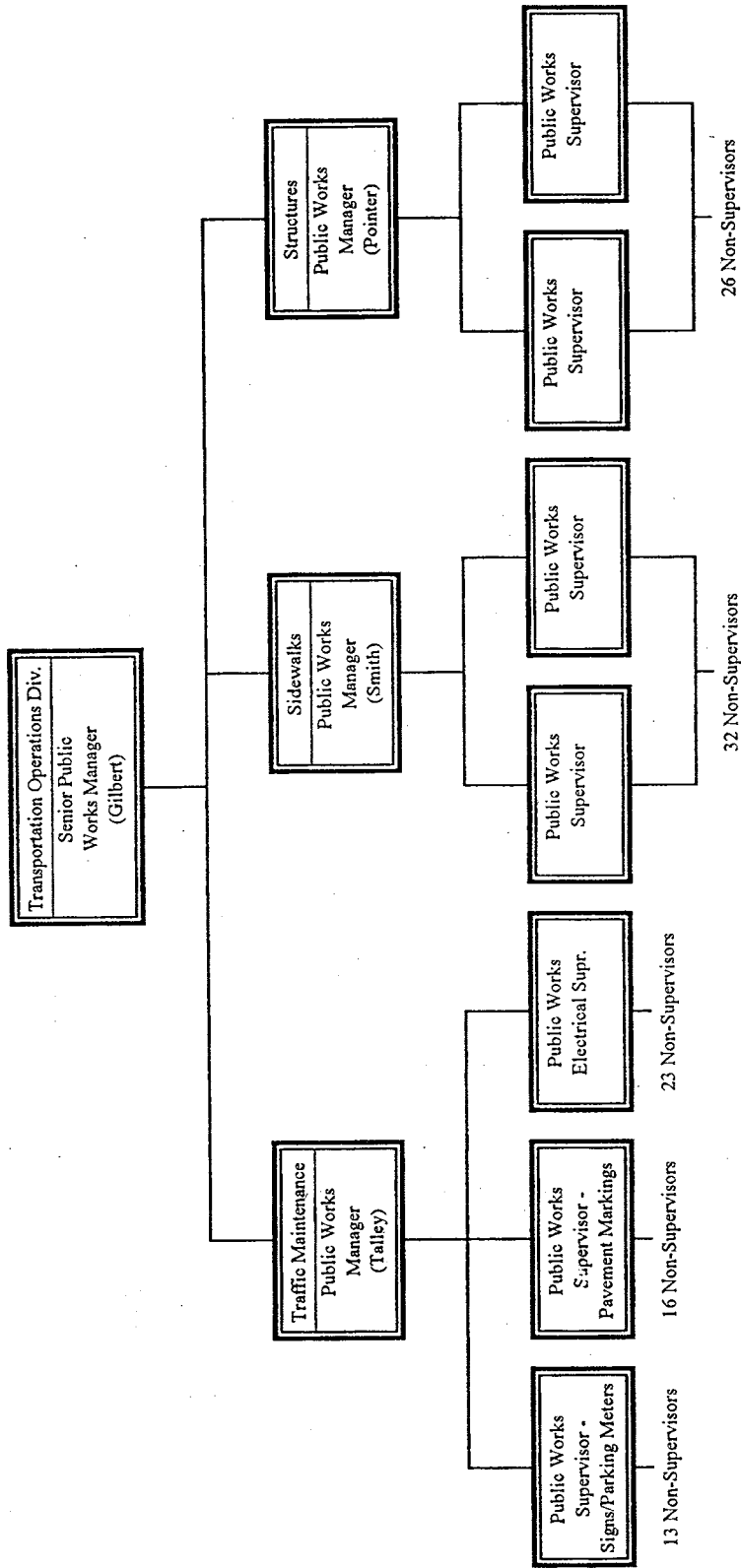
CITY OF PORTLAND
Office of Transportation

Organization Chart
Levels 4 - 7



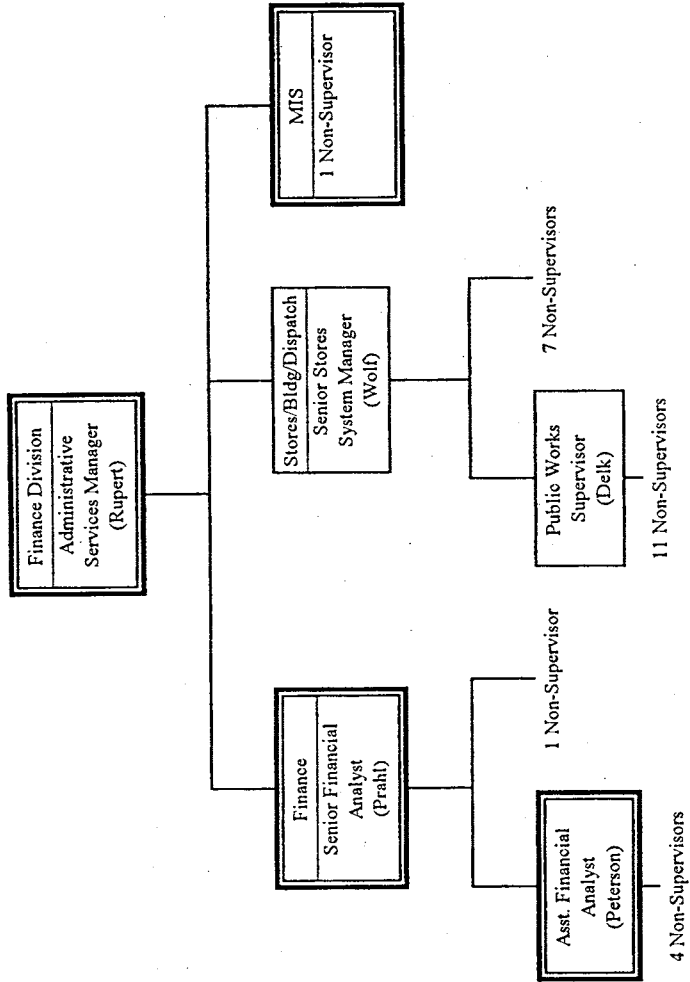
CITY OF PORTLAND
Office of Transportation

Organization Chart
Levels 4 - 7



CITY OF PORTLAND
Office of Transportation

Organization Chart
Levels 4 - 7



APPENDIX 2

Bureau Interview Guide

APPENDIX 2

CITY OF PORTLAND SPAN OF CONTROL STUDY BUREAU INTERVIEW GUIDE

- o In a brief paragraph, describe the functions performed by each of the work groups selected for the study. (For the purpose of increasing the compatibility of the information obtained from comparable functions in other organizations.)
- o In one or two sentences, differentiate the functions of each supervisory unit within each work group.
- o Using the existing organization chart(s) as a discussion document, review the organizational structure of the areas in the study and construct a detailed organization chart that clearly delineates the layers of management, spans of control, and lines of authority.
- o Classify each position on the organization chart as a "director", "manager", "mezzanine manager", "supervisor", "lead worker", or "non-supervisor/manager" (see the attached definitions). Annotate the classification on the organization chart.
- o Understand any positions currently vacant. (For the purpose of computing the spans with and without vacant positions.) Record both the number of authorized positions and the number currently filled for each organizational unit on the organization chart.
- o Are there any unusual arrangements, such as job sharing, which we should understand? How many part-time positions are there within each of the work areas included in the study? Appropriately annotate these positions or arrangements on the organization chart and compute the FTEs associated with each supervisory unit.
- o Do any managers or supervisors perform only part-time as a manager or supervisor, and part-time as a line worker? If so, describe these arrangements as specifically as possible.
- o How does seasonality affect or change the organization chart for each supervisory unit? On the organization chart, annotate the number of positions in each supervisory unit for both peak and off-peak seasons.
- o Are any people on the organization chart contractors? Do any managers or supervisors supervise contractors not shown on the organization chart? Annotate this information on the organization chart.
- o Have there been any changes in the layers of management or spans of control within the last year? If so, what are they? Similarly, are there any planned changes in the coming year and, if so, what are they? Be as specific as possible in documenting these changes.
- o What is the interviewee's general sense of the existing spans of control and layers of management, i.e. are they about right or too high or too low, and for what reasons. Document his or her opinion.
- o What are the factors within this work unit that would account for the span of control within the bureau/work area to be different than other areas within the City? Document the interviewee's opinions.

CITY OF PORTLAND
SPAN OF CONTROL STUDY
Interview Guide
(Continued)

- o Has there been any training or development program within the past two years, or is any currently planned, with the objective of developing team skills among workers in this area, to enable new forms of supervision? Document the response as specifically as possible (type of program, who will participate, number of hours, etc.)
- o Have the bureau interviewee complete the span of control factors questionnaire (see attached questionnaire) for each supervisory unit included in the work unit. Also have the budget analyst assigned to this bureau complete the questionnaire for each supervisory unit.
- o Obtain the existing position/job descriptions for each type of manager, supervisor, or lead worker identified on organization chart in relevant work areas. (These could help to resolve issues on how certain positions are defined for the purposes of the study.)
- o Who else within this bureau/organization unit should be contact for additional information? (Revise question for more specificity as needed.)
- o For the purpose of collecting comparable data from "best practices" organizations, have the interviewee recommend at least three public or private sector organizations that perform similar functions to this work area that he or she considers "best practice" organizations; document why the interviewee believes these organizations are "best practice" organizations.

NOTE: A "best practice" organization may be defined as one recognized by its peers or professionals in the field as a high performance organization in such areas as efficiency, effectiveness, customer service, etc.

- o What else does the interviewee believe we should know about this work unit in order to make informed judgments in our study? Be as specific as possible.

APPENDIX 3

Span of Control Factors Questionnaire

APPENDIX 3

CITY OF PORTLAND SPAN OF CONTROL STUDY Span of Control Factors Questionnaire

The attached questionnaire was developed to evaluate each functional group in the sample in relation to several factors identified in the management literature as determinants of span variation. Various personnel within the participating bureaus provided their responses to this questionnaire. City budget and audit staff who had direct experience with organizational units included in the study also responded to help validate the responses from the personnel internal to the study units. The respondents rated the various factors on a scale of one to ten.

While the survey results reflect the subjective judgments of the respondents, the questionnaire is a useful tool to help identify situations in which the existing spans of control might merit particular attention.

**CITY OF PORTLAND
SPAN OF CONTROL STUDY
Span of Control Factors Questionnaire**

Bureau Name: _____ Date: _____
 Organizational Unit: _____
 Supervisory Unit: _____
 Completed by: _____ Phone: _____
 Position: _____

INSTRUCTIONS: Circle the point on the scale that best represents the nature of the work in this organizational unit. (1 = very strong agreement with the left-hand statement; 10 = very strong agreement with the right-hand statement; points in between represent less or strong agreement with one statement or the other; 5.5 = neutral)

1) *Nature of programs*

Major programs are well established with clearly understood goals.

Major programs are new or have rapidly evolving mission and goals.

Scale: 1 2 3 4 5 6 7 8 9 10

2) *External oversight*

Unit's programs and operations are well established; minimal public scrutiny.

Unit's programs and operations are controversial, regularly scrutinized by the public or the press.

Scale: 1 2 3 4 5 6 7 8 9 10

3) *Similarity of functions being supervised*

Functions performed within this unit are uniform; there are no differences.

Many diverse functions are performed within this unit.

Scale: 1 2 3 4 5 6 7 8 9 10

4) *Complexity of functions*

Operations performed within this unit are routine; little new problem solving is required.

Operations performed within this unit are very complex; extensive problem solving is required.

Scale: 1 2 3 4 5 6 7 8 9 10

CITY OF PORTLAND
SPAN OF CONTROL STUDY
Span of Control Factors Questionnaire
(Continued)

5) *Coordination required*

Minimum coordination with other work units (inside or outside of the bureau) is required.

Extensive coordination with other work units (inside or outside of the bureau) is essential and time consuming.

Scale: 1 2 3 4 5 6 7 8 9 10

6) *Training required*

New workers assigned to this unit generally master their duties quickly (three months or less).

Extensive training is required once new workers are assigned to this unit; it may take several years for them to master their duties.

Scale: 1 2 3 4 5 6 7 8 9 10

7) *Staff assistance*

Supervisor of this unit receives extensive staff assistance to facilitate more supervisory time.

Supervisory of this unit has no staff assistance at all with his or her supervisory duties.

Scale: 1 2 3 4 5 6 7 8 9 10

8) *Dispersion*

Supervisor of this unit is physically located near all of his or her subordinates.

Subordinates are physically dispersed, requiring greater communication efforts.

Scale: 1 2 3 4 5 6 7 8 9 10

9) *Employee turnover*

Employee turnover in this unit is very low (5% or less annually).

Employee turnover in this unit is very high (50% or more annually).

Scale: 1 2 3 4 5 6 7 8 9 10

CITY OF PORTLAND
SPAN OF CONTROL STUDY
Span of Control Factors Questionnaire
(Continued)

10) *Experience/qualifications of incumbent supervisor*

Supervisor of this unit has been in position more than five years and has considerable supervisory training.

Supervisor of this unit has been a supervisor less than one year and has had little or not supervisory training.

Scale: 1 2 3 4 5 6 7 8 9 10

11) *Risk*

The risk to the City and its citizens in terms of dollars or public safety are low if this unit does not perform well.

The risks to the City and its citizens in terms of dollars or public safety are high if this unit does not perform well.

Scale: 1 2 3 4 5 6 7 8 9 10

APPENDIX 4

Span of Control Database

APPENDIX 4

**SPAN OF CONTROL DATABASE
Key**

Layer = Management Layer

Type:

D = Director
M = Manager
S = Supervisor

Auth. FTE = Number of Authorized Full-time Equivalents Reporting to
this Manager or Supervisor

NS = Number of Non-supervisory Personnel within this Manager or
Supervisor's Span

CITY OF PORTLAND
SPAN OF CONTROL STUDY
Database of Managers and Supervisors included in Study

Office	Bureau	Division	Section	Unit	Position Name	Layer	Type	Auth. FTE	NS
Trans	Transp -Maint.				Director	2	D	3	0
Trans	Transp -Maint.				Bur. of Maintenance Dir.	3	M	8	2
Trans	Transp -Maint.	Street Maintenance			Sr. Public Works Manager	4	M	7	5
Trans	Transp -Maint.	Street Maintenance	Paving		Public Works Manager	5	M	2	0
Trans	Transp -Maint.	Street Maintenance	Paving	Crew 1	Public Works Supervisor	6	S	22	22
Trans	Transp -Maint.	Street Maintenance	Paving	Crew 2	Public Works Supervisor	6	S	22	22
Trans	Transp -Maint.	Street Maintenance	Street Maint.		Public Works Manager	5	M	3	0
Trans	Transp -Maint.	Street Maintenance	Street Maint.	Crew 1	Public Works Supervisor	6	S	13	13
Trans	Transp -Maint.	Street Maintenance	Street Maint.	Crew 2	Public Works Supervisor	6	S	13	13
Trans	Transp -Maint.	Street Maintenance	Street Maint.	Crew 3	Public Works Supervisor	6	S	13	13
Trans	Transp -Maint.	Sanitary Systems			Sr. Public Works Manager	4	M	3	0
Trans	Transp -Maint.	Sanitary Systems	Sewer Repair		Public Works Manager	5	M	2	0
Trans	Transp -Maint.	Sanitary Systems	Sewer Repair	Crew 1	Public Works Supervisor	6	S	23	23
Trans	Transp -Maint.	Sanitary Systems	Sewer Repair	Crew 2	Public Works Supervisor	6	S	23	23
Trans	Transp -Maint.	Sanitary Systems	Sewer Cleaning		Public Works Manager	5	M	3	0
Trans	Transp -Maint.	Sanitary Systems	Sewer Cleaning	Crew 1	Public Works Supervisor	6	S	14	14
Trans	Transp -Maint.	Sanitary Systems	Sewer Cleaning	Crew 2	Public Works Supervisor	6	S	14	14
Trans	Transp -Maint.	Sanitary Systems	Sewer Cleaning	Crew 3	Public Works Supervisor	6	S	15	15
Trans	Transp -Maint.	Sanitary Systems	Drain/Roadside Maint.		Public Works Manager	5	M	2	0
Trans	Transp -Maint.	Sanitary Systems	Drain/Roadside Maint.	Crew 1	Public Works Supervisor	6	S	10	10
Trans	Transp -Maint.	Sanitary Systems	Drain/Roadside Maint.	Crew 2	Public Works Supervisor	6	S	11	11
Trans	Transp -Maint.	Maintenance Services			Sr. Public Works Manager	4	M	4	2
Trans	Transp -Maint.	Maintenance Services	Street Cleaning		Public Works Manager	5	M	4	0
Trans	Transp -Maint.	Maintenance Services	Day Operations	Crew 1	Public Works Supervisor	6	S	9	9
Trans	Transp -Maint.	Maintenance Services	Day Operations	Crew 2	Public Works Supervisor	6	S	9	9
Trans	Transp -Maint.	Maintenance Services	Night Operations	Crew 1	Public Works Supervisor	6	S	11	11
Trans	Transp -Maint.	Maintenance Services	Night Operations	Crew 2	Public Works Supervisor	6	S	11	11
Trans	Transp -Maint.	Transportation Operations			Sr. Public Works Manager	4	M	3	0
Trans	Transp -Maint.	Transportation Operations	Traffic Maintenance		Public Works Manager	5	M	3	0
Trans	Transp -Maint.	Transportation Operations	Traffic Maintenance	Traffic Crew 1	Public Works Supervisor	6	S	13	13
Trans	Transp -Maint.	Transportation Operations	Traffic Maintenance	Traffic Crew 2	Public Works Supervisor	6	S	16	16
Trans	Transp -Maint.	Transportation Operations	Traffic Maintenance	Electrical Crew	PW Electrical Supervisor	6	S	23	23
Trans	Transp -Maint.	Transportation Operations	Sidewalks		Public Works Manager	5	M	2	0
Trans	Transp -Maint.	Transportation Operations	Sidewalks	Crew 1	Public Works Supervisor	6	S	16	16
Trans	Transp -Maint.	Transportation Operations	Sidewalks	Crew 2	Public Works Supervisor	6	S	16	16
Trans	Transp -Maint.	Transportation Operations	Structures		Public Works Manager	5	M	2	0
Trans	Transp -Maint.	Transportation Operations	Structures	Crew 1	Public Works Supervisor	6	S	13	13
Trans	Transp -Maint.	Transportation Operations	Structures	Crew 2	Public Works Supervisor	6	S	13	13
Trans	Transp -Maint.	Finance			Admin. Services Mgr.	4	M	3	1
Trans	Transp -Maint.	Finance	Finance		Senior Financial Analyst	5	M	2	1

CITY OF PORTLAND
SPAN OF CONTROL STUDY
Database of Managers and Supervisors Included in Study

Office	Bureau	Division	Section	Unit	Position Name	Layer	Type	Auth. FTE	NS
Trans	Transp - Maint.	Finance	Finance	Accounting	Asst. Financial Analyst	6	S	4	4
OFA	Finance & Admin.	Accounting Division			Finance & Admin. Dir.	2	D	11	0
OFA	Finance & Admin.	Accounting Division			Accounting Manager	3	M	4	0
OFA	Finance & Admin.	Accounting Division	General Ledger		Accounting Supervisor II	4	S	7	7
OFA	Finance & Admin.	Accounting Division	Payroll		Accounting Supervisor II	4	S	6	6
OFA	Finance & Admin.	Accounting Division	Accounts Payable		Accounting Supervisor II	4	S	9.5	9.5
OFA	Finance & Admin.	Accounting Division	Data Control		Accounting Supervisor II	4	M	7	6
OFA	Finance & Admin.	Accounting Division	Data Control	Data Entry	Administrative Supervisor I	5	S	4	4
OFA	Finance & Admin.	Computer Svcs. Division			Computer Svcs. Manager	3	M	7	3
OFA	Finance & Admin.	Computer Svcs. Division	Programming Services		Senior IS Manager	4	M	11	11
OFA	Finance & Admin.	Computer Svcs. Division	Technical Services		Senior IS Manager	4	M	5	4
OFA	Finance & Admin.	Computer Svcs. Division	Technical Services	DP Operations	DP Operations Supervisor	5	S	5	5
OFA	Finance & Admin.	Computer Svcs. Division	Customer Service		Senior IS Manager	4	M	7.5	7.5
OFA	Finance & Admin.	Computer Svcs. Division	Emergency Comm.		IS Supervisor	4	S	3	3
	Buildings				Buildings Director	2	D	7	2
	Buildings	Administrative Services			St. Bureau Admin. Mgr.	3	M	5	2
	Buildings	Administrative Services	Budget and Finance		Senior Financial Analyst	4	S	2	2
	Buildings	Plan Review and Permits			Plan Review Manager	3	M	3	0
	Buildings	Plan Review and Permits	Permit Center		Permit Center Supervisor	4	S	19	19
	Buildings	Plan Review and Permits	Engineering Section		Senior Engineer	4	S	7	7
	Buildings	Plan Review and Permits	Plan Review Section		Plan Review Supervisor	4	S	6.5	6.5
	Buildings	Commercial Inspections			Buildings Inspections Mgr.	3	M	3	0
	Buildings	Commercial Inspections			Inspections Supervisor II	4	S	13	13
	Buildings	Commercial Inspections	Structural Mechanical		Chief Electrical Inspector	4	S	11	11
	Buildings	Commercial Inspections	Electrical Section		Chief Plumbing Inspector	4	S	6	6
	Buildings	Commercial Inspections	Plumbing Section		Buildings Inspections Mgr.	3	M	4	0
	Buildings	Residential Inspections			Inspections Supervisor II	4	S	33	33
	Buildings	Residential Inspections	Combination Insp.		Inspections Supervisor I	4	S	11	11
	Buildings	Residential Inspections	Housing Section-South		Inspections Supervisor I	4	S	11	11
	Buildings	Residential Inspections	Housing Section-North		Administrative Supervisor	4	S	4	4
	Buildings	Residential Inspections	Admin. Support		Environmental Svcs. Dir.	2	D	8	2
BES	Sewerage System				Chief Env. Svcs. Mgr.	3	M	2	0
BES	Sewerage System		Maintenance Eng.		Principal Engineer	4	M	3	0
BES	Sewerage System		Maintenance Eng.	Coll. Sys. M/E	Senior Engineer	5	M	8.25	7.25
BES	Sewerage System		Maintenance Eng.	Coll. Sys. M/E	Sr. Engineering Assoc.	6	S	3.25	3.25
BES	Sewerage System		Maintenance Eng.	WW Maint. Eng.	Senior Engineer	5	S	4.25	4.25
BES	Sewerage System		Maintenance Eng.	WW CIP	Senior Engineer	5	S	2	2
BES	Wastewater Treatment		Wastewater Ops.		Sr. Environmental Sv. Mgr	3	M	3	0
BES	Wastewater Treatment		Wastewater Ops.		Public Works Superintendent.	4	M	5	0
BES	Wastewater Treatment		Wastewater Ops.	Ops. Support	Public Works Supervisor	5	S	3	3

CITY OF PORTLAND
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Database of Managers and Supervisors included in Study

Office	Bureau	Division	Section	Unit	Position Name	Layer	Type	Auth. FTE	NS
BES		Wastewater Treatment	Wastewater Ops.	CBWTP Ops.	Public Works Manager	5	S	19	19
BES		Wastewater Treatment	Wastewater Ops.	Biosolids Prodn	Public Works Manager	5	S	19	19
BES		Wastewater Treatment	Wastewater Ops.	CBWTP Proc.	Public Works Manager	5	S	18	18
BES		Wastewater Treatment	Wastewater Ops.	TCWTP	Public Works Manager	5	S	9	9
BES		Wastewater Treatment	Wastewater Maint.		Public Works Superintendent	4	M	8	5
BES		Wastewater Treatment	Wastewater Maint.	CBWTP Maint	Public Works Manager	5	S	21	21
BES		Wastewater Treatment	Wastewater Maint.	Elec. & Instr.	Public Works Manager	5	S	18	18
BES		Wastewater Treatment	Wastewater Maint.	TC & PS	Public Works Manager	5	S	10	10
BES		Wastewater Treatment	Business Management		Environmental Svcs. Mgr.	4	M	8	6
BES		Wastewater Treatment	Business Management	Biosolids	Program Manager I	5	S	1	1
BES		Wastewater Treatment	Business Management	Stores & Purch	Stores System Manager	5	S	5	5
BES		Business Operations	Business Management		Sr. Environmental Svc. Mgr.	3	M	3	0
BES		Business Operations	Financial Mgmt.		Bureau Admin. Mgr.	4	M	7	6
BES		Business Operations	Financial Mgmt.	Accounting	Acctg. Supr. II	5	S	9	9
BES		Business Operations	Information Svcs.		Information Svcs. Mgr.	4	S	10	10
Police					Chief of Police	2	D	2	0
Police					Assistant Chief of Police	3	M	6	0
Police		Operations Branch			Deputy Chief	4	M	6	2
Police		Management Services			Program Manager IV	4	M	7	0
Police		Management Services	Fiscal Services		Admin. Supervisor II	5	M	3	1
Police		Management Services	Fiscal Services	AP/Payroll	Admin. Supervisor I	6	S	5	5
Police		Management Services	Fiscal Services	Accounting	Senior Admin. Specialist	6	S	2	2
Police		Management Services	Data Processing		Sr. Info. Sys. Manager	5	S	8	8
Police		Operations Branch	North Precinct		Precinct Commander	5	M	5	0
Police		Operations Branch	North Precinct	Shift 1	Lieutenant	6	M	4	0
Police		Operations Branch	North Precinct	Shift 1	Sergeant	7	S	8	8
Police		Operations Branch	North Precinct	Shift 1	Sergeant	7	S	8	8
Police		Operations Branch	North Precinct	Shift 1	Sergeant	7	S	8	8
Police		Operations Branch	North Precinct	Shift 1	Sergeant	7	S	9	9
Police		Operations Branch	North Precinct	Shift 2	Lieutenant	6	M	6	0
Police		Operations Branch	North Precinct	Shift 2	Sergeant	7	S	9	9
Police		Operations Branch	North Precinct	Shift 2	Sergeant	7	S	9	9
Police		Operations Branch	North Precinct	Shift 2	Sergeant	7	S	9	9
Police		Operations Branch	North Precinct	Shift 2	Sergeant	7	S	9	9
Police		Operations Branch	North Precinct	Shift 2	Sergeant	7	S	9	9
Police		Operations Branch	North Precinct	Shift 2	Sergeant	7	S	9	9
Police		Operations Branch	North Precinct	Shift 2	Sergeant	7	S	9	9
Police		Operations Branch	North Precinct	Shift 2	Sergeant	7	S	9	9
Police		Operations Branch	North Precinct	Shift 2	Sergeant	7	S	9	9
Police		Operations Branch	North Precinct	Shift 3	Lieutenant	6	M	4	0
Police		Operations Branch	North Precinct	Shift 3	Sergeant	7	S	9	9
Police		Operations Branch	North Precinct	Shift 3	Sergeant	7	S	9	9
Police		Operations Branch	North Precinct	Shift 3	Sergeant	7	S	9	9

CITY OF PORTLAND
 SPAN OF CONTROL STUDY
 Database of Managers and Supervisors included in Study

Office	Bureau	Division	Section	Unit	Position Name	Layer	Type	Auth. FTE	NS
	Police	Operations Branch	North Precinct	Shift 3	Sergeant	7	S	9	9
	Police	Operations Branch	North Precinct	Detective	Sergeant	6	S	7	7
	Police	Operations Branch	North Precinct	Neigh. Response	Lieutenant	6	S	5	5
	Police	Operations Branch	Central Precinct		Precinct Commander	5	M	6	0
	Police	Operations Branch	Central Precinct	Shift 1	Lieutenant	6	M	4	0
	Police	Operations Branch	Central Precinct	Shift 1	Sergeant	7	S	8	8
	Police	Operations Branch	Central Precinct	Shift 1	Sergeant	7	S	8	8
	Police	Operations Branch	Central Precinct	Shift 1	Sergeant	7	S	9	9
	Police	Operations Branch	Central Precinct	Shift 1	Sergeant	7	S	9	9
	Police	Operations Branch	Central Precinct	Shift 2	Lieutenant	6	M	4	0
	Police	Operations Branch	Central Precinct	Shift 2	Sergeant	7	S	8	8
	Police	Operations Branch	Central Precinct	Shift 2	Sergeant	7	S	8	8
	Police	Operations Branch	Central Precinct	Shift 2	Sergeant	7	S	9	9
	Police	Operations Branch	Central Precinct	Shift 2	Sergeant	7	S	9	9
	Police	Operations Branch	Central Precinct	Shift 3	Lieutenant	6	M	4	0
	Police	Operations Branch	Central Precinct	Shift 3	Sergeant	7	S	9	9
	Police	Operations Branch	Central Precinct	Shift 3	Sergeant	7	S	9	9
	Police	Operations Branch	Central Precinct	Shift 3	Sergeant	7	S	9	9
	Police	Operations Branch	Central Precinct	Shift 3	Sergeant	7	S	9	9
	Police	Operations Branch	Central Precinct	Mounted Patrol	Sergeant	6	S	7	7
	Police	Operations Branch	Central Precinct	Detective	Sergeant	6	S	7	7
	Police	Operations Branch	Central Precinct	Neigh. Response	Lieutenant	6	S	2	2
	Police	Operations Branch	East Precinct		East Precinct Commander	5	M	7	0
	Police	Operations Branch	East Precinct		Admin. Sergeant	6	S	4	4
	Police	Operations Branch	East Precinct	Shift 1	Lieutenant	6	M	5	0
	Police	Operations Branch	East Precinct	Shift 1	Sergeant	7	S	10	10
	Police	Operations Branch	East Precinct	Shift 1	Sergeant	7	S	10	10
	Police	Operations Branch	East Precinct	Shift 1	Sergeant	7	S	10	10
	Police	Operations Branch	East Precinct	Shift 1	Sergeant	7	S	10	10
	Police	Operations Branch	East Precinct	Shift 1	Sergeant	7	S	10	10
	Police	Operations Branch	East Precinct	Shift 2	Lieutenant	6	M	4	0
	Police	Operations Branch	East Precinct	Shift 2	Sergeant	7	S	10	10
	Police	Operations Branch	East Precinct	Shift 2	Sergeant	7	S	10	10
	Police	Operations Branch	East Precinct	Shift 2	Sergeant	7	S	10	10
	Police	Operations Branch	East Precinct	Shift 2	Sergeant	7	S	10	10
	Police	Operations Branch	East Precinct	Shift 2	Sergeant	7	S	10	10
	Police	Operations Branch	East Precinct	Shift 3	Lieutenant	6	M	7	0
	Police	Operations Branch	East Precinct	Shift 3	Sergeant	7	S	10	10
	Police	Operations Branch	East Precinct	Shift 3	Sergeant	7	S	10	10
	Police	Operations Branch	East Precinct	Shift 3	Sergeant	7	S	10	10
	Police	Operations Branch	East Precinct	Shift 3	Sergeant	7	S	10	10
	Police	Operations Branch	East Precinct	Shift 3	Sergeant	7	S	10	10

CITY OF PORTLAND
SPAN OF CONTROL STUDY
Database of Managers and Supervisors Included in Study

Office	Bureau	Division	Section	Unit	Position Name	Layer	Type	Auth. FTE	NS
	Police	Operations Branch	East Precinct	Shift 3	Sergeant	7	S	10	10
	Police	Operations Branch	East Precinct	Shift 3	Sergeant	7	S	10	10
	Police	Operations Branch	East Precinct	Shift 3	Sergeant	7	S	11	11
	Police	Operations Branch	East Precinct	Canine Unit	Sergeant	6	S	7	7
	Police	Operations Branch	East Precinct	Detective	Sergeant	6	S	7	7
	Police	Operations Branch	East Precinct	Neigh. Resonse	Lieutenant	6	S	7	7
	Police	Operations Branch	Traffic		Captain	5	M	6	1
	Police	Operations Branch	Traffic	Motorcycles	Sergeant	6	S	7	7
	Police	Operations Branch	Traffic	Motorcycles	Sergeant	6	S	4	4
	Police	Operations Branch	Traffic	Motorcycles	Sergeant	6	S	6	6
	Police	Operations Branch	Traffic	Motorcycles	Sergeant	6	S	8	8
	Police	Operations Branch	Traffic	Other Functions	Sergeant	6	S	14	14
	Parks and Rec.				Director	2	D	4	1
	Parks and Rec.				Deputy Director	3	M	6	0
	Parks and Rec.	Admin. Services			Bureau Admin. Manager	4	M	10	9
	Parks and Rec.	Admin. Services			Info. Services Manager	5	S	3	3
	Parks and Rec.	Operations	Information Services		Operations Manager	4	M	4	0
	Parks and Rec.	Operations	Park Facilities Maint.		Facilities Maint. Manager	5	M	6	0
	Parks and Rec.	Operations	Park Facilities Maint.	Administrative	Admin. Supervisor II	6	S	1	1
	Parks and Rec.	Operations	Park Facilities Maint.	Hort. Services	Sr. Facilities Maint. Sup.	6	M	17	16
	Parks and Rec.	Operations	Park Facilities Maint.	Hort. Services	Rose Garden Supervisor	7	S	2	2
	Parks and Rec.	Operations	Park Facilities Maint.	Park Districts	Sr. Facilities Maint. Sup.	6	M	8	0
	Parks and Rec.	Operations	Park Facilities Maint.	Park Districts	Foreman - Delta	7	S	4	4
	Parks and Rec.	Operations	Park Facilities Maint.	Park Districts	Foreman - Downtown	7	S	5	5
	Parks and Rec.	Operations	Park Facilities Maint.	Park Districts	Foreman - Laurelhurst	7	S	6	6
	Parks and Rec.	Operations	Park Facilities Maint.	Park Districts	Foreman - Lents	7	S	4	4
	Parks and Rec.	Operations	Park Facilities Maint.	Park Districts	Foreman - Mount Tabor	7	S	4	4
	Parks and Rec.	Operations	Park Facilities Maint.	Park Districts	Foreman - Peninsula	7	S	4	4
	Parks and Rec.	Operations	Park Facilities Maint.	Park Districts	Foreman - Washington	7	S	6	6
	Parks and Rec.	Operations	Park Facilities Maint.	Park Districts	Foreman - Westmoreland	7	S	4	4
	Parks and Rec.	Operations	Park Facilities Maint.	Structures	Sr. Facilities Maint. Sup.	6	M	22	21
	Parks and Rec.	Operations	Park Facilities Maint.	Structures	Supervising Electrician	7	S	2	2
	Parks and Rec.	Operations	Park Facilities Maint.	Equipment	Sr. Facilities Maint. Sup.	6	S	18	18
	Parks and Rec.	Operations	Park Facilities Maint.	Turf Maintenance	Sr. Facilities Maint. Sup.	6	S	16	16
	Parks and Rec.	Operations	Natural Resources		Botanic Supervisor	5	S	5	5
	Parks and Rec.	Operations	Forestry		Forester	5	M	14	13
	Parks and Rec.	Operations	Forestry	Inspections	Supervisor	6	S	3	3
	Fire				Fire Chief	2	D	7	2
	Fire	Emergency Operations			Division Chief	3	M	5	1
	Fire	Emergency Operations	Operations		Deputy Chief	4	M	5	0

CITY OF PORTLAND
 SPAN OF CONTROL STUDY
 Database of Managers and Supervisors Included in Study

Office	Bureau	Division	Section	Unit	Position Name	Layer	Type	Auth. FTE	NS
Fire	Emergency Operations	Operations	District 4	Lieutenant	6	S	4	4	
Fire	Emergency Operations	Operations	District 4	Lieutenant	6	S	4	4	
Fire	Emergency Operations	Operations	District 4	Lieutenant	6	S	4	4	
Fire	Emergency Operations	Operations	District 4	Lieutenant	6	S	4	4	
Fire	Emergency Operations	Operations	District 4	Lieutenant	6	S	3	3	
Fire	Emergency Operations	Operations	District 4	Lieutenant	6	S	3	3	
Fire	Emergency Operations	Operations	Battalion HQ	Battalion Chief	5	M	1	0	
Fire	Emergency Operations	Operations	Battalion HQ	Captain	6	S	3	3	
Fire	Fire Info/Communications	BOEC		Division Chief	3	M	2	0	
Fire	Fire Info/Communications	BOEC		Captain	4	S	12	12	
Fire	Fire Info/Communications	Information Services		Info. Systems Mgr.	4	S	6	6	
Fire	Management Services	Management Services		Division Manager	3	M	8	6	
Fire	Management Services	Accounting Services		Accg. Supr. II	4	S	4	4	

APPENDIX 5

Management Level Definitions

APPENDIX 5

MANAGEMENT LEVEL DEFINITIONS

Mayor/Commissioner

Chief executives of individual City departments. In the City of Portland, the Mayor and four Commissioners have executive level authority over bureaus assigned to them.

Director/Chief

"Authoritatively defines, regulates, or determines the activities of subordinate organizational units to achieve predetermined objectives. A manager of managers." (Hay Group) Defined as the layer of managers reporting directly to the chief executive (excluding "mezzanine managers"). In the City of Portland, directors are the managers reporting directly to the Commissioners.

Mezzanine Manager

Intermediate level of management such as advisors, specialists, coordinators, and quasi-line managers who support a director or manager, but do not themselves manage more than two direct subordinates.

Manager

"Plans, organizes, and controls dissimilar functions to achieve coordinated objectives by leading subordinates without giving detailed supervision. A manager of supervisors." (Hay Group) Includes all layers between directors and supervisors (excluding "mezzanine managers").

Supervisor

Allocates work assignments, instructs subordinates in the work they will perform (either directly or by enforcement of well-established rules), evaluates work based on results, and works with subordinates to improve performance. May also serve as a technical expert and in a trouble-shooting role. While this is the lowest layer of manager responsible for formally evaluating the performance of subordinates, these managers may not do formal evaluations, yet still be a supervisor. These individuals generally have the authority to hire and fire subordinates.

Lead Worker

In addition to regular duties, may perform some functions similar to a supervisor such as assigning work, instructing, and checking other work, but is not responsible for formally evaluating the performance of subordinates. However, in classifying the position, the lack of responsibility for formal evaluation cannot be the only distinction between this and supervisor; there must be other distinctions as well. NOTE: Lead workers are not considered a management layer in this study.

APPENDIX 6

Methodology for Citywide Analysis

APPENDIX 6

METHODOLOGY FOR CITYWIDE ANALYSIS

The ratio of non-managers to managers for the total city and bureaus within the City was computed using information provided by the Bureau of Personnel Services. Payroll databases for the January 26 and February 23, 1994, periods were applied. The methodology for computing the ratio follows:

BASIC EQUATION:

$$\text{Ratio} = \text{Total Non-supervisory Personnel} / \text{Number of Managers and Supervisors}$$

NUMBER OF MANAGERS AND SUPERVISORS:

- o The Bureau of Personnel Services classified all personnel for each bureau, excluding the Police and Fire bureaus, according to whether they were managers (including supervisors) or non-managers.
- o Bureau of Police managers and supervisors include all personnel from sergeants up to the Chief of Police.
- o Bureau of Fire managers and supervisors include all personnel from lieutenants up to the Fire Chief.

TOTAL NON-SUPERVISORY PERSONNEL:

- o Total FTE, including management personnel, includes the total employees with PSTAT codes less than 73 and the prorated number of FTEs included in PSTAT codes greater than 72. The part-time employees with PSTAT codes greater than 72 were prorated using a 20 percent assumption factor; the majority of these employees are employed in the Bureau of Parks and Recreation. Certain payroll data indicated that 20 percent was a reasonable approximation of the average percent of time worked by part-time personnel.
- o Total non-supervisory personnel was determined by subtracting the total number of management personnel from the total FTE count.

RESULT:

$$\begin{aligned} \text{Ratio} &= [(\text{Total FTE}) - (\text{Management personnel})] / (\text{Management personnel}) \\ &= [4953 - 821] / 821 \\ &= 5.0 \text{ non-managers per manager} \end{aligned}$$

CITY OF PORTLAND
SPAN OF CONTROL STUDY
Ratio of Non-managers per Manager

A Authorization Unit	B Total Employees PSTAT < 73	C Total Employees PSTAT > 72	D Non-Rep Supervisors/ Managers	E Represented Supervisor/ Manager	F Total Sup./ Managers (D + E)	G Total FTE Estimate (B + [20 * C])	H Total Non- Sup/Manager (G - F)	I Ratio (H/F)
TOTAL CITY [1]	4,714	1,197	522	299	821	4,953	4,132	5.03
BUREAUS WITH MORE THAN 50 PERSONNEL:								
Police (100)	1,164	13	26	143	169	1,167	998	5.90
Fire (124)	710	5	23	156	179	711	532	2.97
Transportation (159)	699	37	108	0	108	706	598	5.54
Water (180) [2]	483	20	66	0	66	487	421	6.38
Environmental Svcs (145) [3]	410	12	65	0	65	412	347	5.34
Parks (130) [4]	323	1,071	67	0	67	537	470	7.02
Fiscal Administration (307)	166	5	35	0	35	167	132	3.77
General Services (346) [5]	162	4	29	0	29	163	134	4.61
Building (520)	160	13	17	0	17	163	146	8.56
Emergency (620)	127	0	19	0	19	127	108	5.68
Planning (510)	68	0	7	0	7	68	61	8.71
Auditor (336)	51	4	8	0	8	52	44	5.48

BUREAUS WITH LESS THAN 50 PERSONNEL:								
City Attorneys (312)	36	0	7	0	7	36	29	4.14
Business Licenses (316)	32	2	6	0	6	32	26	4.40
Neighborhood Associations (342)	20	0	6	0	6	20	14	2.33
Purchases (319)	17	0	3	0	3	17	14	4.67
Community (540)	13	3	3	0	3	14	11	3.53
Metropolitan Arts Comm. (375)	9	2	4	0	4	9	5	1.35
Energy Office (302)	8	0	2	0	2	8	6	3.00
Cable Communications (300)	6	0	3	0	3	6	3	1.00
Metropolitan Human Rights (341)	5	0	2	0	2	5	3	1.50
Intergovernmental Affairs (303)	4	0	1	0	1	4	3	3.00

NOTE [1]: The "Total City" numbers do not equal the sum of the bureaus below due to the exclusion of the Office of the Mayor and the Commissioners' offices.

NOTE [2]: Water includes Hydro (637)

NOTE [3]: Environmental Services includes Refuse Disposal (155)

NOTE [4]: Parks includes PIR Operating (608) and Golf (617)

NOTE [5]: General Services includes Print/Distribution (354), Communication Services (360), S/A Electronics (446), Fleet (562), and Portland Building (732)

APPENDIX 7

External Comparisons of Functional Groups

APPENDIX 7

EXTERNAL COMPARISONS OF FUNCTIONAL GROUPS

One aspect of the study included the comparison of the City of Portland to other public and private sector organizations. Five other cities of similar size to Portland, two Northwest counties, the State of Oregon and two large local businesses participated in the study. These organizations provided personnel data and organization charts that enabled computation of certain statistics for functional areas comparable to the functional groups included in the study sample for Portland. This information allowed for the comparison of Portland's number of management layers and its ratio of non-managers to managers to these other organizations.

The five cities participating in the study included:

- o City of Charlotte, North Carolina
- o City of Cincinnati, Ohio
- o City and County of Denver, Colorado
- o City of Kansas City, Missouri
- o City of Seattle, Washington

These cities were selected because they are part of a group of cities that the City of Portland frequently looks to for comparisons. A sixth city, Sacramento, declined to participate. Each of the cities received a letter describing the span of control study, the management level definitions, and a description of the functions included in the study. In response, the cities provided organizational information and organization charts for some or all of the functional groups included in the study. Additionally, various personnel within each city participated in follow-up telephone discussions to clarify the information.

The two counties participating in the study included King County, Washington, and Multnomah County, Oregon. These counties were selected because their data were readily available. The King County Auditor recently released a report on its span of control study of all departments within the Executive and Judicial Branches of the county. Organization charts from the study provided the comparison information for the City of Portland study.¹ Additionally, Multnomah County had recently analyzed its non-managers to manager ratios, and a County personnel analyst provided certain detailed data to assist this study.

The State of Oregon has studied span of control and management layers for the last two or three years. Various departments within the State contributed to the study, providing organization charts and participating in follow-up telephone discussions.

The two private sector organizations included in the study are Portland General Electric (PGE) and Standard Insurance. These companies were selected because of their leadership in the Portland community and their willingness to participate. Although comparisons could not be made for all functional groups, both companies provided organization data for the centralized accounting and data processing functions. Additionally, PGE's information on distribution line crews provided a meaningful comparison of various front-line maintenance functions within the City of Portland. Standard Insurance's Group Underwriting and Policy Issue Department was used as a general comparable to the Bureau of Buildings as they both review policies and contracts and deal with the public.

¹ The King County Auditor counted all lead workers as supervisors. Where King County data appear in the tables in this appendix, certain lead workers are classified as managers, and other as non-managers. The classification was chosen in each case to best assure fair comparisons to the City of Portland data.

Summaries of the comparative data are provided in the following matrices. The number of managers shown in the tables includes only those in the specified functional groups, and not managers at organization levels above the specified groups. However, the reported number of management layers includes both layers above the functional group and those within the group itself.

CITY OF PORTLAND
SPAN OF CONTROL STUDY
 External Comparison of Non-managers to Managers Ratio

Comparable Organization	Accounting				Notes
	No. of Managers	No. of Non-managers	Non-managers to Managers	No. of Mgmt Layers	
CITIES:					
Charlotte	9	33	3.67	5	(1),(5)
Cincinnati					
Denver	6	23	3.83	4	(1),(6)
Kansas City	11	19	1.73	5	(1),(5)
<i>Portland</i>	6	32.5	5.42	5	(1),(7)
Seattle	8	22	2.75	5	(1),(8)
OTHER:					
King County	6	36.8	6.13	4	(2),(9)
Multnomah County	3	22	7.33	3	(1),(10)
State of Oregon	4	31	7.75	4	(3),(11)
PGE	4	57	14.25	5	(1),(12)
Standard Insurance	3	24	8.00	5	(4),(13)

NOTES:

Organizational areas included:

- (1) Centralized accounting only.
- (2) Centralized accounting only. The ratio would decline to 4.35 if leads were counted as supervisors.
- (3) Accounting Division of the Department of Administrative Services.
- (4) Accounting group in Corporate Financial Services; excludes tax and audit functions.

First layer of management:

- (5) City Manager
- (6) Auditor
- (7) Commissioner
- (8) Mayor
- (9) County Executive
- (10) County Board Chair
- (11) Governor
- (12) President
- (13) CEO

CITY OF PORTLAND
SPAN OF CONTROL STUDY
External Comparison of Non-managers to Managers Ratio

Comparable Organization	Data Processing				Notes
	No. of Managers	No. of Non-managers	Non-managers to Managers	No. of Mgmt Layers	
CITIES:					
Charlotte					
Cincinnati	31	130	4.19	6	(1), (5)
Denver					
Kansas City	16	52	3.25	5	(1), (5)
<i>Portland</i>	6	33.5	5.58	5	(1), (6)
Seattle	17	84	4.94	6	(2), (7)
OTHER:					
King County	13	66	5.08	6	(3), (8)
Multnomah County	11	57	5.18	5	(1), (9)
State of Oregon	10	52	5.20	6	(1), (10)
PGE	12	100	8.33	4	(1), (11)
Standard Insurance	12	108	9.00	5	(4), (12)

NOTES:

Organizational areas included:

- (1) Centralized data processing only.
- (2) Excluding training function.
- (3) Includes Development Services, Computer Services (exclusive of print shop and graphic arts units), Network and Support Section, and Micro-Computer Support Section. The ratio would decline to 3.65 if leads were counted as supervisors.
- (4) Systems and Programming, Technical Services and Computer Operations (excludes records and purchasing).

First layer of management:

- (5) City Manager
- (6) Commissioner
- (7) Mayor
- (8) County Executive
- (9) County Board Chair
- (10) Governor
- (11) President
- (12) CEO

CITY OF PORTLAND
SPAN OF CONTROL STUDY
 External Comparison of Non-managers to Managers Ratio

Comparable Organization	Building				Notes
	No. of Managers	No. of Non-managers	Non-managers to Managers	No. of Mgmt Layers	
CITIES:					
Charlotte					
Cincinnati	20	98	4.90	6	(1), (5)
Denver	19	90	4.74	4	(1), (6)
Kansas City	15	59	3.93	4	(1), (5)
<i>Portland</i>	<i>19</i>	<i>147.5</i>	<i>7.76</i>	<i>4</i>	<i>(1), (7)</i>
Seattle	40	136	3.40	6	(1), (6)
OTHER:					
King County	9	71.5	7.94	5	(2), (8)
Multnomah County					
State of Oregon	16	79	4.94	5	(3), (9)
PGE					
Standard Insurance	13	123	9.46	6	(4), (10)

NOTES:

Functional areas included:

- (1) Functions generally include Residential and Commercial Inspection, Plan Review and Permit, and Administration.
- (2) Excludes Fire Marshal and related personnel. The ratio would decline to 4.75 if leads were counted as supervisors.
- (3) Includes functions similar to Portland Bureau of Buildings, i.e. Field Operations (inspections) and Statewide Services (plan review, code).
- (4) Group Underwriting and Policy Issue Dept. used as a general comparable to Bureau of Buildings as they both review policies and contracts and deal with the public.

First layer of management:

- (5) City manager counted as first layer.
- (6) Mayor counted as first layer.
- (7) Commissioner counted as first layer.
- (8) County Executive counted as first layer.
- (9) Governor counted as first layer.
- (10) CEO

CITY OF PORTLAND
SPAN OF CONTROL STUDY
 External Comparison of Non-managers to Managers Ratio

Comparable Organization	Bureau of Environmental Services (1)				Notes
	No. of Managers	No. of Non-managers	Non-managers to Managers	No. of Mgmt Layers	
CITIES:					
Charlotte					
Cincinnati					
Denver	44	233	5.30	7	(2), (7)
Kansas City	32	243	7.59	8	(3), (8)
<i>Portland</i>	18	150.75	8.38	6	(4), (9)
Seattle	9	64	7.11	7	(5), (7)
OTHER:					
King County					
Multnomah County					
State of Oregon					
PGE	21	396	18.86	7	(6), (10)
Standard Insurance					

NOTES:

- (1) Selected functions only.
- Organizational areas included:
 - (2) Includes Engineering and Operations within Wastewater Management Division.
 - (3) Includes Wastewater Treatment Division and Sewer Maintenance (within Line Maintenance Division).
 - (4) Includes Maintenance Engineering (within Sewerage System) and Wastewater Treatment (Waterwater Operations, Wastewater Maintenance, and Business Management). The exclusion of Business Management would increase ratio to 9.25.
 - (5) Includes Field Operations section of Maintenance Operations (within Drainage & Wastewater Utility).
 - (6) Distribution line crews used as general comparables.

First layer of management:

- (7) Mayor
- (8) City Manager
- (9) Commissioner
- (10) President

CITY OF PORTLAND
SPAN OF CONTROL STUDY
 External Comparison of Non-managers to Managers Ratio

Comparable Organization	Fire Operations					Notes
	No. of Managers	No. of Non-managers	Non-managers to Managers	No. of Mgmt Layers		
CITIES:						
Charlotte	154	576	3.74	5	(1), (3)	
Cincinnati	182	534	2.93	6	(1), (3)	
Denver	205	612	2.99	6	(1), (4)	
Kansas City	184	652	3.54	6	(2), (3)	
<i>Portland</i>	<i>129</i>	<i>396</i>	<i>3.07</i>	<i>7</i>	<i>(1), (5)</i>	
Seattle	210	688	3.28	7	(1), (4)	
OTHER:						
King County						
Multnomah County						
State of Oregon						
PGE						
Standard Insurance						

- NOTES:**
 Organizational areas included:
 (1) Fire Operations only
 (2) Total Fire Bureau
 First layer of management:
 (3) City Manager
 (4) Mayor
 (5) Commissioner

CITY OF PORTLAND
SPAN OF CONTROL STUDY
External Comparison of Non-managers to Managers Ratio

Comparable Organization	Parks and Recreation				Notes
	No. of Managers	No. of Non-managers	Non-managers to Managers	No. of Mgmt Layers	
CITIES:					
Charlotte					
Cincinnati					
Denver	46	184	4.00	6	(1), (7)
Kansas City	28	206	7.36	6	(2), (8)
<i>Portland</i>	<i>21</i>	<i>135</i>	<i>6.43</i>	<i>7</i>	<i>(3), (9)</i>
Seattle	28	311.84	11.14	6	(4), (7)
OTHER:					
King County	27	113.87	4.22	6	(5), (10)
Multnomah County					
State of Oregon					
PGE	21	396	18.86	7	(6), (11)
Standard Insurance					

NOTES:

- Organizational areas included:
- (1) Includes Parks Division, i.e. Maintenance, Building Infrastructure, Forestry, Mountain Parks. Ratio would increase with the inclusion of seasonal workers.
 - (2) Includes Total Parks and Recreation Division, exclusive of the recreation function.
 - (3) Primary function is Parks Facilities Maintenance, but also includes Forestry and Natural Resources.
 - (4) Includes Park Resources (South, Central, and North Divisions), Horticulture (Citywide Division), and Building Maintenance/Public Works (Facilities Maintenance and Development Division).
 - (5) Includes Parks Maintenance section of Parks Division. For comparability purposes, some leads were counted as supervisors; if all leads were counted as supervisors, the ratio would decline to 3.54.
 - (6) Distribution line crews used as general comparables.
- First layer of management:
- (7) Mayor
 - (8) City Manager
 - (9) Commissioner
 - (10) County Executive
 - (11) President

CITY OF PORTLAND
SPAN OF CONTROL STUDY
 External Comparison of Non-managers to Managers Ratio

Comparable Organization	Bureau of Police					Notes
	No. of Managers	No. of Non-managers	Non-managers to Managers	No. of Mgmt Layers		
CITIES:						
Charlotte						
Cincinnati	108	526	4.87	6	(1), (5)	
Denver	128	653	5.10	7	(1), (6)	
Kansas City	138	712	5.16	6	(1), (5)	
<i>Portland</i>	<i>70</i>	<i>483</i>	<i>6.90</i>	<i>7</i>	<i>(1), (7)</i>	
Seattle	109	852	7.82	7	(1), (6)	
OTHER:						
King County	67	423	6.31	6	(2), (8)	
Multnomah County	23	108	4.70	4	(3), (9)	
State of Oregon	27	125	4.63	7	(4), (10)	
PGE						
Standard Insurance						

NOTES:

Organizational areas included:

- (1) Police Operations only
- (2) Field Operations in Sheriff's Department (counts Master Police Officers as leads and excludes volunteers)
 If Master Police Officers were counted as supervisors, ratio would decline to 3.90.
- (3) Sheriff's Enforcement Branch
- (4) District I Operations

First layer of management:

- (5) City Manager
- (6) Mayor
- (7) Commissioner
- (8) County Executive
- (9) Sheriff (elected official)
- (10) Governor

CITY OF PORTLAND
SPAN OF CONTROL STUDY
 External Comparison of Non-managers to Managers Ratio

Comparable Organization	Office of Transportation (Maintenance Functions)				Notes
	No. of Managers	No. of Non-managers	Non-managers to Managers	No. of Mgmt Layers	
CITIES:					
Charlotte	15	273	18.20	5	(1), (10)
Cincinnati					
Denver	44	219	4.98	8	(2), (11)
Kansas City	12	198	16.50	6	(3), (10)
<i>Portland</i>	35	348	9.94	6	(4), (12)
Seattle	50	293.5	5.87	7	(5), (11)
OTHER:					
King County	19	270	14.21	7	(6), (13)
Multnomah County	22	169	7.68	5	(7), (14)
State of Oregon	20	219	10.95	7	(8), (15)
PGE	21	396	18.86	7	(9), (16)
Standard Insurance					

NOTES:

Organizational areas included:

- (1) Includes Street Maintenance and Transportation Operations
- (2) Includes Street Maintenance and Traffic Operations (street signage, street painting, signals).
- (3) Includes Street Maintenance (street cleaning is part of this division), Traffic Signals, and Street Signs.
- (4) Includes Street Maintenance, Transportation Operations, Street Cleaning (part of Maintenance Services Division), and Sanitary Systems. When Sanitary Systems is excluded from ratio, the ratio drops only slightly to 9.92.
- (5) Includes Street Maintenance, Traffic Operations, and Roadway Structures.
- (6) Includes Division Maintenance, Traffic Operations, and Special Operations units. The ratio would decline to 4.90 if leads were counted as supervisors.
- (7) Includes entire Transportation Department.
- (8) Includes District 2 Maintenance Units.
- (9) Distribution line crews used as general comparables.

First layer of management:

- (10) City Manager
- (11) Mayor
- (12) Commissioner
- (13) County Executive
- (14) County Board Chair
- (15) Governor/Transportation Commission
- (16) President

