VI. KITSAP COUNTY

The Kitsap County portion of the study was divided into four transit corridors in order to facilitate the park-and-ride demand forecasting process. Permanent park-and-ride lots were grouped into logical corridors reflecting major network, geographic, and service features.

The resulting study corridors are:

- South Kitsap Corridor
- Central Kitsap Corridor
- SR 305 Corridor
- SR 104 Corridor

George's Corner P&R in Kingston

The Kitsap County study area and its major transportation facilities are presented in Figure 6.1. The four individual corridors are presented along with the corresponding permanent park-and-ride lots in Figures 6.2 through 6.5.

DEMAND ESTIMATES AND FORECASTS

As indicated, the focus of the demand estimation approach was to provide corridor-level demand estimates for the major transit corridors in each county. Lot-specific forecasts developed as part of the described three-part methodology were aggregated to the corridor level; these estimates should not be viewed as site-specific implementation recommendations or forecasts. They are based on optimistic assumptions regarding lot placement, size, and transit service in order to develop a corridor-level "unconstrained" demand estimate. Detailed analyses based on committed transit services, known service area characteristics, competing services, and planned facility locations should be considered as part of site selection and design criteria for actual implementation.

Existing Estimates

Based upon the previously-described methodology, inputs, and assumptions, existing year 2000 estimates were developed for the identified coverage-area lots for each transit corridor. A current need for 1300 additional stalls was identified for the county overall, with approximately 100 identified for the South Kitsap corridor, 1100 for the Central Kitsap corridor, 150 for the SR 305 corridor, and 50 for the SR 104 corridor.

These estimates represent ideal demand conditions, unconstrained by lot placement, facility access, or transit service. All of these conditions strongly influence park-and-ride facility use[1]. These existing year "unconstrained" estimates were the first step of the methodology developed

[1] Ibid.

INSERT FIGURE 6.1 – KITSAP COUNTY STUDY AREA

INSERT FIGURE 6.2 – STUDY AREA FOR THE SOUTH KITSAP CORRIDOR

INSERT FIGURE 6.3 = STUDY AREA FOR THE CENTRAL KITSAP CORRIDOR

INSERT FIGURE 6.4 – SUTYD AREA FOR THE SR 305 CORRIDOR

INSERT FIGURE 6.5 – STUDY AREA FOR THE SR 104 CORRIDOR

for future demand forecasting. The results of this analysis are presented by corridor and lot in Table 6.1.

License plate surveys were performed by Kitsap Transit on seven of their facilities in 2000. The resulting origins of patrons were plotted in a map format and provided to Kitsap Transit under a separate deliverable. These data were not used as a direct part of the analysis, but can nevertheless provide useful information regarding existing patron origins.

Future Forecasts

Year 2010 and 2020 forecasts were developed for the identified coverage-area lots for each transit corridor. These forecasts were based upon the base year demand estimates, and then grown at both the rate of population growth and the rate of ridership growth to provide a range of possible future demand.

2010

A future need of between 1150-1550 stalls in addition to the estimated year 2000 need was identified for the county overall, with approximately 250 for the South Kitsap corridor, between 450-600 for the Central Kitsap corridor, between 250-400 for the SR 305 corridor, and between 250-350 for the SR 104 corridor for the year 2010. Demand analysis results are presented by corridor and lot in Table 6.1.

2020

A future need of between 1300-3050 stalls in addition to the estimated year 2010 need was identified for the county overall, with between approximately 300-700 for the South Kitsap corridor, between 600-1450 for the Central Kitsap corridor, between 350-700 for the SR 305 corridor, and between 100-250 for the SR 104 corridor for the year 2020. Demand analysis results are also presented by corridor and lot in Table 6.1.

RECOMMENDED PROGRAMMING & COST ESTIMATES

George's Corner P&R in Kingston

Central Kitsap shows strong existing and forecasted demand, with few existing facilities relative to other corridors in the County. As a result, programming in the Mid-Range 2007-2015 focuses exclusively on meeting this need. Existing need in South Kitsap and the SR-104 Corridor is fully met within the 6-year program. The SR-305 corridor demonstrates additional need for each planning period.

Much of the demand for park-and-ride facilities on Bainbridge Island is generated from west of Agate Pass. In

Table 6.1

Parking Demand for Kitsap County					
Park & Ride Facility	Lot Capacity	Year 2000 Demand		Future Demand	
		Observed	Estimated	2010	2020
South Kitsap P&R Lots					
Mullenix	90	70	170	270	360 to 500
Olalla Valley Fire Sta.	23	23			
Port Orchard Armory	86	64	170	210	290 to 410
Harper Evangelical	170	200	150	250	360 to 500
TOTAL	**369**	**357**	**490**	**730**	**1010 to 1410**
Central Kitsap P&R Lots					
Bremerton McWilliams	150	108	190	300	420 to 580
Bremertom Westside	100	80	230	320	450 to 620
Bremerton/SR 3	Proxy	N/A	210	290	380 to 530
SR 3/16	Proxy	N/A	240	300	400 to 560
Keyport Junction	40	30	120	170 to 200	230 to 330
SR 3/303	Proxy	N/A	380	460 to 550	560 to 780
TOTAL	**290**	**218**	**1370**	**1840 to 1960**	**2440 to 3400**
SR 305 P&R Lots					
Bainbridge Alliance	57	19	160	230 to 270	330 to 460
Bethany Lutheran	80	52			
Agate Pass	80	80	210	290 to 350	410 to 570
Suquamish	60	62			
Poulsbo Junction	27	24	300	380 to 450	520 to 720
Christ Memorial	137	137			
Church of the Nazarene	100	65			
TOTAL	**541**	**439**	**670**	**900 to 1070**	**1260 to 1750**
SR 104 P&R Lots					
Bayside Community	40	38	190	360 to 430	360 to 500
George's Corner	278	108			
Kingston	73	45			
Port Gamble/Hood Canal	Proxy	N/A	160	220 to 260	300 to 420
TOTAL	**391**	**191**	**350**	**580 to 690**	**660 to 920**
COUNTY TOTAL	**1591**	**1205**	**2880**	**4050 to 4450**	**5370 to 7480**

Notes:

These are corridor-level estimates and forecasts and do not represent site-specific implementation recommendations.

Assumed annual growth rate for I-5 Kitsap County: 1.018 - 1.035

Source: Parsons Brinckerhoff

view of the Island's desire to not have formal park-and-ride facilities constructed on the Island itself, it was assumed that demand generated on the Island itself will be handled in the existed shared church lots on the Island and by local transit routes.

Port Gamble may develop as a planned community, greatly influencing the ideal location for any lot. Projects K14 and K24 represent a range of capacity for the Port Gamble/Kingston corridor that may be implemented together or separately, depending on future development.

Calculated need for new park-and-ride stalls in Kitsap County is presented in Table 6.2. The finalized recommended project programming is presented along with cost estimates in Table 6.3 and Figure 6.6.

Table 6.2

Identified Kitsap County Park-and-Ride Capacity Needs

	Programming Period				
Transit Corridor	Short-Term (Existing 2000 Need)	Mid-Range (2000 Need Unmet by 6-Yr. Program)	Long-Range (Additional 2010 Need)	MTP Horizon (Additional 2020 Need)	Total (2000-2030)
South Kitsap	250	-100	200	600	1,050
Central Kitsap	1,350	1,350	650	1,200	3,200
SR 305	300	300	400	600	1,300
SR 104	100	-100	250	200	
TOTALS	**2,000**	**1,450**	**1,500**	**2,600**	**5,550**

Notes:

Numbers rounded to the nearest 50.

Short-term stall numbers represent estimated year 2000 need.

Mid-Range stall numbers represent the estimated year 2000 need minus existing 6-year programming.

Long-Range and MTP Horizon stall numbers represent forecasted needs in addition to the previous planning period, i.e., in addition to Mid-Range and Long-Range, respectively.

The Total column represents total forecasted need between 2000-2030. It therefore excludes numbers in the Mid-Range column.

Negative numbers represent current programming in excess of forecasted need for that planning period.

Source: Parsons Brinckerhoff

Table 6.3

Kitsap County Proposed Project Program

Map #	Stalls	Corridor	Location	Facility Type	ROW Cost Area	Estimated Construction Cost	Estimated ROW Cost	Estimated Total Cost
Short-Term 2000-2006								
K1	250	South Kitsap	Harper Church-Sedgwick Road	Surface	Average	N/A	N/A	$536,300
K2	100	South Kitsap	Port Orchard Armory-Mile Hill Dr./Karcher	Surface	Average	N/A	N/A	$220,900
K3	220	SR 104	Bayside Church-Barber Cutoff Rd./SR 104	Surface	Average	N/A	N/A	$500,000
Total	**570**			**Short-Term Sub-Totals**		**$0**	**$0**	**$1,257,200**
Mid-Range 2007-2015								
K4	400	Central Kitsap	SR 304 (Bremerton)	Surface	Average	$2,000,000	$1,000,000	$3,000,000
K5	300	Central Kitsap	SR 303 (North of Bremerton)	Surface	Average	$1,500,000	$750,000	$2,250,000
K6	400	Central Kitsap	Silverdale	Surface	Average	$2,000,000	$1,000,000	$3,000,000
K7	250	Central Kitsap	SR 3/SR 16	Surface	Average	$1,250,000	$625,000	$1,875,000
Total	**1,350**					**$6,750,000**	**$3,375,000**	**$10,125,000**
ITS-Freeway Only								$379,000
ITS-With Arterial Messaging								$746,000
					ITS Sub-Total			**$746,000**
			Mid-Range Sub-Totals with Preferred ITS Components			**$6,750,000**	**$3,375,000**	**$10,871,000**
Long-Range 2016-2020								
K9	200	South Kitsap	SR 160 (South of Port Orchard)	Surface	Average	$1,000,000	$500,000	$1,500,000
K11	250	Central Kitsap	SR 3/SR 16	Surface	Average	$1,250,000	$625,000	$1,875,000
K14	250	SR 104	SR 104 (Kingston/Port Gamble)	Surface	Average	$1,250,000	$625,000	$1,875,000
Total	**700**			**Long-Range Sub-Totals**		**$3,500,000**	**$1,750,000**	**$5,250,000**

Table 6.3 (cont.)

Kitsap County Proposed Project Program

Map #	Stalls	Corridor	Location	Facility Type	ROW Cost Area	Estimated Construction Cost	Estimated ROW Cost	Estimated Total Cost
MTP 2030 Horizon								
K13	700	SR 305	SR 305 (Agate Pass-Bainbridge)*	Structure	High	$14,000,000	$8,400,000	$22,400,000
K15	300	Central Kitsap	SR 3/SR 16	Surface	Average	$1,500,000	$750,000	$2,250,000
K16	800	Central Kitsap	SR 304 (Bremerton)**	Structure	High	$16,000,000	$9,600,000	$25,600,000
K17	200	Central Kitsap	SR 3 (Keyport)	Surface	Average	$1,000,000	$500,000	$1,500,000
K18	300	Central Kitsap	SR 3/SR 303	Surface	Average	$1,500,000	$750,000	$2,250,000
K19	200	South Kitsap	SR 16/SR 160/SR 166	Surface	Average	$1,000,000	$500,000	$1,500,000
K20	200	South Kitsap	SR 16 (Burley/County Line)	Surface	Average	$1,000,000	$500,000	$1,500,000
K21	200	South Kitsap	SR 166 (Port Orchard)	Surface	Average	$1,000,000	$500,000	$1,500,000
K23	800	SR 305	SR 305/SR 307/SR 3 (Poulsbo)	Structure	High	$16,000,000	$9,600,000	$25,600,000
K24	200	SR 104	SR 104 (Kingston/Port Gamble)	Surface	Average	$1,000,000	$500,000	$1,500,000
Total	**3,900**			**MTP Horizon Sub-Totals**		**$54,000,000**	**$31,600,000**	**$85,600,000**
				KITSAP COUNTY TOTALS		**$64,250,000**	**$36,725,000**	**$102,978,200**

*300 stalls from Mid-Range 2010-2016 and 400 from Long-Range 2016-2020 moved to MTP 2030 Horizon
**400 stalls moved from Long-Range 2016-2020

NOTES

1. Program plans are organized by county. The lead agency for a project will be determined at the time of implementation.
2. This program plan identifies the general location, time period, and type of park-and-ride facilities needed. Exact size, location, timing, and type of facility to be determined by local agencies and public process at the time of implementation.
3. Forecasts represent unconstrained transit corridor demand.
4. Cost estimates are in year 2000 dollars.
5. All costs are preliminary planning level capital estimates intended to serve as placeholders. They do not include operations or maintenance costs.
6. Funds have been programmed for lots in the short-term category only. No commitment has been made or is implied regarding funding or the ability to fund further projects.
7. Map numbers may not be sequential.

Source: Parsons Brinckerhoff

INSERT FIGURE 6.6 – KITSAP COUNTY PROPOSED PROJECT PROGRAM

METHODOLOGICAL ASSUMPTIONS SPECIFIC TO KITSAP COUNTY

The methodology utilized for the Kitsap County analysis closely followed the methodology outlined in Section III of this report. Adjustments in methodology which pertain only to this county are presented below.

Coverage Areas

An initial step in the demand estimation involves the identification of ideal coverage areas for each corridor. Coverage areas for individual park-and-ride facilities within each transit corridor are shown in Figures 6.7 through 6.10. Proxy lots and combined existing lots shown in these figures were located for analysis purposes, and do not suggest finalized recommendations.

Transit Assumptions

The PRD model requires the input of transit assumptions. In order to estimate "unconstrained" park-and-ride demand, reasonably aggressive existing and future transit service levels were assumed. These assumptions included:

- Worker-driver buses were treated as standard service in terms of scheduled times and headway inputs.
- Implementation of a Kingston-Seattle CBD passenger-only ferry by 2010, accompanied by transit re-routes from Bainbridge to Kingston.
- 10 minute average headways by year 2020 from remote ferry lots.
- 30 minute average headways by year 2020 from outlying lots.

George's Corner P&R in Kingston

INSERT FIGURE 6.7 – COVERAGE AREAS FOR THE SOUTH KITSAP CORRIDOR

INSERT FIGURE 6.8 – COVERAGE AREAS FOR THE CENTRAL KITSAP CORRIDOR

INSERT FIGURE 6.9 – COVERAGE AREAS FOR THE SR 305 CORRIDOR

INSERT FIGURE 6.10 – COVERAGE AREAS FOR THE SR 104 CORRIDOR

Local Methodological Adjustments

A uniform methodology was applied throughout the study in order to assure consistency of findings. The three step approach outlined in the Methodology chapter (Section III) of the report allowed for minor modifications to be made for each county.

Because the PRD model was primarily developed in King County, adjustments were required to validate the model for use in Kitsap, Pierce, and Snohomish counties. These adjustments were made on a trial-and-error basis using existing observed demand to obtain reasonable results. The following methodological adjustments were made for the Kitsap County analysis:

- Kitsap County differs from the other three counties in that the ferry terminals serve as major destinations. Ferry terminal parking per se was not analyzed as part of this analysis. All routes headed toward ferry terminals were treated as transit routes to their ultimate destinations.
- Since travel times for automobiles, walk-ons, and transit are equal once on the ferries, ferry transit times were not included in the inputs for total transit travel time to the Seattle CBD.
- Ferry walk-on fares were considered part of the total transit cost.
- Puget Sound Naval Shipyard (PSNS) was substituted for the University of Washington, and Edmonds for Everett Boeing, as major destinations in the PRD model.
- Inputs to the model for the Silverdale location were specifically requested by Kitsap Transit, including freeway proximity, midday service, and a 30-minute travel time to Bremerton and the PSNS with two am peak period trips to each location.
- Consistent growth rates were applied throughout Kitsap County: 1.035 for the transit-based analysis, and 1.018 for the population-based analysis. These growth rates were derived from the PSRC model.

It should be noted that due to the dependence upon ferry service, any changes to WSF schedules will have an effect on park-and-ride demand in this county. This will need to be addressed in detail at the time of implementation.