Facility Consolidation Study

for the

Washington State Department of

Health

FINAL REPORT

November 5, 1999

ARCHITECTS BOCRA

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STATE OF WASHINGTON
FACILITY CONSOLIDATION STUDY
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PREFACE

The Department of Health (DOH) commissioned this study to determine the feasibility of consolidating twenty-one (21) office buildings into either a single building or a multi-building campus in Thurston County. This study is a collaborative effort with Architects BCRA, General Administration, and the department.

It is the intent of this study to provide:

- Facility information to help the department reach its goal of working more efficiently
- Square footage needs, dependencies, and functional/organizational relationships
- Comparative analysis of areas in Thurston County for site recommendations
- Performance specifications and conceptual cost analysis
- Comparison of state owned versus private development time schedule

This study is conceptual in nature and is intended as a preliminary planning document. The Department of Health will complete a full functional program plan, and in partnership with General Administration, develop full specifications prior to requesting an RFP.

In addition, Department of Health is participating with General Administration and the transportation agencies in a countywide study to address Thurston County lease and space planning needs. Portions of this study may be used in this broader work.

ACKNOWLEDGEMENTS

This study is a product of the team approach with General Administration; the Department of Health; and Architects BCRA and their subconsultants – APRA, AHBL, BCE, Bill Acker Consulting, and Eric Cederstand. The Owner team provided information about existing facilities, operational costs, and functional requirements. The A/E team prepared a space needs analysis and program, performance specifications, conceptual cost estimate, and assimilated the information into a comparative format to address the issues of this report.

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1.0 EXECUTIVE SUMMARY

BACKGROUND AND PURPOSE

Department of Health (DOH) staff is currently housed in twenty-one (21) office buildings in four (4) separate geographic locations in Thurston County. In 2003, seven (7) buildings now leased by DOH for office space are scheduled for demolition by the owner. One-third of the department's Thurston County staff (363 employees) is located in these buildings; 208 additional employees are located in adjacent buildings. Due to programmatic dependencies these employees will need to move at the same time. In addition, DOH has other leases expiring in 2003, and in mid-2004 the rest of the department's Thurston County leases are due for renewal. For DOH, the status quo option means relocating nearly 600 employees by 2003.

STUDY APPROACH

The body of the report is organized in the chronological order of the planning process:

1. The analysis of DOH's need for office space.

    - Inventory of DOH's existing facilities
    - Space needs analysis
    - Phasing and lease expiration analysis

2. The analysis of the alternatives for implementing an office facility.

    - Description of facility alternatives
    - Preferred Development Area analysis
    - Identification of the building's level of quality and performance specifications
    - Conceptual cost analysis
    - Proforma
    - Overall conclusions

The following tasks were completed to assess consolidation for DOH.

- Identify the benefits and costs of consolidating twenty-one (21) separate office buildings in Thurston County.

- Evaluate several building configuration options to include:

    - Multiple buildings single campus, built in multiple phases
    - Single building, multiple phase
    - Single building built in single phase

- Conduct a time-based comparison for the advantages and disadvantages of a traditional state-owned capital development process with office space procurement through a private developer process.

- Undertake a conceptual space program analysis to identify dependencies, adjacencies, and operational improvements in terms of centralization versus decentralization of office functions.

- Complete a space program to estimate DOH's functional and space needs based on the utilization of General Administration's "draft" space standards.

- Conduct a site assessment to analyze and compare three Preferred Development Areas (PDAs) for office space development (Lacey, Olympia, and Tumwater) that conforms with the State Master Plan for state-owned facilities.

- Determine site requirements for a conceptual consolidated facility and conduct a survey of suitable sites within the three Preferred Development Areas.

- Develop conceptual performance specifications and conceptual estimated costs to meet department needs and also to provide information to General Administration for the Thurston County Lease and Space Planning Study.

Key Assumptions

The following assumptions are incorporated into this study based on DOH commitments.

- Staffing will increase 2 percent over five (5) years through 2004 and 2 percent per annum thereafter. This low rate of growth reflects the assumption that existing positions will be redeployed to meet new program and building requirements.

- A document management system will be implemented that will include an aggressive retention and storage commitment, compact shelving, and imaging.

- A number of private office spaces will be within the General Administration standard, and cubicles to the standard of 8 feet by 8 feet. Cubicles will incorporate modular system furniture and panels.

- The report analysis and the size of the building is based on the space needs projected to the year 2004.

- Centralized functions will be consolidated, insofar as is possible, to achieve maximum efficiency. These include functions such as information technology, PBX, security systems; central stores; reception services; conference, training, copy rooms; and public access areas.

- A targeted (fully serviced) lease rate of $21 per square foot per year for 1999 is the basis for preparing the Proforma Analysis.

SUMMARY OF FINDINGS AND CONCLUSIONS

The overall conclusions for DOH Consolidation Study are:

- **Building**

  To enable the department to reach its mission, meet its customer service needs, establish a common department identity, improve its communications, assure program effectiveness, realize operational improvement, and keep construction costs to a minimum, the most cost-effective and efficient option for DOH in 2004, is a single building of approximately 232,640 square foot facility constructed in a single phase. To allow for future growth, projections have been done based on headcount increase for 2010 and 2020. Projected building area for 2010 is 261,494 square feet and 318,759 square feet for 2020..

  A single building constructed in one phase was found to be the most effective concept for cost, time, and program responsiveness. However, if the building must be phased over time due to budget constraints, the maximum number of phases should be two to minimize construction costs.

  Based on the Proforma Analysis with an assumed annual lease rate of $21 per square foot, the building costs should be at the low end of the conceptual cost estimate. The developers project cost should be approximately $134 to $140 per square foot of building area for the corresponding 20- and 25-year terms. This results in a project cost that is slightly less than the low-end conceptual estimate of $148 per square foot.

  DOH's intent is to occupy an efficient and programmatically effective operational building. To accomplish this, the building design should be cost conscious, not monumental in character and the design should have an efficient floor configuration with very few breaks in the façade. A 32-foot square structural bay for efficient configuration of workstations, and energy-efficient systems that will minimize annual energy costs.

- **Site**

  The recommended single-building/single-phase alternative for the department's space and functional needs for 2004 and projected out through 2010 will require a site size of approximately 12.4 acres. A multiple (3) building option would require a site size of approximately 15 acres. For 2020, the site size will be in the range of 12.4 to 16.6 acres for the single-building/single-phase and 15 to 17.15 acres for the multiple building alternative. The site should be zoned to allow for the construction of a five-story government building.

  After determining the minimum site requirements for the DOH consolidated facility, an extensive survey of the Preferred Development Areas (PDA) in Lacey, Olympia, and Tumwater was performed. The analysis of the PDAs included the review of applicable comprehensive plan policies and development

regulations as well as *The Master Plan for the Capitol of the State of Washington*. The analysis also included a review of site-specific opportunities and constraints within each PDA that included:

- Availability of contiguous property of a size necessary to construct the DOH consolidated facility
- Transportation levels-of-service for the adjacent street network
- Utility availability
- Planned capital improvements
- Environmental health hazards
- Proximity to public transit facilities
- Proximity to Interstate 5
- Compatibility with existing development
- Local project entitlement procedures

The result of the PDA research and analysis is that the Tumwater PDA was clearly deemed the most viable Preferred Development Area for the construction of the DOH consolidated facility.

In order to stay within the targeted annual lease rate of $21 per square foot, the land costs should be a maximum of $3 per square foot if interest rate is 7.5 percent and the amortization a 25-year term. If the interest rate is 6.5 percent, the cost of the site could be a maximum of $6.00 per square foot for a 20-year term and up to $10 per square foot for a 25-year term.

The selected site should allow off-site costs to be held to a minimum of 5 percent of total project costs. If project construction is phased, constructing most of the on-site improvements in the first phase will minimize costs incurred by inflation.

- **Schedule**

  The construction of the facility should be completed for occupancy by mid-2003 to meet the department's need for space before the expiration of leases and scheduled demolition of existing buildings.

- **Delivery Process**

  An analysis of the State General Contractor/Construction Manager (GC/CM) approach and private developer approach compared the delivery time and potential cost differences.

  To meet the department's timeframe, it is recommended that the private developer process be used. The private developer process

is shorter than the State GC/CM capital development process by almost one year. This time savings will provide for inflationary savings of approximately $1.0 million and will save the state considerable operational dollars. If DOH cannot occupy a site before September 2003, DOH will have to negotiate a new lease and pay the cost of moving a minimum of 363 staff into temporary office space. The private developer process will allow for occupancy in early 2003 for the single-building/single-phase alternative, which coincides with the expiration of existing leases.

- **Financing**

  This report recommends private development with an option to purchase at periods throughout the lease term. The cost of financing has a significant effect on the viability of this project. The department must use at least a 25-year amortization term and an interest rate of 7.5 percent to achieve its targeted annual lease rate. Financing should be explored for rates lower than 7.5 percent. It should also be noted that interest rates are highly variable and could change significantly before a decision to proceed with this effort is made.

2.0 ANALYSIS OF SPACE NEEDS: STATUS QUO VS. CONSOLIDATION

A space program has been prepared that quantifies the square footage requirements for a consolidated facility. Calculations have been done for years 1999 and 2004, and then extrapolated for 2010 and 2020. Alternative building scenarios based on workstation module, office planning grid, structural bay, floor plate size, and building height were identified.

EXISTING FACILITY INVENTORY

- The Department of Health's offices in Thurston County are accommodated in twenty-one (21) office buildings.
- DOH now has 1,090 individuals located in Thurston County.
- Currently, DOH occupies 253,695 square feet of office space. This does not include 4,000 square feet occupied by the boat shed, nor 25,500 square feet of warehouse space on Arab Road.

SPACE NEEDS ANALYSIS

- **Interim Space Needs**

  Table 2A compares DOH's existing office space inventory to the programmed space for a consolidated office facility. The programmed space is based on the current population (1999) and a 5-year growth allowance of 2 percent over a 5-year period from 1999 to 2004 in the consolidated model. The programmed area results in a ratio of 207 gross square feet per person. The projection of 2004 space for the status quo assumes the current ratio of 233 gross square feet per person. (See Appendix – Space Needs Analysis.)

  Compared to the existing DOH office facilities, a new office facility would be more efficient in space utilization by using standardized workstations and private offices, a structural system based on the standard workstation module, and more efficient circulation. The consolidation of DOH facilities would result in a reduction of 28,000 square feet when compared to the 1999 headcount and a reduction of 29,000 square feet when compared to 2004 headcount. (See Table 2A)

Table 2A – Interim Space Needs

Year	Headcount	Status Quo (GSF)	Consolidated (GSF)	Difference (GSF)
1999	1,090	253,695 (233 gsf/person)	225,670 (207 gsf/person)	28,025
2004	1,111	258,863 (233 gsf/person)	229,800 (207 gsf/person)	29,060

- **Long-Term Space Needs**

  Based on extrapolated data from the space needs program, the long-range space needs for the Years 2010 and 2020 are projected. For this projection, a 2 percent annual growth rate for DOH staff is assumed. See Table 2B.

Table 2B – Long-Term Space Needs – Consolidated Model

Year	Headcount	Projected Building Area (GSF)
2010	1,251	261,494
2020	1,525	318,759

PHASING ANALYSIS AND LEASE EXPIRATION

- **Initial Assumption for Phased Construction**

  An analysis for the potential of phased construction over several years was completed. Each phase was assumed to accommodate approximately one-third of DOH population and assumes that phases would correspond to the legislative approval cycle. The phases as identified by year of occupancy are Phase 1 by 2003, Phase 2 by 2006, and Phase 3 by 2009.

- **Phased Construction Based on Lease Expiration Data**

  If multiple phasing is necessary, the first phase should accommodate at least the number of people that will be displaced by demolition of leased facilities (363) and those that have dependencies and adjacency needs to the displace programs (208). Therefore, the first phase should accommodate a minimum of 571 employees plus all the support spaces resulting in a building of approximately 158,000 square feet. Refer to "Analysis of Lease Expiration Dates" below.

- **Analysis of Lease Expiration Dates**

  By 2003, DOH leases will expire for ten (10) buildings located in three of the four geographic areas of the department's current leased office space. The lease for one of DOH's facilities, located in a retail space, expires in 2003. Another seven (7) leases will not be renewable because the leased buildings are scheduled for demolition. In addition, in planning for this event DOH secured a cancellation option on seven additional buildings that have adjacency and dependency issues on the buildings that will be demolished. This means that in 2003, over 570 employees will be relocated.

  According to DOH, by 2004 the four remaining office-building leases will expire. However, while these leases can be renewed, the owner has stated he plans major renovation of these facilities requiring that they also be vacated. Thus, replacement space for all of DOH's Thurston County offices will have to be found by 2004.

In Table 2C, an analysis of the expiration dates for the leases indicates that Phase 1 should accommodate at least 571 people.

Table 2C – Lease Expiration Analysis

Building	Gross Sq. Ft.	Anticipated Move	Lease Term Ends	Headcount
AD Simon				**363**
Bldg. 1	9,480	2003	2003	
Bldg. 2	12,000	2003	2003	
Bldg. 3	10,981	2003	2003	
Bldg. 4	10,981	2003	2003	
Bldg. 5	12,000	2003	2003	
Bldg. 7	9,480	2003	2003	
AD Kaufman	*(cancellation lease option)*			**208**
Bldg. 8	8,341	2003	2002+1 = 2003	
Bldg. 9	6,000	2003	2003	
Bldg. 10	6,000	2003	2003	
Bldg. 11	6,000	2003	2003	
Bldg. 12	6,000	2003	2003	
Bldg. 13	6,000	2003	2003	
Bldg. 14	6,000	2003	2003	
Bldg. 15	6,000	2003	2003	
Subtotal	**115,263**			**571**
		OTHER LOCATIONS		
Firgrove				
Bldg. 8	5,121	2003	2002 + 1 = 2003	22
Bldg. 9	2,200	2003	2003	5
Target Plaza	25,083	2003	2002 + 1 = 2003	94
Quince				398
1101 Eastside	6,888	2004	2004	
1102 Quince	24,024	2004	2004	
1112 Quince	29,128	2004	2004	
1300 Quince	45,989	2004	2004	
Subtotal - Other	**138,433**			**519**
TOTAL	**253,696**			**1,090**

3.0 ANALYSIS OF ALTERNATIVES

FACILITY ALTERNATIVES

This study considered four facility alternatives for this report.

1. **Status Quo:** Since the Department must relocate approximately 571 staff by 2003, status quo refers to the existing situation of multiple buildings at multiple sites.
2. **Three Buildings/Three Phases:** An option to consolidate facilities on a single 15-acre site within three separate buildings that are constructed in three phases. (projected to 2010)
3. **Single Building/Three Phase:** This refers to a consolidation of facilities on a single 12.4-acre site within one building that is constructed in three separate phases. (projected to 2010)
4. **Single Building/Single Phase:** This refers to a consolidation of facilities on a single 12.4-acre site within one building, constructed in one phase. (projected to 2010)

PHASING

Phasing alternatives were analyzed for potential effects on cost. The first phase is determined by the need to have a building ready for occupancy by the Year 2003.

THE MASTER PLAN FOR THE CAPITOL OF THE STATE OF WASHINGTON

The Master Plan for the Capitol of the State of Washington, as adopted in 1991 by the State Capitol Committee, calls for new construction of state-owned facilities to be concentrated in three Preferred Development Areas (PDAs) located in the cities of Olympia, Lacey, and Tumwater. The Department of Health will comply with *The Master Plan for the Capitol of the State of Washington.* A state-owned or leased building would be constructed in a PDA.

The Department of Health's Consolidation Study responds directly to RCW 43.82.010 which states: "It is the policy of the state to encourage the colocation and consolidation of state services into single or adjacent facilities, whenever appropriate, to improve public service delivery, minimize duplication of facilities, increase efficiency of operations, and promote sound growth management planning." The Department of Health has identified the following reasons for a proposed consolidation:

- DOH has been told by one landlord that they must vacate seven buildings, 30 percent of the office space (as well as 30 percent of DOH's FTEs) in Thurston County, by 2003. Other programs located in adjacent buildings have dependencies and adjacencies with this 30 percent. These leases also expire in 2003. This means

that over 50 percent of the office space and FTEs in Thurston County will need to be relocated in 2003.

- A consolidated facility would improve customer service and provide more efficient and effective workspace for their employees.

- Currently, the agency is fragmented into 21 buildings in Thurston County. Such fragmentation has a negative impact on customer service.

- DOH does not have a centralized customer service center.

- Much of DOH's leased space is in older buildings with inefficient floor plans. The Department of General Administration (GA) has stated that the majority of existing leased space does not meet current General Administration building standards.

- DOH estimates employees spend, at a minimum, 4600 hours annually traveling to and from various Thurston County locations.

- Fragmentation of DOH operations requires maintaining duplicate operating systems. For example, the department operates 22 Thurston County networks. Each building also requires receptionists, building managers, lunchrooms, and mailrooms. Consolidation would decrease the duplication of these services.

While the department has made the best out of its current situation of being geographically dispersed, it is clear that the department, its' customers, and achievement of its' mission, would benefit from consolidation of staff and functions. The fundamental mission of the Department of Health is to protect and improve the health of people in Washington State by identifying significant factors which enhance or threaten health, developing policies and promising combinations of activities to address them and assuring that actions are taken. Fulfillment of this mission requires communication, coordination and problem solving across the broad range of functions within the department, including epidemiology, engineering, licensing and emergency response. Achievement of the mission would be enhanced by consolidation.

Specific examples to illustrate enhanced delivery of public health services towards achieving the mission of the department include the following:

- Customers must go to several different locations and buildings to do their business with the department. For example, a person may need to go to the Target location in West Olympia to get information relating to health care facilities; to a building at Eastside Plaza for information relating to a professional health care license; and to another building at Eastside Plaza for a birth certificate. None of the department's buildings are large enough to accommodate all customer services and the locations have significant design issues which limit service delivery.

- Emergency response is a major responsibility of the department that often requires close communication between multiple DOH areas. Having these multiple functions, such as EMS Trauma, Radiation, Protection and Risk Management, which are now located at three different sites, located in a single geographical area would enhance fast and effective communication in emergency situations. It would also be advantageous to have a building(s) better able to withstand major natural disasters, such as an earthquake.

- Response to disease outbreaks requires close communication and coordination between almost all parts of the agency including epidemiology experts, communication staff and executive management. Locating these functions together would enhance the rapid problem solving that often must occur in order when an outbreak occurs.

- Consolidation would provide increased opportunities for cross program coordination and integrating existing or emerging public health issues with actual practice and standards. An example is the recent department effort related to assuring safe drinking water for farmworker housing facilities, which cut across multiple areas.

The Department of Health's proposed consolidation would result in the vacating of approximately 258,000 square feet of leased space in Olympia and Tumwater. However, the impacts resulting from the Department of Health vacating its existing leased facilities will be mitigated in many cases by scheduled demolitions and renovations. As indicated in Table 3A on the following page, of the square feet of office space currently occupied by DOH, approximately 76,000 square feet at the Airdustrial complex in Tumwater is scheduled to be demolished in 2003. Another approximate 107,976 square feet at the Eastside Plaza Complex in Olympia is programmed for extensive renovations at the time the buildings become vacant. The remaining 73,671 square feet of space will likely be put back on the market for lease. However, not all of the space would necessarily be leased again as office space. The 25,000 square feet of space in the Target Plaza on Olympia's west side could be offered as a retail space, the use for which it was originally constructed. (See Table 3A "Backfill Scenario for the Department of Health.")

Table 3A "Backfill Scenario for the Department of Health"

Location	Lease No.	Lease Expires	Sq. Feet	Leasing Strategy	Likely Backfill Scenario (At Lease Expiration)
Target Plaza (2725 Harrison Ave NW Suite 500)	7727	09/30/02	24,728	Request 9-month extension.	Space converts back to retail space. If not converted, space may be considered by state as potential office site.
Firgrove Business Park (2411 Pacific Ave Bldg # 8)	7648	09/30/02	5,113	Request 9-month extension.	Space may be considered by state as potential office space.
Firgrove Business Park (2413 Pacific Ave Bldg #9)	7817	01/31/03	1,558	Request 5-month extension.	Space may be considered by state as potential office space.
Airdustrial Bldg 1-7 (7171 Cleanwater Ln)	8068	09/30/03	64,000	Vacate upon Lease expiration.	Building scheduled to be demolished. Not a candidate for backfill.
Airdustrial Bldg 8 (7171 Cleanwater Ln)	7064	05/31/01	8,320	Request 28-month extension.	Building scheduled to be demolished. Not a candidate for backfill.
Airdustrial Bldg (7211 Cleanwater Ln)	8414	06/30/04	6,000	Exercise option to cancel Lease.	Space may be considered by state as potential office space following facility upgrades.
Airdustrial Bldg (7211 Cleanwater Ln)	8411	06/30/04	6,000	Exercise option to cancel Lease.	Space may be considered by state as potential office space following facility upgrades.
Airdustrial Bldg (7211 Cleanwater Ln)	8412	06/30/04	6,000	Exercise option to cancel Lease.	Space may be considered by state as potential office space following facility upgrades.
Airdustrial Bldg (7211 Cleanwater Ln)	8413	06/30/04	6,000	Exercise option to cancel Lease.	Space may be considered by state as potential office space following facility upgrades.
Airdustrial Bldg (7211 Cleanwater Ln)	8371	06/30/04	6,000	Exercise option to cancel Lease.	Space may be considered by state as potential office space following facility upgrades.
Airdustrial Bldg (7211 Cleanwater Ln)	8370	06/30/04	6,000	Exercise option to cancel Lease.	Space may be considered by state as potential office space following facility upgrades.
Airdustrial Bldg (7211 Cleanwater Ln)	8417	06/30/04	6,000	Exercise option to cancel Lease.	Space may be considered by state as potential office space following facility upgrades.
Airdustrial Bldg 18 (7211 Cleanwater Ln)	6858	04/30/00	4,000	Renew Lease for 41 months.	Space may be considered by state as potential warehouse/garage space following facility upgrades.
Eastside Street Bldg (1101S Eastside St SE)	8192	12/31/04	8,338	Vacate upon Lease expiration.	Backfill Candidate.
Eastside Plaza (1102 Quince St SE)	8522	07/31/04	23,990	Vacate upon Lease expiration.	Backfill Candidate. Building to undergo major renovations.
Eastside Plaza (1112 Quince St SE)	8524	07/31/04	29,128	Vacate upon Lease expiration.	Backfill Candidate. Building to undergo major renovations. Office of Administrator for the Courts has first right of refusal to lease this space in an effort to expand and consolidate OAC functions/ staff.
Eastside Plaza (1300 Quince St SE)	8523	07/31/04	48,270	Vacate upon Lease expiration.	Backfill Candidate. Upon Lease expiration, building to undergo major renovations.

PREFERRED DEVELOPMENT AREA ANALYSIS

The Master Plan for the Capitol of the State of Washington identifies three Preferred Development Areas (PDA) for the planning of the state facilities. The three PDAs are situated in the cities of Lacey, Olympia, and Tumwater. The Olympia PDA is identified as the Capitol Campus, while the Lacey and Tumwater PDAs are identified as satellite campuses.

Methodology and Assumptions

The following assumptions were used for the site analysis:

- The greatest minimum parking standard from the zoning codes of the cities of Lacey, Olympia, and Tumwater was used to identify parking needs. No structured parking is assumed.
- An open space factor of 20 percent was applied to determine the minimum required site size.
- 12,000 cubic feet of storm drainage facilities is estimated for each net project acre.
- Sensitive areas were not included as a determinant in establishing minimum land area requirements since the location of critical areas and their associated buffer requirements are unique to each site and municipality. The assumption was that the net site areas would be unencumbered by sensitive areas. This means that a 20-acre site, encumbered by five (5) acres of wetlands and wetland buffers, is considered a 15-acre site for planning purposes.

Based on the assumptions above, net site area requirements for the various building alternatives ranged from a single-building alternative requirement of 12.4 acres to accommodate DOH's 2004 facility needs to a multiple-building alternative requirement of 17.15 acres to accommodate facility needs through 2020.

After determining the minimum site requirements for the DOH consolidated facility, an extensive survey of the Preferred Development Areas (PDA) in Lacey, Olympia, and Tumwater was performed. The analysis of the PDAs included the review of applicable comprehensive plan policies and development regulations as well as *The Master Plan for the Capitol of the State of Washington*. The analysis also included a review of site-specific opportunities and constraints within each PDA that included:

- Availability of contiguous property of a size necessary to construct the DOH consolidated facility
- Transportation levels-of-service for the adjacent street network
- Utility availability
- Other off-site improvements
- Planned capital improvements
- Environmental health hazards
- Proximity to public transit facilities
- Proximity to Interstate 5

- Compatibility with existing development
- Local project entitlement procedures

Conclusions and Recommendations

A shortage of contiguous land necessary to construct the DOH building program reduced the attractiveness of the Lacey and Olympia PDAs as potential areas for the DOH consolidated facility. Construction in the Lacey and Olympia PDAs would likely require structured parking and other costly site improvements to accommodate the DOH consolidated building. Moreover, strict design requirements in the Ecology Campus area of the Lacey PDA are incompatible with the building design goals of the Department of Health. Further, the project entitlement process in the Ecology Campus Area of the Lacey PDA would require the issuance of a conditional use permit that local planning staff indicated an unwillingness to support.

Consequently, the result of the PDA research and analysis revealed that the Tumwater PDA was clearly deemed the most viable Preferred Development Area for the construction of the DOH consolidated facility. While a zoning variance for height and bulk standards may be required for construction of the DOH consolidated facility in certain portions of the Tumwater PDA, the majority of the PDA is zoned in a manner that will not require the issuance of discretionary land use approvals. With the assemblage of land necessary in the Tumwater PDA, initial analysis suggests that contiguous properties could be assembled with a minimum amount of redevelopment. The proximity of the PDA to local transit facilities and Interstate 5 were also deemed excellent.

PERFORMANCE SPECIFICATIONS

- **Building Systems Analysis**

  Method

  A Performance Specification was prepared to establish the level of quality and performance characteristics of building systems for the cost analysis process of the consolidation study. The level of building quality is a direct result of a review of building codes, a tour of similar buildings, space needs program, and discussions with DOH and General Administration.

  The range of quality was established by meeting with program staff and DOH leadership, tours of existing state owned and leased buildings, and collaboration between General Administration, DOH, and discussions with the Transportation Agencies study team. Buildings toured included the Department of Retirement Systems, a leased facility, and the Department of Ecology, a state-owned facility. The range of quality has been targeted to fall between the quality of the building occupied by the Department of Retirement Systems, a leased facility, and that of the Department of Ecology, a state monumental building. Specifications for these buildings along with General Administration's Division of Real Estate Services specifications have been reviewed to assist in establishing the outline specifications contained in this report.

A brief Building Code analysis was performed to define the most appropriate building materials and systems that are required to meet the department's requirements.

The Space Needs Program outlines an optimum structural grid size of 32 feet x 32 feet in conjunction with the open office modular furniture layout. The structural system shall allow flexible interior space to accommodate changing program and technology requirements. The optimum building size to meet program needs in 2004 is 232,640 square feet.

- **Description of Building Systems**

  For the building's structure and exterior finish, the level of quality established for estimating purposes is characterized as a concrete- and steel-framed building with brick veneer and aluminum storefront entrances and aluminum window envelope.

  The building's interior is an open floor plan with permanent walls at the service core of elevators, lobby, stairs, and toilets. Interior finishes consist of carpet, resilient floor covering, ceramic tile, gypsum wallboard, and suspended acoustical ceilings. Plumbing fixtures are institutional grade and the heating, ventilating and air conditioning (HVAC) is variable air volume with hydronic hot water heating and digital control system with a ducted return. Energy efficient light fixtures with solid-state ballasts and high-efficient lamps are specified.

  State-of-the-art data and communications distribution systems are included to accommodate changing information technology and program needs. (See Appendix – Performance Specifications.)

MECHANICAL AND ELECTRICAL SYSTEMS

- **Mechanical Systems**

  Currently, the department's facilities are in small office buildings that have been constructed with low first cost as a primary consideration. Most of these buildings utilize single zone, split system and package rooftop equipment, which are typically heat pumps or gas heat/electric AC units. Also most of the buildings and systems were designed and constructed prior to recent advancements in energy efficiency and indoor air quality (IAQ).

  In the "consolidation" model, the HVAC, plumbing and other mechanical systems, will be constructed using larger and more efficient equipment that is tailored for large commercial/ institutional applications as opposed to the "light commercial" equipment typical of the existing buildings. Of paramount importance are improvements to indoor air quality. Our experience shows that this new level of quality will result in improvements in staff efficiency, reduction in staff turnover, and lost time due to illnesses.

Due to technological advancements in controls, electrical motors, and fuel burning processes, equipment-operating efficiencies have increased greatly in recent years. The end result in the consolidation model is lower operating costs through the reduction of fossil fuel and electricity consumption, and reduced maintenance costs because there are fewer systems and the systems are easier to maintain.

Advancements in the HVAC control systems have produced strategies that precisely control and monitor equipment to ensure peak operating efficiencies and to provide early warning when equipment requires maintenance. The new digital control systems provide feedback data to the building engineer that is used to "fine tune" the building to meet the demands of its tenants while optimizing energy use.

Savings in annual operating costs due primarily to the use of efficient, state-of-the-art systems can be expected. In the consolidation model, a reduction of $0.25 per square foot per year has been estimated. This will result in a reduction of $87,663 per year when compared to the status quo.

- **Electrical Systems**

Existing electrical systems in leased DOH facilities have been constructed with primary emphasis on code compliance. Lighting systems are generic; electrical power distribution is limited; and space for computer and network equipment, in many cases, encroaches on space needed for offices. These spaces are often environmentally unsuitable for equipment so strategic to office operations (i.e., not secured, not air conditioned, shared with power equipment, etc.). These buildings were not designed to accommodate current information technology systems, computers, and other contemporary office equipment.

In the consolidation model, the structure and its electrical systems are designed with flexibility and growth in mind. The building and its sub-systems are specifically tailored to support "adds, moves, and deletes." Office furniture, power, lighting, security, HVAC, telephone, and data systems in the consolidation model are designed to be adaptable to changing agency needs. Productivity is also enhanced through the application of computer friendly lighting systems that use parabolic lenses in fluorescent lighting fixtures to reduce eyestrain caused from glare. Downtime and costs for additions, moves, and deletions are minimized and productivity is enhanced.

In summary, the consolidation model affords many advantages over the existing arrangement. Reductions in power costs on a square foot basis can be expected that result directly from less dependence on electric heating, the purchasing of primary metered power, and improvements in lighting system efficiencies. Maintenance impacts and the costs associated with system expansion or modifications will be minimized. (See Appendix – Mechanical and Electrical Comparison.)

CONCEPTUAL COST ANALYSIS

- **Approach**

  Based on the Performance Specifications and Facility Space Needs Program a conceptual high-end and low-end cost estimates was prepared using the Uniformat Classification System.

  The cost estimate provides an analysis of the hard and soft costs for the various building alternatives. Hard costs include those costs for construction-related trades and items; soft costs include indirect costs such as taxes, consultant fees, and permitting fees. (See Appendix – Conceptual Cost Estimate Analysis.)

  The conceptual nature of the project scope is broad; therefore, the costs will vary, depending upon the final site selection and ultimate building design. For example, off-site mitigation and development costs, specific on-site and building characteristics, and phasing details have not been specifically identified. Allowances for these unknowns have been included in the estimates. High-end and low-end estimates provide the possible range of costs.

  The high-end building costs represent an irregular footprint and more architectural detail features such as cornices, moldings, and reveals. The low-end building costs represent the requirements and level of quality established in the above-mentioned documents. As long as predominant rectangular shape for the bulk of the building is maintained, simple "T" or "L" shaped floor plans can be accommodated in the low-end spectrum. Prudent, cost-conscious design solutions will be required to stay within the low-end estimate. Low-end cost estimate is based on the outline specifications and space program. The building is not monumental, but is a cost-conscious design.

- **Variables**

  Some of the unknown variables that could effect the cost of construction are:

  - **Sensitive Areas Mitigation.** Potential mitigation costs could vary significantly from site to site.
  - **On-Site Retaining Walls.** Site topography can effect the amount of retaining walls, stairs, and ramps, and the complexity of the drainage systems. Premiums resulting from topography could exceed $100,000.
  - **Off-site Improvements.** Off-site development could have a wide range of costs depending on the scope of street improvements, traffic mitigation, miscellaneous project mitigation, and utility extension requirements.
  - **Fire Prevention Improvements.** Mitigation of inadequate fire flow may require extensions of water mains, pumps, and/or on-site water storage.
  - **Soil condition.** On-site soil conditions will effect foundation design. The foundation could be a standard continuous spread footing design or the more expensive pile system. A pile

foundation could represent a $15 per square foot premium to the foundation footprint. This estimate assumes a standard continuous spread footing system.

- **Actual inflation rates can reduce or increase the cost of construction.** Currently, 3.37 percent per year to mid-point of construction is employed in this estimate to be consistent with State of Washington Office of Financial Management index. Our opinion is that the inflation rate for estimating purposes is currently 2.5 percent per year based on current industry data.

- **Assumptions**

Estimating assumptions include

- Auxiliary site structures such as the boat storage and screen walls are included in sitework.
- Site electrical work is included in sitework.
- Wiring for data and voice communications are included. Data and communication equipment are not included.
- The boat storage floor area is not included in the total office building floor area. However, the cost for the boat storage is included in the on-site portion of the estimate.
- The baseline estimates are based on 1999 dollars. These numbers are inflated at 3.37 percent per year to the mid-point of construction, a conservative estimate.
- Land purchase costs are not included.
- Surface parking is assumed.

Site size assumptions are

- A 12.4-acre site for the single-building/single-phase and single-building/three-phase alternatives.
- A 15-acre site for the three-building/three-phase alternative; the site size is increased to allow 60 feet of separation between buildings.

Off-site cost allowances for the phasing options are apportioned as follows

- All of the off-site development costs are included in Phase 1.
- The off-site mitigation costs have been evenly apportioned between the three phases.

- **Cost Control Considerations**

- Carefully select the site to minimize the on-site and off-site development and mitigation costs.
- Provide a functional and cost conscious building design.

- **Cost Comparison of Building Alternatives**

  Table 3B on the following page compares the conceptual cost estimate of the three alternatives for consolidation. The costs include hard and soft costs and inflation of 3.37 to the mid-point of construction. Phase 1 is inflated to 2003, Phase 2 is inflated to 2006, and Phase 3 is inflated to 2009. (Refer to the Conceptual Cost Estimating report in the Appendix.)

Table 3B – Building Alternatives Comparative Costs (Hard and Soft) Private Developer Process

	3 Bldgs/3 Phases		1 Bldg/3 Phases		1 Bldg/1 Phase	
	High	Low	High	Low	High	Low
Phase 1 (2003)	19,592,517	14,955,007	19,592,517	14,955,007	49,095,317	37,236,891
Phase 2 (2006)	19,051,061	13,858,814	17,786,934	13,227,285	–	–
Phase 3 (2009)	21,035,546	15,302,440	19,639,740	14,605,127	–	–
TOTAL	**59,679,124**	**44,116,261**	**57,019,191**	**42,787,419**	**49,095,317**	**37,236,891**
Cost per SF	$257	$190	$245	$184	$211	$160

COMPARISON OF STATE GENERAL CONTRACTOR/ CONSTRUCTION MANAGER (GC/CM) AND PRIVATE DEVELOPMENT SCHEDULES

- A schedule has been prepared that compares the project duration for the State GC/CM approach and the private developer approach for the single-building/single-phase model. Refer to the Technical Appendix – Comparison of State General Contractor/Construction Manager Process and Private Development Process for the comparative project schedule. This analysis addresses two critical considerations:

  1. Identifies the difference in delivery time between the two processes to accommodate DOH by 2003 when leases begin to expire, and
  2. Determines the inflationary cost difference between the two approaches.

- The private developer approach includes a two-step developer selection process which includes:

  1. A request for qualifications and interview of developer candidates, and
  2. A request for proposal from the selected candidates.

- General Administration selected the GC/CM process for the state approach as it engages a contractor in the design process and provides improved schedule and cost control.

- The private developer approach is shorter than the state GC/CM approach by almost one year. The private developer approach allows for occupancy in early 2003 whereas the state approach

offers occupancy in early 2004. The schematic design phase is accomplished earlier during the competitive RFP process for selecting a developer. The private developer approach enables an earlier submission for permits than the state approach. For comparative purposes, permitting, bidding, and construction duration is the same for both approaches.

- The single-building/single-phase, private developer approach offers the shortest project duration and least total developer cost. See Table 3C.

Table 3C – Comparison of Costs (Low End)

Criteria	State GC/CM Approach			Private Developer Approach		
	3 Bldgs/ 3 Phases	1 Bldg/ 3 Phases	1 Bldg/ 1 Phase	3 Bldgs/ 3 Phases	1 Bldg/ 3 Phases	1 Bldg/ 1 Phase
Year of Occupancy	2010	2010	2004	2009	2009	2003
Total Costs *(developer costs)*	$45,617,230	$44,229,360	$38,491,770	$44,130,040	$42,787,420	$37,236,890

LEASE APPROACH AND DEVELOPER SELECTION PROCESS

- **Lease Approach**

  A long-term lease with minimum duration of 20 years with an option to buy is suggested. The length of the lease will depend on the actual cost of the project relative to the targeted allowable lease rate. The long-term single tenant lease results in a low risk investment for the developer that can result in a higher quality building offering greater functional value for the department rather than a conventional termed lease of 5 to 10 years duration. (See Appendix – Lease Approach and Developer Selection Process.)

  A modified lease format should be considered. The intent would be to reduce the management costs and contingencies of the developer as much as possible to reduce the lease rate. This enhances the attractiveness of the long-term lease for both the developer and the state. The developer has minimal management costs, enabling savings resulting in a reduced lease rate. The state would take care of direct utility costs, maintenance, and replacement costs. The developer would pay for the taxes. A variation could be a modified net where the state might pay for utilities and janitorial services and the developer might pay for HVAC equipment maintenance and replacement.

- **Developer Selection Process**

  A two-step developer selection process is recommended. To provide a level playing field for competing developers and to obtain the most cost-effective product for DOH through region wide market place competition, a key factor would be to secure the site for all competing developers to base their proposals on.

The developer selection two-step process should be as follows:

1. Issue Request for Qualifications (RFQ). The RFQ would include a project description summary including the requirement of purchasing or leasing the land previously selected by the state. Select developers based on qualifications, relevant experience, and financial strength. Select approximately three to four candidates for interviews. Visit each candidate's relevant projects. Interview the candidates and select two finalists.

2. Issue a Request for Proposal (RFP) to the two finalists. The RFP would include DOH's functional program requirements, performance specifications and standards, and lease conditions. The candidates would be required to provide a design package with lease proposals, energy life-cycle cost analysis (ELCCA), purchase options, and time schedules. Costs for paying a participation stipend to the candidate not selected and fees for the state's quality control consultants can be factored into the lease rate. Select a developer and transfer the option on the pre-selected property to the developer.

This process encourages an open and competitive selection process. The quality to cost ratio can be maximized. The foundation for this two-step process is securing the land prior to the selection process. Securing the land will provide common ground for all candidates, resulting in a fair and competitive bidding process.

PROFORMA ANALYSIS

- **Purpose of the Analysis**

  Proforma analysis is used to identify the economic lease rate for each of the proposed alternatives for a new consolidated facility. The proforma analyzes site and building costs, operating expenses, financing costs, and return on investment to establish whether the project can meet DOH's target lease rate. For a detail description of the parameters. (See Appendix – Proforma prepared by APRA)

  A proforma for the alternative building configurations based on the high-end and low-end cost estimates for each alternative was prepared. Information from the department and General Administration on existing operational costs and inflation have been incorporated into the proforma.

- **Comparison of Lease Rate for Alternatives**

  Table 3D, on the following page, compares the annual lease rate for each facility alternative in 2003. The land cost for each alternative is based on an initial assumption of $4 per square foot. All the facility alternatives exceed DOH's targeted lease rate of $22.61 for 2003. The table is based on the low-end of the conceptual cost estimate.

Table 3D – Lease Rate for Year 2003 Based on Proforma Analysis of Alternatives

Financing Term @ 7.5%	3 Bldgs/3 Phases	1 Bldg/3 Phases	1 Bldg/1 Phase
20 year	$31.09	$28.29	$24.48
25 year	$27.69	$27.10	$23.48

- **Interest Rate/Land Cost Sensitivity Analysis**

  For the single-building/single-phase concept, the impact of the loan interest rate on the lease rate for various land costs is shown in Table 3E. For the low-end cost estimate, the reduction of the interest rate by 1 percent to 6.5 percent allows a greater range of land costs.

Table 3E – Low-End Cost Estimate at 6.5% Loan Rate

Land Cost ($/SF)	Lease Rate at Year 2003	
	20-Year Term	25-Year Term
$4.00	$22.45	$21.45
$5.00	$22.52	$21.50
$6.00	$22.59	$21.55
$7.00	$22.65	$21.60
$8.00	$22.72	$21.65
$9.00	$22.78	$21.71
$10.00	$22.84	$21.77

- **Proforma Conclusions**

  The conclusions from the Proforma analysis are:

  - The single-building/single-phase with low-end conceptual cost estimate is the only alternative that comes close to meeting DOH's targeted lease rate.
  - The developer's project costs should be $134 to $140 per square foot of total building area.
  - Land costs should be less than $3 per square foot based on the economic parameters used in the Proforma, unless the interest rate is reduced below 7.5 percent.
  - The loan term should be at least 25 years.
  - The interest rate should be less than 7.5 percent.

OVERALL CONCLUSIONS

Summary of Findings and Conclusions

The overall conclusions for DOH Consolidation Study are:

- **Building**

  To enable the department to reach its mission, meet its customer service needs, establish a common department identity, improve its communications, assure program effectiveness, realize operational efficiency, and keep construction costs to a minimum, the most cost-effective and efficient option for DOH in 2004 is a single building of approximately 232,640 square foot facility constructed in a single phase. To allow for future growth, projections have been done based on headcount increase for 2010 and 2020. Projected building area for 2010 is 261,494 square feet and 318,759 square feet for 2020.

  A single building constructed in one phase was found to be the most effective concept for cost, time, and program responsiveness. However, if the building must be phased over time due to budget constraints, the maximum number of phases should be two to minimize construction costs.

  Based on the Proforma Analysis with an assumed annual lease rate of $21 per square foot, the building costs should be at the low end of the conceptual cost estimate. The developers project cost should be approximately $134 to $140 per square foot of building area for the corresponding 20- and 25-year terms. This results in a project cost that is slightly less than the low-end conceptual estimate of $148 per square foot.

  DOH's intent is to occupy an efficient and programmatically effective operational building. To accomplish this, the building design should be cost conscious, durable, adaptable to change, and not monumental in character and the design should have an efficient floor configuration. A 32-foot square structural bay for efficient configuration of workstations, and energy-efficient systems that will minimize annual energy costs.

- **Site**

  The recommended single-building/single-phase alternative for the department's space and functional needs for 2004 and projected out through 2010 will require a site size of approximately 12.4 acres. A multiple (3) building option would require a site size of approximately 15 acres. For 2020, the site size will be in the range of 12.4 to 16.6 acres for the single-building/single-phase and 15 to 17.15 acres for the multiple building alternative. The site should be zoned to allow for the construction of a five-story government building.

  After determining the minimum site requirements for the DOH consolidated facility, an extensive survey of the Preferred Development Areas (PDA) in Lacey, Olympia, and Tumwater was

performed. The analysis of the PDAs included the review of applicable comprehensive plan policies and development regulations as well as *The Master Plan for the Capitol of the State of Washington*. The analysis also included a review of site-specific opportunities and constraints within each PDA that included:

- Availability of contiguous property of a size necessary to construct the DOH consolidated facility
- Transportation levels-of-service for the adjacent street network
- Utility availability
- Planned capital improvements
- Environmental health hazards
- Proximity to public transit facilities
- Proximity to Interstate 5
- Compatibility with existing development
- Local project entitlement procedures

The result of the PDA research and analysis is that the Tumwater PDA was clearly deemed the most viable Preferred Development Area for the construction of the DOH consolidated facility.

To stay within the targeted annual lease rate of $21 per square foot, the land costs should be a maximum of $3 per square foot if interest rate is 7.5 percent and the amortization a 25-year term. If the interest rate is 6.5 percent, the cost of the site could be a maximum of $6.00 per square foot for a 20-year term and up to $10 per square foot for a 25-year term.

The selected site should allow off-site costs to be held to a minimum of 5 percent of total project costs. If project construction is phased, constructing most of the on-site improvements in the first phase will minimize costs incurred by inflation.

- **Schedule**

The construction of the facility should be completed for occupancy by mid-2003 to meet the department's need for space before the expiration of leases and scheduled demolition of existing buildings.

- **Delivery Process**

An analysis of the State General Contractor/Construction Manager (GC/CM) approach and private developer approach compared the delivery time and potential cost differences.

To meet the department's timeframe, it is recommended that the private developer process be used. The private developer process is shorter than the State GC/CM capital development process by one year. This timesavings will provide for inflationary savings of over $1.2 million and will save the state considerable operational dollars. If DOH cannot occupy a site before September 2003, DOH will have to negotiate a new lease and pay the cost of moving a minimum of 363 staff into temporary office space. The private developer process will allow for occupancy in early 2003 for the single-building/single-phase alternative, which coincides with the expiration of existing leases.

- **Financing**

This report recommends private development with an option to purchase at periods throughout the lease term. The cost of financing has a significant effect on the viability of this project. The department must use at least a 25-year amortization term and an interest rate of 7.5 percent to achieve its targeted annual lease rate. Financing should be explored for rates lower than 7.5 percent. It should also be noted that interest rates are highly variable and could change significantly before a decision to proceed with this effort is made.

Space Needs Analysis

DOH CONSOLIDATION STUDY

FACILITY PROGRAM

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EXECUTIVE SUMMARY

Space Program
The space program for the DOH consolidation establishes the need for approximately 230,000 gross square feet of office facility. This would provide office space to accommodate 1,111 personnel by the year 2004.

In comparison to the status quo, the proposed consolidation would:

- result in a reduction of 24,000 gross square feet from the current office space while allowing for a future projected staff increase of 100 persons.
- include the following enhancements: auditorium/large group meeting for 250 persons, lunch room for 250 persons, serving kitchen, hearing and training rooms, data/file server center, and resource center.
- provide improvements in customer reception and service, security, distribution of conference rooms, and face-to-face communications among DOH staff.
- establish a central location and an improved image for the agency.

A. ASSUMPTIONS

1. A five year growth projection for personnel is assumed. The future allowance growth from 1999 to 2004 is two percent.

2. The total population of office personnel by 2004 is 1,111.

3. The following areas will be centralized for shared use by all Divisions within the Agency
   - Stores/Receiving/Shipping and Mail Distribution
   - Date Center for WANS/LANS, PBX, routers, and data storage devices.
   - Ground floor reception and waiting area.
   - One main building entrance for customers, public and staff.

4. The following are not included in the space program:
   - Warehouse
   - Child/Elderly Care
   - Fitness

5. The Assistant Secretaries for all Divisions that are to be accommodated in the consolidation will be located on the same floor with the Office of the Secretary and Management Services.

B. BUILDING DESIGN GUIDELINES

General

1. Allow for building(s) to expand at one end for flexibility and/or phasing; should not be a closed-ended concept.

2. Probably should be one campus to take effective use of shared facilities: Stores, Resource Center, Mail, Copy Center, Data/File Server Center, Shipping/Receiving.

3. First preference is for one building; this would allow the greatest flexibility for accommodating the various Divisions, Offices and Work Units and to facilitate "face-to-face" communication among DOH staff.

4. The building should allow for current and emerging technologies, e.g., flexibility in running conduit and cables at will.

5. Office furniture (especially open workstations) should have wire management capability; review the existing workstation furniture for wire management capability, and for meeting the office-planning grid.

6. Conference rooms: allow for computer, data projectors, overhead projectors, and projection screens.

7. Provide toilets at ground floor with showering facilities. Allow space for personnel lockers for temporarily storing clothes.

8. Provide a main entrance focal point and a single point of contact for DOH customers.

9. Locate most of the private offices inboard in order to maximize the amount of natural light to open workstations.

10. Provide flexibility in office planning module to reconfigure workstations and offices at will.

11. Allow for exhibit and display space at the main entrance lobby.

12. Provide environmental monitoring station on roof; allow fenced area of 10'x13' for various small foot print (2'x3') monitoring equipment.

13. Locate public accessible spaces such as large group meeting/auditorium outside the secured zone.

14. Provide a secured elevator alcove at each floor; this would allow the flexibility to maintain security at each floor where required.

Building/Site Security

1. Provide a proximity access control system. The system should include card readers that activate locks when the card is displayed or inserted.
2. Locate the system at all exterior doors, access to elevator lobbies at the upper floors, the Data/File Server Center, communication closets confidential file rooms or areas with sensitive files, mechanical and electrical rooms.
3. Customers and public will sign-in and be required to check-in at the Reception area and issued badges before passing through security control point. Card key access system will be provided at stairs and elevator to upper floors.
4. The public areas of the building (Meeting, Hearing, Training Rooms, and Public Toilets) should be available to the public without compromising the security of the offices and workstations, and without the need to have security personnel supervise elevators, stairs and corridors.
5. Provide for future ability to have camera surveillance system (CCTV) at Main Reception area and Lobby, parking areas and transit stop(s). Monitoring of CCTV will be at the Main Reception area.
6. Provide for the future installation of emergency call boxes within the employee parking areas.
7. Provide pedestrian paths and parking areas with lights and avoid creating blind spots and hiding areas.

Technical Requirements and Considerations

1. Air quality should be at a high standard; consider the Labor & Industries Building as a model for performance standards.
2. Allow for satellite down and up link for video transmissions.
3. Allow for video conferencing at the Conference Room in the Secretary's Office and the Multi-Use Room (Auditorium).
4. Provide card key access to the building and elevator lobbies at all floors.
5. Provide emergency generator for Data Center and Emergency Operations Center.
6. Allow for a UPS system at the Data Center.
7. Provide parabolic lighting fixtures to minimize glare on computer screens.
8. Allow for every workstation to have a computer; provide wiring system for voice/data/and video.
9. Consider task lighting as part of furniture system if new furniture is purchased.
10. Provide "white noise" or similar acoustic treatment at open office areas.
11. Provide negative pressure at Construction Document Storage. This is to exhaust fumes generated by out-gassing from the construction documents.
12. Provide a wiring termination closet on each floor; the minimum size should be approximately 50 square feet.

C. SHARED SPECIAL PURPOSE SPACES

Shared Conference Facility, Hearing and Training

At the ground floor provide the following for shared use and to minimize traffic through the office areas:

1. Provide two multiple-use Training Rooms with computers mounted below desktops. This would allow for multiple training activities and not just computers. (WIC will use 25%-50% of the time.) One room will accommodate 25 and one will accommodate 15 stations.

2. One training room will be used as the Emergency Operations Center (EOC). The anticipated number of people using the EOC is approximately fifteen.

3. Provide conference rooms in accordance with General Administration Space Standards of 8.7 square feet per personnel. Even though 67% of respondents thought that the conference room situation was inadequate, the survey of conference room space indicated that they were utilized only approximately 64% of the time. I concluded that the existing conference room space is inadequate because the location and distribution of spaces are inadequate, and not the amount of conference space. Recommend more 6-person conference rooms and that they be centrally located with respect to all offices and workstations.

4. Provide one flat floor Multi-Purpose Room that seats up to 250 at eight people table groupings. Provide operable walls that allow the Multi-Purpose Room to be divided into three smaller spaces. Each area shall have built-in audio/visual equipment, coffee bars/sinks, and storage closets for tables and chairs. Allow for portable or pullout stage at each area. Provide an adjacent room for furniture storage.

5. Provide two hearing rooms, each with seating capacity of 25. Allow an operable wall between the two spaces, so that they can be combined into one large hearing room.

6. Provide one Wellness Room for personnel which need some time to rest/recover; provide an adjacent toilet. Review if this is a union requirement and verify if there are specific needs to be met.

7. Provide one nursing or lactating room adjacent to the training rooms.

8. Provide four interview rooms at the main reception (ground floor); locate one adjacent to Vital Records. Each room shall have a panic button and alarm, and two doors.

Central Reception/Building Lobby

1. Provide central reception at building entrance; provide waiting area. All visitors will be issued badges before entering the waiting area.

2. Assume all visitors will be escorted from the ground floor waiting area to the upper floors, or will be allowed to upper floors and met at secured elevator lobby. Provide card key access at all lobby doors.

3. Provide one-stop customer service at ground floor; consider locating customer counter(s) for Vital Records, Licensing, Construction Review, Payroll, and Cashier.

4. Consider combining reception duties and activities with customer service counter. Provide a secure cashier window and workstation.

Reception Areas at Upper Floors

1. Receptionists beyond the ground floor are not required, except for the Secretary's Office.

2. Provide the minimal number of waiting areas at the upper floors; strategically locate waiting areas so that they area shared by those Offices and Work Units that have the most visitors per peak hour.

3. Provide small 4-6 person waiting areas where needed.

4. Consider having visitors escorted by staff from the main building reception area to waiting areas at the upper floors or have visitors met at secured elevator lobby of upper floors.

Lunchroom and Coffee Bars

1. The type of food service should be reviewed in conjunction with the final site location and the availability of eating establishments.

2. Investigate contracting with Services for the Blind or other vendor/ contractor to operate the Lunchroom.

3. Provide Lunchroom, scramble area with cashiering stand, and serving type kitchen. Assume that most of the cold food and baked goods will be pre-packaged and prepared off-site.

4. Food menu will include salads, sandwiches, soups and baked goods.

5. At the serving/kitchen provide for scullery, small dry food storage, and reach-in refrigerators or small walk-in cooler whichever is more economical.

6. Provide Lunchroom for 250 persons at one time; assume that lunch will be provided from 11:00 a.m. to 2:00 p.m. Provide microwaves hot water dispenser, sink for self-help in food and beverage preparation. Allow space for vending machines to dispense snacks and beverages.

7. Provide one large conference room adjacent to the Lunchroom.

8. Provide access to an outdoor covered area with tables.

9. Provide Coffee Bars at each floor; one for each 10,000 square feet. At each Coffee Bar provide sink with instant hot water dispenser, microwaves and refrigerators for storing employees lunches. Locate the Coffee Bars adjacent to the Large Work/Copy and separate by a wall.

Data/File Server Center

1. Assume that the future need will be approximately 2,800 square feet. Verify the size of space based on equipment layout, number of file servers and racking system, number and type of storage devices, and the uninterrupted power supply (UPS) system.

2. Locate on the ground floor and protect equipment from water damage from above.

3. Provide an emergency generator connected to UPS.

4. Provide a clean room with a separate air-conditioning system and with a computer access floor.

5. Provide a separate storage room for data storage media, e,g., magnetic tapes, CD folios, cartridges.

6. Allow for approximately one-hundred rack-mounted file servers.

7. The Data Center should be a highly secured space; provide card key access.

8. Protect the Data Center from potential flooding in the event that the sprinkler system discharges. Provide floor drains beneath computer floor.

9. Provide a Testing Lab with eight workstations and space for equipment.

10. Assume that the existing CHS UNIX Server at DIS will not need to be located at the new site.

PC Staging/Maintenance

1. Provide a space for staging and preparing personal computers and storing minor parts and supplies for maintaining computers. Provide one space at 742 sq. ft.

2. Allow for two electronic workbenches and open shelving for supplies.

Central Copy Center

1. The State Printer will operate a high speed, high volume Central Copy Center for DOH.

2. An allowance of approximately 2,000 square feet is included based on a request for the State Printer's Office.

Shipping/Receiving/Central Stores

1. All storage of supplies and materials will be centralized. Allow for 1 FTE to operate Stores.

2. Provide holding area with lockable cages for temporary storage of equipment and surplused items.

Resource Center

1. This will house the Agency's shared collection of reference materials, print and non-print, for research.

2. Allow a reading area for 12 people.

3. Allow one workstation for librarian or cataloger.

4. Allow for approximately 25,000 to 30,000 bibliographic units.

Toilet/Shower/Lockers

1. At the ground floor provide public toilets; locate convenient to the meeting and training spaces.
2. Include showers and lockers at female and male side for personnel that bicycle to work or exercise during the lunch break. Allow for five to six private stalls or two shower columns at each side.
3. Allow for fifty half-height lockers each for men and women.

Building Maintenance Shops

1. Review whether the building maintenance function is provided by another Agency or by DOH, and what type of maintenance shops should be included, e.g., carpentry, electrical, mechanical.
2. Allow 600 net square feet.

Wellness

Provide room with cots and a unisex toilet for persons that have a temporary or minor illness. (Note: this is not an infirmary with a nurse.)

Shipping/Receiving/Mailing

1. Provide area for receiving supplies and materiel, and shipping/receiving mail and publications.
2. Allow for delivery vehicle access to a loading and unloading area adjacent to Shipping/Receiving/Mailing. Allow for two service or delivery vehicle stalls or wells.
3. Provide a secured and screened service yard for delivery and service vehicles, dumpsters, and recycle bins.

Central Stores

1. This area will accommodate all bulk supplies, equipment and materials and will supplement the existing warehouse, which may remain at its present location.
2. A loading dock or drive-in bay is not required.
3. Provide open shelving with five-foot wide aisles.
4. Allow space for one workstation.

D. OFFICE AND OFFICE SUPPORT AREAS

Workstations

1. Provide open space workstations as per the GA Space Standards Draft 1998.
2. Each workstation cubicle is 8'x10' and includes an allowance of four feet between cubicles for circulation. The net dimensions per workstation are 8'x8'.
3. Provide enlarged workstations for approximately 150 Level-4 and Level-5 personnel based on an allowance of 128 and 96 net square feet.
4. Allow for the incorporation of "team interaction nodes" in the open office areas; assume one "team interaction node" per approximately 30 open space workstations.

Private Offices

1. Provide private offices for personnel down to Level-3 and a portion of Level-4. The total allowance of private offices is 110 or approximately ten percent of the total number of projected personnel.
2. Private offices for Levels 1-3 are based on the GA Standard.
3. Reduce the need for private offices by conveniently locating small conference rooms near workstations.

4. The following offices will be larger than 144 square feet as allowed by the GA Standard:
   - Secretary
   - Deputy Secretary for Operations and Business
   - Health Officer
   - Chief Technology Officer
   - Asst. Sec. for MSD
   - Asst. Sec. for CFH
   - Asst. Sec. for HSQA
   - Asst. Sec. for EH
   - Administrator for CFH

Special Project and Surge Space
Review the future need for space for special projects such as software development.

Division Technical Reference Library/Resource Room
Provide for divisional resource libraries or areas to accommodate specialized collections of reference materials at the following:
- HIV/AIDS Clearinghouse (CFH)
- EH Technical Reference
- MS Resource
- EH&S Resource
- HSQA Resource

Files/Records

1. Assume that a document imaging system will be implemented within the next two to three years. This would result in a decrease in the number of filing cabinets for hardcopy document storage. Assume that this will result in a 35% across the board decrease in file storage for all Divisions.

2. Allow for complete elimination of the Vital Records vault; omit the existing vault space of 1,500 sq. ft and provide approximately 100 square feet for document imaging and storage equipment (high speed scanner, monitor and keyboard, on-line data storage device (MO server). The existing collection will be scanned and the existing documents will be relocated to the State Archives.

3. At Construction Document Storage (HSQA), assume a 25 percent reduction in the size of the existing space through the archiving of existing A&E construction drawings. Review the potential for using document imaging in the future.

Work/Copy Areas

1. Provide one large work/copy area per 10,000 net assignable area. This area would contain one high to medium volume copier (40-50 cpm) with collator, auto-duplexer and automatic document feeder; recycle bin on wheels; shredder; networked printer(s); fax machine; work island for assembling material; sink/counter and upper and lower storage cabinets for office supplies.

2. Provide one small work/copy area per 10,000 net assignable area. This area would contain one medium speed copier (20-30 cpm) with collator and automatic document feeder, recycle bin and a five-foot long work counter with cabinets under.

3. The combined copy area would result in one copier for approximately twenty-five persons.

Conference Rooms

1. Use the General Administration's Standard for the conference area allocation – 8.7 square feet per person.

2. Allow for the following mixture of conference rooms to serve the Division/Offices and Work Units:

Conference Room Capacity	Percent Allocation	No. of Units
Six person	49	22
Twelve person	41	18
Twenty-four person	10	5

3. Locate one twenty-four person conference room at Secretary's Office. Provide audio-visual equipment for teleconferencing.

4. At all other conference rooms, rough-in the capability of video or teleconferencing at each.

5. Locate smaller Conference Rooms convenient to workstations since most private offices will have 4-6 person conference tables within their space.

E. UNNASIGNABLE AREAS

1. An allowance is included for a total of four elevators. Elevators are provided at a ratio of one per 50,000 square feet at the upper floors. One combination freight/passenger elevator is included in the total.

2. For toilet fixtures use a 60 percent ratio for women and 40 percent for men. Toilets are based on the following table:

No. of Personnel at Upper Floors: 1,021
No. of Persons at Assembly Spaces: 300

POPULATION	NUMBER	NO. OF REQUIRED FIXTURES					
		Water Closets	Increase Factor	Total W/C	Urinals	Lavs	Drinking Fountains
Office personnel							
Female at 60 percent of Upper Floors	613	20	0	20		10	
Male at 40 percent of Upper Floors	403	6	0	6	6	6	
Total	1,021	26		26	6	16	
Public use at ground floor							
Female	150	3	2	6		6	
Male	150	3	0	3	3	6	
Total		6		9	3	12	

3. An allowance is included in the unassignable area allocation for two exit stairs per floor.

4. Mechanical and electrical room requirements are provided based on estimates by BCE, mechanical and electrical engineers.

F. AUXILARY BUILDINGS

1. Provide Boat Storage Shed for 6 boats (16' long maximum), 40'x100', with adjacent fenced parking for 31 vehicles, 93'x120' approximately.

2. The space program has not included space for warehouse; assumed that the warehouse will stay at its existing location.

G. OUTDOOR DESIGN GUIDELINES

1. Conveniently locate the site with respect to I-5 and to public transportation.
2. Allow for secured and covered storage for 25 bicycles.
3. Consider creating walks and exercise paths on the site.
4. The number of parking stalls is only required to meet the local zoning code.
5. Provide a covered outdoor area with tables and benches; locate convenient to Lunchroom.
6. Allow for an apron and loading area at Shipping/Receiving.
7. Provide a screened area for dumpsters and recycling bins; these will probably be front loading type containers; allow for service vehicle access.
8. Allow for exterior lighting at parking areas and pedestrian paths.
9. Provide a minimum of 70 parking stalls for visitors; the anticipated average number of visitors per day is approximately 400.
10. Allow 150 square feet of space for storing emergency response equipment outside the building.
11. Allow for an on-site public transit or shuttle bus stop. Need to coordinate with transit and/or shuttle system.

H. SPACE ALLOCATION AND COMPARISON WITH STATUS QUO

1. The Space Allocation Summary on pages 11 and 12 provides a summary of the 1999 and 2004 requirements for a DOH consolidated facility:
    - the number of personnel to be accommodated
    - the assignable office and support spaces for the Divisions within DOH
    - the Department's shared special purpose spaces
    - the non-assignable spaces
2. Compared to the current DOH occupied office facilities, the total projected gross office area is approximately 25,800 square feet less than currently occupied in Thurston County. (See the Appendix for an inventory of the existing DOH facilities.)
3. The total projected gross office area for the year 2004 is approximately 21,700 square feet less than what is currently occupied by DOH.

SPACE ALLOCATION SUMMARY

ORG NO.	DIVISION	TOTAL ASSIGNABLE 1999	TOTAL ASSIGNABLE 2004
	NUMBER OF PERSONNEL	1,090	1,111
	OFFICE AND OFFICE SUPPORT		
100	**BOARD OF HEALTH**	463	470
200	**OFFICE OF THE SECRETARY (OS)**	8,021	8,124
300	**EPIDEMIOLOGY & HEALTH STATISTICS (EPI/HS)**	14,483	14,696
400	**ENVIRONMENTAL HEALTH PROGRAMS (EH)**	36,100	36,718
500	**HEALTH SYSTEMS QUALITY ASSURANCE (HSQA)**	47,462	48,254
600	**COMMUNITY AND FAMILY HEALTH (CFH)**	42,628	44,374
700	**MANAGEMENT SERVICES (MS)**	21,359	21,722
	SUBTOTAL:	170,515	174,357
	ASF PER PERSON:	156.6	157.0
	SHARED SPECIAL PURPOSE SPACES		
	HEARING	1,500	
	TRAINING	1,175	
		705	
	INTERVIEW ROOMS	400	
	AUDITORIUM/LARGE GROUP	4,500	
	LUNCH ROOM	4,000	
	KITCHEN/SCRAMBLE AREA	1,400	
	CENTRAL STORES	1,000	
	SHIPPING/RECEIVING/MAILING	2,000	
	COPY CENTER	2,000	
	COMPUTER MAINTENANCE AND STAGING	742	
	DATA CENTER/TAPE STORAGE/UPS	2,800	
	IT TESTING LAB	340	
	MAINTENANCE WORKSHOP	600	
	LIBRARY	1,800	
	WELLNESS	180	
	NURSING/LACTATING ROOM	100	
	EXHIBIT/DISPLAY	1,000	
	SUBTOTAL:	26,242	26,242
	ASF PER PERSON:	24.1	23.6
	TOTAL ASSIGNABLE AREA:	196,757	200,599
	ASF PER PERSON:	180.7	180.6

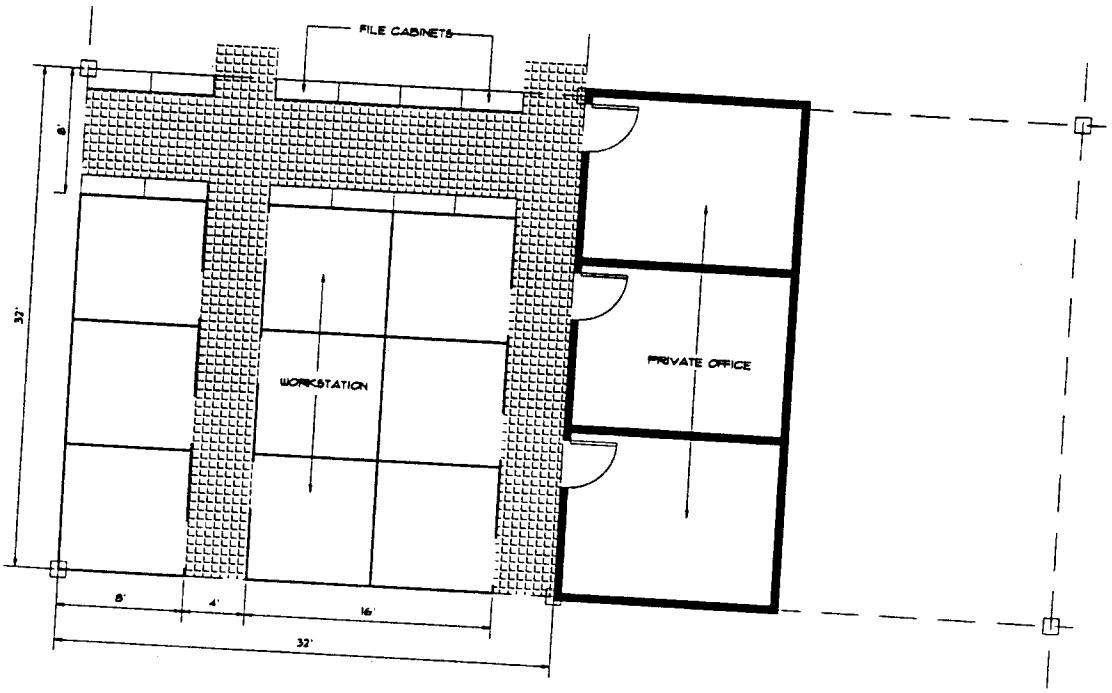
SPACE ALLOCATION SUMMARY (Continued)

ORG NO.	DIVISION	TOTAL ASSIGNABLE 1999	TOTAL ASSIGNABLE 2004
	NON-ASSIGNABLE AREAS		
	DATA/TELEPHONE ROOMS	620	620
	ELECTRICAL ROOMS	1,500	1,500
	MECHANICAL ROOM	1,500	1,500
	DUCT SHAFTS	720	720
	SHOWERS/LOCKERS	704	704
	PERSONNEL TOILETS	1,476	1,504
	PUBLIC TOILETS	506	506
	CUSTODIAL CLOSETS	540	540
	MAIN RECEPTION/LOBBY/FOYER	3,345	3,410
	ELEVATORS/ELEV. LOBBY AT UPPER FLOORS	2,304	2,304
	ELEVATOR MACHINE ROOM	476	476
	STAIRS	2,000	2,000
	CIRCULATION	5,903	6,018
	EXTERIOR WALLS	3,383	3,383
	INTERIOR WALLS	3,935	4,012
	SUBTOTAL:	28,911	29,179
	SF PER PERSON	26.5	26.8
	GRAND TOTAL GROSS PROGRAM AREA:	225,668	229,796
	GSF PER PERSON:	207.0	206.8
	EXISTING GROSS OFFICE AREA:	253,695	
	DIFFERENCE IN GSF	(28,027)	(23,899)

I. PLANNING GRID AND STRUCTURAL BAY

1. The office planning grid should be based on accommodating 8'x8' workstations.
2. Open workstations are assumed to be four feet from the perimeter window wall on the two longest sides of the floor plate.
3. Work stations should be arranged in clusters perpendicular to the exterior window walls in order to allow the most penetration of natural light to the building interior
4. The structural bay should be 32'x32'; or a combination of 32'x32' and 28'x32' if this combination is more efficient and cost effective, and is not less flexible for workstation arrangement.

PLANNING GRID FOR WORKSTATIONS, PRIVATE OFFICES AND FILES



J. BUILDING CONFIGURATIONS

1. See the Building Options table on page 15 for various building configurations, and the selection of the most efficient building configurations depending on number of stories and the floor plate size.
2. A one-building, multi-story concept would be the most effective and flexible for accommodating DOH.
3. For a one-building concept, the maximum floor plate size is 46,000 gross square feet. This would allow each of the DOH Divisions to be located on one floor, except for HSQA which requires 47,800 gross square feet.
4. The minimum floor plate size should probably be about 31,000 gross square feet. This floor plate size would accommodate the shared DOH facilities on the ground floor, and Office of the Secretary and Management Services on one upper floor.
5. The most efficient floor plate size for a single five-story building is 160'x288'.
6. The most efficient floor plate size for a single seven-story building is 160'x224'.
7. The recommended building configuration is a five-story building with a floor plate of 160'x288'.

BUILDING OPTIONS TABLE

DEPARTMENT OF HEALTH CONSOLIDATION STUDY

AVE ASF PER PERSON 181
ASF TO GSF FACTOR 1.01

BUILDING OPTION	NO. OF OCCUPANTS	FLOOR	COMMON AREAS	NO. OF OCCUPANTS PER FLOOR	ASSIGNED AREA (ASF)	TOTAL GSF	32X32 BAY NO. OF BAYS	BUILDING WIDTH	BUILDING LENGTH	PERIMETER PER FLOOR (LF)	GSF OF FLOOR PER LF OF WALL
IF ONE BLDG. FIVE STORIES	1,111	1ST	27,642	99	17,878	45,861	45	96	480	1152	0.025
		2ND		253	45,692	46,035	45	128	384	1024	0.022
		3RD		253	45,692	46,035	45	160	288	896	0.019
		4TH		253	45,692	46,035	45				
		5TH		253	45,692	46,035	45				
TOTAL				1,111	200,647	230,001					
IF ONE BLDG. SEVEN STORIES	1,111	1ST	27,642	27	4,956	32,842	32	96	352	896	0.027
		2ND		181	32,622	32,866	32	128	288	832	0.025
		3RD		181	32,622	32,866	32	160	224	768	0.023
		4TH		181	32,622	32,866	32				
		5TH		181	32,622	32,866	32				
		6TH		181	32,622	32,866	32				
		7TH		181	32,622	32,866	32				
TOTAL				1,111	200,686	230,040					
IF TWO BLDGS. FIVE STORIES	556	1ST	13,821	50	9,029	23,021	22	96	256	704	0.031
		2ND		126	22,824	22,995	22	128	192	640	0.028
		3RD		126	22,824	22,995	22	160	160	640	0.028
		4TH		126	22,824	22,995	22				
		5TH		126	22,824	22,995	22				
TOTAL				556	100,323	115,000					
IF THREE BLDGS., FIVE STORIES EACH											
BUILDING-1	311	1ST	27,642	12	2,247	30,113	29	160	192	704	0.023
		2ND		75	13,483	13,585	13	160	96	512	0.038
		3RD		75	13,483	13,585	13	160	96	512	0.038
		4TH		75	13,483	13,585	13	160	96	512	0.038
		5TH		75	13,483	13,585	13	160	96	512	0.038
SUBTOTAL:				311	56,181	84,452					
BUILDINGS-2 & 3	400	1ST	0	80	14,448	14,556	14	160	96	512	0.035
		2ND		80	14,448	14,556	14	160	96	512	0.035
		3RD		80	14,448	14,556	14	160	96	512	0.035
		4TH		80	14,448	14,556	14	160	96	512	0.035
		5TH		80	14,448	14,556	14	160	96	512	0.035
SUBTOTAL EACH:				400	72,240	72,782					
TOTAL				1,111	200,661	230,015					

K. FLOOR STACKING TABULATION

1. The table on the following page illustrates the potential stacking of Divisions within a five-story building. For general functional relationships, see the Appendix - DOH Functional Organization Diagram.

2. The Office of the Secretary, the Board of Health Board, Management Services and the Offices of Assistant Secretaries for all the other Divisions have been combined on one floor.

3. The shared facilities and EPI/Health Statistics are located on the first floor.

4. The calculated gross building area based on the recommended floor plate size is 232,645 square feet. This gross building area includes an allowance for perimeter columns and exterior walls.

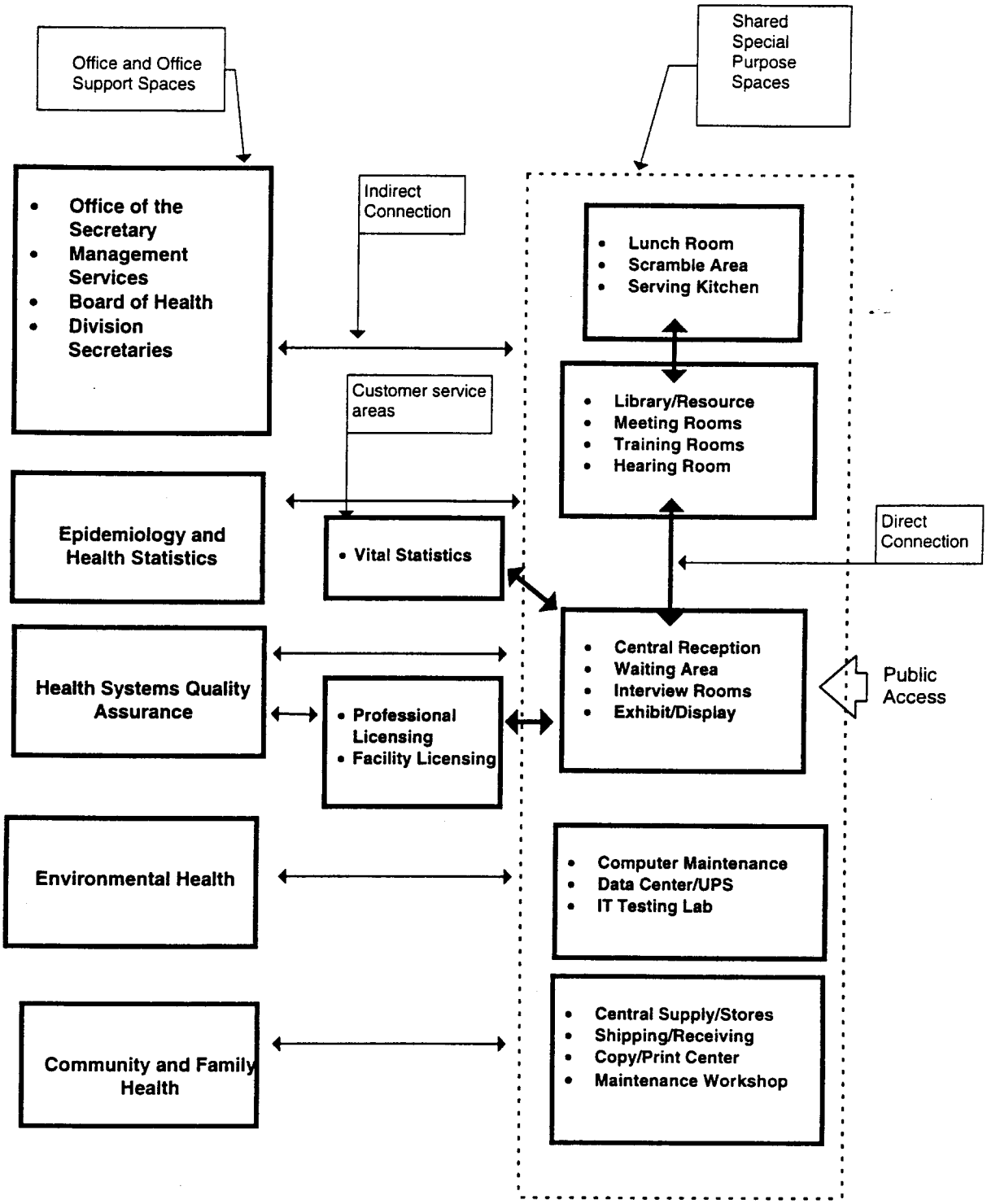
FLOOR STACKING TABULATION

FLOOR NO.	ORG NO.	DIVISION	TOTAL ASSIGNABLE 2004	TOTAL GROSS
		NUMBER OF PERSONNEL	1,111	
		OFFICE AND OFFICE SUPPORT		
5	100	**BOARD OF HEALTH**	470	539
5	200	**OFFICE OF THE SECRETARY (OS)**	8,124	9,310
5	700	**MANAGEMENT SERVICES (MS)**	21,722	24,893
		ASSISTANT SEC - EPI	712	816
		ASSISTANT SEC - EH	1,411	1,617
		ASSISTANT SEC - HSQA	1,656	1,898
		ASSISTANT SEC - CFH	2,291	2,626
		COMMUNITY AND FAMILY HEALTH (CFH)	1,700	1,948
		SUBTOTAL:	38,086	43,646
4	400	**ENVIRONMENTAL HEALTH PROGRAMS (EH)**	35,306	40,461
		HEALTH SYSTEMS QUALITY ASSURANCE (HSQA)	5,673	6,501
		SUBTOTAL:	40,979	46,962
3	500	**HEALTH SYSTEMS QUALITY ASSURANCE (HSQA)**	40,925	46,900
2	600	**COMMUNITY AND FAMILY HEALTH (CFH)**	40,383	46,279
1	300	**EPIDEMIOLOGY & HEALTH STATISTICS (EPI/HS)**	13,984	16,025
1		**SHARED FACILITIES**	26,242	30,073
		SUBTOTAL:		46,098
		TOTAL PROGRAM AREA:		229,886
		FLOOR PLATE SIZE (GSF)		46,529
		TOTAL BUILDING AREA:		232,645

APPENDIX

- **DOH FUNCTIONAL ORGANIZATION DIAGRAM**
- **SPACE PROGRAM TABULATIONS FOR EACH DOH DIVISION**
- **DOH ORGANIZATION CHART**
- **SPACE INVENTORY OF EXISTING DOH FACILITIES IN THURSTON COUNTY**

- **DOH FUNCTIONAL ORGANIZATION DIAGRAM**



• SPACE PROGRAM TABULATIONS FOR EACH DEPARTMENT

1.02 GROWTH FACTOR:

ORG NO.	DIVISION/OFFICE/WORK UNIT	TOTAL PERSONNEL 1999	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	OFFICE AREA: PRIVATE OFFICE: NET AREA PER UNIT	OFFICE AREA: PRIVATE OFFICE: NET AREA	OFFICE AREA: WORKSTATIONS: NO OF UNITS	OFFICE AREA: WORKSTATIONS: NET AREA	OFFICE AREA: TOTAL	TOTAL PERSONNEL 2004	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	OFFICE AREA: PRIVATE OFFICE: NET AREA PER UNIT	OFFICE AREA: PRIVATE OFFICE: NET AREA	OFFICE AREA: WORKSTATIONS: NO OF UNITS	OFFICE AREA: WORKSTATIONS: NET AREA	OFFICE AREA: TOTAL
100	**BOARD OF HEALTH**	3	1	144	144	2	80	160	3.06	1	144	144	2.06	80	165
	SUBTOTAL:	3	1		144	2	80	160	3.06	1		144	2.06	80	165
	SUBTOTAL OFFICE AND WORKSTATIONS							304							309
	FILES AND STORAGE CABINETS.							66							67
	CONFERENCE ROOMS														
	WORK/COPY/SUPPLIES														
	WAITING														
	COFFEE BAR														
	RESOURCE/REFERENCE LIBRARY														
	SUBTOTAL OFFICE SUPPORT:							66							67
	TOTAL OFFICE/SUPPORT/SPECIAL PURPOSE:							370							376
	ALLOWANCE FOR INTERNAL CIRCULATION @ 25%:							93							94
	TOTAL ASSIGNABLE OFFICE FLOOR AREA:							463							470

OS

9/11/1999

• SPACE PROGRAM TABULATIONS FOR EACH DEPARTMENT

1.02 GROWTH FACTOR

ORG NO.	DIVISION/OFFICE/WORK UNIT	TOTAL PERSONNEL 1999	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL	TOTAL PERSONNEL 2004	NO OF UNITS	NET AREA PER UNIT	NET AREA	NO OF UNITS	NET AREA	TOTAL
200	OFFICE OF THE SECRETARY														
210	SECRETARY	7	1	430	430	2	80	160	7.14	1	430	430	2.14	80	171.2
			4	320	1280					4	320	1280			
220	LEG. POLICY & CONSTITUENT RELATIONS	14	6	144	864	0	96	0	14.28	6	144	864	0	96	0
230	LOCAL HEALTH PROGRAMS					8	80	640					8.28	80	662.4
240	COMMUNICATIONS (MEDIA RELATIONS)	7	1	144	144	0	96	0	7.14	1	144	144	0	96	0
250	QUALITY IMPROVEMENT	6	1	144	144	6	80	480	6.12	1	144	144	6.14	80	491.2
260	MINORITY AFFAIRS	2	1	144	144	5	80	400	2	1	144	144	5.12	80	409.6
270	TRAINING	1	1	144	144	1	80	80	1	1	144	144	1	80	80
	SUBTOTAL:	37	15		3,150	0	80	0	37.68	15		3,150	0	80	0
	SUBTOTAL OFFICE AND WORKSTATIONS					22		1,760					22.7		1,814
	FILES AND STORAGE CABINETS.							4,910							4,964
	CONFERENCE ROOM							842							857
	WORK/COPY/SUPPLIES							322							328
	WAITING							207							211
	COFFEE BAR							204							207
	NODES							37							37
	SUBTOTAL:							1,611							1,640
	SPECIAL PURPOSE							0							0
	SUBTOTAL:							0							0
	TOTAL OFFICE/SUPPORT/SPECIAL PURPOSE:							6,521							6,605
	ALLOWANCE FOR INTERNAL CIRCULATION @ 23%:							1,500							1,519
	TOTAL ASSIGNABLE OFFICE FLOOR AREA:							8,021							8,124

EPI

• SPACE PROGRAM TABULATIONS FOR EACH DEPARTMENT

9/11/1999

ORG NO.	DIVISION/OFFICE/WORK UNIT	TOTAL PERSONNEL 1999	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL	1.02 GROWTH FACTOR: TOTAL PERSONNEL 2004	PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL
	300 EPIDEMIOLOGY & HEALTH STATISTICS (E&HS)														
	310 ASSISTANT SECRETARY	5	1	320	320	3	80	240	5.1	1	320	320	3.1	80	248
	SUBTOTAL		1	144	144					1	144	144			
	320 EPIDEMOLOGY	5	2		464	3		240	5.1	2.0		464.0	3.1		248.0
	330 CENTER FOR HEALTH STATISTICS	14	2	144	288	9	80	720	14.3	2	144	288	9.28	80	742
		50	8	144	1,152	3	128	384	51.0	8	144	1,152	3.0	128	384
	SUBTOTAL:					38	80	3,040					39.0	80	3,120
						4	128	512					4.0	128	512
	SUBTOTAL OFFICE AND WORKSTATIONS	69	12		1,904	57		4,896	70.4	12		1,904	58.4		5,006
	OFFICE SUPPORT							6,800							6,910
	FILES AND STORAGE CABS.														
	CONFERENCE ROOMS							552							563
	WORK/COPY/SUPPLIES							600							612
	WAITING							386							394
	COFFEE BAR							108							110
	NODES							69							70
	SUBTOTAL:					2	80	160					2	80	160
								1,875							1,909
	SPECIAL PURPOSE														
	RESOURCE LIBRARY							500							500
	VITAL STATISTICS							100							100
	SUBTOTAL:							600							600
	TOTAL OFFICE/SUPPORT/SPECIAL PURPOSE:							9,275							9,420
	ALLOWANCE FOR INTERNAL CIRCULATION @ 23%:							2,133							2,167
	TOTAL ASSIGNABLE OFFICE FLOOR AREA:							14,483							14,696

• SPACE PROGRAM TABULATIONS FOR EACH DEPARTMENT

ORG NO.	DIVISION/OFFICE/WORK UNIT	TOTAL PERSONNEL 1999	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	OFFICE AREA: PRIVATE OFFICE: NET AREA PER UNIT	OFFICE AREA: PRIVATE OFFICE: NET AREA	OFFICE AREA: WORKSTATIONS: NO OF UNITS	OFFICE AREA: WORKSTATIONS: NET AREA	OFFICE AREA: WORKSTATIONS: TOTAL
500	HEALTH SYSTEMS QUALITY ASSURANCE (HSQA)							
510	ASSISTANT SECRETARY	15	1	320	320	11	80	880
	SUBTOTAL:		3	144	432			
520	COMMUNITY AND RURAL HEALTH	15	4			0	128	0
530	FACILITY AND SERVICES LICENSING	17	6	144	752	11		880
		49	7	144	864	11	80	880
540	HEALTH PROFESSIONS QUALITY ASSURANCE SERVICE UNITS AND DIRECTOR'S OFFICE				1,008	42	80	3,360
						0	128	0
	SECTION 1	42	3	144	432	23	80	1,840
	SECTION 2	10	1	144	144	16	128	2,048
						6	80	480
	SECTION 3	24	1	144	144	3	96	288
						12	80	960
	SECTION 4	28	1	144	144	11	96	1,056
						18	80	1,440
	SECTION 5	11	1	144	144	9	96	864
						4	80	320
	SECTION 6	35	1	144	144	6	96	576
						16	80	1,280
560	EMERGENCY MEDICAL AND TRAUMA PREVENTION	38	1	144	144	18	96	1,728
						23	80	1,840
	SUBTOTAL:	34	5	144	720	14	96	1,344
						29	80	2,320
						0	96	0
	SUBTOTAL OFFICE AND WORKSTATIONS	303	31		4,640	272		23,504
	FILES AND STORAGE CABS.							28,144
	CONFERENCE ROOMS							
	WORK/COPY/SUPPLIES							2,698
	WAITING							2,636
	COFFEE BAR							1,697
	NODES							439
	SUBTOTAL:							303
	SPECIAL PURPOSE					9	80	720
	RESOURCE LIBRARY							8,493
	HPQA LICENSING PROCESSING							
	CONSTRUCTION DOCUMENT STORAGE							240
	TRAINING (9 STATIONS)							624
	PHARMACY EVIDENCE STORAGE							553
	SUBTOTAL:							416
								117
	TOTAL OFFICE/SUPPORT/SPECIAL PURPOSE:							1,950
	ALLOWANCE FOR INTERNAL CIRCULATION @ 23%:							38,587
	TOTAL ASSIGNABLE OFFICE FLOOR AREA:							8,875
								47,462

1.02 GROWTH FACTOR

TOTAL PERSONNEL 2004	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	OFFICE AREA: PRIVATE OFFICE: NET AREA PER UNIT	OFFICE AREA: PRIVATE OFFICE: NET AREA	OFFICE AREA: WORKSTATIONS: NO OF UNITS	OFFICE AREA: WORKSTATIONS: NET AREA	OFFICE AREA: WORKSTATIONS: TOTAL
15.3	1	320	320	11.3	80	904
	3.0	144	432			
15.3	4.0			0.0	100	0
17.3	6	144	752.0	11.3		904.0
50.0	7	144	864	11.3	80	907
			1,008	43.0	80	3,438
				0.0	128	0
42.8	3	144	432	23.8	80	1,907
10.2	1	144	144	16.0	128	2,048
				6.2	80	496
24.5	1	144	144	3.0	96	288
				12.5	80	998
28.6	1	144	144	11.0	96	1,056
				18.6	80	1,485
11.2	1	144	144	9.0	96	864
				4.2	80	338
35.7	1	144	144	6.0	96	576
				16.7	80	1,336
38.8	1	144	144	18.0	96	1,728
				23.8	80	1,901
34.7	5	144	720	14.0	100	1,400
				29.7	80	2,374
				0.0	100	0
309.1	31.0		4640.0	278.1		24044.8
						28,685
						2,752
						2,689
						1,731
						448
				9	80	309
						720
						8,649
						240
						624
						500
						416
						117
						1,897
						39,231
						9,023
						48,254

• SPACE PROGRAM TABULATIONS FOR EACH DEPARTMENT

1.02 GROWTH FACTOR:

ORG NO.	DIVISION/OFFICE/WORK UNIT	TOTAL PERSONNEL 1999	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL	TOTAL PERSONNEL 2004	PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL
600	COMMUNITY AND FAMILY HEALTH (CFH)														
610	ASSISTANT SECRETARY														
	ADMINISTRATION	14	1	320	320	10	80	800	14.3	1	320	320	10.3	80	822
			3	144	432					3	144	432			
	HEALTH PROMOTION	8	1	144	144	7	80	560	8.2	1	144	144	7.2	80	573
	SUBTOTAL:	22	5		896	17		1,360	22.4	5		896.0	17.4		1,395.2
620	INFECTIOUS DISEASE AND REPRODUCTIVE HEALTH														
	IDRH ASSESSMENT UNIT	14	1	144	144	12	80	960	14.3	1	144	144	12.3	80	982
						1	128	128					1.0	128	128
	HIV CLIENT SERVICES	16	1	144	144	11	80	880	16.3	1	144	144	11.3	80	906
						4	96	384					4.0	96	384
	OFFICE OF THE DIRECTOR	3	1	144	144	2	80	160	3.1	1	144	144	2.1	80	165
	FAMILY PLANNING AND REPRODUCTIVE HEALTH	7	1	144	144	6	80	480	7.1	1	144	144	6.1	80	491
	HIV PREVENTION AND EDUCATION	10	1	144	144	8	80	640	10.2	1	144	144	8.2	80	656
						1	128	128					1.0	128	128
	STD/TB SERVICES	16	1	144	144	14	80	1,120	16.3	1	144	144	14.3	80	1,146
						1	128	128					1.0	128	128
630	MATERNAL AND CHILD HEALTH														
	ADMINISTRATION	7	3	144	432	4	80	320	7.1	3	144	432	4.1	80	331
						0	96	0					0.0	96	0
	ASSESSMENT	13	1	144	144	12	80	960	13.3	1	144	144	12.3	80	981
	CHILD & ADOLESCENT HEALTH/CHILD PROFILE	18	1	144	144	17	80	1,360	18.4	1	144	144	17.4	80	1,389
	CHILDREN WITH SPECIAL HEALTH CARE NEEDS	11	1	144	144	10	80	800	11.2	1	144	144	10.2	80	818
	GENETICS	2	0	0	0	2	80	160	2.0	0	0	0	2.0	80	163
	IMMUNIZATION	22	1	144	144	21	80	1,680	22.4	1	144	144	21.4	80	1,715
	MATERNAL AND INFANT HEALTH	15	1	144	144	13	80	1,040	15.3	1	144	144	13.3	80	1,064
						1	128	128					1.0	128	128
640	COMMUNITY WELLNESS AND PREVENTION														
	ADMINISTRATIVE SERVICES	3	1	144	144	1	80	80	3.1	1	144	144	1.1	80	85
						1	96	96					1.0	96	96
	CHRONIC DISEASE PREVENTION/RISK REDUCTION	33	1	144	144	29	80	2,320	33.7	1	144	144	29.7	80	2,373
						3	96	288					3.0	96	288
	INJURY PREVENTION AND SAFETY PROGRAM	5	1	144	144	0	80	0	5.1	1	144	144	0.1	80	8
						4	96	384					4	96	384
	WIC PROGRAM	63	1	144	144	61	80	4,880	64.3	1	144	144	62.3	80	4,981
						1	96	96					1.0	96	96
650	CANCER REGISTRY/ASSESSMENT	8	4	100	400	4	80	320	8.2	4	100	400	4.2	80	333
	SUBTOTAL:	288	27		3,888	261		21,280	293.8	27.0		3,888.0	266.8		21,740.8
	SUBTOTAL OFFICE AND WORKSTATIONS							25,168							25,629
	OFFICE SUPPORT														
	FILES AND STORAGE CABS.							1,516							2,379
	CONFERENCE ROOMS							2,506							2,556
	WORK/COPY/SUPPLIES							1,613							1,645
	WAITING							432							441
	COFFEE BAR							288							294
	NODES					9	80	720					9	80	720
	SUBTOTAL							7,075							8,034
	SPECIAL PURPOSE														
	RESOURCE LIBRARY (HIV/AIDS CLEARING HOUSE)							270							270
	WIC TRAINING LABS							1,920							1,920
	CONFIDENTIAL FILES							224							224
	SUBTOTAL:							2,414							2,414
	TOTAL OFFICE/SUPPORT/SPECIAL PURPOSE:							34,657							36,077
	ALLOWANCE FOR INTERNAL CIRCULATION ● 23%:							7,971							8,298
	TOTAL ASSIGNABLE OFFICE FLOOR AREA:							42,628							44,374

• SPACE PROGRAM TABULATIONS FOR EACH DEPARTMENT

1.02 GROWTH FACTOR

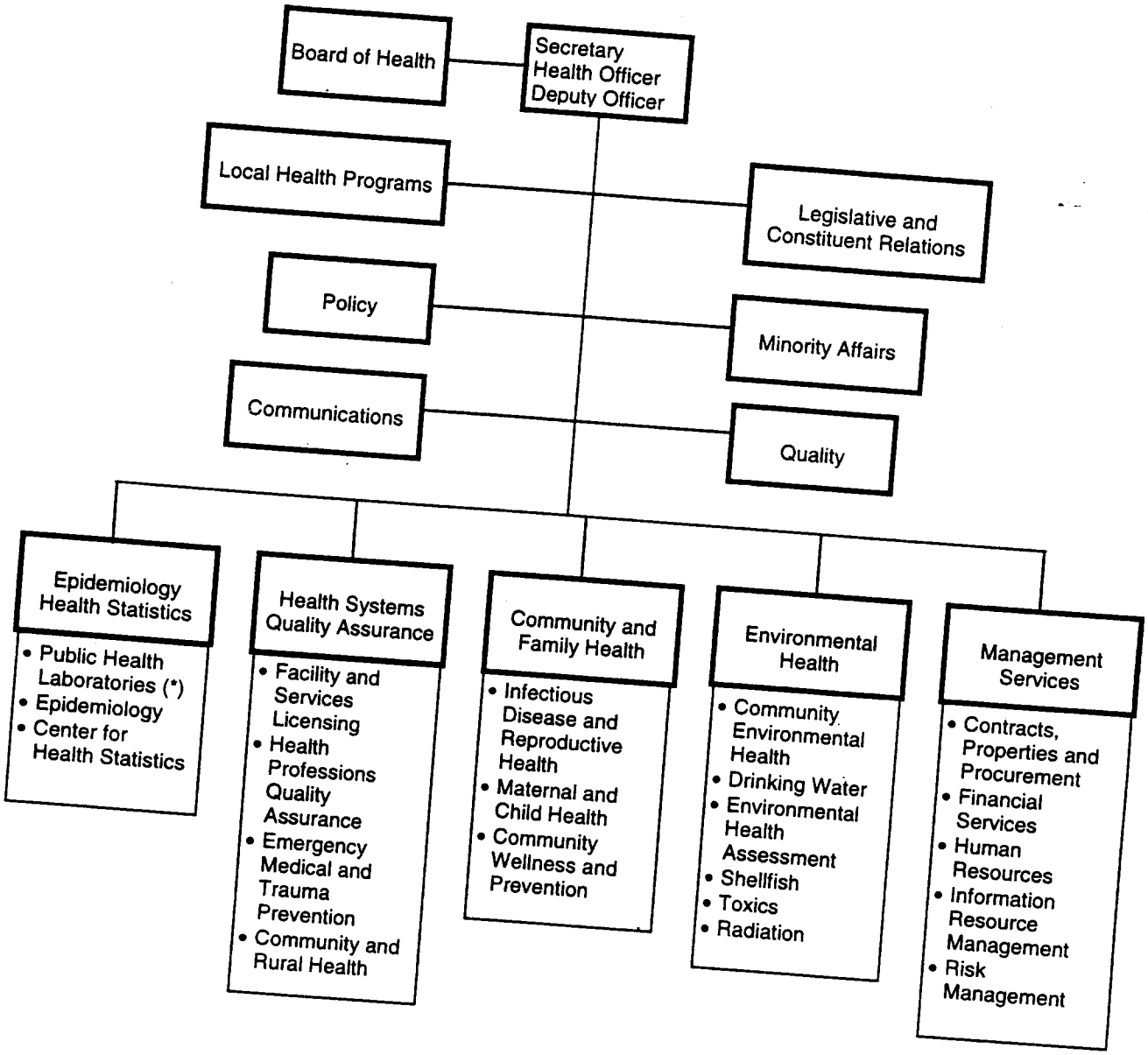
ORG NO.	DIVISION/OFFICE/WORK UNIT	TOTAL PERSONNEL 1999	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	TOTAL	TOTAL PERSONNEL 2004	PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	TOTAL
400	ENVIRONMENTAL HEALTH PROGRAMS (EH)														
410	ASSISTANT SECRETARY/PROGRAM SERVICES	12	1	320	320	5	80	400	12.2	1	320	320	5.2	80	419
						2	144	288					2.0	144	288
						4	96	384					4.0	96	384
	SUBTOTAL:	12	1		320	11		1,072	12.2	1.0		320.0	11.2		1,091.2
420	ENVIRONMENTAL HEALTH AND SAFETY	27	1	144	144	21	80	1,680	27.5	1	144	144	21.5	80	1,723
						5	128	640					5.0	128	640
430	DRINKING WATER	86	6	144	864	77	80	6,160	87.7	6	144	864	78.7	80	6,298
						3	128	384					3	128	384
440	ENVIRONMENTAL HEALTH ASSESSMENT	26	2	144	288	24	80	1,920	26.5	2	144	288	24.5	80	1,962
						0	128	0					0	128	0
450	FOOD SAFETY/SHELLFISH /TOXIC SUBSTANCES	35	4	144	576	31	80	2,480	35.7	4	144	576	31.7	80	2,536
						0	128	0					0	128	0
460	RADIATION PROTECTION	59	7	144	1,008	52	80	4,160	60.2	7	144	1,008	53.2	80	4,254
						0	128	0					0	128	0
	SUBTOTAL:	245	21		3,200	224		18,496	249.9	21.0		3,200.0	228.9		18,888.0
	SUBTOTAL OFFICE AND WORKSTATIONS							21,696							22,088
	OFFICE SUPPORT:														
	FILES AND STORAGE CABS.							1,784							1,819
	CONFERENCE ROOMS							2,132							2,174
	WORK/COPY/SUPPLIES							1,372							1,399
	WAITING							240							245
	COFFEE BAR							245							245
	NODES					7	80	560					7	80	560
	SUBTOTAL:							6,332							6,443
	SPECIAL PURPOSE:														
	TECHNICAL REFERENCE LIBRARY							750							750
	RADIOACTIVE MATERTIALS							81							81
	X-RAY DARK ROOM							63							63
	PREPARATION AREA							153							153
	GIS WORKROOM							210							210
	EMERGENCY LOCKERS							64							64
	SUBTOTAL:							1,321							1,321
	TOTAL OFFICE/SUPPORT/SPECIAL PURPOSE:							29,349							29,852
	ALLOWANCE FOR INTERNAL CIRCULATION @ 23%:							6,750							6,866
	TOTAL ASSIGNABLE OFFICE FLOOR AREA:							36,100							36,718

• SPACE PROGRAM TABULATIONS FOR EACH DEPARTMENT

ORG NO.	DIVISION/OFFICE/WORK UNIT	TOTAL PERSONNEL 1999	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL	1.02 GROWTH FACTOR: TOTAL PERSONNEL 2004	PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL
	700 MANAGEMENT SERVICES														
	710 ASSISTANT SECRETARY	4	1	320	320	2	80	160	4.1	1	320	320	2	80	166
						1	96	96					1	96	96
	720 HUMAN RESOURCES	11	4	144	576	4	80	320	11.2	4	144	576	4.2	80	338
						3	96	288					3	96	288
	730 CONTRACTS, PROPERTIES AND PROCUREMENT	21	4	144	576	15	80	1,200	21.4	4	144	576	15.4	80	1,234
						2	96	192					2	96	192
	740 FINANCIAL SERVICES	48	4	144	576	43	80	3,440	49.0	4	144	576	44.0	80	3,517
						1	128	128					1	128	128
	750 INFORMATION RESOURCE MANAGEMENT	58	6	144	864	51	80	4,080	59.2	6	144	864	52.2	80	4,173
						1	128	128					1	128	128
	760 RISK MANAGEMENT	3	2	144	288	1	80	80	3.1	2	144	288	1.1	80	85
	SUBTOTAL:	145	21		3,200	124		10,112	147.9	21		3,200	126.9		10,344
	SUBTOTAL OFFICE AND WORKSTATIONS							13,312							13,544
	OFFICE SUPPORT														
	FILES AND STORAGE CABS.							905							923
	CONFERENCE ROOMS							1,262							1,287
	WORK/COPY/SUPPLIES							812							828
	WAITING							170							170
	COFFEE BAR							145							148
	NODES					4	80	320					4	80	320
	SUBTOTAL:							3,613							3,676
	SPECIAL PURPOSE														
	RESOURCE LIBRARY							240							240
	REVENUE PROCESSING							200							200
	SUBTOTAL:							440							440
	TOTAL OFFICE/SUPPORT/SPECIAL PURPOSE:							17,365							17,660
	ALLOWANCE FOR INTERNAL CIRCULATION @ 23%:							3,994							4,062
	TOTAL ASSIGNABLE OFFICE FLOOR AREA:							21,359							21,722

- **DOH ORGANIZATION CHART**

(*) Note: not included in Consolidation Study; outside Thurston County



- **SPACE INVENTORY OF EXISTING DOH FACILITIES IN THURSTON COUNTY**

BUILDING/LOCATION	FLOOR	RENTABLE AREA (ESTIMATED)	GROSS BUILDING AREA	SUBTOTAL	COMMENT
EASTSIDE STREET -1101 EASTSIDE		5,957	6,888	6,888	
EASTSIDE PLAZA -1102 QUINCE				24,024	
BLUE AWNING	FIRST	7,084	8,008		
	SECOND	7,084	8,008		
	THIRD	6,888	8,008		
EASTSIDE PLAZA -1112 QUINCE	TOTAL			29,128	
YELLOW AWNING (BLDG #1)	FIRST	12,883	14,564		
	SECOND	12,883	14,564		
1300 QUINCE ST SE	TOTAL			45,989	
RED AWNING	FIRST	12,094	13,671		
	SECOND	12,094	13,671		
	THIRD	8,247	9,323		
	FOURTH	8,247	9,323		
AD NORTH					
AD BLDG 1		8,532	9,480		
AD BLDG 2		10,800	12,000		
AD BLDG 3		9,883	10,981		
AD BLDG 4		9,883	10,981		
AD BLDG 5		10,924	12,000		NO PLANS RECEIVED
AD BLDG 7		8,532	9,480		
AD BLDG 8		7,507	8,341		
AD SOUTH					
AD BLDG 9		5,400	6,000		
AD BLDG 10		5,400	6,000		
AD BLDG 11		5,400	6,000		
AD BLDG 12		5,400	6,000		
AD BLDG 13		5,400	6,000		
AD BLDG 14		5,400	6,000		
AD BLDG 15		5,400	6,000		
	TOTAL:			115,263	
FIRGROVE BUS. PARK					
2411 PACIFIC AVE., BLDG 8	TOTAL			5,121	
	MAIN	2,435	2,661		
	UPPER	2,329	2,460		
2411 PACIFIC AVE., BLDG 9	TOTAL	2,200		2,200	NO PLANS RECEIVED
TARGET PLAZA BUILDING #5		24,728		25,083	
GRAND TOTAL OFFICES				253,695	

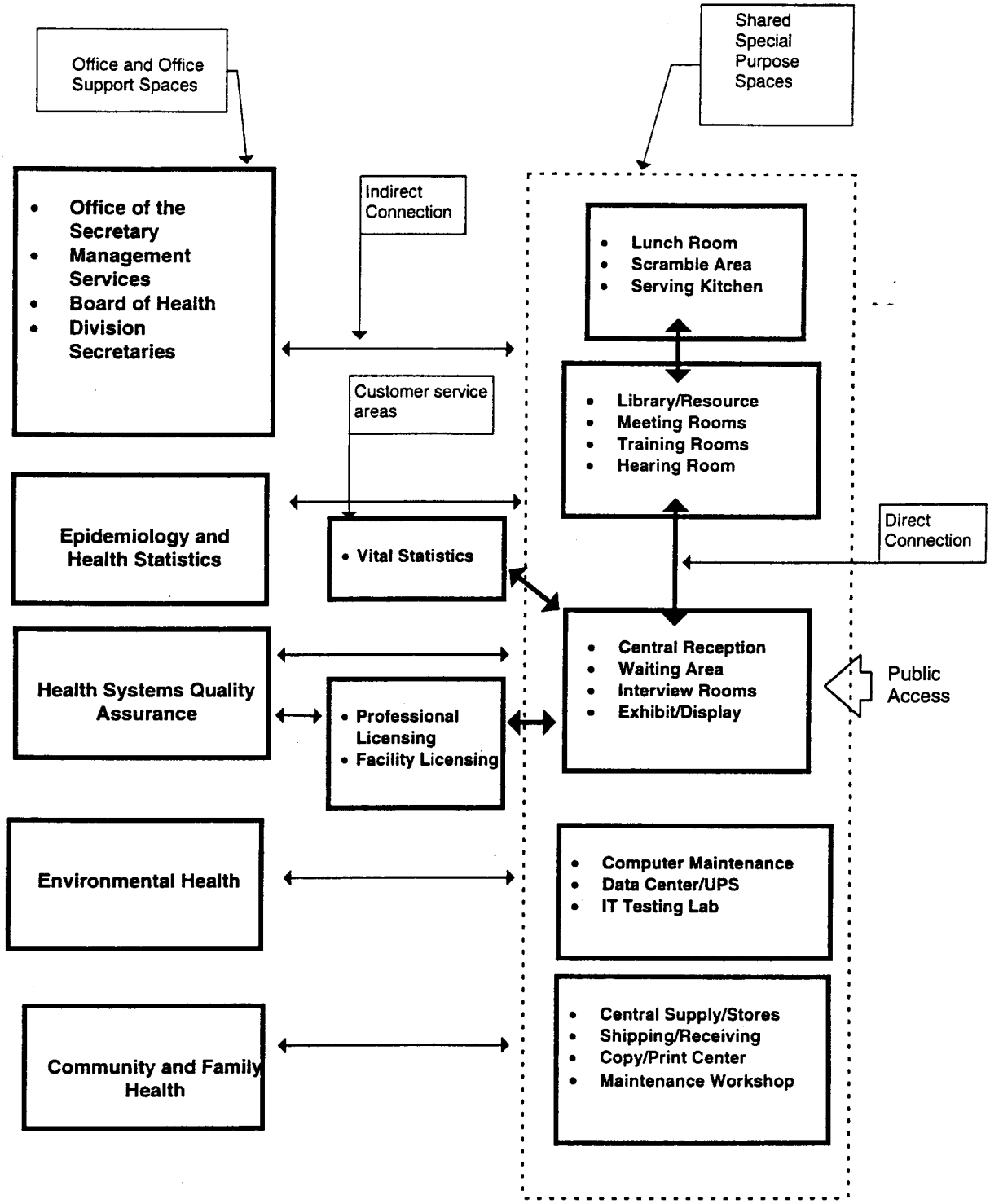
- **SPACE INVENTORY OF EXISTING DOH FACILITIES IN THURSTON COUNTY (Continued)**

BUILDING/LOCATION	FLOOR	RENTABLE AREA (ESTIMATED)	GROSS BUILDING AREA	SUBTOTAL	COMMENT
7745-C ARAB ROAD WAREHOUSE			24,960		
AD BLDG 18 - 7211 Cleanwater BOATSHED		3,640	4,000		
GRAND TOTAL OFFICE AND BOATHOUSE				257,695	

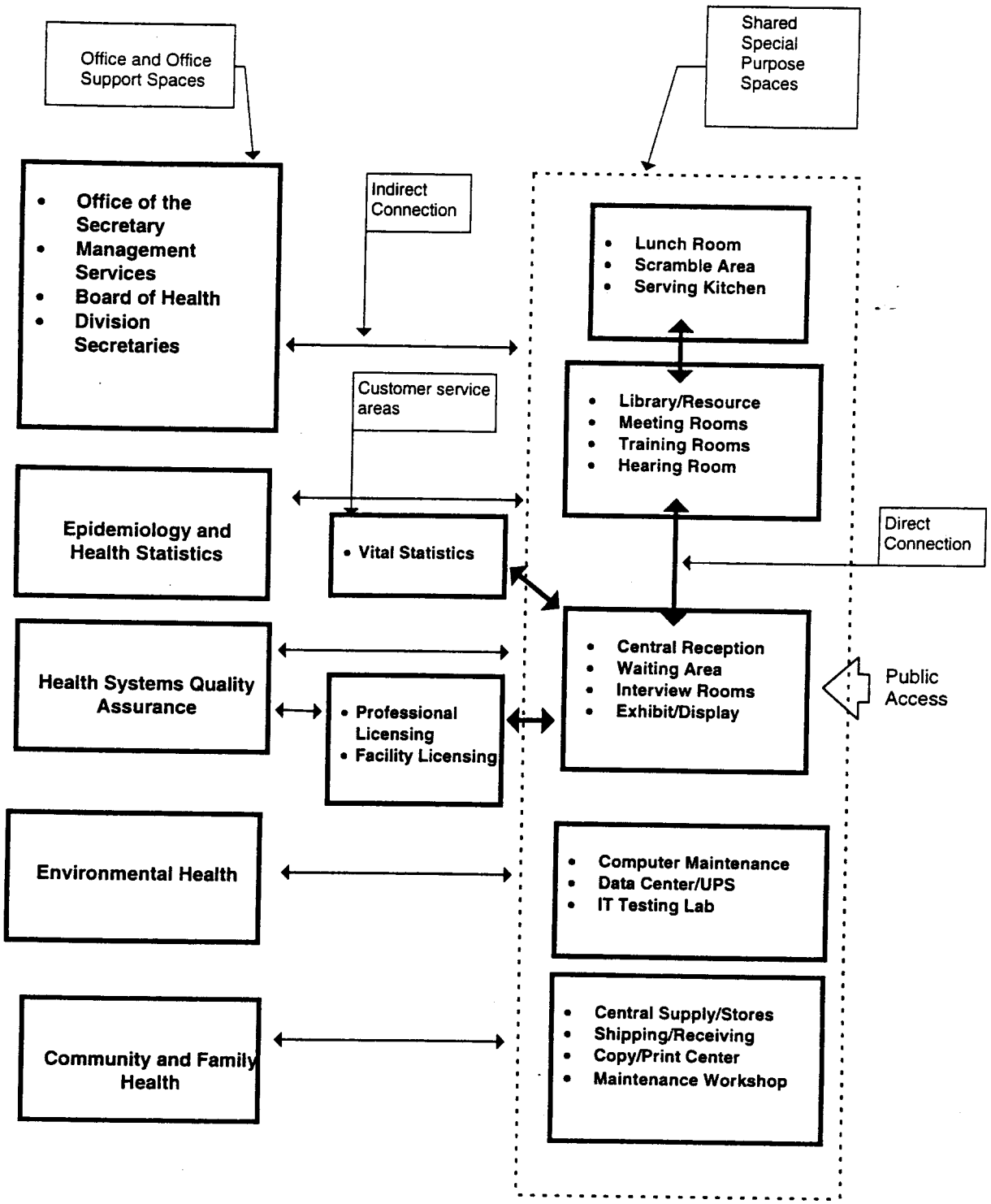
APPENDIX

- **DOH FUNCTIONAL ORGANIZATION DIAGRAM**
- **SPACE PROGRAM TABULATIONS FOR EACH DOH DIVISION**
- **DOH ORGANIZATION CHART**
- **SPACE INVENTORY OF EXISTING DOH FACILITIES IN THURSTON COUNTY**

- **DOH FUNCTIONAL ORGANIZATION DIAGRAM**



- **DOH FUNCTIONAL ORGANIZATION DIAGRAM**



• SPACE PROGRAM TABULATIONS FOR EACH DEPARTMENT

1.02 GROWTH FACTOR:

ORG NO.	DIVISION/OFFICE/WORK UNIT	TOTAL PERSONNEL 1999	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	OFFICE AREA: PRIVATE OFFICE: NET AREA PER UNIT	OFFICE AREA: PRIVATE OFFICE: NET AREA	OFFICE AREA: WORKSTATIONS: NO OF UNITS	OFFICE AREA: WORKSTATIONS: NET AREA	OFFICE AREA: WORKSTATIONS: TOTAL	TOTAL PERSONNEL 2004	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	OFFICE AREA: PRIVATE OFFICE: NET AREA PER UNIT	OFFICE AREA: PRIVATE OFFICE: NET AREA	OFFICE AREA: WORKSTATIONS: NO OF UNITS	OFFICE AREA: WORKSTATIONS: NET AREA	OFFICE AREA: WORKSTATIONS: TOTAL
100	**BOARD OF HEALTH**	3	1	144	144	2	80	160	3.06	1	144	144	2.06	80	165
	SUBTOTAL:	3	1		144	2	80	160	3.06	1		144	2.06	80	165
	SUBTOTAL OFFICE AND WORKSTATIONS							304							309
	FILES AND STORAGE CABINETS.							66							67
	CONFERENCE ROOMS														
	WORK/COPY/SUPPLIES														
	WAITING														
	COFFEE BAR														
	RESOURCE/REFERENCE LIBRARY														
	SUBTOTAL OFFICE SUPPORT:							66							67
	TOTAL OFFICE/SUPPORT/SPECIAL PURPOSE:							370							376
	ALLOWANCE FOR INTERNAL CIRCULATION @ 25%:							93							94
	TOTAL ASSIGNABLE OFFICE FLOOR AREA:							463							470

OS

• SPACE PROGRAM TABULATIONS FOR EACH DEPARTMENT

9/11/1999

ORG NO.	DIVISION/OFFICE/WORK UNIT	TOTAL PERSONNEL 1999	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL	1.02 GROWTH FACTOR: TOTAL PERSONNEL 2004	PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL
	200 OFFICE OF THE SECRETARY														
	210 SECRETARY	7	1	430	430	2	80	160	7.14	1	430	430	2.14	80	171.2
			4	320	1280					4	320	1280			
	220 LEG. POLICY & CONSTITUENT RELATIONS	14	6	144	864	0	96	0	14.28	6	144	864	0	96	0
	230 LOCAL HEALTH PROGRAMS					8	80	640					8.28	80	662.4
	240 COMMUNICATIONS (MEDIA RELATIONS)	7	1	144	144	0	96	0	7.14	1	144	144	0	96	0
	250 QUALITY IMPROVEMENT	6	1	144	144	6	80	480	6.12	1	144	144	6.14	80	491.2
	260 MINORITY AFFAIRS	2	1	144	144	5	80	400	2	1	144	144	5.12	80	409.6
	270 TRAINING	1	1	144	144	1	80	80	1	1	144	144	1	80	80
	SUBTOTAL:	37	15		3,150	22		1,760	37.68	15		3,150	22.7		1,814
	SUBTOTAL OFFICE AND WORKSTATIONS							4,910							4,964
	FILES AND STORAGE CABINETS.							842							857
	CONFERENCE ROOM							322							328
	WORK/COPY/SUPPLIES							207							211
	WAITING							204							207
	COFFEE BAR							37							37
	NODES					0	80	0					0	80	0
	SUBTOTAL:							1,611							1,640
	SPECIAL PURPOSE							0							0
	SUBTOTAL:														
	TOTAL OFFICE/SUPPORT/SPECIAL PURPOSE:							6,521							6,605
	ALLOWANCE FOR INTERNAL CIRCULATION @ 23%:							1,500							1,519
	TOTAL ASSIGNABLE OFFICE FLOOR AREA:							8,021							8,124

OS

• SPACE PROGRAM TABULATIONS FOR EACH DEPARTMENT

9/11/1999

ORG NO.	DIVISION/OFFICE/WORK UNIT	TOTAL PERSONNEL 1999	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL
	200 OFFICE OF THE SECRETARY							
	210 SECRETARY	7	1	430	430	2	80	160
			4	320	1280			
	220 LEG. POLICY & CONSTITUENT RELATIONS	14	6	144	864	0	96	0
	230 LOCAL HEALTH PROGRAMS					8	80	640
	240 COMMUNICATIONS (MEDIA RELATIONS)	7	1	144	144	0	96	0
	250 QUALITY IMPROVEMENT	6	1	144	144	6	80	480
	260 MINORITY AFFAIRS	2	1	144	144	5	80	400
	270 TRAINING	1	1	144	144	1	80	80
	SUBTOTAL:					0	80	0
	SUBTOTAL OFFICE AND WORKSTATIONS	37	15		3,150	22		1,760
	FILES AND STORAGE CABINETS.							4,910
	CONFERENCE ROOM							842
	WORK/COPY/SUPPLIES							322
	WAITING							207
	COFFEE BAR							204
	NODES							37
	SUBTOTAL:					0	80	0
	SPECIAL PURPOSE							1,611
	SUBTOTAL:							
	TOTAL OFFICE/SUPPORT/SPECIAL PURPOSE:							6,521
	ALLOWANCE FOR INTERNAL CIRCULATION @ 23%:							1,500
	TOTAL ASSIGNABLE OFFICE FLOOR AREA:							8,021

1.02 GROWTH FACTOR

TOTAL PERSONNEL 2004	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL
7.14	1	430	430	2.14	80	171.2
	4	320	1280			
14.28	6	144	864	0	96	0
				8.28	80	662.4
7.14	1	144	144	0	96	0
6.12	1	144	144	6.14	80	491.2
2	1	144	144	5.12	80	409.6
1	1	144	144	1	80	80
				0	80	0
37.68	15		3,150	22.7		1,814
						4,964
						857
						328
						211
						207
						37
				0	80	0
						1,640
						0
						6,605
						1,519
						8,124

• SPACE PROGRAM TABULATIONS FOR EACH DEPARTMENT

1.02 GROWTH FACTOR

ORG NO.	DIVISION/OFFICE/WORK UNIT	TOTAL PERSONNEL 1999	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL	TOTAL PERSONNEL 2004	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL
	300 EPIDEMIOLOGY & HEALTH STATISTICS (E&HS)														
	310 ASSISTANT SECRETARY	5	1	320	320	3	80	240	5.1	1	320	320	3.1	80	248
	SUBTOTAL		1	144	144					1	144	144			
	320 EPIDEMOLOGY	5	2		464	3		240	5.1	2.0		464.0	3.1		248.0
		14	2	144	288	9	80	720	14.3	2	144	288	9.28	80	742
	330 CENTER FOR HEALTH STATISTICS					3	128	384					3.0	128	384
		50	8	144	1,152	38	80	3,040	51.0	8	144	1,152	39.0	80	3,120
						4	128	512					4.0	128	512
	SUBTOTAL:	69	12		1,904	57		4,896	70.4	12		1,904	58.4		5,006
	SUBTOTAL OFFICE AND WORKSTATIONS							6,800							6,910
	OFFICE SUPPORT							552							563
	FILES AND STORAGE CABS.							600							612
	CONFERENCE ROOMS							386							394
	WORK/COPY/SUPPLIES							108							110
	WAITING							69							70
	COFFEE BAR					2	80	160					2	80	160
	NODES							1,875							1,909
	SUBTOTAL:														
	SPECIAL PURPOSE							500							500
	RESOURCE LIBRARY							100							100
	VITAL STATISTICS							600							600
	SUBTOTAL:														
	TOTAL OFFICE/SUPPORT/SPECIAL PURPOSE:							9,275							9,420
	ALLOWANCE FOR INTERNAL CIRCULATION @ 23%:							2,133							2,167
	TOTAL ASSIGNABLE OFFICE FLOOR AREA:							14,483							14,696

• SPACE PROGRAM TABULATIONS FOR EACH DEPARTMENT

ORG NO.	DIVISION/OFFICE/WORK UNIT	TOTAL PERSONNEL 1999	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL	1.02 GROWTH FACTOR: TOTAL PERSONNEL 2004	PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL
500	**HEALTH SYSTEMS QUALITY ASSURANCE (HSQA)**														
510	ASSISTANT SECRETARY	15	1	320	320	11	80	880	15.3	1	320	320	11.3	80	904
			3	144	432					3.0	144	432			
						0	128	0					0.0	100	0
	SUBTOTAL:	15	4		752	11		880	15.3	4.0		752.0	11.3		904.0
520	COMMUNITY AND RURAL HEALTH	17	6	144	864	11	80	880	17.3	6	144	864	11.3	80	907
530	FACILITY AND SERVICES LICENSING	49	7	144	1,008	42	80	3,360	50.0	7	144	1,008	43.0	80	3,438
						0	128	0					0.0	128	0
540	HEALTH PROFESSIONS QUALITY ASSURANCE														
	SERVICE UNITS AND DIRECTOR'S OFFICE	42	3	144	432	23	80	1,840	42.8	3	144	432	23.8	80	1,907
						16	128	2,048					16.0	128	2,048
	SECTION 1	10	1	144	144	6	80	480	10.2	1	144	144	6.2	80	496
						3	96	288					3.0	96	288
	SECTION 2	24	1	144	144	12	80	960	24.5	1	144	144	12.5	80	998
						11	96	1,056					11.0	96	1,056
	SECTION 3	28	1	144	144	18	80	1,440	28.6	1	144	144	18.6	80	1,485
						9	96	864					9.0	96	864
	SECTION 4	11	1	144	144	4	80	320	11.2	1	144	144	4.2	80	338
						6	96	576					6.0	96	576
	SECTION 5	35	1	144	144	16	80	1,280	35.7	1	144	144	16.7	80	1,336
						18	96	1,728					18.0	96	1,728
	SECTION 6	38	1	144	144	23	80	1,840	38.8	1	144	144	23.8	80	1,901
						14	96	1,344					14.0	100	1,400
560	EMERGENCY MEDICAL AND TRAUMA PREVENTION	34	5	144	720	29	80	2,320	34.7	5	144	720	29.7	80	2,374
						0	96	0					0.0	100	0
	SUBTOTAL:	303	31		4,640	272		23,504	309.1	31.0		4640.0	278.1		24044.8
	SUBTOTAL OFFICE AND WORKSTATIONS							28,144							28,685
	FILES AND STORAGE CABS.							2,698							2,752
	CONFERENCE ROOMS							2,636							2,689
	WORK/COPY/SUPPLIES							1,697							1,731
	WAITING							439							448
	COFFEE BAR							303							309
	NODES					9	80	720					9	80	720
	SUBTOTAL:							8,493							8,649
	SPECIAL PURPOSE														
	RESOURCE LIBRARY							240							240
	HPQA LICENSING PROCESSING							624							624
	CONSTRUCTION DOCUMENT STORAGE							553							500
	TRAINING (9 STATIONS)							416							416
	PHARMACY EVIDENCE STORAGE							117							117
	SUBTOTAL:							1,950							1,897
	TOTAL OFFICE/SUPPORT/SPECIAL PURPOSE:							38,587							39,231
	ALLOWANCE FOR INTERNAL CIRCULATION @ 23%:							8,875							9,023
	TOTAL ASSIGNABLE OFFICE FLOOR AREA:							47,462							48,254

CFH

SPACE PROGRAM TABULATIONS FOR EACH DEPARTMENT

9/11/1999

1.02 GROWTH FACTOR:

ORG NO.	DIVISION/OFFICE/WORK UNIT	TOTAL PERSONNEL 1999	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL	TOTAL PERSONNEL 2004	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL
600	COMMUNITY AND FAMILY HEALTH (CFH)														
610	ASSISTANT SECRETARY														
	ADMINISTRATION	14	1	320	320	10	80	800	14.3	1	320	320	10.3	80	822
	HEALTH PROMOTION		3	144	432					3	144	432			
	SUBTOTAL:	8	1	144	144	7	80	560	8.2	1	144	144	7.2	80	573
620	INFECTIOUS DISEASE AND REPRODUCTIVE HEALTH	22	5		896	17		1,360	22.4	5		896.0	17.4		1,395.2
	IDRH ASSESSMENT UNIT														
	HIV CLIENT SERVICES	14	1	144	144	12	80	960	14.3	1	144	144	12.3	80	982
	OFFICE OF THE DIRECTOR	16	1	144	144	1	128	128	16.3	1	144	144	1.0	128	128
	FAMILY PLANNING AND REPRODUCTIVE HEALTH					11	80	880					11.3	80	906
	HIV PREVENTION AND EDUCATION	3	1	144	144	4	96	384	3.1	1	144	144	4.0	96	384
		7	1	144	144	2	80	160	7.1	1	144	144	2.1	80	165
	STD/TB SERVICES	10	1	144	144	6	80	480	10.2	1	144	144	6.1	80	491
						8	80	640					8.2	80	656
630	MATERNAL AND CHILD HEALTH	16	1	144	144	1	128	128	16.3	1	144	144	1.0	128	128
	ADMINISTRATION					14	80	1,120					14.3	80	1,146
						1	128	128					1.0	128	128
	ASSESSMENT	7	3	144	432	4	80	320	7.1	3	144	432	4.1	80	331
	CHILD & ADOLESCENT HEALTH/CHILD PROFILE	13	1	144	144	0	96	0	13.3	1	144	144	0.0	96	0
	CHILDREN WITH SPECIAL HEALTH CARE NEEDS	18	1	144	144	12	80	960	18.4	1	144	144	12.3	80	981
	GENETICS	11	1	144	144	17	80	1,360	11.2	1	144	144	17.4	80	1,389
	IMMUNIZATION	2	0	0	0	10	80	800	2.0	0	0	0	10.2	80	818
	MATERNAL AND INFANT HEALTH	22	1	144	144	2	80	160	22.4	1	144	144	2.0	80	163
640	COMMUNITY WELLNESS AND PREVENTION	15	1	144	144	21	80	1,680	15.3	1	144	144	21.4	80	1,715
	ADMINISTRATIVE SERVICES					13	80	1,040					13.3	80	1,064
						1	128	128					1.0	128	128
	CHRONIC DISEASE PREVENTION/RISK REDUCTION	3	1	144	144	1	80	80	3.1	1	144	144	1.1	80	85
	INJURY PREVENTION AND SAFETY PROGRAM	33	1	144	144	1	96	96	33.7	1	144	144	1.0	96	96
	WIC PROGRAM	5	1	144	144	29	80	2,320	5.1	1	144	144	29.7	80	2,373
						3	96	288					3.0	96	288
650	CANCER REGISTRY/ASSESSMENT	63	1	144	144	0	80	0	64.3	1	144	144	0.1	80	8
						4	96	384					4	96	384
	SUBTOTAL:	8	4	100	400	61	80	4,880	8.2	4	100	400	62.3	80	4,981
						1	96	96					1.0	96	96
						4	80	320					4.2	80	333
	SUBTOTAL OFFICE AND WORKSTATIONS	288	27		3,888	261		21,280	293.8	27.0		3,888.0	266.8		21,740.8
	OFFICE SUPPORT														
	FILES AND STORAGE CABS.							25,168							25,629
	CONFERENCE ROOMS														
	WORK/COPY/SUPPLIES							1,516							2,379
	WAITING							2,506							2,556
	COFFEE BAR							1,613							1,645
	NODES							432							441
	SUBTOTAL							288							294
	SPECIAL PURPOSE					9	80	720					9	80	720
	RESOURCE LIBRARY (HIV/AIDS CLEARING HOUSE)							7,075							8,034
	WIC TRAINING LABS							270							270
	CONFIDENTIAL FILES							1,920							1,920
	SUBTOTAL:							224							224
	TOTAL OFFICE/SUPPORT/SPECIAL PURPOSE:							2,414							2,414
	ALLOWANCE FOR INTERNAL CIRCULATION @ 23%:							34,657							36,077
	TOTAL ASSIGNABLE OFFICE FLOOR AREA:							7,971							8,298
								42,628							44,374

• SPACE PROGRAM TABULATIONS FOR EACH DEPARTMENT

1.02 GROWTH FACTOR

ORG NO.	DIVISION/OFFICE/WORK UNIT	TOTAL PERSONNEL 1999	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL	TOTAL PERSONNEL 2004	PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL
400	ENVIRONMENTAL HEALTH PROGRAMS (EH)														
410	ASSISTANT SECRETARY/PROGRAM SERVICES	12	1	320	320	5	80	400	12.2	1	320	320	5.2	80	419
						2	144	288					2.0	144	288
						4	96	384					4.0	96	384
	SUBTOTAL:	12	1		320	11		1,072	12.2	1.0		320.0	11.2		1,091.2
420	ENVIRONMENTAL HEALTH AND SAFETY	27	1	144	144	21	80	1,680	27.5	1	144	144	21.5	80	1,723
						5	128	640					5.0	128	640
430	DRINKING WATER	86	6	144	864	77	80	6,160	87.7	6	144	864	78.7	80	6,298
						3	128	384					3	128	384
440	ENVIRONMENTAL HEALTH ASSESSMENT	26	2	144	288	24	80	1,920	26.5	2	144	288	24.5	80	1,962
						0	128	0					0	128	0
450	FOOD SAFETY/SHELLFISH /TOXIC SUBSTANCES	35	4	144	576	31	80	2,480	35.7	4	144	576	31.7	80	2,536
						0	128	0					0	128	0
460	RADIATION PROTECTION	59	7	144	1,008	52	80	4,160	60.2	7	144	1,008	53.2	80	4,254
						0	128	0					0	128	0
	SUBTOTAL:	245	21		3,200	224		18,496	249.9	21.0		3,200.0	228.9		18,888.0
	SUBTOTAL OFFICE AND WORKSTATIONS							21,696							22,088
	OFFICE SUPPORT:														
	FILES AND STORAGE CABS.							1,784							1,819
	CONFERENCE ROOMS							2,132							2,174
	WORK/COPY/SUPPLIES							1,372							1,399
	WAITING							240							245
	COFFEE BAR							245							245
	NODES					7	80	560					7	80	560
	SUBTOTAL:							6,332							6,443
	SPECIAL PURPOSE:														
	TECHNICAL REFERENCE LIBRARY							750							750
	RADIOACTIVE MATERTIALS							81							81
	X-RAY DARK ROOM							63							63
	PREPARATION AREA							153							153
	GIS WORKROOM							210							210
	EMERGENCY LOCKERS							64							64
	SUBTOTAL:							1,321							1,321
	TOTAL OFFICE/SUPPORT/SPECIAL PURPOSE:							29,349							29,852
	ALLOWANCE FOR INTERNAL CIRCULATION @ 23%:							6,750							6,866
	TOTAL ASSIGNABLE OFFICE FLOOR AREA:							36,100							36,718

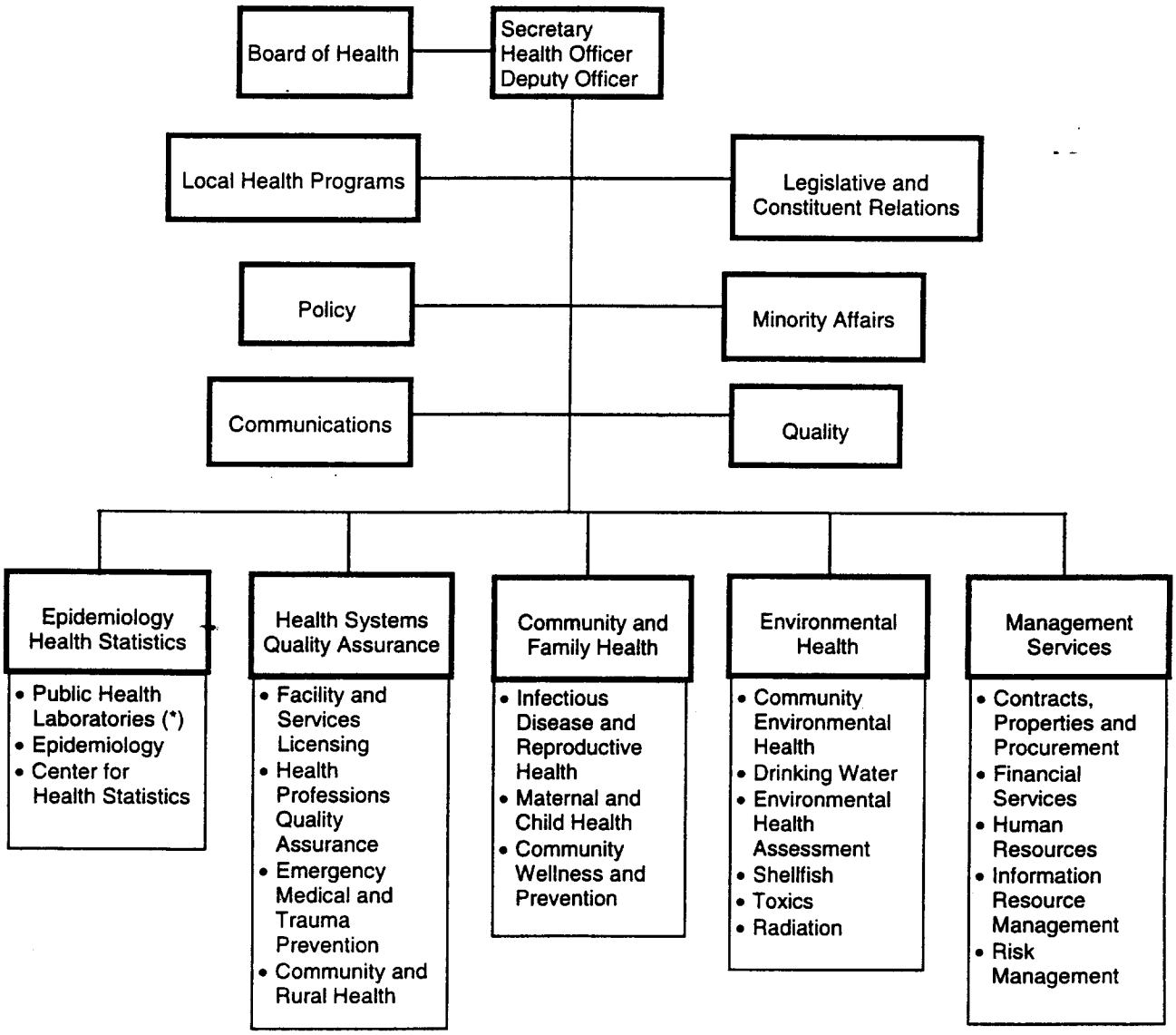
• SPACE PROGRAM TABULATIONS FOR EACH DEPARTMENT

1.02 GROWTH FACTOR

ORG NO.	DIVISION/OFFICE/WORK UNIT	TOTAL PERSONNEL 1999	OFFICE AREA: PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL	TOTAL PERSONNEL 2004	PRIVATE OFFICE: NO OF UNITS	PRIVATE OFFICE: NET AREA PER UNIT	PRIVATE OFFICE: NET AREA	WORKSTATIONS: NO OF UNITS	WORKSTATIONS: NET AREA	WORKSTATIONS: TOTAL
	700 MANAGEMENT SERVICES														
	710 ASSISTANT SECRETARY	4	1	320	320	2	80	160	4.1	1	320	320	2	80	166
						1	96	96					1	96	96
	720 HUMAN RESOURCES	11	4	144	576	4	80	320	11.2	4	144	576	4.2	80	338
						3	96	288					3	96	288
	730 CONTRACTS, PROPERTIES AND PROCUREMENT	21	4	144	576	15	80	1,200	21.4	4	144	576	15.4	80	1,234
						2	96	192					2	96	192
	740 FINANCIAL SERVICES	48	4	144	576	43	80	3,440	49.0	4	144	576	44.0	80	3,517
						1	128	128					1	128	128
	750 INFORMATION RESOURCE MANAGEMENT	58	6	144	864	51	80	4,080	59.2	6	144	864	52.2	80	4,173
						1	128	128					1	128	128
	760 RISK MANAGEMENT	3	2	144	288	1	80	80	3.1	2	144	288	1.1	80	85
	SUBTOTAL:	145	21		3,200	124		10,112	147.9	21		3,200	126.9		10,344
	SUBTOTAL OFFICE AND WORKSTATIONS							13,312							13,544
	OFFICE SUPPORT														
	FILES AND STORAGE CABS.							905							923
	CONFERENCE ROOMS							1,262							1,287
	WORK/COPY/SUPPLIES							812							828
	WAITING							170							170
	COFFEE BAR							145							148
	NODES					4	80	320					4	80	320
	SUBTOTAL:							3,613							3,676
	SPECIAL PURPOSE														
	RESOURCE LIBRARY							240							240
	REVENUE PROCESSING							200							200
	SUBTOTAL:							440							440
	TOTAL OFFICE/SUPPORT/SPECIAL PURPOSE:							17,365							17,660
	ALLOWANCE FOR INTERNAL CIRCULATION @ 23%:							3,994							4,062
	TOTAL ASSIGNABLE OFFICE FLOOR AREA:							21,359							21,722

- **DOH ORGANIZATION CHART**

(*) Note: not included in Consolidation Study; outside Thurston County



- **SPACE INVENTORY OF EXISTING DOH FACILITIES IN THURSTON COUNTY**

BUILDING/LOCATION	FLOOR	RENTABLE AREA (ESTIMATED)	GROSS BUILDING AREA	SUBTOTAL	COMMENT
EASTSIDE STREET -1101 EASTSIDE		5,957	6,888	6,888	
EASTSIDE PLAZA -1102 QUINCE BLUE AWNING					
	FIRST	7,084	8,008	24,024	
	SECOND	7,084	8,008		
	THIRD	6,888	8,008		
EASTSIDE PLAZA -1112 QUINCE YELLOW AWNING (BLDG #1)	TOTAL				
	FIRST	12,883	14,564	29,128	
	SECOND	12,883	14,564		
1300 QUINCE ST SE RED AWNING	TOTAL				
	FIRST	12,094	13,671	45,989	
	SECOND	12,094	13,671		
	THIRD	8,247	9,323		
	FOURTH	8,247	9,323		
AD NORTH					
AD BLDG 1		8,532	9,480		
AD BLDG 2		10,800	12,000		
AD BLDG 3		9,883	10,981		
AD BLDG 4		9,883	10,981		
AD BLDG 5		10,924	12,000		NO PLANS RECEIVED
AD BLDG 7		8,532	9,480		
AD BLDG 8		7,507	8,341		
AD SOUTH					
AD BLDG 9		5,400	6,000		
AD BLDG 10		5,400	6,000		
AD BLDG 11		5,400	6,000		
AD BLDG 12		5,400	6,000		
AD BLDG 13		5,400	6,000		
AD BLDG 14		5,400	6,000		
AD BLDG 15		5,400	6,000		
	TOTAL:			115,263	
FIRGROVE BUS. PARK 2411 PACIFIC AVE., BLDG 8	TOTAL				
	MAIN	2,435	2,661	5,121	
	UPPER	2,329	2,460		
2411 PACIFIC AVE., BLDG 9	TOTAL	2,200		2,200	NO PLANS RECEIVED
TARGET PLAZA BUILDING #5		24,728		25,083	
GRAND TOTAL OFFICES				253,695	

- **SPACE INVENTORY OF EXISTING DOH FACILITIES IN THURSTON COUNTY (Continued)**

BUILDING/LOCATION	FLOOR	RENTABLE AREA (ESTIMATED)	GROSS BUILDING AREA	SUBTOTAL	COMMENT
7745-C ARAB ROAD WAREHOUSE			24,960		
AD BLDG 18 - 7211 Cleanwater BOATSHED		3,640	4,000		
GRAND TOTAL OFFICE AND BOATHOUSE				257,695	

PREFERRED DEVELOPMENT AREA (PDA) SUMMARY REPORT

for

DEPARTMENT OF HEALTH CONSOLIDATION STUDY

NOVEMBER 1999

Prepared for:

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99180.30

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1.0 METHODOLOGY

1.1 Office Programming

The project team began the consolidation study by reviewing the inventory of existing Department of Health (DOH) offices and facilities. Collectively, the 21 DOH offices and facilities total approximately 253,695 square feet of building area. Aside from office and administrative uses, the storage of a boat and other warehouse and storage uses represent existing accessory uses. Warehouse and storage uses are not included in the 253,695 square feet of building area.

After analyzing the office, meeting, and other functional space requirements, the project team concluded that an office building of approximately 232,640 square feet was necessary to provide the entire range of DOH's service offerings, through the year 2004, at a single location. Additional office space to accommodate the need to serve Washington's growing population has been projected for the years 2010 and 2020. To maintain current levels of service for this growing population, it is anticipated DOH will require approximately 261,494 square feet of office space by 2010 and approximately 318,759 square feet of office space by 2020.

Furthermore, it was determined that the DOH building program could be constructed as either a single building or a multiple-building complex. The footprint of the building(s) necessary to accommodate the 2004 projection would be approximately 46,500 square feet. As a result of the programming analysis, it was concluded that the building(s) should be 5 stories of 14 feet each, resulting in a building height of 70 feet.

1.2 Site Area

After identifying the alternative bulk and dimensional requirements for the proposed DOH office complex, the project team analyzed the land area that would be required to accommodate such a complex. In assessing the necessary land area for the office construction, the following factors were considered:

- Parking
- Storm Drainage
- Open Space
- Sensitive Areas

1.2.1 Parking

On a daily basis, DOH provides parking facilities to employees and visitors using its services. Although the duration varies according to the health service needed, it was generally concluded that parking standards typical of office uses would suffice. However, as a measure of safety, the project team chose to employ the greatest minimum office parking standard found within the development standards of the cities of Lacey, Olympia, and Tumwater. The result was a standard of 3.5 parking spaces per 1,000 square feet of building area. The foregoing standard results in a need for approximately 814 parking spaces to meet the proposed 232,640 square feet of building necessary by 2004. Additional parking spaces, at a rate of 3.5 spaces per 1,000 square feet of building area would be required for the additional office space required for the future expansion of DOH facilities.

1.2.2 Open Space

For programming purposes, the project team concluded that 20 percent of the net site area would be used for perimeter and internal landscaping and walkways.

1.2.3 Storm Drainage

After identifying optimum area requirements for building and parking, the project team determined the approximate area requirements for storm drainage facilities. Employing the conservative "rule-of-thumb" of 12,000 cubic feet of storage for each acre of total site area, the project team concluded that between 1.3 and 1.6 acres of land would be required for stormwater treatment and detention facilities for the DOH building program for 2004.

1.2.4 Sensitive Areas

For programming purposes, the project team assumed that project sites would be unencumbered by sensitive areas. This assumption was made so that a net buildable site area could be established. In short, this assumption means that a 20acre site, encumbered by five acres of wetlands and wetland buffer, will be considered a 15acre site for planning purposes.

After considering these and other factors, the project team concluded that the net site area required for the construction of the Department of Health's office complex would require a minimum of 12.4 acres for a single building scenario and 15.0 acres for a multiple (3) building scenario to meet the Department's needs through 2010. The following table illustrates the site area requirements for the single- and multiple-building scenarios corresponding to the planned growth of DOH's office needs through 2020:

NET SITE AREA REQUIREMENTS – BUILDING PHASES			
	Year		
	2004	2010	2020
Building Area	232,640 sq. ft.	261,494 sq. ft.	318,759 sq. ft.
Site Area Requirement – Single Building	12.4 acres	12.4 acres	12.4 - 16.6 acres
Site Area Requirement – Multiple Building	15.0 acres	15 acres	15.0 - 17.15 acres

It merits repeating that the site area requirements listed above represent net areas that exclude on-site sensitive areas and frontage and other dedications that a local jurisdiction may require.

1.3 Preferred Development Areas

Upon establishing the net site area required for the construction of the DOH office complex, the project team initiated the process of identifying areas within the cities of Lacey, Olympia, and Tumwater that were planned and zoned for government office

use. This process was refined pursuant to the Washington State statutory requirements outlined in *The Master Plan for the Capitol of the State of Washington* (1991). The plan required that the construction of the new DOH office facility be located in one of three preferred development areas (PDAs) located in the cities of Lacey, Olympia, and Tumwater (please see the attached map).

The State of Washington identified Preferred Development Areas (PDAs) in the course of long-range master planning performed in 1991. The PDAs for each jurisdiction incorporate a broad range of zoning districts.[1] The scope of this study was limited to an analysis of the PDAs.

After receiving the locations of the PDAs from DOH, the process of identifying the land use and zoning designations that were applied to the land contained within each PDA was undertaken. The goal was to identify particular zoning districts within the PDAs that would accommodate government office use at the height, bulk, and density standards identified by the project team as optimum for the construction of the new DOH office building. Ultimately, this process would involve prioritizing the zoning districts within each PDA according to the height, bulk, and density standards governing construction therein.

The process of analyzing the PDAs involved the following six-step process:

1. Review comprehensive plans;
2. Review development regulations;
3. Prepare comparative matrix;
4. Interview planning staff;

[1] The PDAs have been adopted as a component of the *City of Tumwater Comprehensive Plan*. The cities of Lacey and Olympia have not fully adopted the PDA boundaries or the development standards contemplated in *The Master Plan for the Capitol of the State of Washington* (1991). Furthermore, the City of Tumwater's development regulations do not, in current form, permit the building height or bulk contemplated in the DOH building program. A zoning variance or amendment to the text of the zoning code would be required to accommodate the DOH building program in some City of Tumwater zoning districts.

5. Search the Thurston County Assessor-Treasurer's records to identify parcels of adequate size to accommodate the proposed office building; and;

6. Perform a visual site inspections to evaluate and rate the PDAs for accessibility from Interstate 5, public transit availability, air quality, and critical areas and other site development constraints.

In the first step, the comprehensive plans of the cities of Lacey, Olympia, and Tumwater were reviewed to identify areas within the PDAs that were properly "planned" for government office use. Under the Growth Management Act, zoning, subdivision, and other development regulations are intended to implement the comprehensive plan. Accordingly, a community's zoning regulations must be consistent with its comprehensive plan.

Consequently, it is necessary to review the comprehensive plan designation prior to reviewing the zoning. This step is necessary to understand a community's vision for the development within specified districts. For example, if a use is proposed that does not fit neatly within the definitions of permitted uses within a particular zoning district, the land use administrator or planning director will consult the comprehensive plan to determine if the use is supported by the goals and policies of the plan. Further, if a property is not zoned to accommodate a particular use, then the comprehensive plan most likely will require amendment. It merits noting that under the Growth Management Act, a local community may only amend its comprehensive plan one time per year.

The second and third steps included analyzing the zoning districts within each PDA. This process involved identifying each zoning designation within each of the three PDAs and compiling the information onto a matrix format. In particular, the zoning codes, transportation improvement plans, and the critical areas ordinances were analyzed. Each matrix provides a simple, but effective tool for comparing the zoning designations within each PDA. A matrix is provided and attached for each city.

There were several zoning districts within the PDAs where government office uses were prohibited.[2] For those zoning districts where government office uses were prohibited, further review and analysis was terminated and they were not included in the matrices.

Where government office uses were permitted, the matrix compared the zoning designations on factors such as height, bulk, and density requirements, landscape and tree preservation requirements, parking and loading requirements, and the imposition of impact fees.

As a supplement to the comparative matrix, senior planning staff with the cities of Lacey, Olympia, and Tumwater were interviewed. The intent of these interviews was to uncover policies that might favor certain zoning districts over others and to review sensitive areas mapping within each of the three PDAs.

As a fifth step, the mapping and records of the Thurston County Assessor-Treasurer were reviewed to identify parcels of adequate size to accommodate the proposed office building. Vacant and developed parcels of a 12.4 to 17.15 acre size were reviewed. Developed parcels were identified as offering the potential for redevelopment. Also, smaller, vacant parcels were identified, and ownership information was reviewed, to assess areas where land assemblage might offer a method of achieving a site of 12.4 to 17.15 acres.

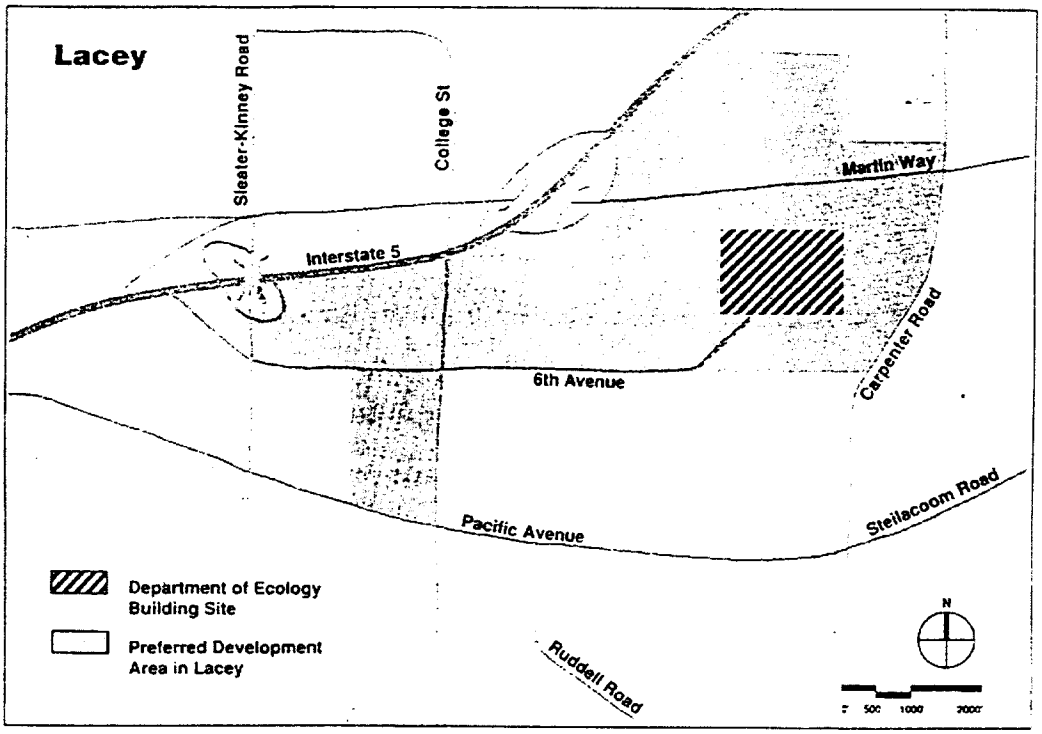
Finally, a visual site inspection of all of the PDAs was performed to confirm that the sensitive areas mapping and the Thurston County Assessor-Treasurer records regarding built improvements were accurate.

[2] In the City of Lacey PDA, government office uses are prohibited in the Moderate Density Residential (MD) zoning district and the Open Space Institutional (OS-I) zoning district. In the City of Olympia PDA, government office uses are prohibited in the High Rise Multifamily (RM-H), Residential Multifamily (RM-18) and the Single Family (R - 4-8) zoning districts. In the City of Tumwater PDA, government office use is prohibited in the Multi-Family High Density Residential (MFH) zoning district.

2.0 PREFERRED DEVELOPMENT AREAS – DETAILED ANALYSIS

2.1 City of Lacey PDA

Location:



The Lacey PDA encompasses approximately 2.0 square miles of land in the heart of the City of Lacey. The Lacey PDA is comprised of two fairly distinct areas where the DOH building program could be sited. The two areas within the Lacey PDA are hereinafter identified as:

1. Woodland Square Area
2. Ecology Campus Area

While other property within the Lacey PDA would allow state office use, contiguous parcels of the minimum area required for the DOH program did not exist outside the Woodland Square and Ecology Campus areas of the Lacey PDA.

2.1.1 Woodland Square Area

The Woodland Square Area is located in the western portion of the Lacey PDA. Woodland Square is an approximately 40 acre planned corporate park. Current uses within the corporate park include office and retail/service uses.

The mix of existing uses would support a goal articulated in *The Master Plan for the Capitol of the State of Washington* that state office development outside the Capitol Campus be fully integrated in a manner to support community services such as retail, restaurants, banking, dependent care, pedestrian access, and housing.

While the Woodland Square Area includes a mix of uses that are compatible with *The Master Plan*, this area of the Lacey PDA does not satisfy the Department of Health's site selection needs criteria.

The Woodland Square Area does not contain sufficient acreage of contiguous, undeveloped parcels to accommodate the DOH program. Consequently, development within Woodland Square would likely require some combination of land assemblage, demolition/redevelopment, and structured parking.

Primary freeway access to Woodland Square is by way of the Martin Way Interchange of Interstate 5 (Exit 109). This interchange is currently operating at a Level-of-Service Standard E. While the City of Lacey's 6Year Transportation Improvement Plan identifies a $3,000,000 improvement to the interchange, the project is not yet funded. Mitigation for the traffic impacts associated with the DOH proposal could be expected to represent a sizeable portion of the improvement cost.

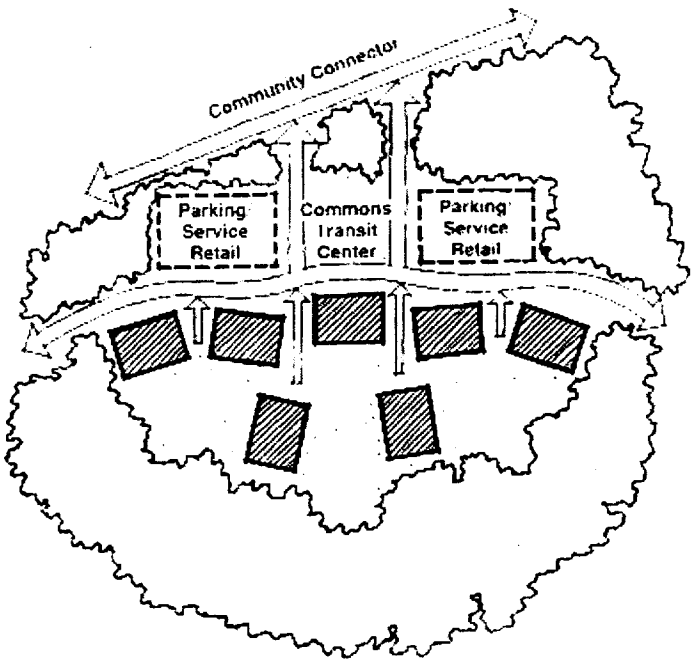
Existing traffic congestion along College Street also encumbers efficient access to Interstate 5. Development of the DOH building program within Woodland Square would likely necessitate off-site transportation improvements, in the form of enhancements to existing signals, along College Street.

A transit center exists at the northwest corner of Sixth Avenue Southeast and Golf Club Road. As such, the Department of Health's goal of easy access to public transportation could be met in the Woodland Square Area of the Lacey PDA.

2.1.2 Ecology Campus Area

The Ecology Campus Area is a portion of the Lacey PDA located near the intersection of Martin Way and College Street and in close proximity to existing government office uses such as the Lacey City Hall and Library and the Department of Ecology campus.

Existing government offices in this area of the Lacey PDA have been organized according to the "Cluster in the Woods" concept. This concept reflects organizing buildings around open spaces, thereby preserving the natural landscape. These groupings are clearings in the woods surrounded by native forests.



Upon initial examination, the Ecology Campus Area of the Lacey PDA offers excellent opportunity to construct the DOH building program. Contiguous vacant parcels of sufficient acreage to accommodate the DOH building program are readily available.

While sensitive areas encumber many of the parcels within this area of the Lacey PDA, opportunities exist nearby for mitigation. Moreover, access to freeway and transit facilities is excellent.

Mitigation for traffic impacts caused by the DOH building program should be anticipated. In particular, the DOH building program could be expected to represent a sizeable portion of the improvement cost associated with the planned improvements to the Martin Way Interchange of Interstate 5.

While our review of the needs criteria would suggest that the Ecology Campus Area is ideal to accommodate the DOH building program, a closer examination of *The Master Plan for the Capitol of the State of Washington* and recent legislation adopted by the City of Lacey reveals that constructing the DOH building program within this portion of the Lacey PDA would be difficult and costly.

In 1996, the Lacey City Council amended its zoning code to require a conditional use permit for the siting of government buildings on commercial property not previously planned for office use. The intent of the amendment was to minimize the conversion of prime commercial property to office use. Property is considered "planned for office use" if an approved binding site plan or other site plan approval existed prior to the effective date of the zoning code amendment.

While this ordinance would not affect the planned offices at Woodland Square, much of the property within the Ecology Campus portion of the Lacey PDA is unplatted and therefore not planned for office use. Senior City of Lacey planning staff indicated an unwillingness to support the issuance of a conditional use permit for property not planned for office use.

As a consequence of the zoning code amendment, the Ecology Campus Area of the Lacey PDA does not contain contiguous property of sufficient area to accommodate the DOH building program without the uncertain issuance of a conditional use permit.

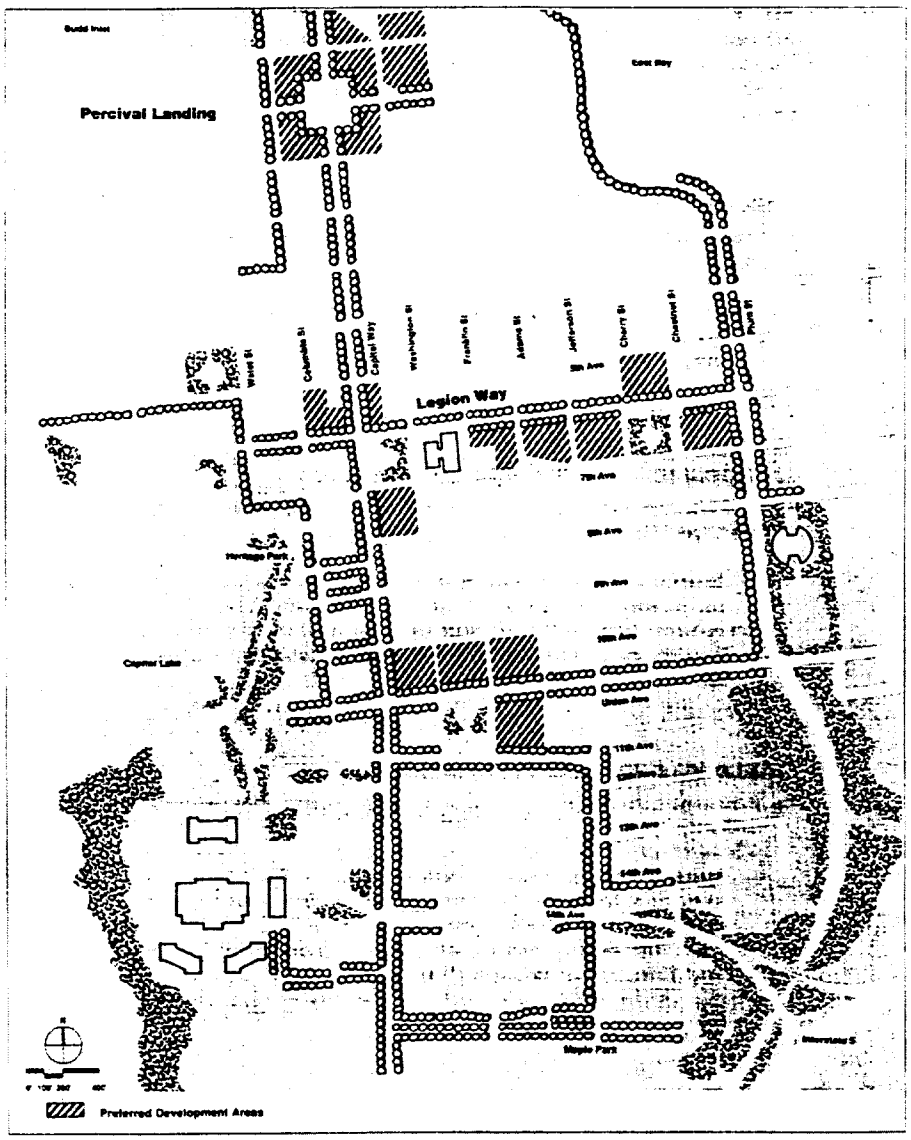
Even if policy and/or staff support changed regarding the issuance of a conditional use permit for a government office building within the Ecology Campus Area of the

Lacey PDA, building construction requirements in this area of the PDA would be incompatible with DOH's building program. *The Master Plan for the Capitol of the State of Washington* indicates that any state office structure constructed within the immediate vicinity of the Department of Ecology office campus must be of a "monumental" or architecturally significant nature. Therefore, a Department of Health building will require special architectural treatment at this location. Since, the City of Lacey would encourage government offices to be located adjacent to the Ecology Headquarters building, the DOH goal of a utilitarian office structure would be difficult to achieve in this portion of the PDA.

2.2 City of Olympia PDA

Location:

THE CAPITAL CITY CONCEPT



The plan proposes clustering state office development in Olympia.

There are many zoning districts in the Olympia PDA. State government offices are permitted outright in all zones except industrial and residential zones. In industrial zones, state office uses may locate with the approval of a conditional use permit.

The Residential Mixed Use zoning district is the single residential zoning district in the City of Olympia PDA that allows office uses.

The area on both sides of Plum Street has several large office buildings and other major uses. The Armory and the Olympia School District headquarters, as well as, several vacant lots situate within the PDA. However, no 12.4 to 17.15 acre site is available within the Olympia PDA. As such, a combination of land assemblage, demolition/redevelopment, and structured parking would be required to accommodate the DOH building program in the Olympia PDA.

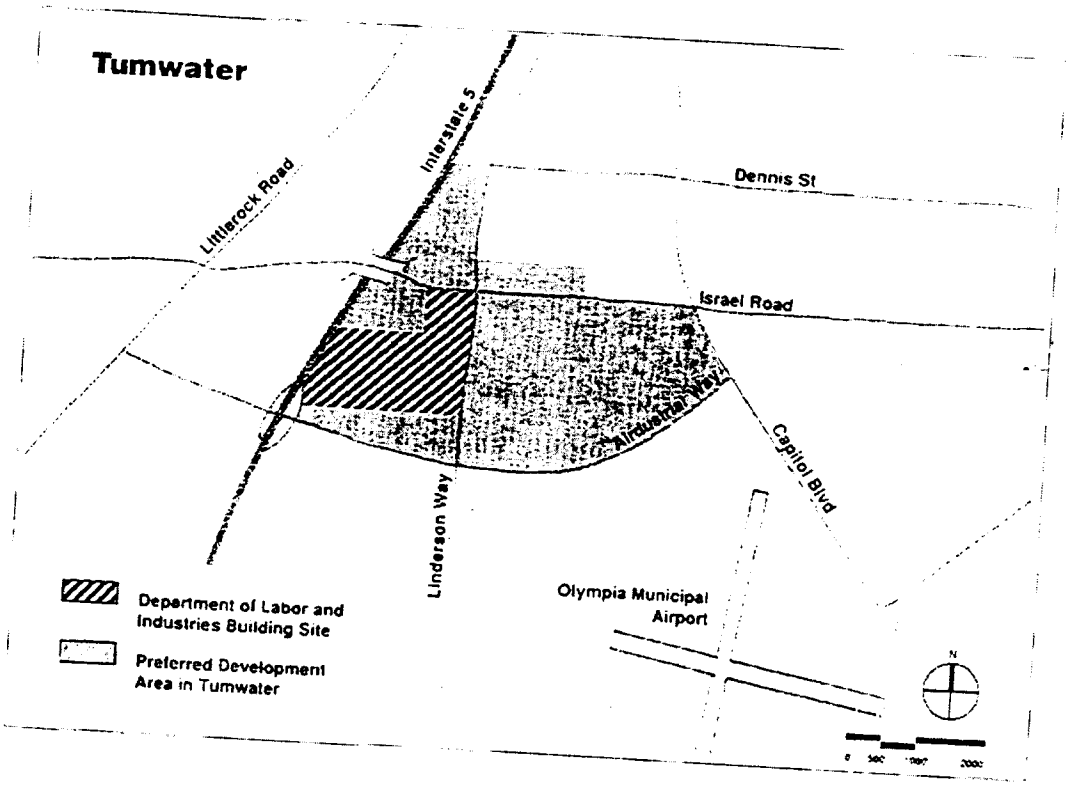
In addition to the high costs for property assemblage, site development costs in the Olympia PDA will be comparably higher than those anticipated in the Lacey or Tumwater PDAs because much of the City of Olympia has been built on filled soil. Other concerns include the infrastructure improvements associated with the separation of stormwater and sanitary sewage facilities into separate transmission mains.

While freeway access is not particularly good in downtown Olympia due to congestion along Plum Street, access to public transportation is excellent. A transit center exists at the south edge of the Port industrial district, between Franklin Street and Washington Street on State Street.

The Port of Olympia identified two parcels available for office use. Neither parcel contained the 12.4 to 17.15 acre size required for the DOH building program. Like the majority of downtown Olympia, a combination of costly land assemblage, demolition/redevelopment, and structured parking would likely be required to meet the DOH parking needs on Port of Olympia property.

2.3 City of Tumwater PDA

Location:

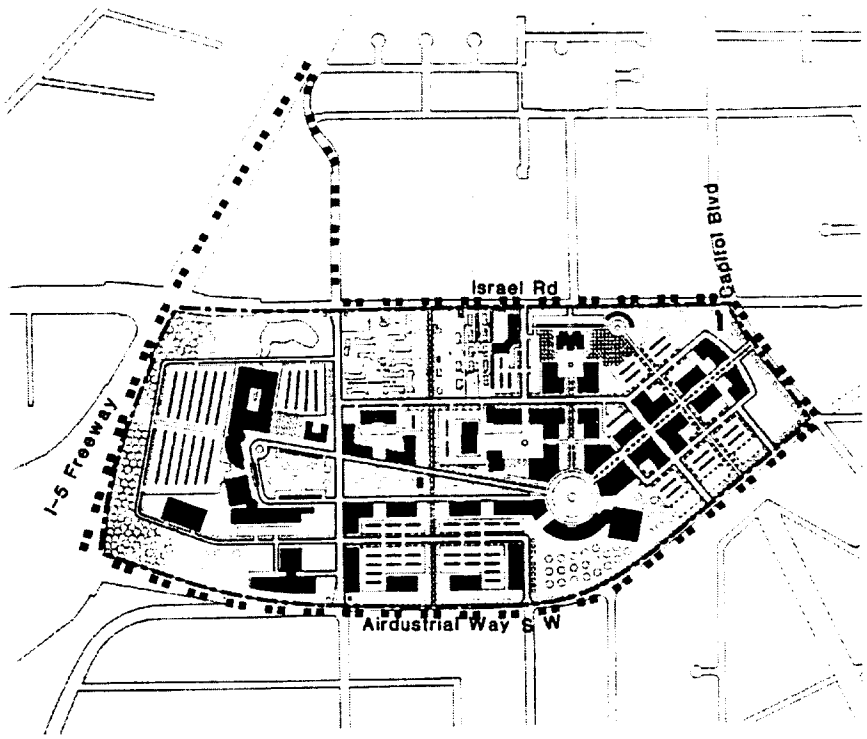


The Tumwater PDA is approximately 190 acres in size and is bounded by Interstate 5 to the west, Capitol Boulevard to the east, Israel Road to the north, and Airdustrial Way to the south. A small portion of the PDA is situated north of Israel Road immediately east of Interstate 5.

The Master Plan for the State Capitol for the State of Washington (1991) formally established the Tumwater PDA. Significant additional planning for the Tumwater PDA was performed in 1992 under a plan titled, The Capital Community: Tumwater Campus.

Unlike planning for the Lacey PDA that requires architecturally significant buildings be located adjacent to the Department of Ecology Headquarters, planning for the Tumwater PDA was shaped by the desire to create a community center and gathering place. As such, the plan includes significantly greater detail on desired building placement and bulk restrictions than architectural character.

As illustrated below, the plan concept for the Tumwater PDA embodies a "Triangle Circle" design concept. The main tenets of the plan are the creation of a state campus that will be integrated with existing and planned City of Tumwater facilities. The structures will be organized around a triangular shaped commons that terminates into a civic circle.



The Capitol Community: Tumwater Campus plan identifies height and bulk restrictions that are intended to establish an edge to the open space areas.

While the Tumwater Campus plan contains detailed criteria for future development within the PDA, not all of the recommendations in the plan have been adopted in the *City of Tumwater's Comprehensive Plan.*

Although the *City of Tumwater's Comprehensive Plan* policies and zoning regulations allow government office use, a portion of the PDA has a 50foot height limit and a 50,000square foot maximum building size. These restrictions neither allow for the implementation of the *Tumwater Campus Plan* nor do they allow for the construction of the DOH building program. As such, a zoning variance or an amendment to the *City of Tumwater's Comprehensive Plan* would be required to accommodate the DOH building program.

Within the Tumwater PDA, however, the Community Services District (CS) Zone can accommodate the DOH building program without the need for a zoning variance or comprehensive plan amendment.

In addition to development regulations that accommodate or can be amended to accommodate the DOH building program, the Tumwater PDA ranks high in the other site evaluation criteria. Access to the Tumwater PDA is considered excellent, with a major interchange at Interstate 5 and Airdustrial Way. The local road network is also operating at acceptable levels of service. Additionally, the Tumwater PDA is well served by public transit.

Local planning staff supports state office development within the Tumwater PDA. While a high groundwater exists within the western portion of the PDA and the entire Tumwater PDA is situated over an aquifer, development within this area can easily be accommodated with construction of enhanced water quality features.

Site selection within the Tumwater PDA should include mapping the aviation zones associated with the runways of the Olympia Airport since an aviation overlay may affect building heights on some parcels within the PDA.

3.0 RECOMMENDATIONS FOR FUTURE ACTION

At a minimum, each of the three jurisdictions could potentially accommodate the Department of Health's proposed office structure at widely varying costs and project entitlement proceedings. In the Lacey and Olympia PDAs for instance, structured parking, costly land assemblage, demolition, or redevelopment may be required to construct the DOH office building.

The State of Washington accomplished a significant master planning effort in 1991, which identified PDAs and included close coordination with the cities of Lacey, Olympia, and Tumwater. Regrettably, the policies and recommendations of the master plan have not been fully reflected or implemented in the cities' comprehensive plans or development regulations. As a result, comprehensive plan amendments, zoning variances, or conditional use permits may be required in order to accommodate the construction of the DOH building program. Staff support for these discretionary land use approvals is unlikely.

Notwithstanding the forgoing comments, after evaluating the opportunities and constraints of each of the PDAs, the project team concluded that the Tumwater PDA offers the DOH the most viable opportunity to construct the proposed building program.

The Tumwater PDA is appropriately zoned to accommodate government office use, has excellent access to Interstate 5 and local transit service, and contains minimal environmental health-related constraints.

Land assemblage remains the primary issue within the Tumwater PDA. Our research indicates that, while there are several parcels of 6 to 10 acres in the Tumwater PDA, some land assemblage will be required. To identify a site of sufficient size to accommodate the DOH building program, additional research would be required to more fully examine land assemblage opportunities. This research would be most appropriately performed by a real estate professional since it is out of the scope of this investigation.

A second alternative would be to request that the site investigation/selection process include areas outside the currently identified PDAs. Site selection criteria could be blended into the Request for Proposal/Qualification process that would require a site of sufficient size, infrastructure, zoning and access to accommodate the DOH program. This alternative would provide the private sector the opportunity to assemble and deliver a site suitable to the DOH building program.

This analysis is based on data and records either supplied to or obtained by the project team. These documents are referenced within the text of the analysis. The analysis has been prepared utilizing procedures and practices within the standard accepted practices of the industry. The information presented was deemed accurate at the time of collection; however, the information is time-sensitive and should be verified in the future.

Preferred Development Area	Lacey	Lacey	Lacey	Lacey
Zone	Central Business District Subarea 1 CBD - 1	Central Business District Subarea 2 CBD - 2	Commercial Business District Subarea 6 CBD - 6	Commercial Business District Subarea 7 CBD - 7
Special Use Considerations	Available land may be limited	Available land may be limited	Wetlands present in some areas	Wetlands present in some areas
Development Considerations				
Land Uses Government Office	permitted w/ limitation (5)	permitted w/ limitation (5)	permitted w/ limitation (5)	permitted w/ limitation (5)
Impact Fees, Mitigation & other potential cost factors	traffic fees, struct parkg may be req'd	traffic (4)	traffic (4)	traffic (4)
Development Guidelines Min. lot size	1 acre	1 acre	10,000 sf	10,000 sf
Max. lot coverage	none	none	none	none
Max. impervious cover				
Min. open space				
Max. development coverage				
Max Floor Area Ratio	4.0 - 6.0 (2)	3.0 - 5.0 (2)	1.0 - 3.0 (2)	1.0 - 3.0 (2)
Max. building coverage	100%	75%	50%	50%
Min. building size				5000 sf
Max. building size				
Max. building height 5-story building allowed 7-story building allowed	150' or 250' yes yes	80' yes no	80' yes no	150' yes yes
Min. lot width	none	none	75' front	75' front
Min. lot depth	none	none	none	none
Front setback		0'	0' - 15' (1)	0' - 15' (1)
Rear setback	15'	15'	15'	15'
Side setback	10'	10'	10'	10'
Landscaping Requirements When adjacent to residential:	Min. 15' buffer of Type I (3)	Min. 15' buffer of Type I (3)	Min. 15' buffer of Type I (3)	Min. 15' buffer of Type I (3)
For government services:	Type II betw front yard & development & Type III along street frontage & in front setback	Type II betw front yard & development & Type III along street frontage & in front setback	Type II betw front yard & development & Type III along street frontage & in front setback	Type II betw front yard & development & Type III along street frontage & in front setback
At parking areas:	Min 50 sf Type IV per stall	Min 50 sf Type IV per stall	Min 50 sf Type IV per stall	Min 50 sf Type IV per stall
Tree preservation requirements:	Retain significant trees	Retain significant trees	Retain significant trees	Retain significant trees
Parking Required ratio (office) Min. required Max. allowed	2/1200 gsf 6/1200 gsf	2/1200 gsf 6/1200 gsf	3/1200 gsf 6/1200 gsf	3/1200 gsf 6/1200 gsf
Required ratio (warehouse)			1/1000sf gfa	1/1000sf gfa
Required ratio (day care)	1 per staff + 1 drop space per 7 children	1 per staff + 1 drop space per 7 children	1 per staff + 1 drop space per 7 children	1 per staff + 1 drop space per 7 children
Additional Factors Proximity to I-5 interchange	good	good	good	good
Proximity to public transit	good	good	moderate	good
Outdoor open space available	moderate	moderate	good	moderate
Noise levels	moderate to high	moderate	low	moderate
Air quality	low	low	good	moderate
Proximity to services	moderate	moderate	poor	moderate
Amenities	moderate	moderate	moderate	moderate
Expansion possible on site	limited	limited	probable	limited

Notes

Legend: Recommended District

(1) Meet pedestrian guidelines
(2) Meet requirements
(3) Minimum 100 sf & 8' min each direction, 1 tree minimum each area, deciduous tree minimum size 2" caliper at 6", evergreen minimum 8' height when planted landscape island every 7 parking stalls, Type I = 100% coverage within 3 yrs; Type II=100% within 5 yrs; Type III=minimum 6' width, selected street trees
(4) Build 3rd Ave to Desmond required
(5) Not permitted in commercial/retail areas

Department of Health Consolidation Study

for Preferred Development Area in Lacey

Preferred Development Area	Lacey	Lacey	Lacey	Lacey
Zone	Central Business District Subarea 1 CBD - 1	Central Business District Subarea 2 CBD - 2	Commercial Business District Subarea 6 CBD - 6	Commercial Business District Subarea 7 CBD - 7
Special Use Considerations	Available land may be limited	Available land may be limited	Wetlands present in some areas	Wetlands present in some areas
Development Considerations				
Land Uses Government Office	permitted w/ limitation (5)	permitted w/ limitation (5)	permitted w/ limitation (5)	permitted w/ limitation (5)
Impact Fees, Mitigation & other potential cost factors	traffic fees, struct parkg may be req'd	traffic (4)	traffic (4)	traffic (4)
Development Guidelines Min. lot size	1 acre	1 acre	10,000 sf	10,000 sf
Max. lot coverage	none	none	none	none
Max. impervious cover				
Min. open space				
Max. development coverage				
Max Floor Area Ratio	4.0 - 6.0 (2)	3.0 - 5.0 (2)	1.0 - 3.0 (2)	1.0 - 3.0 (2)
Max. building coverage	100%	75%	50%	50%
Min. building size				5000 sf
Max. building size				
Max. building height 5-story building allowed 7-story building allowed	150' or 250' yes yes	80' yes no	80' yes no	150' yes yes
Min. lot width	none	none	75' front	75' front
Min. lot depth	none	none	none	none
Front setback		0'	0' - 15' (1)	0' - 15' (1)
Rear setback	15'	15'	15'	15'
Side setback	10'	10'	10'	10'
Landscaping Requirements When adjacent to residential:	Min. 15' buffer of Type I (3)	Min. 15' buffer of Type I (3)	Min. 15' buffer of Type I (3)	Min. 15' buffer of Type I (3)
For government services:	Type II betw front yard & development & Type III along street frontage & in front setback	Type II betw front yard & development & Type III along street frontage & in front setback	Type II betw front yard & development & Type III along street frontage & in front setback	Type II betw front yard & development & Type III along street frontage & in front setback
At parking areas:	Min 50 sf Type IV per stall	Min 50 sf Type IV per stall	Min 50 sf Type IV per stall	Min 50 sf Type IV per stall
Tree preservation requirements:	Retain significant trees	Retain significant trees	Retain significant trees	Retain significant trees
Parking Required ratio (office) Min. required Max. allowed	2/1200 gsf 6/1200 gsf	2/1200 gsf 6/1200 gsf	3/1200 gsf 6/1200 gsf	3/1200 gsf 6/1200 gsf
Required ratio (warehouse)			1/1000sf gfa	1/1000sf gfa
Required ratio (day care)	1 per staff + 1 drop space per 7 children	1 per staff + 1 drop space per 7 children	1 per staff + 1 drop space per 7 children	1 per staff + 1 drop space per 7 children
Additional Factors Proximity to I-5 interchange	good	good	good	good
Proximity to public transit	good	good	moderate	good
Outdoor open space available	moderate	moderate	good	moderate
Noise levels	moderate to high	moderate	low	moderate
Air quality	low	low	good	moderate
Proximity to services	moderate	moderate	poor	moderate
Amenities	moderate	moderate	moderate	moderate
Expansion possible on site	limited	limited	probable	limited

Notes
(1) Meet pedestrian guidelines
(2) Meet requirements
(3) Minimum 100 sf & 8' min each direction, 1 tree minimum each area, deciduous tree minimum size 2" caliper at 6", evergreen minimum 6' height when planted landscape island every 7 parking stalls, Type I = 100% coverage within 3 yrs; Type II=100% within 5 yrs; Type III=minimum 6' width, selected street trees
(4) Build 3rd Ave to Desmond required
(5) Not permitted in commercial/retail areas

Legend
Recommended District

Department of Health Consolidation Study
for Preferred Development Area in Lacey

Preferred Development Area	Olympia	Olympia	Olympia	Olympia	Olympia	Olympia	Olympia
Zone	Urban Waterfront District UW	Industrial District I	Downtown Business District DB	General Commercial District GC	Commercial Service High Density District CS - H	Professional Office Residential District PO / RM	Residential Mixed Use District RMU
Special Use Considerations	Shoreline regulations if within 200'	Possible fill area, LOTT odors	Possible fill area	Possible fill area	Possible fill area	Possible fill area	Possible fill area
Development Considerations							
Land Uses Government Office	permitted	conditional	permitted	permitted	permitted	permitted	permitted
Impact Fees, Mitigation & other potential cost factors	storm/sewer, frontage, struct parkg	storm/sewer, frontage	storm/sewer, frontage, struct parkg	storm/sewer frontage	storm/sewer frontage	storm/sewer frontage	storm/sewer frontage
Development Guidelines Min. lot size	none	none	none	none	none	none	none
Max. lot coverage							
Max. impervious cover							85%
Min. open space							15% 35' or 60' (6)
Max. development coverage	100%	100%	100%	85%	100%	85%	
Max Floor Area Ratio		1sf flr area/ 1sf site area					
Max. building coverage	60% (5)			70% (4)		70%	85%
Min. building size							
Max. building size							
Max. building height 5-story building allowed 7-story building allowed	30' to 65' (9)	to 1A - 35' over 1A - 50'	30' to 80' (9) 2 story bonus available	35' (2) yes (3)	75' up to 100' w/council app	35' (2)	
Min. lot width	none	none	none	none	none	none	none
Min. lot depth	none	none	none	none	none	none	none
Front setback	none	none	none	none	none	10'	10'
Rear setback	none	none	none	10'	5'	10'	5'
Side setback	none	none	none	none	5'	10'	none
Landscaping Requirements When adjacent to residential:	Type I or II screen (1)		Type I or II screen (1)	Type I or II screen (1)	Type I or II screen (1)	Type I or II screen (1)	Type I or II screen (1)
For government services:	Type II or III, width of set-back		Unpaved area landscaped	Unpaved area landscaped	Unpaved area landscaped	Unpaved area landscaped	Unpaved area landscaped
At parking areas:	10' or setback betwn prkg & street 35 sf/stall		10' or setback betwn prkg & street 35 sf/stall	10' or setback betwn prkg & street 35 sf/stall	10' or setback betwn prkg & street 35 sf/stall	10' or setback betwn prkg & street 35 sf/stall	10' or setback betwn prkg & street 35 sf/stall
Tree preservation requirements:	Permit to remove req., Tree plan req., Retain or repl 30 trees/acre	Permit to remove req., Tree plan req., Retain or repl 30 trees/acre	Permit to remove req., Tree plan req., Retain or repl 30 trees/acre	Permit to remove req., Tree plan req., Retain or repl 30 trees/acre	Permit to remove req., Tree plan req., Retain or repl 30 trees/acre	Permit to remove req., Tree plan req., Retain or repl 30 trees/acre	Permit to remove req., Tree plan req., Retain or repl 30 trees/acre
Parking Required ratio (office) Min. required Max. allowed	3.5/1000sf (7)	3.5/1000sf (7)	3.5/1000sf (7)	3.5/1000sf (7)	3.5/1000sf (7)	3.5/1000sf (7)	3.5/1000sf (7)
Required ratio (warehouse)	0-10,000 sf 1/1000 sf (8)	0-10,000 sf 1/1000 sf (8)	0-10,000 sf 1/1000 sf (8)	0-10,000 sf 1/1000 sf (8)			
Required ratio (day care)	1 per staff & 1 per 10 children	1 per staff & 1 per 10 children	1 per staff & 1 per 10 children	1 per staff & 1 per 10 children	1 per staff & 1 per 10 children	1 per staff & 1 per 10 children	1 per staff & 1 per 10 children
Additional Factors Proximity to I-5 interchange	poor	poor	good	poor	good	good	moderate
Proximity to public transit	excellent	excellent	excellent	good	good	good	good
Outdoor open space available	poor	poor	poor	poor	poor	poor	poor
Noise levels	high	moderate	high	high	high	high	high
Air quality	low	low	low	low	low	low	low
Proximity to services	excellent	moderate	excellent	moderate	moderate	moderate	moderate
Amenities	good	moderate	moderate	moderate	moderate	moderate	moderate
Expansion possible on site	limited	moderate	limited	limited	limited	limited	limited

Notes
(10) Minimum 144 sf islands with tree minimum 6' from hard surface.
(2) If adjacent to residential, otherwise 60'
(3) 70' if 50% required parking under building
(4) 85% if 50% required parking under building
(5) Between shore & upland street
(6) 35' at Eastside RMU zone
(7) For government offices
(8) To 20,000sf 10 + .75/1000
(9) Dependent on site location

Legend
[ ] Recommended District

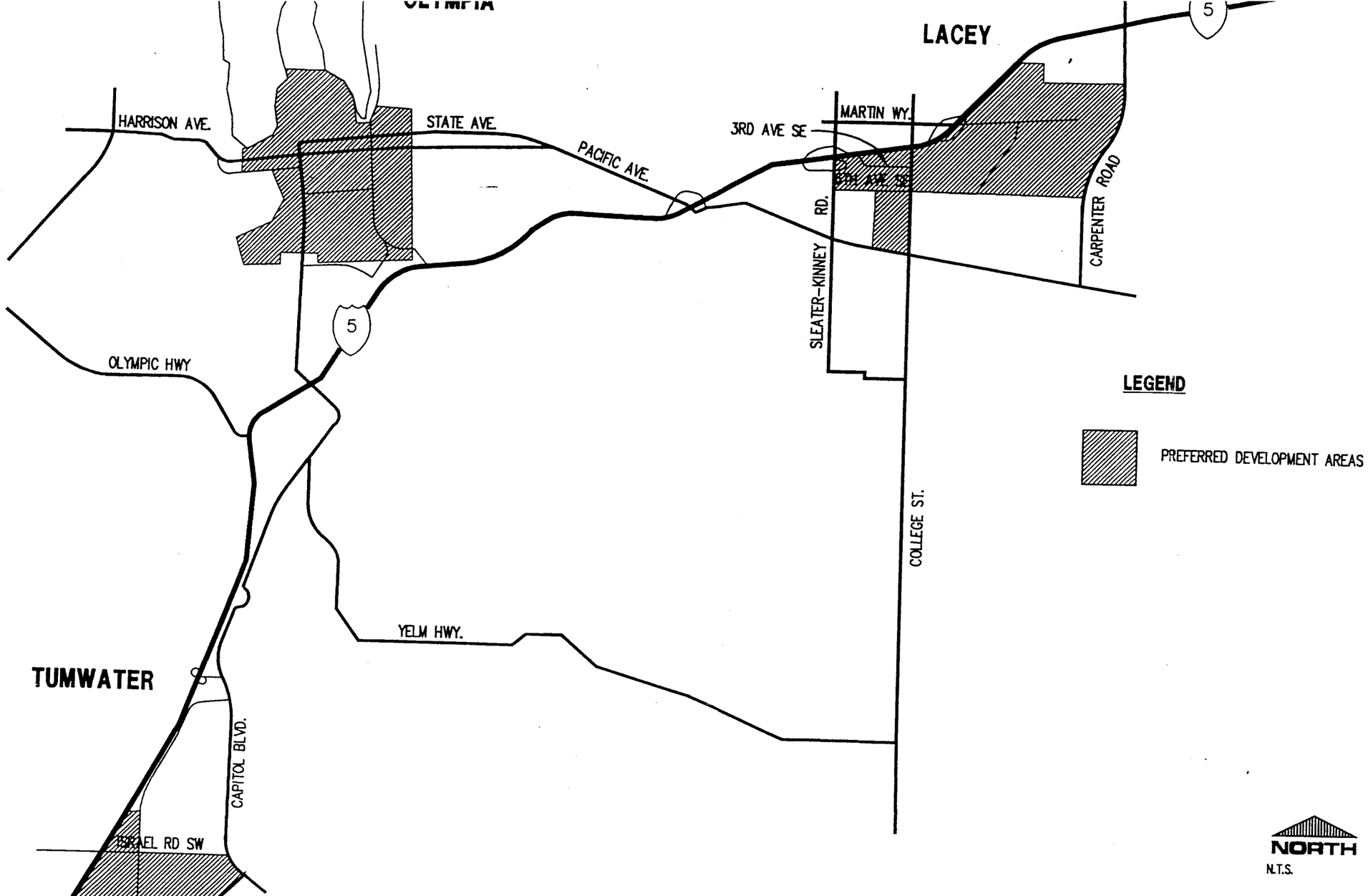
Department of Health Consolidation Study
for Preferred Development Area in Olympia

Preferred Development Area	Tumwater	Tumwater
Zone	Community Services District CS	Airport Related Industrial - New Market District ARI
Special Use Considerations	High groundwater	High groundwater
Development Considerations		
Land Uses Government Office	permitted	permitted
Impact Fees, Mitigation & other potential cost factors	frontage	frontage
Development Guidelines Min. lot size		
Max. lot coverage		
Max. impervious cover		
Min. open space		
Max. development coverage		
Max Floor Area Ratio		
Max. building coverage		
Min. building size		
Max. building size		
Max. building height 5-story building allowed 7-story building allowed	65' or 85' yes yes	50' yes no
Min. lot width		
Min. lot depth		
Front setback	10' (3)	20'
Rear setback	5' (4)(5)	10'
Side setback	5' (4)(5)	10'
Landscaping Requirements When adjacent to residential:	20' setback	20' Front setback 10' for all other setbacks
For government services:	campus-like landscaping	
At parking areas:	Min 10' Type I all sides, 35 sf per stall 25' ex veg	Min 10' Type I all sides, 35 sf per stall 25' ex veg
Tree preservation requirements:	Preserve sig trees, tree plan req	Preserve sig trees, tree plan req
Parking Required ratio (office) Min. required Max. allowed	3.5/1000sf (1)	3.5/1000sf (1)
Required ratio (warehouse)	To 10,000sf 1/1000sf (2)	To 10,000sf 1/1000sf (2)
Required ratio (day care)	1 per staff & 1 per 10 children	1 per staff & 1 per 10 children
Additional Factors Proximity to I-5 interchange	good	good
Proximity to public transit	moderate	moderate
Outdoor open space available	moderate	moderate
Noise levels	moderate	moderate
Air quality	moderate	moderate
Proximity to services	poor	poor
Amenities	poor	poor
Expansion possible on site	moderate	moderate

Notes
(1) For government offices
(2) To 20,000sf 10 + .75/1000
(3) On all street frontages
(4) 20' if adjacent to residential
(5) +10' setback each story over one

Legend
Recommended District

Department of Health Consolidation Study
for Preferred Development Areas in Tumwater



Department of Health Consolidation Study

Preferred Development Areas (PDAs)

PERFORMANCE SPECIFICATIONS

GENERAL

A code synopsis and building systems outline specifications have been prepared to establish the level of quality of building systems for the cost analysis process of the consolidation study. The criteria listed in this study can be included, with modifications, in a RFP for development establishing the minimum level of required quality. However, the two-step selection process outlined in this report shall encourage the highest level of quality given budget, time, and lease approaches.

The level of quality herein has been established by representing the requirements of the Department of Health (DOH), General Administration (GA), and the Space Analysis Program. Level of quality for this project is to fall between the quality of the leased Department of Retirement Services Building (DRS) and the State owned Department of Ecology Building (DOE). Specifications from these projects and GA's Division of Real Estate Services specifications (DPD specs) have been reviewed to assist in establishing the following outline specifications.

Priority has been given to meet indoor air quality standards for office buildings. Therefore commissioning and final building flush-out programs have been included in the specifications. Specific maximum zone sizes and diffuser and return air distribution configurations are specifically described in the outline specifications.

The data/communication distribution system has been outlined to provide maximum flexibility at optimum cost effectiveness to accommodate the dynamic characteristics of information technology. The electronic distribution system has been integrated with the modular furniture systems approach. The center panel spine of the modular furniture partition system would remain stationary and contain the wiring for power, data, and communications. The outer panels would be flexible and interchangeable to accommodate program changes. A simple cable tray system would align with the center panel spines below the floor and above the accessible ceiling of the floor below. Wiring drops from the panel spines would penetrate the floor and be carried by the cable trays. The ground floor distribution system would be accommodated by in-slab duct system and strategically located vertical power and data drops from the ceiling. Refer to the distribution diagram at the end of the outline specifications.

CODE REVIEW

Applicable codes include but are not limited to: (The year of editions shall be as applicable at time of project implementation.)

Uniform Building Code
Uniform Mechanical Code
Uniform Plumbing Code
Uniform Fire Code
National Electric Code
NFPA 13
Washington State Energy Code
Washington State Ventilation and Indoor Air Quality Code

1997 EDITION OF THE UNIFORM BUILDING CODE SYNOPSIS

1. Occupancy classification:
   General: Group B occupancy.
   Large conference room: A-3. (Occupant load less than 300 without a legitimate stage.)

2. If an atria is included, comply with Section 402, including smoke control system conforming with Section 905.

3. If an occupied floor is greater than 75 feet above the lowest level of Fire Department vehicle access, comply with Section 403. Included with this section are:

   - Type 1 or Type 2-FR construction with fire suppression and detection system per Sections 403.1 and 403.2.
   - Additional on-site fire water storage requirements per Section 403.2.1, Item 2.
   - Additional fire alarm and communication systems requirements per Section 403.5.
   - Central control station room for Fire Department operations per Section 403.6.
   - Special elevator lobby requirements per Section 403.7.
   - Standby power, light, and emergency systems per Section 403.8.

   Due to the added requirements of Section 403, it is suggested to limit the highest occupied floor to less than 75 feet above the lowest level of Fire Department vehicle access.

4. Based on the programmatic requirement of allowing maximum flexibility for functional change, the minimum construction type classification should be Type 2-FR. This construction type minimizes fire compartmentalization requirements. Assuming Type 2-FR construction with fire sprinkler system, building limitations are as follows. (For

purposes of application, the programmed gross building area is 232,645 sf and assuming five stories, each floor plate is approximately 46,529 sf.)

- Building height: 160 feet or 12 stories.
- Allowable floor area, assuming separation all sides with minimum 40 feet from public right of way or property lines:
  - Maximum allowable for total building area without atria: 319,200 sf
  - Maximum allowable for total building area with atria: 159,600 sf. This requires one area separation wall, creating two fire compartments, which allows a total building area of 319,200 sf. (An option is to increase the construction type to Type 1-FR for unlimited area.)
  - Maximum allowable for any one floor without atria: 159,600 sf.
  - Maximum allowable for any one floor with atria: 79,800 sf.

5. Fire resistive requirements for Type 2-FR construction are: (assumes property line is greater than 40 feet from the building)

• Exterior bearing walls	2-hour
• Exterior nonbearing walls	non-rated, non-combustible
• Interior bearing walls	2-hour
• Structural frame	2-hour
• Partitions	1-hour
• Shaft enclosures	2-hour
• Floor/ceiling	2-hour
• Roof/ceiling	1-hour

6. Maximum travel distance to an exit or exit enclosure is 250 feet.

7. Accessible parking spaces, assuming more than 501 and less than 1000 stalls: 2% of the total stalls.

PERFORMANCE SPECIFICATIONS

The following systems are selected to comply with the 1997 Uniform Building Code synopsis. Code conformance update will be required at time of design implementation with future editions of applicable codes and ordinances.

00 SITEWORK

001 Clearing and Tree Preservation

- Clearing shall be accomplished in a manner that will not create or contribute to landslides, accelerated soil creep, settlement, and subsidence on the subject property and/or adjoining properties. It shall be accomplished in a manner that will not create or contribute to flooding, erosion, or increased turbidity, siltation, or other forms of pollution in a watercourse.

- Material shall be stockpiled for use on site as fill and replacement topsoil as appropriate.

- Retention of trees and other significant vegetation shall conform to local jurisdictional regulations.

002 Grading

- Grading shall be performed with on-site soils to the extent feasible. Material shall be imported as required to balance cut and fill on the site. Unsuitable and excess material shall be exported. Site soil requirements may require the import of a structural fill material for developing the pavement subgrade. Grading shall conform to Appendix Chapter 33 of the UBC and as augmented by the Geotechnical Report.

003 Erosion Control

- Erosion control measures shall be Best Management Practices conforming to the Washington State Department of Ecology (DOE) manual titled "Stormwater Management for the Puget Sound Basin," as modified by the local jurisdiction.

004 Stormwater

- Underground stormwater collection system shall include on-site stormwater detention and treatment systems. Treatment shall be performed with biofiltration swales, filter strips, or combined with detention in a wet pond. Stormwater management systems shall be designed conforming to the DOE manual titled "Stormwater Management for the Puget Sound Basin", as modified by the local jurisdiction.

005 Sewer

- Sanitary sewer collection shall be by either eight-inch or ten-inch underground pipe designed to convey site sewage at less than 80% full flow conditions. Gravity systems are preferred, with pumping used if required due to site or utility constraints. The system shall be designed conforming to criteria contained within the DOE manual titled "Criteria for Sewage Works Design"

006 Domestic Water

- Domestic water service shall be sized conforming to the UPC.

007 Fire Protection

- On-site fire protection service shall conform to the UFC and NFPA. Approximately 3,000 gallons per minute fire flow is anticipated. An 8- or 10-inch looped on-site system shall be provided with hydrants spaced at not more than 400 feet apart and within 225 feet of all portions of the building perimeter. A double check detector valve assembly shall be located either on site or within the building, with a Fire Department connection placed conforming to requirements of the local Fire Marshal.

008 Parking

- Number of parking stalls and stall and aisle dimensions shall conform to the agency municipal code. The minimum number of parking stalls required by code shall be provided. Barrier free parking stalls shall conform to the Washington Administrative Code, as amended by the local jurisdiction

009 Pavement

- Pavement systems shall be asphaltic concrete pavement over a prepared base (to be determined by on-site soil conditions), with Portland Cement concrete pavement at service areas. Asphaltic concrete shall be 3-inch thickness, with 4-inches at heavy traffic areas. Concrete pads shall be 6-inch thickness with reinforcing fabric. Pavement base section design shall be developed by the Geotechnical Engineer based on the existing site soil conditions.

- Concrete sidewalks adjacent to paved areas shall be thickened edge.

- Decorative paving shall be installed at pedestrian plazas and building entry areas.

0010 Curbing

- Concrete curbing shall be extruded at parking areas, with barrier curbing at high traffic areas and service vehicle lanes.

0011 Irrigation

- Landscape irrigation system shall be installed to cover all landscape improvement areas. The work shall include furnishing and installing all meters, pipe, fittings, valves, sprinkler heads, backflow preventers, and other appurtenances required for an automatic system. The landscape irrigation system shall be installed in conformance with all applicable codes. All irrigation materials shall meet or exceed industry standards for commercial/industrial use and shall be installed per local industry standards.

0012 Landscape Areas

- Prior to planting, seeding, or sodding, all planting improvement areas shall be scarified or rototilled to a depth of 6 inches. Topsoil free of rocks, sticks, weeds, or other deleterious material shall be placed to depth of 6 inches. Fertilizer and other soil amendments shall be added as required by a certified soil-testing agency. Grading of planting surfaces shall be left with a firm, uniform surface, free of undulations or other irregularities. Proper surface drainage of the site and the features thereon shall be provided. Shrub and ground cover beds shall be mulched with 3 inches of fine hemlock or fir bark.

0013 Turf Installation

- Turf systems (seeded or sodded) shall be installed in disturbed areas not otherwise paved. Inverts of all drain ditches and biofiltration swales shall be sodded. Seeding or sodding shall be specified as to types and percentages and shall produce a high quality turf in accordance with usual practice of areas in the climatic zone. Sodding shall be performed in accordance to ASPA Guideline Specification for sodding. Turf seed shall be labeled in accordance with U.S. Department of Agriculture Rules and Regulations under the Federal Seed Act in effect of the date of the RFP.

- Sow seed from March 1 to May 15 for spring planting and from September 1 to October 31 for fall planting.

0014 Turf Maintenance

- Maintenance of the seeded or sodded areas (as applicable) shall be mowed with approved mowing equipment until 90 days after the installation is complete and beginning of the Turf Establishment Period.

0015 Plant Material, Planting

- Plant materials shall conform to ANSI Z60.1-1986 American Standard for Nursery Stock. Selected plant materials shall be easily maintained, locally hardy, and tolerant of the specific site conditions. All planting work shall be done during the season or seasons that are normal for such work as determined by weather conditions or accepted practices in the general locality of the project.

0016 Plant Material, Maintenance

- Maintenance of the planted areas during the period when the plants are becoming established shall extend for a minimum of 90 days following installation of all plant materials and beginning of the plant establishment period. All plant materials shall have a 1-year plant replacement warranty.

01 FOUNDATION SYSTEMS

- Conventional shallow continuous footing and stem wall.
- Pile-supported foundation (if required due to site location)
  - Auger cast piles
  - Hollow steel pipe piles
  - Piles would extend 65-70 feet if near the Port of Olympia

02 SUBSTRUCTURE

- Slab on grade

03 SUPERSTRUCTURE

Floor-to-floor height is 14 feet-0 inch. Typical structural bay is 32 feet x 32 feet.

031 Floor Structure: 4-1/2-inch concrete topping over 3W type floor deck (7-1/2 in. total thickness). (This provides a 2-hour fire rating in accordance with UL D916 and D923.) W14x beams spaced at 8 feet on center would support the floor deck. These would be supported by W24x steel girders, which are in turn supported by the steel columns. Spray applied fire proofing would only be required on the beams and girders. In floor cellular raceway will be integrated with the steel floor deck. The layout will be coordinated with the modular furniture power spine.

032 Roof Structure: Metal deck supported on steel beams or bar joists (depending on configuration) spaced at 8 feet on center. Roof joists would be supported on steel beam girders spaced at 32 feet on center. Girders would be supported on steel columns, which would be multiple stories in height to facilitate erection. Spray applied fire proofing would be required on the roof structure.

033 Lateral system: Steel concentrically braced frame. The bracing would not have to be sprayed with fire proofing since it is not part of the vertical load resisting system. The lateral system would be designed for Seismic Zone 3, or wind 80 mph (exposure dependant on site) forces, whichever is greater as determined in accordance with the 1997 UBC.

04 EXTERIOR CLOSURE

041 Exterior walls: Masonry and/or architectural concrete, curtain wall.

042 Windows and Exterior Entrances: Aluminum storefront, thermally broken frames and 1 inch tinted insulating glass. High performance glass and shading coefficient design shall be integral with optimum energy conservation approach through the LCCA analysis.

05 ROOFING

- Rigid insulation and single-ply membrane.

06 INTERIOR CONSTRUCTION

061 Equipment And Specialties

- Operable walls: Motorized, minimum 49 STC.

- Compact shelving: Motorized, programmable electric system with tip protection track.

- Casework: Office areas: Plastic laminate surfaces
  Toilet rooms: Epoxy vanity tops similar to Wilson Art "solid surface" or "Corian" with integral sinks and backsplashes.
  Glass, flat top computer desk stations with monitor below surface at computer training/EOC.
  Reception counters at main lobby.

- Toilet Accessories: Stainless steel materials. Paper towel dispensers are preferred over hand dryers.

- Food Serving Area: Stainless steel serving line equipment.

- Owner furnished modular furniture, similar to Steelcase, VOC compliant, shall be 8-foot x 8-foot modules with a powered spine. The powered spine is stationary with the outboard panels interchangeable to accommodate changing needs. The powered spine panel shall be approximately 5 feet-4 inch tall and the outboard panels approximately 4 feet-0 inches tall. The stationary powered spine locations will dictate location of the cable trays below the floor and above the accessible ceiling of the floor below.

- Fireproof storage vault for daily tape storage.

- Display cases at main lobby.

062 Interior Systems And Finishes

- Walls
  - Offices: Rubber base, gypsum wallboard, smooth finish, primer and two finish coat latex paint system.
  - Restrooms: Thin set ceramic tile full height on Gypsum silicone backer board or cement mortar board.
  - Lunch Food Serving Area: Architectural grade FRP panels over gypsum wallboard.
  - Showers: Ceramic tile gang showers for the men, partitioned showers for the women. Privacy curtains are not required.
  - Extend 1-hour walls to structure around computer room.
- Ceilings
  - General and Office Areas: 10 feet-0 inch high, standard steel suspended T-bar with 2-foot x 4-foot acoustical lay-in panels, NRC .55-.60. Furred GWB soffits at overhead cabinets, recessed areas, and transition areas.
  - Toilet Rooms, Non-shower Areas: 9 feet-0 inch high, standard steel suspended T-bar with 2-foot x 4-foot acoustical lay-in panels, NRC .55-.60.
  - Toilet Rooms with Shower Areas: 9 feet-0 inch high, aluminum suspended T-bar with 2-foot x 4 foot moisture resistant acoustical lay-in panels. Ceiling directly above shower stalls are suspended gypsum drywall with alkali resistant enamel paint.
- Doors and Frames:
  - General and Office Areas: Solid core hardwood veneer finish doors with welded hollow metal frames or knock down natural anodized aluminum frames. 9 feet high at interior divisional entrances, 7 feet high all other office areas. Hollow metal frames are to be shop primed and field painted with alkyd finish paint. Natural anodized aluminum frames to remain natural finish.
  - Utility Areas: Hollow metal doors and frames, 7 feet high, shop primed and field painted with alkyd finish paint.
  - At grade Receiving Areas: Insulated sectional overhead doors.

- Floor Coverings
  - Main Entrances and Lobbies: Integrally colored architectural concrete, or non-slip porcelain tiles, or sealed slate tiles. Recessed walk-off mats at all entrances.
  - General and Office Areas: Carpet tiles, face weight 26 oz. –30 oz., total weight 158 oz/sy, fusion bonded, solution dyed, similar to Interface, Milliken, Shaw, Mannington with 10-year warranty.
  - Utility Areas: Sealed concrete.
  - Toilet Rooms: Thin set 2-in. x 2 in. ceramic mosaic tile and base.
  - Work/Copy Rooms and Lunch Areas: Vinyl composition tile.
  - Cafeteria Area: Resilient rubber sheet with homogeneous wear surface.
  - Waterproof membrane at floors above computer room to minimize water entering computer room below from fire sprinkler system.

07 CONVEYANCE SYSTEMS

071 Elevators

- (3) passenger, geared traction, 3,000 lb, 350 fpm.
- (1) passenger/freight, geared traction, 3,500 lb, 350 fpm.

08 MECHANICAL SYSTEMS

In addition to the references listed above, mechanical, plumbing, and fire suppression systems shall comply with all applicable portions of the Washington State Energy Code, Washington State Ventilation and Indoor Air Quality Code, and any State and Local Codes and/or requirements.

081 Plumbing System

- Institutional grade fixtures shall be installed throughout the building.
- Domestic System: Type L copper pipe for the building interior and Type K copper pipe for the exterior of the building.
- Soil, Waste, and Vent System: Hubless cast iron pipe for above and below ground piping.

- Each floor of the multi-story building shall have one (1) hot water heater. It shall be provided with a circulation pump for distribution to remote locations on each floor.

- Provide one (1) self-priming floor drain with trap in each restroom.

- All connections to kitchen equipment to be per the manufacturer's instructions.

- Provide showers in ground floor toilet rooms. Provide a floor drain in the drying area of the shower room.

- Provide sink with hot and cold water and insta-hot dispenser for the coffee bars located throughout the building.

- Provide cold water hook-up for the vending machines in the lunchroom and the refrigerators located at remote locations throughout the building.

- Floor drains under raised computer floors shall be provided. Waste piping attached to these floor drains shall be protected with a backflow preventer to ensure one way flow of waste in these areas.

082 Heating, Ventilation, and Air Conditioning (HVAC) System

The HVAC system shall have all design work accomplished under the direct supervision of a licensed mechanical engineer. The system shall be designed and built to meet all applicable state requirements. The design engineer shall certify that the final installation performs according to the mechanical and electrical design specifications. This written certification shall be submitted to the DOH upon the completion of the installation and shall certify that the HVAC system installed within the building is completed in accordance with the approved plans and specifications, clean (i.e., ...all filters have been changed prior to occupancy), properly balanced, fully operational, will perform satisfactorily, and in compliance with all of the applicable State codes and requirements. The mechanical engineer of record shall be responsible for system design, construction observation, and certification of the completed system. This written certification shall be presented to the DOH prior to substantial completion.

- The heating and cooling load calculations shall be prepared utilizing either a commercially available computer program designed for this purpose, a spreadsheet, or hand calculations to assist in sizing all heating and cooling equipment. Methods of calculations shall be prepared in accordance with ASHRAE F26 and the applicable portions of the Washington State Energy Code (WAC 51-11) and Washington State Ventilation and Indoor and Air Quality Code (WAC 51-13). The outdoor design conditions shall be in accordance with the winter 99 percent and the summer 1 percent columns from the 1993 ASHRAE Fundamentals, Chapter 24, Table 1.

- The baseline system as described below shall be a single duct VAV system with a fully ducted return path. Alternate methods shall be explored and selected based on the results of a complete Energy Life-Cycle Cost Analysis (ELCCA). This analysis shall be furnished as part of the RFP to include, at a minimum other systems, including a water source heat pump system and a four pipe fan coil system.

- All systems, including the hydronic system, shall include balance drawings and schedules that clearly depict air volumes and flow rates required for both air and water at each register, inlet, exhaust, or tap point.

- Provide one (1) VAV rooftop packaged unit with DX coil and hydronic hot water heating coil for each floor of a multi-story building. Unit shall be capable of 100 percent fully modulating economizer with DDC controls. Unit shall have variable frequency drive supply and exhaust fans for increased efficiency. Unit shall be capable of automatic control of supply and exhaust fans to ensure proper, slightly positive, building pressurization. Motors, fans, compressors, and other equipment within the rooftop unit shall be internally isolated to limit noise and vibration transmission from the unit through the structure and/or ductwork to the interior spaces within the building.

- Each heating/cooling zone within the building shall be provided with a constant speed fan powered terminal box. There shall be a minimum of one (1) zone per 1,000 square feet of building area, computed as an average of the total area of the building. Zones shall be divided throughout the building to allow for the highest possible level of personal comfort of the people within the building with the most efficient use of energy resources. Each zone will receive primary air from a packaged rooftop unit that has been conditioned to approximately 60^{0}F. Each zone's fan terminal box will mix the primary air with an appropriate amount of return air from the zone to provide the proper temperature air for that zone. If the zone calls for greater heating, each box will be provided with a hydronic hot water heating coil for re-heat of air as necessary for greater zone comfort.

- The quantity of supply air diffusers and return air grilles shall be sufficient to provide even air distribution throughout each zone within the building. Supply diffusers shall be located so as to eliminate air blowing directly on individual workstations. Each supply air diffuser shall be located to serve an area not greater than 250 square feet. Return air grilles shall be located to serve an area not greater than 1,000 square feet. All diffusers and grilles shall have sound ratings below NC 27 for design airflows. Each diffuser and grille shall have a dedicated and accessible duct-mounted volume damper.

- Allowable system noise levels shall be provided in accordance with the Room Criteria (RC) curves in 1999 ASHRAE Applications Chapter 46. The maximum ratings shall be RC 35 in private offices and conference rooms;

RC 40 in open offices; and RC 45 in circulation, public areas, and computer rooms.

- The air distribution system shall be spiral medium pressure ductwork for the primary air from the rooftop-packaged units to the fan-powered terminal boxes. The return side of the system shall be fully ducted to the rooftop-packaged air-handling unit. Each enclosed room within the building shall have fully ducted return air. Each floor shall have ducted returns centrally located within the area to ensure proper airflow with the building. The supply and return ducts within each zone and the return ducts to the rooftop packaged units shall be low-pressure galvanized steel ductwork. All primary air ductwork and all ductwork within the occupied areas of the building shall be provided with internal lining insulation to ensure that noise from fans, compressors, and other rotating equipment does not transmit through the ducts into the occupied areas within the building. All ductwork shall be manufactured and assembled in accordance with SMACNA standards.

- The main computer room/data center shall be served from a dedicated, stand alone HVAC system capable of providing continuous environmental cooling and ventilation of the space. The system shall be suitable for operation during low ambient OSA conditions, and shall be interlocked with fire suppression system for automatic shutdown. Provide isolation dampers that close to contain fire suppressing agent within the room. The system shall be capable of maintaining space temperatures of 68 F dry bulb.

- Natural gas fired boilers shall be used for heating water in the Hydronic system.

- Base-mounted pumps shall be used for the Hydronic system.

- Provide redundant equipment to allow for lead/lag operation, routine equipment maintenance without system downtime, and to promote longevity of equipment.

- Hydronic piping throughout the building shall be steel pipe with victaulic-type grooved fittings.

- All equipment shall have an efficiency rating equal or greater to that as provided in the Washington State Energy Code.

- Provide fresh air distribution throughout the building in accordance with the Washington State Ventilation and Indoor Air Quality Code.

- Provide a minimum of a 90-95 percent cartridge filter with pre-filter at the packaged rooftop unit. Provide filters at the fan-powered terminal boxes for each zone within the building.

- The following criterion pertains to the operation of the HVAC system and should be used as design criteria for the system. HVAC systems shall be capable of maintaining a daily normal operating temperature of 70^0 F $\pm$ 2^0 F through the year with a maximum variation of $\pm$ 4^0 F under extreme outdoor design conditions as listed in 1993 ASHRAE Fundamentals Chapter 24, Table1.

- A Direct Digital Control (DDC) system shall be provided for all HVAC equipment within the building, including rooftop packaged units, boilers, pumps, and fan-powered terminal boxes as required to provide for complete personnel comfort within each zone. Each zone shall have a temperature sensor to monitor conditions within the space. The DDC system shall control the lighting within the building and interface with the security system for notification and monitoring of alarm conditions.

- Commercial type exhaust hoods are not required for the cafeteria cooking equipment. Provide two-hour rated shafting for future use. Provide general exhaust to remove heat and non-grease laden vapors from warming ovens and other kitchen equipment.

- The DDC system shall monitor water detection sensors installed under raised computer room floors.

- The engineer of record as part of an overall commissioning program shall witness final start-up and testing of all equipment.

- Provide an initial and a final building flush-out during the commissioning period to ensure proper indoor air quality in accordance with State of Washington Specification 15960 Indoor Air Quality Assurance.

083 Fire Suppression System

- Provide wet pipe system for the interior spaces of the building.

- Provide dry pipe system for exterior and/or any areas subject to freezing conditions.

- Provide clean agent system to protect the Data/File Server Center.

- Provide a standpipe system for the stairwells and roof in the case of a multi-story building.

09 ELECTRICAL SYSTEMS

All electrical systems shall comply with the current editions of the National Electrical Code, Washington Administrative Code (WAC), NFPA, Underwriter's Laboratory (UL), ANSI, ASTM, NEMA, OSHA, and the State Fire Marshal.

091 Lighting

All light fixtures shall be located so as to be maintainable from a standard height ladder.

All lamps shall be of standard size and be able to be re-ordered off the State Inventory Contract.

The average maintained foot-candle level requirement for each area shall be in accordance with the middle range of illuminance per the IES Lighting Handbook.

- General and Office Areas: Direct/indirect lighting to minimize computer glare and 2x4 fluorescent parabolic lay-in troffers, foot-candle level to average 55 at all work surface desk level locations.
- Multiple Use Training Rooms: Fluorescent indirect lighting to reduce glare for in-desk monitors, foot-candle level to average 50 with maximum to minimum foot-candle level on ceiling not to exceed 4:1.
- Main Entrance and Lobbies: Combination of fluorescent parabolic troffers and compact fluorescent downlights, foot-candle level to average 30.
- Utility Areas: Fluorescent industrial fixtures with wire guard, foot-candle level to average 25-30. Locate so as to provide general illumination along pathways and concentrated illumination over work and equipment access areas.
- Toilet Rooms: Recessed fluorescent lighting over mirrors and toilet areas. Minimum of 50 foot-candles.
- Work/Copy Rooms: Fluorescent lensed fixtures.
- Lunchroom and Coffee Bars: Fluorescent lensed fixtures.
- Data/File Service Center: Fluorescent parabolic lay-in troffers.
- Central Resource Center: Fluorescent parabolic lay-in troffers.
- Shower/Locker Rooms: Fluorescent damp location fixtures.
- Exterior Lighting: HID-type lighting: photometric analysis must be provided for all exterior areas.
- Parking Areas: 24-foot poles with HID-type lighting, maintained foot-candle level to average 1 with entrances averaging 2.5 foot-candles, maximum to minimum foot-candle level on ground not to exceed 10:1. Minimum foot-

candle level not to be less than 0.5. Ten (10) foot-candle is required where video surveillance is provided.

- Pedestrian Paths: 12-16 foot poles with HID-type lighting, maintained foot-candle level to average 5.

- Exterior Entrances: HID-type lighting, unobtrusive, recessed.

- Emergency Egress Lighting: Exit signs shall be located so as to direct people out of the building per the Building Department and Uniform Building Code. Emergency lighting shall be located to provide an average of 1 foot-candle on the floor, emergency lighting shall be located in each toilet room and enclosed room with no outside windows. Emergency lighting shall be on the emergency generator system.

- Lamps: Energy efficient T8, 32 watt, 3500 degree K, CRI 80: consider using T5 lamps (look at the availability).

- Fixtures to be connected with 6 feet of flex conduit to allow repositioning in ceiling grid.

- Lighting Controls

  Control of interior and exterior lights shall be in accordance with the Washington State Energy Code.

  The entire building shall be controlled by a low voltage programmable lighting control type system. The system shall be capable of systematically shutting off all interior lighting during unoccupied hours. The system shall be connected to a central computer station for ease of changes. In the general and open office areas each lighting circuit shall be able to be controlled independently. Individual spaces shall have local switches for control of lighting. Switching shall include multi-level switching.

- General and Open Office Areas: Low voltage programmable controlled with override switches.

- Enclosed Office Spaces and Conference Rooms: Occupancy sensors with "on" position switches.

- Multiple Use Training Rooms: Individual switches to reduce foot-candle level in half or use dimmers.

- Conference Rooms: Individual switches to reduce foot-candle level in half or use dimmers.

- Main Entrance and Lobbies: Low voltage programmable controlled.
- Utility Areas: Individually switched.
- Toilet Rooms: Individually switched with ultra-sonic type, ceiling-mounted occupancy sensor.
- Work/Copy Rooms: Individually switched.
- Lunchroom and Coffee Bars: Individually switched.
- Data/File Service Center: Individually switched.
- Central Resource Center: Individually switched.
- Shower/Locker Rooms: Individually switched.
- Exterior Lighting: Photocell and low voltage programmable controlled.
- Programmable Lighting Controller: Programmable inputs and outputs, astronomical time clock, inputs selection shall be selectable for all types of switches and photocell, holiday schedules.
- Occupancy Sensors: Wall or ceiling mounted dual technology type in offices, ceiling mounted ultrasonic type in toilet rooms.

092 Power

- Building electrical service and distribution system, including panels and subpanels shall be based on 3.5 watts per square foot for duplex receptacles, plus all other electrical loads.
- Equipment Connections: Fused disconnect switches and motor starters (where required).
- Kitchen Equipment Connections: Per manufacturer's recommendation. provide two 4-inch conduits from main switchboard to cafeteria area to facilitate future food vendors.
- Mechanical Equipment Connections: Motor starters (where required) and fused disconnect switches.
- Raceways: Provide for all systems, different voltages to be kept independent, spare conduits for each power panel, pull string in each empty raceway. Provide two spare 4-inch conduits from main data room to exterior vault outside of building.

- Raceway Types: Rigid steel conduit (indoors, exposed locations), intermediate steel conduit (indoors, exposed locations), rigid aluminum conduit (exposed outdoor installations), electrical metallic tubing (general purpose feeders and branch circuits), flexible steel conduit (dry locations, connections to light fixtures in suspended ceilings, accessible equipment, transformers and equipment where vibration isolation is required, maximum length 6 feet), liquid tight flexible steel conduit (damp or wet locations, motor connections), non-metallic conduit (below slab on grade, underground duct banks, underground site work).

- Connectors: Steel with compression ring type.

- Wire and Cable: 600-volt insulation rating, thhn/thw, annealed copper

- No. 10 and No. 12 solid, larger than No. 10 stranded.

- Color coding – 120/208 volts (Phase A – black, Phase B – red, Phase C – blue, neutral – white, ground green), 277/480 volts (Phase A – brown, Phase B – orange, Phase C – yellow, neutral – gray, ground – green)

- Branch Circuits – neutral conductors shall be considered current carrying, computer receptacle circuits shall have dedicated neutral and ground conductors and be identified with a yellow stripe along entire length.

- Feeders – group together, conduits labeled with panel identification every 100 feet. Splicing is prohibited.

- Wiring in non-metallic conduit shall not be located within 3 feet-0 inch of a voice/data/equipment room.

092-1 Wiring Devices: 20 amp rated, ivory, all receptacles on emergency circuits shall be identified "red" in color. All isolated ground computer receptacles shall be identified "orange" in color.

- Switches – single pole, three-way, mounted vertically with the "on" position on top.

- Receptacles – duplex type, general purpose: duplex isolated ground, computers: ground fault circuit interrupter, exterior and locations within 6 feet of a sink. All receptacles shall have a permanently affixed label with the panel and circuit designation on it.

- Floor Boxes – poke-thru type for all floors except first. First floor to have floor boxes set in concrete slab. Flanges to accommodate type of flooring, devices recessed in to floor box.

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- Floor Boxes – poke-thru type for all floors except first. First floor to have floor boxes set in concrete slab. Flanges to accommodate type of flooring, devices recessed in to floor box.

- Coverplates – thermoplastic heavy-duty type, provided for all receptacles and switches.

- Dedicated isolated ground computer receptacles to be used for all computer locations, mid range, LANs, file servers, PCs and other microprocessor based equipment. Run separate isolated, insulated ground wire from receptacle to the isolated ground floating grounding bus in panel, the isolated ground bus connected to common ground at service entrance. Three computer receptacles per 1 – 20 amp circuit. One outlet shall be provided for each open office workstation, two outlets to be provided on opposite walls in each office, conference and meeting rooms to have receptacles located on 5 foot-0 inch intervals around perimeter of room and a minimum of two receptacles located in floor boxes. Up to four duplex receptacles may be served from a single 20-amp circuit.

- Calculations for each receptacle at computer location shall be 3.65 Amps, Dot Matrix printer shall be 1.00 Amps, Laser printer shall be 7.60 Amps.

- General-purpose receptacles to be located throughout. At least four per open office workstation, three per office, conference and meeting rooms to have one per wall. Provide circuitry and one (10 standard-power duplex receptacle for each 75 square feet of leased space. All circuits shall have a minimum capacity of 20 amps each. Up to fifty percent (50%) of all required duplex receptacles may be durable flush-floor receptacles. Up to six (6) duplex receptacles on each non-dedicated circuit: a four-plex receptacle will be calculated as 1.5 duplex receptacles. Separate the mechanical power and resistance circuits from receptacle circuits. Locate in separate panels when more than one (1) panel is used.

- Dedicated Receptacle – The sole receptacle served by a dedicated powered circuit shall be connected to common ground and identified with a red dot. (Typically used for refrigerators, microwaves, vending machines, copy machines, laser printers, etc.)

- Furniture partition systems to have power connection to a center spine from floor.

092-2 Motor Starters: Combination type with control power transformer, hands-off-automatic selector switch, pilot light indicators, (2) SPDT auxiliary contacts and thermal overload relays.

092-3 Disconnect Switches: Heavy-duty, 600 volt rated, single-throw knife switch with quick-make, quick-break mechanism, capable of full load operations.

092-4 Panelboards: Copper bus bars, separate neutral and ground bus, available short circuit rating of the panelboard and circuit breakers shall be the same. A series rated system is not allowed.

- Locations: Electrical closets and mechanical rooms only. Electrical rooms to be sized to accommodate at least one future panel.
- Typed index cards indicating exact locations of loads served.
- Surface mounted.
- Minimum 42 single-pole positions.
- Circuit breakers: Thermal-magnetic trip free, trip-indicating, quick-make, quick-break. Single-handle and common tripping on multi-pole breakers.
- Breakers for lighting circuits shall be "SWD" rated.
- Separate panels with transient voltage surge suppressors for all isolated ground computer receptacles. General-purpose receptacles and loads to be on a different panel.
- Isolated ground panels with transient voltage surge suppressors (TVSS) shall be used for all computer receptacles.
- Dedicated isolated ground panels with TVSS shall be located in the Data Center and the Emergency Operations Center.
- All panelboards to be sized to include a spare 25-30 percent space capacity and 30 percent spare load capacity.
- General purpose receptacles shall be circuited in such a manner as not to exceed seven (7) receptacles per circuit.
- All circuits for appliances (refrigerators, microwaves, pop machines, ice machines, insta-hots, coffee pots, etc.) shall be dedicated and not circuited with any other receptacle or device.
- All circuits for copiers, laminators, and special office equipment shall be on dedicated circuits and not circuited with any other receptacle or device.
- Electrical panels are not to be located within 3 feet-0 inch from a voice/ data/equipment room.

092-5 Engine Generator System: Diesel with day storage fuel tank, fuel transfer pumps, control panel with remote alarms and status panel. Generator sized to accommodate all emergency loads and 20 percent spare capacity. Configuration of generator room shall support ganging of generators for future capacity.

- Items that should be served by the emergency generator: egress lighting: lights in toilet rooms, electrical rooms, data closets, elevators, fire pumps (if

required depending on site location), stair pressurization fans (depending on if building is over five stories), smoke evacuation fans, fire alarm equipment, security equipment, receptacles in data closets, all power and lights in Data/File Server Center and Emergency Operations Center.

- Fuel supply shall be able to accommodate 72 hours of operation in the "prime" mode.

- Automatic Transfer Switch: Sized to accommodate generator size, normal and emergency contacts shall be positively interlocked mechanically and electrically, auxiliary contacts for interconnection to each elevator controller and building automation system.

092-6 Switchboards: Free-standing, enclosed dead-front safety type, service entrance rated, silver plated copper fully rated bus bars, braced for available short circuit current with ground fault protection. Utility metering section shall comply with utility company requirements.

- Switchboard shall be sized for 30 percent spare capacity.

092-7 Grounding: System neutral grounded at the service entrance only, isolated from grounding systems throughout the building, service grounding electrode system to be bonded to 10 feet or more of metal underground water pipe in direct contact with the earth, interior piping, ground rods, building steel, and concrete encased electrode in the bottom of the concrete footing.

- Ground bars shall be provided in each date/telephone closet, Data Center and EOC Room. The ground bars shall be bonded together with a #2/0 copper ground wire and then bonded to the service entrance ground.

092-8 Dry Type Transformers: Quiet-type, 115 degree C temperature rise, insulating material suitable for 220 degrees C, ventilated, K4 rated.

- Transformers shall be strategically located. Transformers shall not be located on walls that share an office space, data/telephone room, computer room or workstation.

- Transformers shall not be located within 15 feet-0 inch of a voice/data/ equipment room.

092-9 Uninterruptible Power Supply System (UPS): Furnished for the equipment in the Data Center to provide regulated alternating current (AC) power for critical computer load. The UPS shall consist of a rectifier/charger, battery, inverter, static transfer switch, internal bypass switch, synchronizing equipment, protective devices and accessories. Battery capacity to be capable of supporting the full kW rating for a period of 30 minutes.

092-10 Transient Voltage Surge Suppressors: On the main electrical switchboard and each panel dedicated for computer receptacles. TVSS devices are used for the protection of all AC electrical circuits from the effects of lightning induced currents, substation switching transients and internally generated transients resulting from inductive and/or capacitive load switching.

093 Systems

093-1 Cable Tray: Aluminum, ladder-type, rung spacing 9 inches on center, 12 inches wide, 6 inches height, supported from structure, mounted above accessible ceiling.

- Cable tray to provide low voltage cable management.
- Located in all communications closets. See Data/Voice Communication section for additional information.
- Routed above open office areas the entire length and width of each floor for routing of systems cabling.
- Coordinate with all other building systems to maintain a minimum clearance of 1 foot-0 inch above cable tray.

093-2 Access Control System: Integrated computer-based security system with card readers at access points to the building, elevator lobbies at each floor, stairs, Data/File Service Center, EOC Computer Training, communication closets, confidential file rooms, mechanical and electrical spaces, and the loading dock door.

- System shall be able to support up to 4500 cards with unique numeric identification.
- System shall be interfaced with CCTV system.
- Monitoring of the CCTV shall be at the security desk in the main reception area.
- Security System: Magnetic contact switches, motion detectors, integrated with the Access Control System.
- All building systems shall be monitored by the security system.
- Security system alarms shall be to pager output.
- Security panic buttons located near workstations where the public has access, interview rooms and in each private.office. Panic button to send alarm to the security station adjacent to the main receptionist.

- Visitors will be issued access control badges to obtain entry to upper levels.

- Multi-level security shall be implemented through use of "software fire walls".

093-3 Fire Alarm System: Addressable, Class B supervised, fire detection and control system to monitor devices, annunciate the alarm device location, call the Fire Department and control HVAC equipment. Alarm notification system to transmit audible and visual signals to selected areas of the building. If building height requires smoke control, system shall be capable of meeting the requirements of the Fire Marshal and be located in a building Fire Command Center Room.

093-4 Closed Circuit Television System: to be furnished by Owner in the future.

- Rough-in for future cameras shall be at inaccessible locations, parking areas, transit stops, safety stations in parking area, on-grade loading door, and exterior entrances.

093-5 Visual Systems: Audio equipment rack, speakers, wall mounted infrared devices, input jacks and low voltage cables. System shall also contain emitter panels and receivers for the hearing impaired.

- Multi-Use Room (Auditorium): Microphone connectors, auxiliary outlets and remote volume control should be located at lectern location, below projection screen, mounted within each divisible space.

- One (1) Conference Room Per Floor: Microphone connectors, auxiliary outlets and remote volume control located on each wall of the space.

98-6 Voice/Data Communications: Category 5, 100 ohm four-pair unshielded twisted pair cable for data and telephone. Each telephone/data jack location to have one Level 5 homerun to centrally located communications closet. Cable length not to exceed 90 meters from outlet to termination panel in communications closet. All cabling shall be routed via cable tray to the communication closet on each floor.

- Communication closets on each floor shall be approximately 80-sq. ft. and stacked one above the other up through the building. The closets should be located centrally in the building so as the longest cable run per floor does not exceed 90 meters. There shall be a main communication room on the 1st floor to contain all servers and termination of the riser cables. The main communication room should be approximately 300 sq. ft. and shall be colocated within the data center.

- Relay Racks: 7 feet high x 19 inches wide, free standing double-sided. Equipment ground assembly per rack. Seismic braced.

- Cable Tray: 18 inches wide x 6 inches high with 6-inch rung spacing. Locate directly above relay racks.

- Copper Patch Panels: 49-port, equipped with EIA/TIA 568A four-pair RJ-45 jacks and 110 punch-down blocks.

- Fiber Optic Patch Panels: 12 port and 72 port rack mounted patch panel enclosures with adapter plates.

- Wireminders: Located below each patch panel and between each relay rack.

- Data Twisted Pair Patch Cords: Category 5, four (4) unshielded twisted pair with RJ-45 plugs.

- Fiber Optic Patch Cords: Two-strand, FSD to ST. Six per closet.

- Voice Cable Punch Down Blocks: AT&T 110 cross-connect system with terminal blocks.

- There shall be no building electrical panels in, adjacent to, or on a common wall with any communication room.

- Two (2) 120-volt dedicated outlets on one dedicated 20-amp circuit for telephone equipment.

- Provide a minimum of two (2) 4-inch-diameter conduit sleeves for voice/data pathway from building service drop to voice/data/equipment rooms. In addition, provide two (2) 4-inch-diameter conduit sleeves through floors from equipment room and through floors or ceiling into the voice/data distribution rooms.

- Riser Cables: Shall be from the main communication room on the 1st floor up through the building to each communication closet.

- Copper: Category 5, unshielded twisted pair, riser cable, and pair count to be based on 2 pair per every technology outlet location. Riser cable pair count to also include a 30 percent spare capacity.

- Data Fiber Optic Backbone Cable: 62.5/125-micron, multi-mode fiber optic cable for LAN fiber optic backbone. Strand count to be a minimum of 12 strand per communication closet.

- Site Utility: provide a minimum of two (2) 4-inch conduits to property line for telephone company. Provide two (2) spare 4-inch conduits with telephone conduits. Provide utility vaults every 250 feet minimum.

- Data Jacks: 8-position, RJ-45, EIA/TIA 568A modular type. Two data jacks to be located at all workstations; conference rooms; offices; meeting rooms; copy rooms; and printer locations, electrical and mechanical spaces.

- Telephone Jacks: 8-postion, RJ-45. EIA/TIA 568A modular type. Two telephone jacks to be located at same location as data jacks.

- Communication Outlets: To be located adjacent to dedicated computer receptacles.

- Wall mounted – recessed 4 inch x 4 inch square backbox with 1 inch conduit up to accessible ceiling, mud ring, two (2) data jacks, two (2) telephone jacks, and coverplate. Conduit to have 90 degree long sweeping bends with bushing at ceiling access spaces.

- Furniture Partition Systems: Two (2) data jacks, two (2) telephone jacks, and coverplate per each location as directed by the furniture system manufacturer. Communication cables to be routed through floor to cable tray below, except for first floor where all cables to be routed overhead via cable tray or in underfloor raceway system to data closet. Communication cables shall be routed in Thomas & Betts Xtraflex 1.5 PVC conduit with 45-degree angle fitting where they exit the floor and enter the furniture system.

- In-Floor Rrecessed Floor Box: Two (2) data jacks, two (2) telephone jacks, and coverplate per each location. Coverplate to accommodate floor box device location.

- Wireless Communications: Provide accommodations to facilitate equipment utilized for wireless communications in all conference rooms, meeting rooms, and auditorium. Provide raceway and power at roof for satellite and antenna.

98-7 White Noise Speaker System: Speakers located throughout open office areas with "white noise". Amplifier shall have microphone input for emergency paging announcements.

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SUMMARY OF "STATUS QUO" MECHANICAL SYSTEMS

In the "Status Quo" scenario, DOH facilities are housed in smaller office buildings that have been constructed with low first cost as a primary consideration. For the most part, these buildings utilize single zone, split system and package rooftop equipment, which are typically heat pumps or gas heat/electric air conditioning units.

Most of the buildings and systems were designed and constructed prior to recent advancements in energy efficiency and indoor air quality (IAQ). In most cases, complete system replacements would be required in order to conform with current applicable codes such as 1) the energy code (WAC 51-11), 2) the ventilation/IAQ code (WAC 51-13), and 3) minimum system design standards as published in the Lease Space Requirements manual issued by the GA-Division of Property Development.

CONSOLIDATION MODEL – MECHANICAL SYSTEMS

In the "Consolidation" model, the HVAC, plumbing and other mechanical systems, will be constructed using larger and in most cases, more efficient equipment that is tailored for large commercial/institutional applications as opposed to the "light commercial" equipment typical of the existing buildings.

Of paramount importance are improvements in indoor air quality. Our experience indicates that this new level of quality will result in improvements in staff efficiency, reduction in staff turnover and lost time due to illnesses.

Due to technological advancements in controls, electrical motors and fuel burning processes, equipment operating efficiencies have increased greatly in recent years. The end result in the consolidation model lower operating costs through the reduction of fossil fuel and electricity consumption. Reduced maintenance costs will result because there are fewer systems for the same given area and the systems are easier to maintain because the designs are more repetitious.

Advancements in the HVAC control systems have produced strategies that precisely control and monitor equipment to ensure peak operating efficiencies and to provide early warning when equipment is requiring maintenance. The new digital control systems provide feedback data to the building engineer that is used to "fine tune" the building to meet the demands of its tenants while optimizing energy use.

Through consolidation of the offices into a single building, maintenance efficiencies are improved. This coupled with repetitive, higher quality equipment, reductions in budgets maintenance staffing can be planned.

Savings in annual operating costs due primarily to use of efficient, state-of-the-art systems can be expected. There are many factors such as hours of operation, utility rates, system design, gas heating vs. electric heating, etc. that can have a significant effect on annual utility costs. These factors can change the annual utility costs by as much as 50 cents per square foot per year.

In the consolidation model, a reduction of $0.25 per square foot per year has been estimated. This will result in a reduction of $87,663.00 per year when compared to the status quo.

SUMMARY OF "STATUS QUO" ELECTRICAL SYSTEMS

Existing electrical systems in leased DOH facilities have been constructed with the primary emphasis being that of code compliance. Lighting systems are generic; electrical power distribution is limited; and space for computer and network equipment, in many cases, encroaches on space needed for offices. These spaces are often environmentally

unsuitable (i.e., not secured, not air conditioned, shared with power equipment, etc.) for equipment so strategic to office operations. These buildings were not designed to accommodate current information technology systems, computers and other contemporary office equipment.

These limitations will surface in the form of elevated Tenant Improvement (TI) costs for installing additional electrical circuits, power distribution panels, data and voice network wiring, constructing equipment rooms necessary to support what is now considered standard office equipment. These costs for building improvements are non-recoverable and are often lost prior to the useful life of the equipment because an office move became necessary.

CONSOLIDATION MODEL – ELECTRICAL SYSTEMS

In the consolidation model, the structure and its electrical systems are designed with flexibility and growth in mind. The building and its sub-systems are specifically tailored to support "adds, moves and deletes". This is a phrase that is used in the telecommunication industry that describes the maintenance of a telephone system or data network that is in a constant state of change. Office furniture, power, lighting, security, HVAC, telephone and data systems in the consolidation model are designed with change in mind and the ability to implement these changes without interruption in service. TI costs and department downtimes are minimized and productivity is preserved.

Productivity is also enhanced through the application of computer friendly lighting systems that utilize parabolic lenses in fluorescent lighting fixtures to reduce eyestrain caused from glare. A side benefit to these new fixtures is that they employ solid state ballasts with highly efficient T8 lamps that alone are responsible for the same amount of light for 80% less energy. Combined with the application of modular furniture, light levels at the desktop will be elevated through the use of task lighting fixtures.

By embracing the concept of a "standard modular furniture unit" that has the capability of supporting eight workstations in a rectangular assembly, the "spine" or wall common to all eight stations will be used to house power, data and voice wiring. Adoption of this standard allows the electrical designers to "fine tune" the building's power and signal distribution systems to service these eight workstations utilizing half of the labor necessary had these been wired individually. Downtime and costs for "adds, moves, and deletes" are minimized and productivity is preserved.

In summary, the consolidation model affords many advantages over the status quo. Reductions in power costs on a square foot basis can be expected as a result of less dependence on electric heating; the purchasing of primary metered power; and improvements in lighting system efficiencies. Maintenance impacts and the costs associated with system expansion or modifications will be minimized in the consolidated facility.

THURSTON COUNTY DOH LEASES FOR CONSOLIDATION STUDY

BCE ENGINEERS, INC
3601 20th Street East
Tacoma, WA 98424

Lease #	City	Building Address	#	Tenant	Sq. Footage	Annual cost per Sq. Ft.	Monthly Rental Amt.	Lease Term Begins	Lease Term Ends	Services	Utility Per Sq. Ft.	Monthly Water Sewer	Monthly Garbage Recycle	Monthly Janitorial Laundry	Owner	OFM Rating for Facility Condition		Total Utility Costs per Year
8068	TUM	7171 Cleanwater Lane	1	CFH	8,800	$10.41	$7,634.00	11/01/1997	09/30/2003	DOH pays utilities garbage janitorial services	1.28	incl. In util.	100.00	878.00	Simon	5		$ 11,264.00
			7	CFH EHP	9,600	$10.41	$8,328.00	11/01/1997	09/30/2003	DOH pays utilities garbage janitorial services	1.39	incl. In util.	84.00	928.00	Simon	5		$ 13,344.00
			2	CFH	12,000	$10.41	$10,410.00	11/01/1997	09/30/2003	DOH pays utilities garbage janitorial services	1.36	incl. In util.	90.00	1167.00	Simon	5		$ 16,320.00
			3	EHP	11,200	$10.41	$9,716.00	11/01/1997	09/30/2003	DOH pays utilities garbage janitorial services	1.37	incl. In util.	117.00	1068.00	Simon	5		$ 15,344.00
			4	EHP	10,400	$10.41	9022.00	11/01/1997	09/30/2003	DOH pays utilities garbage janitorial services	1.38	incl. In util.	119.00	1172.00	Simon	5		$ 14,352.00
			5	EHP	12,000	$10.41	$10,410.00	11/01/1997	09/30/2003	DOH pays utilities garbage janitorial services	1.36	incl. In util.	123.00	1169.00	Simon	5		$ 16,320.00
7064	TUM	7171 Cleanwater Lane	8	CFH/EHP	8,320	$10.50	$7,280.00	06/01/1996	05/31/2001	DOH pays utilities garbage janitorial services	1.38	incl. In util.	101.00	903.00	Simon	5		$ 11,481.60
6675	TUM	7211 Cleanwater Lane	9	CFH	6,000	$10.75	$5,375.00	07/01/1999	06/30/2004	DOH pays utilities Lessor pays garbage janitorial	1.38	155.00	23.00	7.00	Kaufman	3		$ 8,280.00
6674	TUM	7211 Cleanwater Lane	10	CFH	6,000	$10.75	$5,375.00	07/01/1999	06/30/2004	DOH pays utilities Lessor pays garbage janitorial	1.40	155.00	23.00	0.00	Kaufman	3		$ 8,400.00
6672	TUM	7211 Cleanwater Lane	11	CFH & MSD	6,000	$10.75	$5,375.00	07/01/1999	06/30/2004	DOH pays utilities Lessor pays garbage janitorial	1.50	155.00	23.00	3.00	Kaufman	3		$ 9,000.00

THURSTON COUNTY DOH LEASES FOR CONSOLIDATION STUDY

BCE ENGINEERS, INC
3601 20th Street East
Tacoma, WA 98424

	TUM	7211 Cleanwater Lane	12	EHP	6,000	$10.75	$ 5,375.00	11/01/1999	10/30/2004	DOH pays utilities Lessor pays garbage janitorial	1.39	unk	23.00	0.00	Kaufman	3		$ 8,316.00
	TUM	7211 Cleanwater Lane	13	CFH	6,000	10.75	$ 5,375.00	10/01/1999	09/30/2004	DOH pays utilities Lessor pays garbage janitorial	1.39	unk	23.00	0.00	Kaufman	3		$ 8,316.00
6676	TUM	7211 Cleanwater Lane	14	CFH	6,000	$10.75	$5,375.00	07/01/1999	06/30/2004	DOH pays utilities Lessor pays garbage janitorial	1.48	155.00	25.00		Kaufman	3		$ 8,880.00
8371	TUM	7211 Cleanwater Lane	15	MSD	6,000	$11.65	$5,470.00	07/01/1999	06/30/2004	DOH pays utilities Lessor pays garbage janitorial	1.39	unk			Kaufman	3		$ 8,316.00
7207	TUM	7745-C Arab Road Warehouse		ALL	19,500	$3.85	$6,250.00	06/01/1996	05/31/2001	DOH pays utilities & garbage janitorial	1.39				Kaufman	2		$ 27,027.00
8356	TUM	7745-C Arab Road Warehouse		CFH	6,000	$3.36	$1,930.00	03/31/1999	05/31/2001	DOH pays utilities & garbage janitorial	1.39				Kaufman	3		$ 8,316.00
6858	TUM	7211 Cleanwater Lane	18	EHP	4,000	$3.15	$1,050.00	05/19/1995	04/30/2000	DOH pays utilities Lessor pays garbage janitorial	1.39				Kaufman	3		$ 5,544.00
7648	OLY	Firgrove Business Park 2413 Pacific Ave	8	EHP SWDW	5,113	$11.94	5,087.00	10/01/1997	09/30/2002	DOH pays utilities Lessor pays janitorial	1.39				Juergens	2		$ 7,086.62
7817	OLY	Firgrove Business Park 2413 Pacific Ave	9	HSQA	1,558	$11.48	$1,534.54	02/01/1998	01/31/2003	DOH pays utilities & garbage janitorial	1.39				Cooper	2		$ 2,159.39
7727	OLY	Target Plaza 2725 Harrison Ave. NW, Suite 500		HSQA	24,728	$11.48	$ 23,656.00	10/01/1997	09/30/2002	DOH pays utilities & garbage janitorial Janitor $636.54	1.39			215.00	Cafaro	3		$ 34,273.01
8039	OLY	1101 Eastside Street St.		MULTI	6,588	$8.47	$4,650.00	01/01/1999	12/31/2004	DOH pays utilities & janitorial	1.39				Wolfe	3		$ 9,130.97
6586	OLY	Eastside Plaza 1102 Quince SE		MSD/SBOH E&HS	23,990	$9.63	$19,256.00	08/01/1994	07/31/1999	DOH pays utilities & janitorial	1.65	118.00	504.00	2107.00	Vine St.	3		$ 39,583.50

ANNUAL ENERGY COSTS
COMPARISON ANALYSIS
FINAL REPORT 10-8-99

THURSTON COUNTY DOH LEASES FOR CONSOLIDATION STUDY

BCE ENGINEERS, INC
3601 20th Street East
Tacoma, WA 98424

6560	OLY	Eastside Plaza 1112 Quince SE		OS, HSQA E&HS	29,128	$9.63	$ 23,376.00	08/01/1994	07/31/1999	DOH pays utilities & janitorial	1.17	279.00	620.00	2885.00	Vine St.	3		$ 34,079.76
6511	OLY	Eastside Plaza 1300 Quince SE		MSD & HSQA	48,270	$9.87	$39,710.00	05/01/1994	07/31/1999	DOH pays utilities & janitorial	1.30	279.00	779.00	3851.00	Vine St.	3		$ 62,751.00
Total										AVERAGE	1.38583					TOTAL		$ 387,884.84

Warehouse	283,195	$ 231.97	$227,019.54	$ 1.39	$ (27,105.00)
Warehouse	-19500		(6,250.00)	$ 1.39	$ (8,340.00)
Boathouse	-6000		(1,930.00)	$ 1.39	$ (5,560.00)
TOTAL	-4000		(1,050.00)	$ 1.37	$ 346,879.84
Full year rent	253,695		217,789.54		
			2,613,474.48		

Rent Increase @ 3% each year and includes services at 2.50

W/0 WHSE	AVERAGE	$ 1.37		
HVAC&LTG	(60% OF 1.37)	$ 0.82		
ENERGY	REDUCTION	$ 0.25		
CONSOL.	MODEL	$ 1.12		

W/0 WHS. TOTAL			$ 346,879.84
SQ. FT.	AREA	232,000	$ 259,216.04
CURRENT YEAR DIFFERENCE			$ 87,663.80

UTILITIES	STAT.QUO	CONSOL.	SAVINGS
FY 2000	$ 357,286.24	$ 266,992.52	$ 90,293.72
FY 2001	$ 368,004.82	$ 275,002.30	$ 93,002.53
FY 2002	$ 379,044.97	$ 283,252.37	$ 95,792.60
FY 2003	$ 390,416.32	$ 291,749.94	$ 98,666.38

NOTE: SHADED CELLS INDICATE THE AVERAGE COST WAS USED AS ACTUAL COST DATA WAS UNAVAILABLE

DOH CONSOLIDATION STUDY
CONCEPTUAL COST ANALYSIS

GENERAL EXPLANATION:

This estimate follows the format as listed in the BCRA Performance Specifications. Auxiliary structures and site fixtures, such as the Boat Storage Shed and onsite screen walls have been placed in this section as well.

Electrical site work that occur outside the building, such as onsite power services and parking lot lighting, have been allocated to the SITEWORK costs in order to provide a true breakdown between the building and the site.

An allowance for offsite costs has been included. The required costs for offsite improvements will greatly vary, depending upon which particular site is chosen. Specifically excluded in this estimate are land costs.

Currently, the scope of the project is broad, and the costs will significantly vary, depending upon what is ultimately designed and detailed. Because of this, this estimate assumes a high end and a low end cost. The high end strictly follows the provisions of the BCRA Quality Outline Specifications and the APRA Space Needs Analysis, while making conservative assumptions. The low end is less conservative, follows the provisions listed in the BCRA Quality Outline Specifications to the minimum requirements, and assumes a better site to work with.

As is shown on the Cost Breakdown Summary on the next page, the estimate is broken out between hard construction costs and additional soft costs. The owner's furnishings, moving and administration costs are not included. Also excluded are rent increase costs.

Wiring for the phone and internal electronic networking systems are included in the building costs, but the systems themselves are not.

The total building area is figured to be 238,000 SF for the high end estimate, which is assumed to be more complex and irregular shaped, and 232,640 SF for the low end, which is assumed be have a simple rectangular footprint. Onsite structures are not included in the total building square footage count.

The Baseline costs are based on current dollars, with projected inflation factored at the end of the bottom line summary. Inflation is figured to be 3.37% a year, and rounded to the nearest 0.5%. The inflation total is projected from October of 1999 to the midpoint of each construction phase.

Also included is alternate pricing for phased construction, which would be stretched out in three phases over approximately seven years. In addition, multiple buildings constructed over three phases are also summarized.

THREE BUILDINGS/THREE PHASES SUMMARY:

SUMMARY			HIGH END	LOW END
PHASE 1			$19,592,517	$14,955,007
PHASE 2			$19,051,061	$13,858,814
PHASE 3			$21,035,546	$15,302,440
TOTAL			$59,679,124	$44,116,261

PHASE 1:

84,400 SF

HARD COSTS:

Offsite Allowance			$1,600,000	$1,200,000
Onsite	24.94	10.87	$2,104,936	$917,428
Bldg	112.49	93.00	$9,494,156	$7,849,200
First floor extension			$380,000	$380,000
Phasing premium			$120,000	$80,000
SUBTOTAL			$13,699,092	$10,426,628

SOFT COSTS:

State sales tax	8%	$1,095,927	$834,130
Permit&fee allowance	2%	$273,982	$208,533
A/E, mgt fees	10%	$1,369,909	$1,042,663
Design&estimating cont.	10%	$1,369,909	$1,042,663
Fee contingency	$2 /sf	$168,800	$168,800
RFP costs		$80,000	$60,000
SUBTOTAL		$4,358,528	$3,356,788

PHASE 1 HARD & SOFT COST		**$18,057,620**	**$13,783,416**
Inflation to midpoint of const.	8.5%	$1,534,898	$1,171,590
PHASE 1 COST W/INFLATION		**$19,592,517**	**$14,955,007**

PHASE 2:

74,120 sf

HARD COSTS:

				HIGH END	LOW END
Offsite Allowance				$400,000	$300,000
Onsite		24.94	10.87	$1,848,553	$805,684
Bldg		112.49	93.00	$8,337,759	$6,893,160
Phasing premium				$240,000	$120,000
Future code allowance				$200,000	$100,000
Phase interfacing				$200,000	$100,000
Ext. enclosure premium				$225,000	$150,000
Extended sitework	54450	10.75	4.68	$585,338	$254,826
SUBTOTAL				$12,036,649	$8,723,670

SOFT COSTS:

State sales tax	8%	$962,932	$697,894
Permit&fee allowance	2%	$240,733	$174,473
A/E, mgt fees	10%	$1,203,665	$872,367
Design&construction cont.	10%	$1,203,665	$872,367
Fee contingency	$2 /sf	$148,240	$148,240
RFP costs		$80,000	$60,000
SUBTOTAL		$3,839,235	$2,825,341

PHASE 2 HARD & SOFT COST		**$15,875,884**	**$11,549,012**
Inflation to midpoint of const.	20.0%	$3,175,177	$2,309,802
PHASE 2 COST W/INFLATION		**$19,051,061**	**$13,858,814**

PHASE 3:

74,120 sf

HARD COSTS:

				HIGH END	LOW END
Offsite Allowance				$400,000	$300,000
Onsite		24.94	10.87	$1,848,553	$805,684
Bldg cost		112.49	93.00	$8,337,759	$6,893,160
Phasing premium				$240,000	$120,000
Future code allowance				$200,000	$100,000
Phase interfacing				$200,000	$100,000
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Design&construction cont.	10%	$1,203,665	$872,367
Fee contingency	$2 /sf	$148,240	$148,240
RFP costs		$80,000	$60,000
SUBTOTAL		$3,839,235	$2,825,341

PHASE 3 HARD & SOFT COST		**$15,875,884**	**$11,549,012**
Inflation to midpoint of const.	32.5%	$5,159,662	$3,753,429
PHASE 3 COST W/INFLATION		**$21,035,546**	**$15,302,440**

SINGLE BUILDING/THREE PHASES SUMMARY:

SUMMARY	HIGH END	LOW END
PHASE 1	$19,592,517	$14,955,007
PHASE 2	$17,786,934	$13,227,285
PHASE 3	$19,639,740	$14,605,127
TOTAL	$57,019,191	$42,787,420

PHASE 1:

84,400 SF

HARD COSTS:

Offsite Allowance			$1,600,000	$1,200,000
Onsite	24.94	10.87	$2,104,936	$917,428
Bldg cost	112.49	93.00	$9,494,156	$7,849,200
First floor extension			$380,000	$380,000
Phasing premium			$120,000	$80,000
SUBTOTAL			$13,699,092	$10,426,628

SOFT COSTS:

State sales tax	8%	$1,095,927	$834,130
Permit&fee allowance	2%	$273,982	$208,533
A/E, mgt fees	10%	$1,369,909	$1,042,663
Design&estimating cont.	10%	$1,369,909	$1,042,663
Fee contingency	$2 /sf	$168,800	$168,800
RFP costs		$80,000	$60,000
SUBTOTAL		$4,358,528	$3,356,788

PHASE 1 HARD & SOFT COST		**$18,057,620**	**$13,783,416**
Inflation to midpoint of const.	8.5%	$1,534,898	$1,171,590
PHASE 1 COST W/INFLATION		**$19,592,517**	**$14,955,007**

1 building/3 phases

PHASE 2:

74,120 sf

HARD COSTS:

			HIGH END	LOW END
Offsite Allowance			$400,000	$300,000
Onsite	24.94	10.87	$1,848,553	$805,684
Bldg cost	112.49	93.00	$8,337,759	$6,893,160
Phasing premium			$240,000	$120,000
Future code allowance			$200,000	$100,000
Phase interfacing			$200,000	$100,000
SUBTOTAL			$11,226,312	$8,318,844

SOFT COSTS:

State sales tax	8%	$898,105	$665,508
Permit&fee allowance	2%	$224,526	$166,377
A/E, mgt fees	10%	$1,122,631	$831,884
Design&construction cont.	10%	$1,122,631	$831,884
Fee contingency	$2 /sf	$148,240	$148,240
RFP costs		$80,000	$60,000
SUBTOTAL		$3,596,133	$2,703,893

PHASE 2 HARD & SOFT COST		**$14,822,445**	**$11,022,738**
Inflation to midpoint of const.	20.0%	$2,964,489	$2,204,548
PHASE 2 COST W/INFLATION		**$17,786,934**	**$13,227,285**

PHASE 3:

74,120 sf

HARD COSTS:			**HIGH END**	**LOW END**
Offsite Allowance			$400,000	$300,000
Onsite	24.94	10.87	$1,848,553	$805,684
Bldg cost	112.49	93.00	$8,337,759	$6,893,160
Phasing premium			$240,000	$120,000
Future code allowance			$200,000	$100,000
Phase interfacing			$200,000	$100,000
SUBTOTAL			$11,226,312	$8,318,844

SOFT COSTS:			
State sales tax	8%	$898,105	$665,508
Permit&fee allowance	2%	$224,526	$166,377
A/E, mgt fees	10%	$1,122,631	$831,884
Design&construction cont.	10%	$1,122,631	$831,884
Fee contingency	$2 /sf	$148,240	$148,240
RFP costs		$80,000	$60,000
SUBTOTAL		$3,596,133	$2,703,893

PHASE 3 HARD & SOFT COST		**$14,822,445**	**$11,022,738**
Inflation to midpoint of const.	32.5%	$4,817,295	$3,582,390
PHASE 3 COST W/INFLATION		**$19,639,740**	**$14,605,127**

SINGLE BUILDING/SINGLE PHASE SUMMARY:

SUMMARY	HIGH END	LOW END
TOTAL	$49,095,317	$37,236,891

261,500
~~232,640~~ SF

HARD COSTS:	HIGH END	LOW END
Offsite Allowance	$2,400,000	$1,800,000
Onsite Work	$5,802,900	$2,528,850
New Building	$26,169,300	$21,636,100
SUBTOTAL	$34,372,200	$25,964,950
Building cost $/sf	112.49 /sf	93.00 /sf
On site cost $/sf	24.94 /sf	10.87 /sf
Off site cost $/sf	10.32 /sf	7.74 /sf
Building, offsite, and site cost $/sf	147.75 /sf	111.61 /sf

SOFT COSTS:			
State sales tax	8%	$2,749,776	$2,077,196
Permit&fee allowance	2%	$687,444	$519,299
A/E, mgt fees	10%	$3,437,220	$2,596,495
Design&estimating cont.	10%	$3,437,220	$2,596,495
Fee contingency	$2 /sf	$465,280	$465,280
RFP costs		$100,000	$100,000
SUBTOTAL		$10,876,940	$8,354,765
Soft cost $/sf		$47 /sf	$36 /sf
HARD AND SOFT COST SUBTOTAL		**$45,249,140**	**$34,319,715**
HARD AND SOFT COST $/SF		**$195 /sf**	**$148 /sf**
Inflation to midpoint of const.	8.5%	$3,846,177	$2,917,176
HARD & SOFT W/INFLATION		**$49,095,317**	**$37,236,891**
HARD & SOFT W/INFLATION $/SF		**$211 /sf**	**$160 /sf**

OTHER POSSIBLE COST CONSIDERATIONS:

LAND COSTS:

This cost is not included in the estimate, and assumed to be provided by the owner.

WETLANDS MITIGATION:

Costs can vary if there are wetlands to contend with, and significantly shrink the size of the useable site. However if is site is feasible to mitigate, rarely will the costs run above $100,000.

ONSITE RETAINING WALLS:

If the site in question is sloping and extensive retaining walls are required, a ripple effect is created in the site costs. No only is there the cost of the walls, but excavation and backfilling premiums, general working inefficiencies, additional site stairs, ramps rails, and possible problems with utility drainage. Overall, the premiums for having to construct several large retaining walls could, in a bad scenario, run into several hundred thousand dollars.

OFFSITE COSTS:

Off site development and mitigation costs can vary greatly. Conceivably, they could be as low as a few thousand dollars to install a new driveway entry off an existing street, to millions of dollars to pay for traffic lights, turning lanes, road widening, sidewalks, curbs and gutters, road extensions, street lighting, utility extensions, upgrades, and/or relocations.

Currently, the estimate includes an allowance for off site development and mitigation costs. Once a site is selected the subject allowance can be converted into an estimate representing tangible work scope.

UNDERGROUND STORM DETENTION:

If it is not feasible for open ponds to hold run-off water, the storm costs will significantly increase. The costs to install underground detention piping or vaults would probably add a $200,000 to $300,000 premium.

INADEQUATE FIRE FLOW:

If a water tank and/or booster pump, along with a well and pump house is required, there could be a $100,000 to $200,000 increase in the site costs. Having an onsite water tank might create some eyesore issues as well.

PARKING GARAGE:

The advantage of building a parking garage is that it takes up less site area, and usually looks more attractive than a large, wide open parking lot. The disadvantage is that it could add approximately $10,000 per car stall that is placed inside the garage.

PILE FOUNDATION:

If a pile foundation were required, there would roughly be a $15/SF premium to the building foundation footprint costs to take into account augar cast piles, grade beams, and a thickened slab with heavy reinforcing. The costs will vary, depending upon the required depth and quantity of the piles, the size and quantity of the grade beams and pile caps, the slab thickness, and quantity of reinforcing steel.

Using a $15/SF premium budget, $800,000 would be added to the building costs.

MAIN ENTRY ATRIUM:

Currently an Atrium or Atria is not figured in either the High End or Low End estimates. Atriums create additional building volumes, along with their structural and finish premiums. The costs can greatly vary depending upon the design, but a $100,000 premium is a fair guess to illustrate the magnitude of the possible additional work scope involved.

PHONE AND INTERNAL NETWORK SYSTEMS:

This estimate includes provisions for all the anticipated wiring and raceways for the phone and network electronic systems, but not the systems themselves.

ONSITE BREAKDOWNS:

GENERAL SITEWORK NOTES:

Because every individual site is different, there is potential for significant cost variances between which location is chosen. This is why there is so much difference between the high end and low costs. Conceivably, there could be cost overruns on the High End in if the selected site is poor enough, but it's much less likely to occur.

Assumed no underground storm detention is required. No large retaining walls are figured either.

When other specific information wasn't provided, this estimate used a new 210,000 SF high school on a 12 acre site that BACS had estimated last month as a reference for projected onsite quantities.

The Onsite breakdown follows the format as laid out in the Level of Quality Outline Specifications. Additional sections have been added at the end of the estimate to cover screen walls, site fixtures and structures. Lastly, onsite portions of the site Electrical are included.

The costs below do not include the contractor's 15% composite mark-ups, which are added onto the Onsite Subtotals. The 15% mark-up consists of the contractor's general requirements costs, overhead & profit, bond & insurance.

001. SITE CLEARING:	HIGH END:	LOW END:
12.4 acres; 540,000 SF x $.10/SF & $.02/SF:	$54,000	$10,800
Add to remove possible onsite paving:	$100,000	$10,200
001 SITE CLEARING TOTAL:	$154,000	$21,000

Assumes no contaminated soils. Portions of existing site may remain undisturbed. Assumes there are no existing significant buildings or structures to be removed.

002. GRADING:		
540,000 SF x 1' avg.; 20,000 CY x $5 & $3/SY:	$100,000	$60,000
Add for possible sloping site: 20,000 CY x $5 & $2/CY:	$100,000	$20,000
Add for possible over excavation: 20,000 CY x $20/CY:	$400,000	N/A
Add for possible working pad due to poor soils and wet weather construction:	$50,000	$20,000
002 GRADING TOTAL:	$650,000	$100,000

Depending upon the existing soils conditions, configuration and flatness of the property, the earthwork costs will greatly vary. Assumes no wetlands mitigation work is required.

003. EROSION CONTROL:

	HIGH END:	LOW END:
Silt fencing and erosion control:	$20,000	$10,000
003 EROSION CONTROL TOTAL:	$20,000	$10,000

Allows for silt fencing, temporary construction entries, straw bales at catch basins, and temporary ponds and swales as required.

004. STORM WATER SYSTEM:

Catch basins, 50 & 30 each x $1,000:	$50,000	$30,000
Main line piping, 7,000 & 4,000 LF x $20/LF:	$140,000	$80,000
Add for possible imported trench backfill, 7,000 LF x $7/LF	$49,000	N/A
Detention ponds, treatment and control structures:	$50,000	$25,000
Storm hook-ups, connections, tie-ins and miscellaneous:	$10,000	$5,000
004, STORM WATER SYSTEM TOTAL:	$299,000	$140,000

Assumes open detention ponds. No underground detention piping or vaults are figured.

005. SEWER:

Manholes, 10 & 5 each x $3,000:	$30,000	$15,000
Mainline piping, 2,000 & 500 LF x $30/LF:	$60,000	$15,000
Add for possible imported trench backfill, 2,000 LF x $8/LF:	$16,000	N/A
Sewer hook-ups, cleanouts and miscellaneous:	$10,000	$5,000
005, SEWER TOTAL:	$116,000	$35,000

Assumes a gravity type system. Assumes a grease trap is not required outside the building kitchen.

006. DOMESTIC WATER:

Water meter, tie-in and miscellaneous fittings:	$10,200	$5,600
Domestic piping, 200 & 100 LF x $14/LF:	$2,800	$1,400
006 DOMESTIC WATER TOTAL:	$13,000	$7,000

Assumes the domestic service will tap off the onsite fire main line.

007. FIRE PROTECTION:

	HIGH END:	LOW END:
Fire hydrants and assemblies, 12 & 8 x $1,500:	$18,000	$12,000
Ductile iron main lines, 5,000 & 3,000 LF x $25/LF:	$125,000	$75,000
Add for possible imported trench backfill, 5,000 LF x $6/LF:	$30,000	N/A
Add for DDC, PIV and FDC:	$16,000	$12,000
Add for main line valves and fittings, 50 & 30 x $500:	$25,000	$15,000
Air relief valves and assemblies, 4 & 2 x $2,000:	$8,000	$4,000
Connections, wet taps, tie-ins and coordination:	$25,000	$5,000
007 FIRE PROTECTION TOTAL:	$247,000	$123,000

Assumes Class 52 ductile iron piping. The double check assembly is assumed to be located in a vault outside the building. Assumes there is adequate fire flow pressure available at the site. No water tanks, wells or booster pumps are figured.

008. PARKING SIGNAGE:

Monument sign:	$10,000	$3,000
Parking lot signage, 50 & 40 x $100:	$5,000	$4,000
Miscellaneous parking lot egress fixtures:	$10,000	$2,000
008 PARKING TOTAL:	$25,000	$9,000

008 only covers cost for parking lot signage. See 009 for paving, 0010 for curbing, and 0016 for fencing and gates.

009, PAVEMENT:

	HIGH END:	LOW END:
Asphalt paving, 2"/4", 400,000 & 300,000 SF x $1.50/SF:	$600,000	$450,000
Add for 3"/6" cut, 400,000 SF x $.75/SF:	$300,000	N/A
Add for possible subbase, 400,000 SF x $.50/SF:	$200,000	N/A
Allow for stripping:	$10,000	$6,000
Concrete paving, 150,000 SF & 120,000 SF x $3/SF:	$450,000	$360,000
Add for concrete driveway entries, 4 & 2 x $2,000:	$8,000	$4,000
Add for special concrete grid patterns and finishes:	$50,000	$20,000
Add for auxiliary pads and miscellaneous:	$10,000	$5,000
009, PAVEMENT TOTAL:	$1,628,000	$845,000

Assumes both light and heavy asphalt pavement cuts. Concrete paving includes both sidewalks and plazas.

0010, CURBING:

Extruded curbing @ parking areas, 8,000 & 6,000 LF x $3/LF:	$24,000	$18,000
Cast-in-place curbing @ high traffic areas, 8,000 & 6,000 LF x $15/LF:	$120,000	$90,000
0110 CURBING TOTAL:	$144,000	$108,000

Assumes a 50% to 50% ratio of extruded and cast-in-place curbing. As can be seen, there is quite a cost difference between the two types.

0011, IRRIGATION:

Meter, backflow preventer and accessories:	$10,000	$6,000
Irrigation in lawn areas, 100,000 & 50,000 SF x $.50/SF:	$50,000	$25,000
Irrigation in planter areas, 100,000 & 50,000 SF x $.90/SF:	$90,000	$45,000
0011 IRRIGATION TOTAL:	$150,000	$76,000

An automatic irrigation system is figured in all seeded, sodded and planted areas. The more native areas there are left to remain, the less there is required to be irrigated.

0012. LANDSCAPE AREAS:	HIGH END:	LOW END:
Prep all landscaping areas, includes 4" topsoil, 200,000 SF & 100,000 SF x $.30/SF:	$60,000	$30,000
Add for 6" topsoil in the planter areas, 100,000 & 50,000 SF x $.10/SF:	$10,000	$5,000
0012 LANDSCAPE AREAS TOTAL:	$70,000	$35,000

Assumes 4" imported topsoil in lawn areas and 6" in planters. Scarifying and cleaning the top 6" of the existing subgrade is also included.

0012. TURF INSTALLATION:		
Seed all lawn areas, 100,000 SF & 50,000 SF x $.10/SF:	$10,000	$5,000
Add for sod in selected areas around the new building, 50,000 SF x .20/SF:	$10,000	N/A
0012 TURF INSTALLATION TOTAL:	$20,000	$5,000

Assumed as much of the lawn areas as feasible will be seeded in order to save costs.

0013. TURF MAINTENANCE:		
Turf maintenance:	$6,000	$4,000
0013, TURF MAINTENANCE TOTAL:	$6,000	$4,000

Assumes a 90 day period of watering, mowing and maintenance.

0014. PLANT MATERIAL:		
Plants in planter areas, 100,000 & 50,000 SF x $2/SF:	$200,000	$100,000
Plants in lawn areas, 100,000 & 50,000 SF x $.25/SF:	$25,000	$12,500
Add for additional plant premiums:	$50,000	$500
0014 PLANT MATERIAL TOTAL:	$275,000	$113,000

Assumes standard planting in the planter areas with possible ground cover in portions, and sparse planting in the lawn areas.

0015, PLANT MATERIAL MAINTENANCE:	HIGH END:	LOW END:
Plant maintenance:	$15,000	$10,000
Add for one year call back warranty period:	$8,000	$6,000
0015, PLANT MATERIAL MAINTENANCE TOTAL:	$23,000	$16,000

Assumes a 90 day general maintenance period and a one year call back warranty period.

0016, ONSITE FENCING:		
Vinyl coated 6' high chainlink site fencing, 3,000 & 1,500 LF x $14/LF:	$42,000	$21,000
Add for fencing around the detention ponds, 1,500 & 1,000 LF x $14/LF:	$21,000	$14,000
Allow for steel entry access gates, 4 & 2 x $6,000:	$24,000	$12,000
0016, ONSITE FENCING TOTAL:	$87,000	$47,000

The amount of required fencing could greatly vary depending upon the site. Assumed no security type fencing or electronic control gates are required. The one exception is at the covered boat storage, which is covered in 0018. Assumed the entry access gates are painted steel fabrications and manual swinging.

0017, SCREEN WALLS:		
Allow for 6' high masonry screen walls on concrete footings, 400 LF & 200 LF x $175/LF:	$70,000	$35,000
Add for caps & accents @ screen walls, 400 LF x $40/LF:	$16,000	N/A
Allow for outdoor planter/bench seat walls, 400 & 100 LF x $100/LF:	$40,000	$10,000
Allow for miscellaneous short retaining and dock walls, 400 & 200 LF x $80/LF:	$32,000	$16,000
0017, SCREEN WALLS TOTAL:	$158,000	$61,000

Obviously, the scope of site walls required will depend on the final design. The screen walls are assumed to be around dumpsters, recycling bins and possible mechanical fixutres.

0018, SITE FIXTURES:	HIGH END:	LOW END:
Allow for outdoor trash receptacles, bike rakes and ash trays, 30 & 20 x $700:	$21,000	$14,000
Add for other miscellaneous site specialties:	$15,000	$5,000
0018 SITE FIXTURES TOTAL:	$36,000	$19,000

As with the site walls, the scope of site fixtures required will depend upon the final design. No elaborate site fixtures such as climbing rocks, sculptures or water fountains are figured.

0019, BOAT STORAGE:		
40' x 100' structure, prefabricated metal building and footings, open walls, 4,000 SF x $20/SF:	$80,000	$80,000
Add for a more elaborate building, 4,000 SF x $10/SF:	$40,000	N/A
8' high 3-strand barbed wire fencing around the boat and car storage yard, 500 LF x $20/LF:	$10,000	$10,000
Add for additional site lighting and security provisions:	$15,000	$5,000
0019 BOAT STORAGE TOTAL:	$145,000	$95,000

0019 provides a covered boat storage and enclosed vehicle yard as described on Page 8 of the APRA 8/16/99 Working Draft Document. Assumed a simple boat storage structure, light security type fencing, and minimal site lighting, power and monitoring provisions. The paving costs for these two areas are assumed to be covered in 009, PAVEMENT.

0020, OUTDOOR STRUCTURES:		
Allow for covered structure outside the Lunch area, 4,000 & 2,000 SF x $30/SF:	$120,000	$60,000
Add for a more elaborate outdoor Lunch area structure:	$60,000	N/A
Add for Lunch area outdoor tables and seating for 250:	$40,000	$20,000
Allow for possible other structures @ loading dock, bus shelter, bike storage and miscellaneous:	$60,000	$30,000
Building generator house:	$100,000	$60,000
0020 OUTDOOR STRUCTURES TOTAL:	$380,000	$170,000

The outdoor covered Lunch area is per the broad description listed on Page 8 on the APRA Draft Document. In addition, allowed for various other miscellaneous structures likely to be called out in the scope of work. As with 0019, all the paving under these structures is assumed to already be covered in 009, PAVEMENT. The one exception to the paving is with the generator house, with is assumed to be an independent building, all and to itself.

091. ONSITE LIGHTING:

	HIGH END:	LOW END:
Allow for parking lot lighting, 50 & 20 x $2,000:	$100,000	$40,000
Allowed for walkway lighting, 50 & 10 x $1,000:	$50,000	$10,000
091 ONSITE LIGHTING TOTAL:	$150,000	$50,000

The onsite lighting costs will vary, depending upon the parking lot, sidewalk and plaza layouts.

092. ONSITE POWER:

Allow for onsite power, phone and cable services:	$150,000	$60,000
Allow for utility company hook-up fees:	$100,000	$50,000
092 ONSITE POWER TOTAL:	$250,000	$110,000

The onsite service and utility hook-up costs will greatly vary depending upon the site, location and jurisdiction. No costs for possible offsite extension lines, services, street or traffic lights are included.

ONSITE COST SUBTOTALS:	$5,046,000	$2,199,000
Add contractor's composite mark-up @ 15%:	$756,900	$329,850
ONSITE HARD COST TOTAL:	**$5,802,900**	**$2,528,850**

NOTE:

The contractor's 15% composite mark-up consists of general requirements, overhead & profit, bond & insurance. Projected inflation allowances are added onto the Cost Breakdown Summary bottom line shown on Page 2.

BUILDING BREAKDOWNS:

GENERAL NOTES:

Perhaps the most significant difference between the High End and Low End costs of the building is that the former is assumed to have an irregular footprint and more architectural features. The Low End stays as close to a rectangular shaped footprint as feasible. Because irregular shapes tend to take on inefficiencies, 6,000 additional SF of building area is figured into the High End estimate in order to facilitate the same sort of programs that the low end building has laid out.

Generally, the High End estimate is more conservative, and occasionally higher quality finishes and/or materials are figured. This is noted in the estimate details wherever the deviations take place. The Low End costs follow the minimum requirements of the BCRA Quality Outline Specifications. In either case, any significant single story building extension beyond the main building footprint will risk cost overruns.

All structures outside the building footprint have been put into the Onsite costs, and are not included in the main total building footprint area.

Estimates of previous projects that Acker Consulting has done that are of similar magnitude and materials were used for much of the unit pricing in this estimate.

As the bottom lines indicate, there is less variance between the High End and Low End building costs than with the High and Low End site costs. This is because the building is more finite and defined. The largest High End and Low End building cost variances take place with the exterior skin and interior specialties.

Most of the interior building areas are assumed to be open spaces, which reduces the quantity of fixed interior partitions, doors, casework and specialties.

The mechanical and electrical systems currently make up slightly more than half the total building costs. On a typical commercial building, they usually take up 35 to 40% of the building costs. If cutting the budget to make ends meet becomes an issue, the specified mechanical and electrical systems should certainly be an area of significance to explore.

01. FOUNDATION SYSTEMS:

	HIGH END:	LOW END:
Foundation footings and stem wall, 160' x 290'; 46,400 SF x $2/SF:	$92,800	$92,800
Add for elevator pits and hole casings, 4 x $10,000:	$40,000	$40,000
Perimeter dampproofing and drains, 900 LF x $12/LF:	$10,800	$10,800
Miscellaneous steps and coordination:	$5,400	$3,400
Add for irregular shaped footprint:	$12,000	$6,000
01 FOUNDATION SYSTEMS TOTAL:	$161,000	$153,000

Assumed a standard spread and box footing foundation with concrete stem walls. Dampproofing and perimeter footing drains are included, along with four elevator pits and hole casings. Assumed there are no basements or foundations that significantly step or change elevation height. A pile foundation is not figured. See Other Possible Cost Considerations on Page 4 for the added premium.

02. SUBSTRUCTURE:

4" slab-on-grade with gravel base, 46,400 SF x $3/SF:	$139,200	$139,200
Add for 2" sand base under slab:	$10,000	N/A
Add for slab recesses and coordination:	$3,800	$2,800
Add for irregular shaped footprint:	$6,000	$3,000
02 SUBSTRUCTURE TOTAL:	$159,000	$145,000

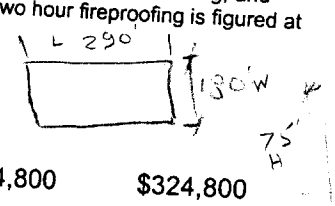
Assumed a standard 4" thick slab with 4" gravel base.

031. FLOOR STRUCTURE:

	HIGH END:	LOW END:
Steel beam, joist and decking structure, 46,400 SF x 4 floors; 185,600 SF x $9/SF:	$1,670,400	$1,670,400
Add for stair and elevator shafts, 3 x $20,000:	$60,000	$60,000
6" avg. concrete topping, 185,600 SF x $2.75/SF:	$510,400	$510,400
Add for coordination and miscellaneous:	$4,000	$2,000
Fireproofing at all steel members and joists, 185,600 x $2/SF:	$371,200	$371,200
Add for irregular shaped footprint:	$80,000	$40,000
031 FLOOR STRUCTURE TOTAL:	$2,696,000	$2,654,000

Assumes standard steel composite floor construction, with W beams, columns and girders, pre-fabricated decking, and concrete topping with wire mesh in it. Assumed the stairs are pre-fabricated stair pans. Two hour fireproofing is figured at all structural steel and joists, but not the decking.

032. ROOF STRUCTURE:



	HIGH END:	LOW END:
Steel beam, joist and decking structure, ~~160' x 290'~~ 180 x 290; 46,400 SF x $7/SF:	$324,800	$324,800
Add for possible penthouses and other fixtures:	$28,200	$14,200
Fireproofing of structural steel, 46,400 SF x $2/SF:	$92,800	$92,800
Add for fireproofing @ decking, 46,400 SF x $1.75/SF:	$81,200	$81,200
Add for irregular shaped footprint:	$20,000	$10,000
032 ROOF STRUCTURE TOTAL:	$547,000	$523,000

$\times$ WA $= \left[\frac{(180+290)2}{\times 75'}\right]$

72,000 SF.

As with the floor structures, assumes a steel beam, joist and decking structure. No concrete topping is figured at the roof decking; two hour fireproofing is.

033. LATERAL SYSTEM:

	HIGH END:	LOW END:
Allow for braced frames, 232,000 SF x $1/SF	$232,000	$232,000
Add for irregular shaped footprint:	$12,000	$6,000
033 LATERAL SYSTEM TOTAL:	$244,000	$238,000

The braced frames are assumed to consist primarily of diagonal TS members welded to the slab, steel floor and roof structures. No fireproofing is figured at the diagonal bracing since it doesn't carry vertical loads.

041. EXTERIOR WALLS:

	HIGH END:	LOW END:
Gage framed, GWB sheathed and insulated exterior surfaces, (290'+160') x 2 x 75' x $5/SF:	$337,500	$337,500
Masonry and pre-cast exterior skin, 67,500 SF x $20/SF & $14/SF:	$1,340,000	$940,000
Add for irregular building footprint and special architectural features:	$300,000	N/A
Add for exterior wall signage and specialties:	$60,500	$30,500
041, EXTERIOR WALLS TOTAL:	$2,038,000	$1,308,000

042. WINDOWS AND EXTERIOR ENTRANCES:

Premium for windows over the exterior skin walls, 67,500 SF x $6/SF:	$405,000	$405,000
Possible curtain wall premiums @ selected areas, 30,000 SF x $10/SF:	$300,000	N/A
Add for exterior entrances:	$120,000	$80,000
042 WINDOWS & EXTERIOR ENTRANCES TOTAL:	$825,000	$485,000

Assumes 50% of the exterior skin will receive some sort of glazing. The Low End assumes individual window units; the High End allows for some curtain walls. Assumes storefront type entries with possible automatic doors at the main entrance and electronic locks.

05. ROOFING:

Single ply roofing and insulation, 46,400 SF x $6.50/SF:	$301,600	$301,600
Add for flashings, roof fixtures and coordination:	$60,400	$40,400
Add for possible penthouses and roof irregularities:	$60,000	$40,000
Add for irregular building footprint:	$20,000	$10,000
05 ROOFING TOTALS:	$442,000	$392,000

Assumes single ply roofing with protection board, R-30 rigid insulation and tapered crickets for drainage. Sheet metal flashings and roof drainage is included. Allowances for specialties such as roof hatches and access ladders are included as well.

061. EQUIPMENT AND SPECIALTIES:

	HIGH END:	LOW END:
Operable walls, 200 LF x 10' x $50/SF:	$100,000	$100,000
Add for operable wall headers and structural supports, 200 LF x $30/LF:	$6,000	$6,000
Motorized compact shelving:	$100,000	$60,000
Casework, at Reception Lobby:		
In core areas, 5 floors x $40,000:	$20,000	$10,000
Allow in the Resource Center:	$200,000	$200,000
Add for possible casework frills:	$60,000	$50,000
Allow in miscellaneous areas:	$40,000	$20,000
Toilet accessory allowance:	$60,000	$40,000
Allowance for food serving equipment:	$20,000	$10,000
Miscellaneous shelving and fixtures:	$60,000	$40,000
Fireproof storage vault:	$100,000	$60,000
Display cases:	$20,000	$10,000
FEC's and interior signage for occupancy:	$20,000	$10,000
Loading dock equipment:	$40,000	$30,000
Miscellaneous specialties not yet specifically addressed.	$20,000	$16,000
Allow for possible interior art work fixtures:	$240,000	$120,000
	$120,000	$20,000
061 EQUIPMENT AND SPECIALTIES TOTAL:	$1,226,000	$802,000

STC operable walls are figured in the Multi-Purpose Room and two Hearing Rooms. No electric hand or hair dryers are figured in the toilet accessory allowance.

With open office spaces in most of the building interiors, casework is assumed to be only at the main Lobby, the core area restrooms, workrooms, coffee rooms and copy area, plus the Resource Center. A small allowance for other miscellaneous casework is also included.

Assumed the Kitchen receives warming and refrigerated type equipment only. No broilers or cooking line is included. The other specialties listed are allowances, including for items not yet addressed, such as stair rails, possible marker boards, toilet partitions, lockers, metal shelving, projection screens, lockable cages and miscellaneous. In addition, a small allowance for art work is included.

All seating in the Multi-Purpose and meeting rooms are assumed to be loose furniture furnished by the owner.

062. INTERIOR SYSTEMS AND FINISHES:

	HIGH END:	LOW END:
Interior partitions, at main entry, 200 LF x $70/LF:	$14,000	$14,000
In core areas, 5 floors x 1,000 LF x $70/LF:	$350,000	$350,000
Add for elevator core shafts, 4 x $3,000:	$12,000	$12,000
Additional partitions in special areas, 1,000 LF x $70/LF:	$70,000	$70,000
Add for special framing fixtures and pick-up:	$200,000	$100,000
Finished GWB @ exterior walls, 900' x 70' x $1.50/SF:	$94,500	$94,500
Ceramic tile wall premiums, 700 LF x 9' x $6/SF:	$37,800	$37,800
FRP premiums; 200 LF x 9' x $2/SF:	$3,600	$3,600
Possible wall covering premiums, 1000 LF x $15/LF:	$15,000	$15,000
Add for special wall finish premiums not addressed:	$200,000	$50,000
Finished ceilings throughout, 46,400 SF x 5 x $2.50/SF:	$580,000	$580,000
Add for special ceiling premiums and features:	$200,000	$60,000
Add for future hood shafts:	$10,000	$10,000
Interior doors and frames, 100 x $1,000:	$100,000	$100,000
Additional doors in special areas, 60 x $1,000:	$60,000	$60,000
Add for transom and wall lites, 60 & 30 x $400:	$24,000	$12,000
Add for special door frills and premiums:	$20,000	$10,000
Overhead loading dock doors, 2 x $2,000:	$4,000	$4,000
Finished flooring throughout the interior spaces; carpet used as a baseline, 232,000 SF x $3/SF:	$696,000	$696,000
Ceramic tile premiums, 3,000 SF x $5/SF:	$15,000	$15,000
Lobby tile and mat premiums, 1,000 SF x $5/SF:	$5,000	$5,000
Computer flooring premium, 1,000 SF x $15/SF:	$15,000	$15,000
Membrane above computer and clean room premiums:	$12,000	$12,000
Seamless flooring in the Café area, 5,400 SF x $3/SF:	$16,200	$16,200
Additional floor premiums not addressed:	$120,900	$40,900
Finish premiums in an irregular shaped building footprint:	$150,000	$60,000
062 INTERIOR SYSTEMS AND FINISHES TOTAL:	$3,025,000	$2,443,000

Assumed the typical interior wall consists of full height GWB with paint, gage framing and sound batts. Finish premiums are included in special areas, which is also meant to cover whatever light wall trim there might be.

Most of the finished ceilings are assumed to be T-bar. The finished ceiling unit pricing is higher than straight T-bar ceilings in order to cover premiums for interior soffits and suspended GWB ceilings in selected areas.

Assumed the typical interior doors are wood on knock-down aluminum frames, some with interior lites. Transom and wall relites are included also. Because most of the interior spaces are assumed to be open office, the quantity of interior doors and framed partitions is figured to be relatively light.

Commercial grade carpet tile was used as a finished flooring baseline, with specific premiums added on. The raised computer flooring is assumed to take up a total of 1,000 SF, with a waterproof membrane above it, and a clean premium included in the room. The main Lobby is assumed to take up 1,000 SF of area. The stair wells are assumed to receive a concrete sealer and embedded nosings, not rubber flooring.

071. ELEVATORS:	HIGH END:	LOW END:
Five stop passenger elevators, 3 x $54,000 & $48,000	$162,000	$144,000
Five stop fright elevator:	$62,000	$56,000
071 ELEVATORS TOTAL:	$224,000	$200,000

Elevators are priced per the BCRA Quality Outline Specifications.

081. PLUMBING SYSTEM:		
Plumbing rough-in, 232,000 SF x $1.25/SF:	$290,000	$290,000
Core plumbing fixtures, 140 x $2,500:	$350,000	$350,000
Hot water heaters, pumps and accessories, 5 x $20,000:	$100,000	$100,000
Allowance for gas piping:	$60,000	$60,000
Kitchen equipment and miscellaneous hook-ups:	$50,000	$20,000
Possible upgrade of fixtures and services:	$60,000	N/A
081 PLUMBING SYSTEM TOTAL:	$910,000	$820,000

With wide open office spaces, the plumbing is assumed to be relatively light. Sinks are figured in at all the coffee break areas, 4 per floor. In addition, one hot water heater system is figured per floor.

082. HVAC SYSTEM:		
HVAC ducting and ventilation, 232,000 SF x $14.25/SF:	$3,306,000	$3,306,000
HVAC boilers and hydronics, 232,000 SF x $3.50/SF:	$812,000	$812,000
DDC control system, 232,000 SF x $2/SF:	$464,000	$464,000
Possible HVAC upgrade premiums @ $1/SF:	$232,000	N/A
082 HVAC SYSTEM:	$4,814,000	$4,582,000

Assumes a high end, low energy, long term maintance VAV system with hydronic heating and cooling. Fresh air and quiet air movement premiums are included.

083. FIRE PROTECTION:

	HIGH END:	LOW END:
Fire protection throughout: 232,000 SF x $2/SF:	$464,000	$464,000
Add for floor stubout and possible exterior overhangs:	$20,000	$8,000
083 FIRE PROTECTION TOTAL:	$484,000	$472,000

Assumes a wet sprinkler system with spaces above finished ceilings being protected as well.

091. LIGHTING:

Allow for general office lighting, 232,000 SF x $5/SF:	$1,160,000	$1,160,000
Allow for specialty lighting:	$400,000	$100,000
091 LIGHTING TOTAL:	$1,560,000	$1,260,000

Lighting is per the BCRA Quality Outline Specification with primarily standard troffer fixtures. Some premium allowances are included for public area specialty fixtures.

092. POWER:

Basic materials, 232,000 SF x $1/SF:	$232,000	$232,000
Devices and raceways, 232,000 SF x 1/SF:	$232,000	$232,000
Power distribution, 232,000 SF x $2/SF:	$464,000	$464,000
Emergency generator system:	$200,000	$150,000
UPS system in the Data Center:	$100,000	$50,000
Power contingency premiums:	$100,000	N/A
092 POWER TOTAL:	$1,328,000	$1,128,000

Power requirements are per the BCRA Quality Outline Specifications. Cable trays are to be installed per the line diagram provided in the BCRA specifications. Costs for the cable tray system are included in 093.

093. SYSTEMS:

	HIGH END:	LOW END:
Cable tray system, 232,000 SF x $.50/SF:	$116,000	$116,000
Access control system, 232,000 SF x $.75/SF:	$174,000	$174,000
Fire alarm system, 232,000 SF x $1.25/SF:	$290,000	$290,000
Closed Circuit TV Rough-In:	$50,600	$10,600
Visual Systems:	$100,000	$50,000
Voice/Data Systems, 232,000 SF x $1.50/SF:	$348,000	$348,000
Sound Masking System, 232,000 SF x $.50/SF:	$116,000	$116,000
Paging System, 232,000 SF x $.10/SF:	$23,200	$23,200
Security System, 232,000 SF x $.35/SF:	$81,200	$81,200
Systems contingency premiums:	$200,000	N/A
093 SYSTEMS TOTAL:	$1,499,000	$1,209,000

Systems costs are per the BCRA Quality Outline Specifications. Per the specifications, the CCTV system is to be roughed-in only for future use. No phone or networks electronic systems are included.

BUILDING COST SUBTOTALS:	$22,182,000	$18,814,000
Add contractor's composite mark-up @ 15%:	$3,327,300	$2,822,100
BUILDING COST SUBTOTAL w/MARK-UPS:	$25,509,300	$21,636,100
BUILDING COST SUBTOTAL, $/SF:	$110/SF	$93.26/SF
Add for irregular shaped footprint premium, 6,000 SF x $110/SF:	$660,000	
BUILDING HARD COST TOTAL:	**$26,169,300**	**$21,636,100**

NOTE:

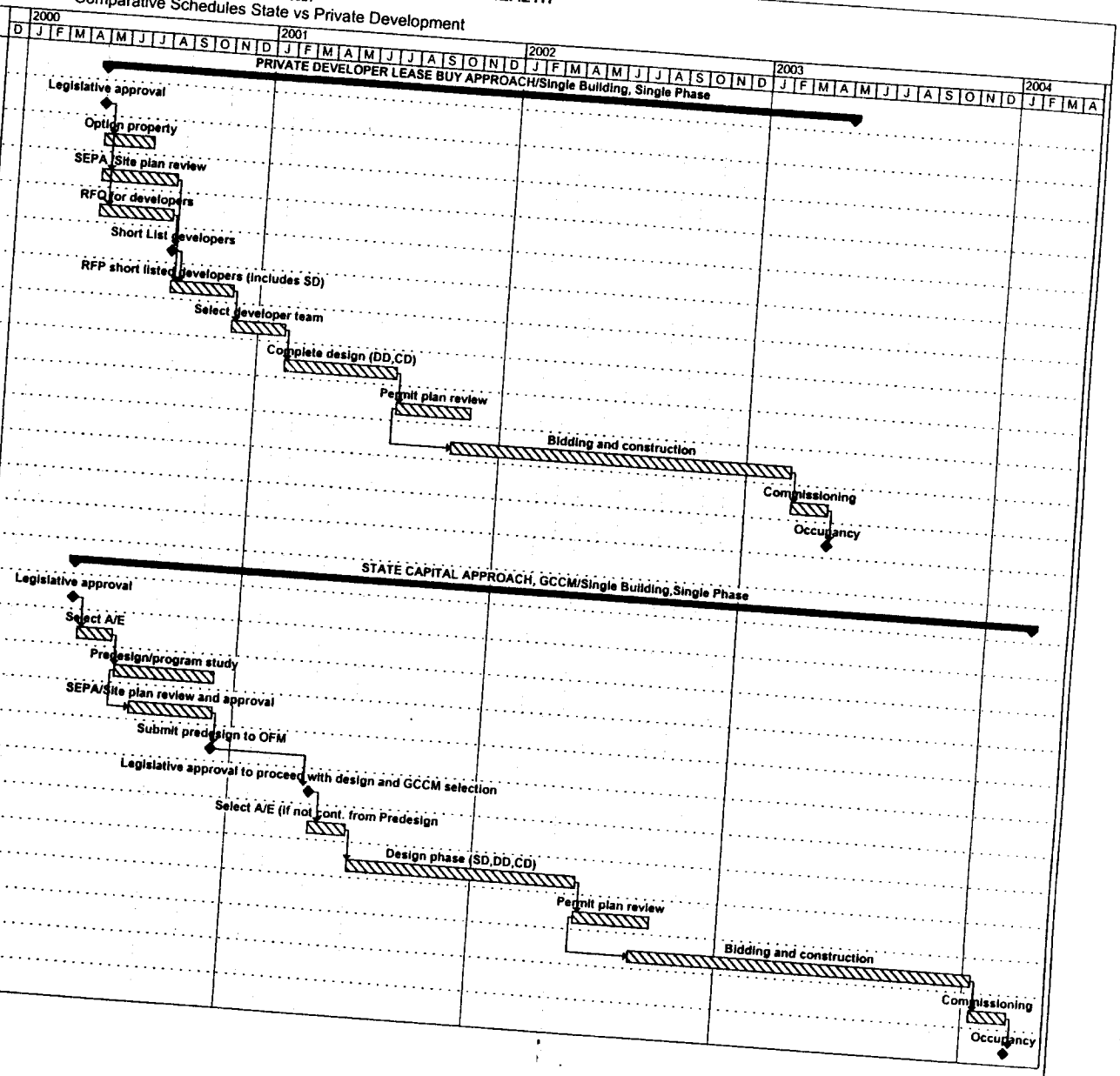
The contractor's 15% composite mark-up consists of general requirements, overhead & profit, bond & insurance. Projected inflation allowances are added onto the Cost Breakdown Summary bottom line shown on Page 2.

FACILITY CONSOLIDATION STUDY FOR THE DEPARTMENT OF HEALTH

#99-100/#08527

Comparative Schedules State vs Private Development

ID	Task Name
1	**PRIVATE DEVELOPER LEASE BUY APPROACH/Single Building, Single Phase**
2	Legislative approval
3	Option property
4	SEPA /Site plan review
5	RFQ for developers
6	Short List developers
7	RFP short listed developers (includes SD)
8	Select developer team
9	Complete design (DD,CD)
10	Permit plan review
11	Bidding and construction
12	Commissioning
13	Occupancy
14	
15	**STATE CAPITAL APPROACH, GCCM/Single Building,Single Phase**
16	Legislative approval
17	Select A/E
18	Predesign/program study
19	SEPA/Site plan review and approval
20	Submit predesign to OFM
21	Legislative approval to proceed with design and GCCM selection
22	Select A/E (if not cont. from Predesign
23	Design phase (SD,DD,CD)
24	Permit plan review
25	Bidding and construction
26	Commissioning
27	Occupancy



Architects Brown Connelly Rowan Abrams

Thu 11/04/99 Comparative report schedule3.mpp

ERIC CEDERSTRAND
Independent Brokerage
Consultant

Leasing Approach and Developer Selection Process

LEASE APPROACH

A long-term lease with a duration of 20 or 25 years with an option to buy is suggested. The length of the lease will depend on the actual cost of the project relative to the maximum allowable lease rate.

The long term single tenant lease results in a low risk investment for the developer which can result in a higher quality building offering greater functional value for DOH than a conventional termed lease of 5 to 10 years duration. Some advantages in having a long-term lease include:

- The cost of State requirements can be amortized over a longer period of time, resulting in lower monthly lease rates.
- The risk of vacancy with a long term lease with a State agency is very low. Therefore the developer can provide a single building as opposed to several smaller buildings. The single building model is Department of Health's consolidation goal. Conversely, several smaller buildings in a short term lease arrangement would be more favorable to the developer. This gives the developer greater flexibility to lease to multiple tenants, with the intent of reducing his exposure to vacancies. The cost efficiencies and savings of one building compared to several buildings can be passed on to the State through lower monthly lease rates.
- The long term lease with a public agency will attract the long term, low rate of return financial backers, such as pension funds and life insurance resources. The lease can be structured to require new carpet and paint at negotiated milestones through the lease duration.
- An attractive long term lease will give qualified developers the incentive to provide quality, functional facilities meeting DOH requirements in a shorter time period than the traditional State capital projects process. Completion of a privately developed project can be accomplished in less time.

A modified lease format should be considered. The intent would be to reduce the management costs and contingencies of the developer as much as possible to reduce the lease rate. This enhances the attractiveness of the long term lease for both the developer and the State. The developer has minimal management costs. The State would take care of direct utility costs, maintenance, and replacement costs. The developer would pay for the taxes. A variation could be a modified net where the State might pay for utilities and janitorial services and the developer might pay for HVAC equipment maintenance and replacement.

DEVELOPER SELECTION PROCESS

The developer selection process should be formatted into a two step process. In order to provide a level playing field for competing developers and to obtain the most cost effective product for the Department of Health through region wide market place competition a key factor would be to secure the site for all competing developers to base their proposals on.

In preparation for the developer selection process several tasks are required to prepare a request for qualifications (RFQ);

- The State would select and exercise an option on land for the project. The option would be transferred to the selected developer for purchase or lease.
- DOH would retain a programming consultant to prepare a detailed functional program.
- DOH would retain a quality review consultant to assist the Agency during selection and the developer's design and construction process.
- DOH would retain a consulting broker to create a cost effective lease format which would be included as an exhibit in the RFQ/RFP process. The consulting broker would represent DOH during negotiations with the developer. The consulting broker should also participate as part of the quality control team.
- Costs for the above consultants could be reimbursed or credited to DOH from the developer as part of the lease agreement.

The developer selection process should consist of a two step process as follows;

1. Issue request for qualifications. (RFQ) The RFQ would include a project description summary including the requirement of purchasing or leasing the land previously selected by the State. Select developers based on qualifications, relevant experience, and financial strength.
   a. Select approximately 3 to 4 candidates. Visit candidate's relevant projects.
   b. Interview the candidates and select two finalists.
2. Issue a request for proposal (RFP) to the two finalists. The RFP will include DOH's functional program requirements and lease conditions. The candidates would be required to provide a design package with lease proposals, energy life cycle cost analysis (ELCCA), purchase options, and time schedules. Costs for paying a stipend to the candidate not selected and fees for the State's quality control consultants and the Agency's broker representative are to be factored into the lease rate. Select developer and transfer the option on the pre-selected property to the developer.

This process allows an open market, competitive selection process with an even playing field for all competing developers. The quality to cost ratio will be maximized. As mentioned above, the foundation for this two step process is securing the land prior to the selection process. Securing the land will provide common ground for all candidates, resulting in a fair and competitive bidding process.

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A. GENERAL

1. A proforma is prepared to identify the economic lease rate for a new office building located in Tumwater or Lacey within the Preferred Development Areas as identified in site location study prepared by Len Zickler of AHBL. Refer to this study for specific information about site selection and configuration.

2. A proforma is completed for each of three building concepts that are described in paragraph B.

3. The proforma includes an analysis of building quality and related construction costs, operating costs, financing costs, and site improvement costs.

4. The Department of Health's targeted lease rate for 1999 is $21.00 per square foot for a fully serviced facility.

5. The building construction costs are based on a low and a high end cost estimate for:
   - An office building of 232,640 square feet for 1,111 persons
   - A Boat Shed of 4,000 square feet

6. The cost of site landscaping and parking improvements are included:
   - for a 12.4 acre site for the single five-story building concepts
   - for a 15 acre site for the three phase and three five-story building concepts

7. For the purposes of this analysis, the area of the Boat Shed is not included in the total gross office area; however, its cost is included in the construction cost estimate.

8. Parking is provided to meet local zoning codes. The parking ratio is one stall per 286 gross square feet of office area.

9. All costs are in 1999 dollars and escalated at 3.37 percent per year from 1999. Inflation is calculated to middle of the estimated construction period.

10. The cost of interior finishes is included in the cost estimate; however, furniture, computer/server equipment, and telephone equipment costs are not included. For specific construction cost data refer to cost estimates prepared by Bill Acker Consulting Services.

B. BUILDING CONCEPTS

1. A proforma is prepared for each of the following concepts:
   - Single five-story building, constructed by the Year 2003.
   - Single five-story building, constructed in three phases - Year 2003, Year 2006, Year 2009
   - A total of three separate five-story buildings, constructed in Year 2003, Year 2006, Year 2009

2. In each concept the first building is assumed to contain all the shared special purpose areas: Auditorium, Lunch Room, Serving Kitchen, Central Stores, Copy Center, Data Center, Library, Shipping/Receiving.

3. For each concept, a profoma is prepared to identify whether the project can meet DOH's targeted lease rate.

C. INITIAL ASSUMPTIONS

The proforma identifies the economic lease rate based on the following initial assumptions:

1. Gross building area is used for all costs as opposed to net leaseable or useable area since the building is assumed to be occupied by a single tenant. In this analysis gross building area includes the exterior walls.

2. Land Cost
   - Land costs for a specific 12.4 or 15 acre site were unavailable in time for the preparation of the proforma. An allowance of $4.00 per square foot of land is used. However, a sensitivity analysis is prepared to evaluate the cost of land on the lease rate.
   - The cost of land is not included in the project cost; however, an annual rent rate of 8% of the land value is assumed.
   - For the phasing concepts, the cost of the entire amount of land is included in the first phase.

3. Expenses
   - Expenses are based on total gross building area.
   - The following operating expenses are based on information provided by Craig Donald at General Administration. The rates are adjusted from 1996$ to 1999$ and from $ per rentable square feet to $ per gross square feet. See Proforma Appendix for comparison of expense rates.
   - Utility Cost allowance is $1.12 per gross square foot. Utilities include electricity, water, gas, and sewer.
   - Custodial Cost allowance is $1.12 per gross square foot.
   - Insurance allowance is $0.22 per gross square foot.
   - Management fee allowance is $0.51 per gross square foot.
   - Services fee allowance is $0.50 per gross square foot. Services include refuse removal ($0.15), window washing ($0.05), landscape maintenance ($0.12) and miscellaneous ($0.16). (Note: this fee deviates from the GA suggested maintenance expense rate of $1.27.)

4. Repair and Replacement Costs allowance is $1.52 per gross square foot. Included are elevator maintenance; HVAC, electric and plumbing repairs; exterior repairs.

5. Real estate taxes are based on a levy rate of 15.28

6. Financial
   - Financing is based on 75 percent of the project value, 20-year amortization period, and a 7.5 percent interest rate. An amortization period of 25 years is used as part of a sensitivity analysis. Also a sensitivity analysis of the interest rate is included.
   - The cap rate is 9% based on a long term lease (20 years) with a prime tenant.
   - The rate of return on equity investment is based on a multiple of 1.5 times the loan amortization rate.
   - Inflation rate is assumed constant at 3.37 percent per year.

D. PROJECTION OF DOH MAXIMUM ANNUAL LEASE RATE

The DOH's targeted lease rate for a fully serviced building is $21 per square feet (1999 dollars). The following table illustrates the targeted lease rate for each year based on an annual increase of 2.5%.

Year	Lease Rate $ per GSF
1999	21.00
2000	21.53
2001	22.06
2002	22.61
2003	23.18
2004	23.76
2005	24.35
2006	24.96
2007	25.59
2008	26.23
2009	26.88

E. SUMMARY OF PROFORMA ANALYSES

The following is a comparison of the data generated from the proforma analyses. An example of the proforma is included in the Appendix.

1. Concept 1 - Single Building/Single Phase

Based on the initial assumptions, the lease rate at year of occupancy (2003) is calculated for the low and the high end cost estimates. Neither the low-end or high-end cost estimates are within the DOH targeted lease rate

Year	GSF	Annual Lease Rate – 20 Year Loan		
		Low-end Cost Estimate	High-end Cost Estimate	DOH Target
		$/GSF/YR	$/GSF/YR	$/GSF/YR
2003	232,640	24.48	30.21	22.61

Year	GSF	Annual Lease Rate – 25 Year Loan		
		Low-end Cost Estimate	High-end Cost Estimate	DOH Target
		$/GSF/YR	$/GSF/YR	$/GSF/YR
2003	232,640	23.48	28.91	22.61

The maximum project cost (total hard costs and soft costs) in 1999 dollars that meet the DOH targeted lease rate are shown below. This applies to land that costs $4.00 per square foot. The total hard costs and soft costs per gross square foot of building area in Bill Acker's cost estimate are $148 for the low-end and $195 for the high-end. In order to meet DOH's targeted lease rate, the total project costs for the low-end estimate need to be reduced by approximately 9% for the 20-year amortization, and 6% for the 25-year amortization.

Year	GSF	Maximum Project Cost	
		20 Year Amortization	25 Year Amortization
		$/GSF	$/GSF
1999	232,640	134	140

For the Single Building Concept, a range of potential land costs for both 20 and 25 year amortization terms is analyzed using the low-end and high-end cost estimates.

In order to meet DOH's targeted lease rate, the tables below indicate using

- the low-end cost estimate
- a 25 year term and land costs under $3.00 per square foot

Low-end Cost Estimate		
Land Cost	Lease Rate at Year 2003	
	20 Year Term	25 Year Term
$/SF	$/GSF/YR	$/GSF/YR
3.00	24.21	23.23
4.00	24.48	23.48
5.00	24.75	23.73
6.00	25.02	24.99
7.00	25.29	24.25
8.00	25.56	24.50

High-end Cost Estimate		
Land Cost	Lease Rate at Year 2003	
	20 Year Term	25 Year Term
$/SF	$/GSF/YR	$/GSF/YR
3.00	29.94	28.66
4.00	30.21	28.91
5.00	30.47	29.16
6.00	30.74	29.41
7.00	31.01	29.67
8.00	31.28	29.93

2. **Concept 2 - Single Building/Three Phases**
The lease rate at year of occupancy for each Phase is calculated for the low-end cost estimate at both 20 and 25 year amortization periods. In Phase 1, the lease rate for 20 and 25 year terms exceeds DOH's target because of the need to control the 15 acre site and pay rent on the land in the first phase. In phases 2 and 3 of the 25 year term, the average lease rates also exceed the DOH targeted annual lease rate.

Low-end Cost Estimate - 20 Year Term			
Phase	Lease Rate by Year		
	2003	2006	2009
1	28.29	30.91	33.78
2		26.01	28.42
3			28.73
Average	28.29	28.46	30.31
DOH Target	22.61	24.35	26.23

Low-end Cost Estimate - 25 Year Term			
Phase	Lease Rate by Year		
	2003	2006	2009
1	27.10	29.61	32.36
2		24.95	27.26
3			27.57
Average	27.10	27.28	29.06
DOH Target	22.61	24.35	26.23

3. **Concept 3 - Three Buildings/Three Phases**
This concept is similar to Concept 2 except the construction costs are slightly more in Phase 2 and 3, and the lease rates increase accordingly.

Low-end Cost Estimate - 20 Year Term			
	Lease Rate by Year		
Phase	2003	2006	2009
1	31.09	34.34	37.93
2		26.96	29.78
3			29.62
Average	31.09	30.65	32.44
DOH Target	22.61	24.35	26.23

Low-end Cost Estimate - 25 Year Term			
	Lease Rate by Year		
Phase	2003	2006	2009
1	27.69	30.26	33.06
2		25.86	28.26
3			28.35
Average	27.69	28.06	29.89
DOH Target	22.61	24.35	26.23

E. SENSITIVITY ANALYSIS FOR INTEREST RATE

For the Single Building/Single Phase concept, the impact of the loan interest rate on the targeted lease rate is analyzed in the following table. For this analysis the assumed rate of 7.5 percent is reduced to 6.5 percent. For the low end cost estimate, this one percent reduction would achieve the targeted lease rate for the range of land costs between $4.00 to $10.00 per square foot. For the high-end cost estimate, the one percent reduction in the assumed interest rate still exceeds the targeted lease rate.

Low-end Cost Estimate		
Land Cost ($/SF)	Lease Rate at Year 2003	
	20 Year Term	25 Year Term
4.00	22.45	21.45
5.00	22.52	21.50
6.00	22.59	21.55
7.00	22.65	21.60
8.00	22.72	21.65
9.00	22.78	21.71
10.00	22.84	21.77

High-end Cost Estimate		
Land Cost ($/SF)	Lease Rate at Year 2003	
	20 Year Term	25 Year Term
4.00	28.54	26.50

F. CONCLUSIONS

1. The five-story single building, single-phase concept with the low-end cost estimate is the only concept that is close to DOH's targeted lease rate.

2. Based on the initial assumptions as stated in paragraph C, the total project costs (hard and soft costs) should range from $134 to $140 per gross square foot of total building area.

3. A 25-year amortization period or longer should be used and the interest should be less than 7.5 percent if land costs should exceed $3.00 per square foot.

4. Off-site costs should be kept to a minimum. Acker's cost estimate assumes approximately five percent of total project costs for off-site mitigation and improvements.

5. The buildings performance standards should be reviewed for potential construction cost savings.

6. The 3.37 percent inflation rate used at the request of the General Administration should be reviewed. The inflation rate for construction has averaged approximately 2.5 percent from 1988 through 1998 for the Olympia/Tacoma area.

APPENDIX

- **PROFORMA EXAMPLES**
- **COMPARISON OF EXPENSE RATES FOR OFFICE BUILDING**

PROFORMA - ONE BUILDING/ONE PHASE - LOW END COST ESTIMATE, 20-YEAR TERM

A. General Project Information

Gross Building Area (GSF)	Net Leasable Area (SF)	Building Footprint (GSF)	Open Space (SF)	Parking Ratio (Stall/GSF)	Parking (SF)	Total Land (SF)	Total Land (Acres)	Inflation Rate Factor for Year 2003
232,645		46,529	168,435	286	325,378	540,342	12.40	1.086

B. Project Cost

Building Cost ($/GSF)	Total Building Cost ($)	Site Improvement Costs ($)	Soft Cost ($)	Total Project Cost Excluding Land ($)	Total Project Cost ($/GSF)	Land Cost ($/SF)	Total Land Cost ($)	Total Project Cost Including Land ($)
101.03	23,505,147	4,702,825	9,076,544	37,284,516	160.26	3.00	1,621,025	38,905,541

C. Expense Analysis

Operating Expenses per GSF ($/GSF)	Repair and Replacement ($/GSF)	Annual Expenses ($)	Real Estate Tax Rate	Taxes ($)	Total Expenses ($)	Total Expenses per GSF ($/GSF)	Ratio of Expenses to Gross Income
3.80	1.65	1,268,772	0.0153	455,787	1,724,559	7.41	0.31

D. Income Analysis

Building Rental Rate ($/GSF/YR)	Gross Leasable Area (GSF)	Annual Income from Building ($)	Annual Income from Parking ($)	Annual Income from Land ($)	Gross Income ($)
23.65	232,645	5,502,054	0	129,682	5,631,736

E. Income and Expense Analysis

Expenses ($)	Net Income ($)	Debt Service ($)	Cash Return ($)
1,724,559	3,907,177	3,193,863	713,314

F. Project Value

Net Income	Cap Rate	Project Value
3,907,177	0.09	43,413,075

G. Mortgage Analysis

Mortgage Ratio	Mortgage Loan	Interest Rate	Mortgage Term (Years)	Annual Payment	Debt Service Constant
0.75	32,559,806	7.50%	20	3,193,863	0.098

H. Return on Investment Analysis

Equity	Cash Return on Equity Ratio
6,345,734	11.24%

I. DOH Consolidation Rent

Annual Rent Fully Serviced ($)	Annual Rent Fully Serviced ($/GSF/YR)	Annual Rent W/O Services ($/GSF/YR)	Annual Rent W/O Services ($)
5,631,736	24.21	18.75	4,362,964

PROFORMA - ONE BUILDING/ONE PHASE - LOW END COST ESTIMATE, 25-YEAR TERM

PROFORMA - SINGLE BUILDING OPTION - LOW END COST ESTIMATE, 25-YEAR LOAN

A. General Project Information

Gross Building Area (GSF)	Net Leasable Area (SF)	Building Footprint (GSF)	Open Space (SF)	Parking Ratio (Stall/GSF)	Parking (SF)	Total Land (SF)	Total Land (Acres)	Inflation Rate Factor for Year 2002
232,645		46,529	168,435	286	325,378	540,342	12.40	1.086

B. Project Cost

Building Cost ($/GSF)	Total Building Cost ($)	Site Improvement Costs ($)	Soft Cost ($)	Total Project Cost Excluding Land ($)	Total Project Cost ($/GSF)	Land Cost ($/SF)	Total Land Cost ($)	Total Project Cost Including Land ($)
101.03	23,505,147	4,702,825	9,076,544	37,284,516	160.26	5.00	2,701,708	39,986,224

C. Expense Analysis

Operating Expenses per GSF ($/GSF)	Repair and Replacement ($/GSF)	Annual Expenses ($)	Real Estate Tax Rate	Taxes ($)	Total Expenses ($)	Total Expenses per GSF ($/GSF)	Ratio of Expenses to Gross Income
3.80	1.65	1,268,772	0.0153	472,300	1,741,072	7.48	0.32

D. Income Analysis

Building Rental Rate ($/GSF/YR)	Gross Leasable Area (GSF)	Annual Income from Building ($)	Annual Income from Parking ($)	Annual Income from Land ($)	Gross Income ($)
22.80	232,645	5,305,237	0	216,137	5,521,373

E. Income and Expense Analysis

Expenses ($)	Net Income ($)	Debt Service ($)	Cash Return ($)
1,741,072	3,780,301	2,826,111	954,190

F. Project Value

Net Income	Cap Rate	Project Value
3,780,301	0.09	42,003,343

G. Mortgage Analysis

Mortgage Ratio	Mortgage Loan	Interest Rate	Mortgage Term (Years)	Annual Payment	Debt Service Constant
0.75	31,502,507	7.50%	25	2,826,111	0.090

H. Return on Investment Analysis

Equity	Cash Return on Equity Ratio
8,483,716	11.25%

I. DOH Consolidation Rent

Annual Rent Fully Serviced ($)	Annual Rent Fully Serviced ($/GSF/YR)	Annual Rent W/O Services ($/GSF/YR)	Annual Rent W/O Services ($)
5,521,373	23.73	18.28	4,252,601

COMPARISON OF EXPENSE RATES FOR OFFICE BUILDING							
	$/Gross Area of Entire Building						
						APRA Assumption	
	BOMA (1999)			GA (1999)		(1999)	
	$/GSF			$/GSF		$/GSF	
	Median	High					
Utilities	0.87	1.50		1.12		1.12	
Janitor	0.83	0.86		1.12		1.12	
Services	0.35	0.50		1.27		0.48	
Management	0.5	0.55		0.51		0.51	
Insurance	0.11	0.15		0.22		0.22	
Repair/Replacement Maintenance	1.72	1.78		1.52		1.52	
Taxes	1.04	1.15		0.00		1.80	
Total:	5.42	6.49		5.76		6.77	
Notes:							
1. Utilities include electricity, water, gas, and sewer.							
2. Services include refuse removal, window washing, landscape maintenance and miscellaneous.							
3. Repair/Replacement include elevator, HVAV, electric, plumbing and building exterior maintenance							
and replacement.							
4. Taxes are based on a levy rate of 15.28 at land value of $4.00 per square foot and low end building cost.							

GLOSSARY

Amortization: The gradual repayment of a mortgage loan by installments that are applied to the liquidation of the loan.

Capitalization Rate or "Cap Rate": A method of establishing the relationship between the value or cost of a property and its net income in order to determine the economic value of a project. A rate of return used to derive the capital value of an income stream.

Cash Flow Analysis: Analysis of net benefits after operating expenses, mortgage loan payments and income tax payments and credit.

Conditional Use Permit: Negotiated permit based upon certain conditions, not a full permit; contingent on certain set of criteria or code.

Cornices: Any molded projection that crowns or finishes the point to which it is affixed.

Ecology: Washington State Department of Ecology.

Developers Project Cost: All the "hard and soft costs" incurred by a private deliver in the preparation of the site and the construction of an office building on that site. The developers project costs are listed in the conceptual cost analysis summaries.

DOH: Washington State Department of Health

DRS: Washington State Department of Retirement Systems

Energy Life Cycle Cost Analysis (ELCCA): A system design evaluation process that analyzes the costs of installation, maintenance, energy use and cost of operations.

Foot-candle: A unit of illumination equal to one lumen per square foot

Footprint: Square footage of coverage on a site.

IAQ: Indoor Air Quality.

L&I: Washington State Department of Labor and Industries.

Level of Service: As used in our report, unit of infrastructure need per unit of demand.

Moldings: A member of construction or decoration so treated as to contour varieties of outline or contour in edges and surfaces similar to cornice.

On-site Mitigation: Physical improvements or enhancements to a site to address impacts associated with the construction of a project.

Off-site Mitigation: Physical or monetary improvements or compensation used to address level of service deficiencies in a communities infrastructure, as a result of a proposed project.

Phasing: Scheduled periods for project construction and product use.

Pile Foundation: A system of piles and pile caps, that transfer the structure load to the bearing stratum into which the piles were driven.

Preferred Development Areas (PDAs): Areas where detailed site planning was performed by the state in 1992.

Proforma Analysis: A projected or hypothetical balance sheet and income statement base don a specific set of assumptions. As used in this report, an analysis to identify land value or project value through the evaluation of capital costs, operating expenses, debt service, net income from the maximum lease rate and projected yield on investment.

RFP: Request for Proposal

RFQ: Request for Qualifications

Schematic Design Phase: The initial design phase that illustrates the scale and relationship of project components.

Screen Walls: A screen of some solidity as differing from one which is pierced, especially in the intercolumniations of a colonnade.

Sensitivity Analysis: An investigation into how projected performance varies along with changes in the key assumptions on which the projections are based.

Single Building/Single Phase: The consolidation of facilities on a single 12.4-acre site within one building, constructed in one phase.

Single Building/Three Phase: The consolidation of facilities on a single 12.4-acre site within one building, constructed in three separate phases.

Sheet metal and air-conditioning contractors national association (SMACNA): A national association that publishes installation and manufacturing standards.

Spread footing: A footing which is especially wide, usually of reinforced concrete.

Status Quo: Existing situation of multiple buildings at multiple sites.

Targeted Lease Rate: As used in this report, the maximum desired annual payment per gross square foot of office space in which the landlord agrees to pay all property operating expenses, repairs, insurance and taxes.

Three Buildings/Three Phases: An option to consolidate facilities on a single 15-acre site within three separate buildings, constructed in three phases.

Topography: Surface features of a region, like change of height in the land.