

# Appendix F

## Current Reporting Requirements

## Use of Ridership and Schedule Performance Data by Service Development

There are currently two data sources that provide either ridership or schedule performance data to Service Development staff. The Automatic Passenger Counter (APC) system collects both ridership and schedule performance data, while the Automated Vehicle Location (AVL) system collects schedule performance data only.

Currently, there are three work groups within Service Development that routinely use APC and/or AVL data: Scheduling, Service Planning, and Transit Route Facilities. The Scheduling Group, which is primarily interested in examining schedule performance, uses APC data in conjunction with AVL data to determine whether to add or remove time from a trip's schedule. However, Scheduling does use APC ridership data to assign the appropriate coach type (i.e., a standard versus an articulated) to a given trip. Service Planning, on the other hand, primarily uses APC ridership data, and seldom uses either APC or AVL to measure on-time performance. The third group, Transit Route Facilities, is usually interested in a single facet of APC data: ons and offs at bus stops.

### Current Methods of Accessing Data

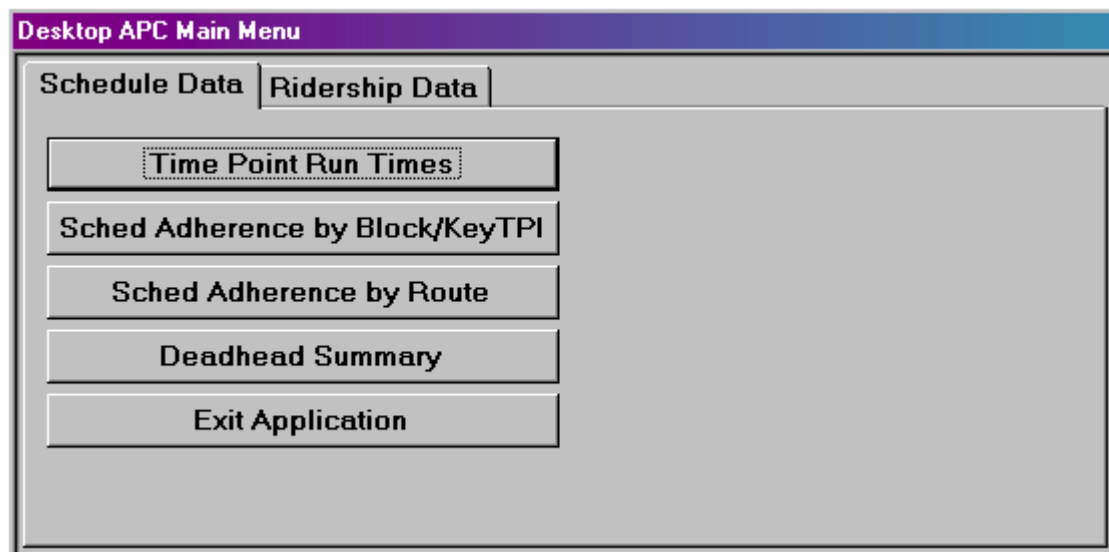
Service Development Staff use a number of different methods and applications to obtain ridership and on-time performance data. These include:

- The Desktop APC application, developed in Microsoft Access, that provides aggregate ridership and on-time performance data captured by the APC system;
- ADAP (AVL Data Access Project), a Microsoft Access application that uses AVL data;
- PC Focus for Windows is used by several people to obtain aggregate and disaggregate ridership and on-time performance data from the APC system;
- TRAM (Transit Resource Analysis Model) is used by several people to run ad hoc reports on APC data;
- Zones/Paradox is used primarily by staff in Transit Route Facilities to access aggregate bus stop-level ridership data collected by the APC system; and
- The ATP module in the HASTUS transit scheduling software is used by schedulers to access travel-time data collected by the AVL system.

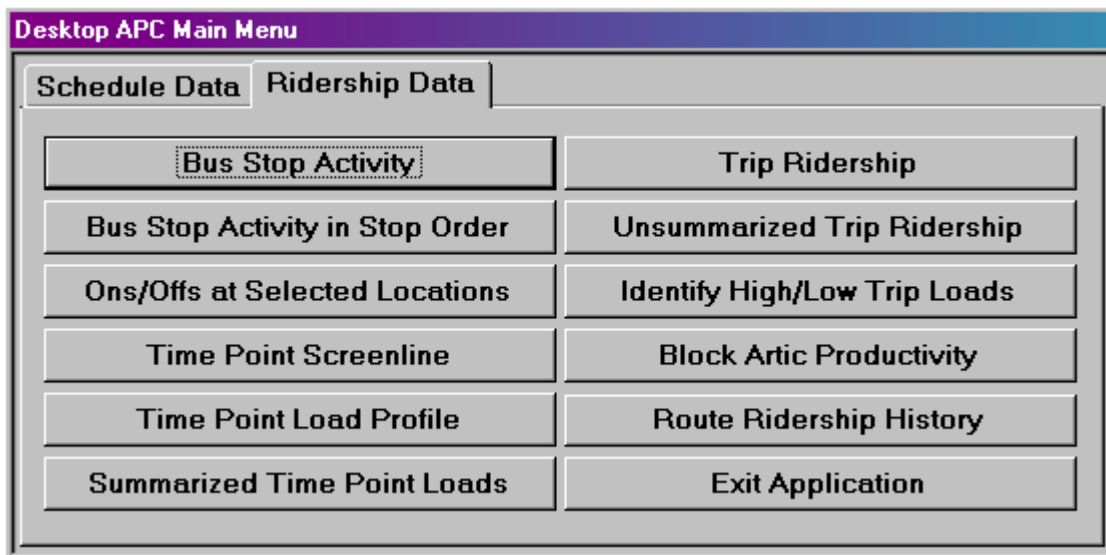
### *The Desktop APC Access Application*

The most common method of obtaining ridership data is the Desktop APC Application. All the reports in this application are based on four fixed-width text files. Three of the files contain aggregate data (i.e., multiple APC observations of the same unique trip or TPI are summarized as a single row of data). The three aggregate files contain trip-level, TPI-level, and zone (bus stop) level data, respectively. The fourth file contains disaggregate trip-level data. The APC group produces these files and sends them to Service Development, where minor changes are made to the files prior to adding them to the desktop APC application. Appendix A contains the file descriptions of the four files that are used in the desktop APC application.

The desktop APC application contains two modules (shown below): one contains Schedule (on-time performance) data, the other has ridership data.



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Each of the buttons in both modules allows users to run queries based on criteria that the user selects. The results are displayed on the screen and can be either exported to Excel for further analysis, or printed as a report. Appendix B includes a sample of each report in the Desktop APC application. Because staff can somewhat customize their reports, the reports in Appendix B do not represent every version of each report, but instead a representative sample.

### **ADAP (AVL Data Access Program)**

ADAP is an application that provides desktop access to archived AVL data. The archive contains data from Summer 2000 to yesterday. A national case study written in 2002 by Peter Furth of Northeastern University summarized it as follows:

"The report request interface is written in Microsoft Access; it passes parameters to the Informix database, which processes the queries and returns results in the form of Excel tables and graphs. It offers two reports, for which the user selects the range of dates and hours:

- *Timepoint Arrival.* For a selected timepoint, it creates a table showing deviation from scheduled arrival time for every trip passing the timepoint, with columns repeating for each selected day. If multiple routes use the timepoint, results can be sorted by time within route, or simply by time to get a picture of multi-route activity at the timepoint. The only summary statistic is average deviation for each scheduled trip. The table is exported into Excel to allow further analysis.
- *Block Summary.* For a selected block, it creates a table of schedule deviations at each timepoint in the block. There is a column for each selected day, plus columns identifying the timepoints and their scheduled time. The only summary statistic given is average deviation for each timepoint. The table is exported into Excel to allow further analysis.

These reports are used by scheduler planners, service quality supervisors, operations base chiefs, the customer assistance staff, and by departments that investigate incidents. The wide acceptance and usage of AVL data speaks to the success of Metro's efforts related to historic AVL data.

The application also includes a running time analysis which has fallen out of use since the ATP software (described later) has become available for this function. The application also includes little-used reports on radio system performance."

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The user interface is shown below:

The screenshot shows a software window titled "King County Automatic Vehicle Location Reporting System". Inside the window, there are several input fields and buttons. At the top, there is a date field set to "06/05/2000", a day field set to "Monday", and a time field set to "6:00". Below these, there is a section for selecting a time period: a plus sign, a field with "1", a group of radio buttons with "Day", "Week" (selected), and "Month", followed by "AND", a field with "12", and "Hours". Below this is an equals sign, a date field set to "06/12/2000", and a time field set to "18:00". In the center, there are two tabs: "Schedule Adherence" (selected) and "Operations Maintenance". Below the tabs, a text line states "Actual Timepoint Data is available from 5/31/2000 to 12/30/2002". Below this, there are four sub-tabs: "Block Summary" (selected), "Time Point Arrival", "Time Point Interval", and "Block Events". Below the sub-tabs, there are three input fields: "BlockRte:" with a field containing "5", "BlockRun:" with a field containing "1", and a checkbox labeled "ServiceRoute:" followed by a dropdown menu showing "41". At the bottom of the window, there are two buttons: "EXPORT to Excel" and "EXIT".

The case study doesn't mention the little used Block Events report. It is very similar to Block Summary, but reports time point hits sequentially down rather than across the page for successive dates. Report samples are included in Appendix C.

### **PC Focus for Windows**

PC Focus for Windows enables the user to customize any report from APC data in any way desired. The aggregate APC files for trips, TPIs, and zones are available as well as the disaggregate APC files for TPIs and zones. These files extend back to 1990, making historical comparisons possible for any specific analysis.

For example, the disaggregate zones file allows us to examine on/off activity, dwell times, etc. for specific trips, zones and dates.

On-time performance, volumes, capacity, and overload reports can be tailored to specific corridors, bases, coachtypes, or any other attributes that the user chooses to define. Layover analysis is useful in Scheduling's maintenance proposals process.

The various APC files are also used to provide certain inventories, such as the CBD coach volumes or the quantity of APC data in a given signup. Specific attention can be given to routes, blocks, bases, coachtypes, etc. that are having APC data capture problems. Appendix D contains the files specifications for the five types of files used within PC Focus for Windows.

### **TRAM**

TRAM is a Paradox database designed for ad hoc queries to support the service planning process. The database uses two tables produced by the APC system: the Trip and Zone tables. TRAM also contains tables maintained only in TRAM that add value to the APC data when linked to it. Most essential among these are the Route Categorization tables, which maintain 30 attributes for each route in the system as they change over time. Also unique to TRAM are cost and revenue allocation tables that support fare recovery calculations at the route and subarea level. Most TRAM archives date back to 1989. A few are from earlier years, while greater detail is available for later years, especially since 1994.

TRAM provides data for other Paradox systems, such as SAM and ZONES. SAM, or Subarea Allocation Model, is a Paradox database used to document "sample networks" for the Six Year Plan. The Six Year Plan constitutes Metro's transit development and financial program in compliance with state law. The plan sets forth

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objectives and strategies, and establishes the policy basis for the annual operating budget. Sample networks are technical exercises done to explore various proposed strategies in more detail. SAM contains summary descriptions of alternative future systems, including such fields as route, hours, coaches by type, trips, base assignments, and subarea assignment. TRAM data provides a quantitative and categorical description of the existing system as a starting point for describing the future.

The TRAM database administrator provides added value to the APC Trip Table by filling in ridership data that would otherwise be missing from APC. This includes non-APC modes such as Streetcar and DART. It also includes trips that are missed for a whole service change period due to data collection problems. With existing systems this has tended to occur at the time of fleet replacement, such as the current transit van and standard trolley fleets. Sources to replace missing data include driver counts, previous service change periods, and average productivity of adjacent trips. Sources are documented in the data.

TRAM also supplies inter-agency data transmission for planning purposes. The largest files are sent to Sound Transit as an Access database on CD ROM. Other inter-agency data transmission files are typically extracts from or summaries of the APC Zones file. These are commonly for individual jurisdictions selected from the Jurisdiction field in ZONES or sets of stops selected or classified through an ArcView query.

### **Zones/Paradox**

Since 1992, Metro's ZONES system for maintaining Bus Stop attributes has included APC ridership fields. These are summarized to show average weekday ons and offs by stop, regardless of route and time period. The primary users of the ZONES system are Transit Route Facilities (TRF) planners. If they need greater detail, they can use the APC Desktop Access system.

The ZONES system presents the user with data from three service changes. The choice of service change is up to the system administrator, who loads the data. The usual approach is to select successive Spring and Fall service changes. Exceptions are made when the APC sample is seriously flawed, e.g. when implementing a new fleet type or software upgrade. No attempt is made to provide data from alternate sources at the bus stop level when the APC sample is flawed. Separate fields identify the service change, e.g. SP02, when the data was collected. The system also carries summary fields that show the average ons and average ons plus offs for all three service changes. Ons are used to prioritize shelter location. Ons plus offs are used to prioritize accessibility improvements.

The ZONES system contains records for stops that have been de-activated. In that case, the APC fields show data from the most recent three service changes for which it was available.

One of the user interfaces is shown below:

## Use of Ridership and Schedule Performance Data by Service Development

**View Zones R Us Data**

**Currently Active Zones**

ZONE# : 10      Side On : W      Dir : S      Zones Downloaded : 12/24/2002  
 TransPoint# : 122      On Street : 1 AV  
 Jurisdiction : SEA      120 Feet FS of Intersection with:  
 Authorization : SEA      Cross Street : BELL ST      Start of use : 1/1/1960  
 District : CB      Zone Length : 100      Deactivated :  
 Ride Free Area : Y      Paint Length : 100      Site Type : REG  
 Post Type : 2M      Acc : Y      Access : Yes  
 Anchor : 7  
 Mount : AS  
 Shelters :  
 SchdHldr : M  
 Info Sign :

Print This      Close

ComType	ComSeq	CommentA	CommentB
SONC	1	RFA 15.15E.18.18E.21.22.56.57.81N	

RtSeqDownloaded: 12/24/2002

Rte	Dir	Type	Part	Var	SeqNo	Flag
15	I				440	
15	I			A	380	

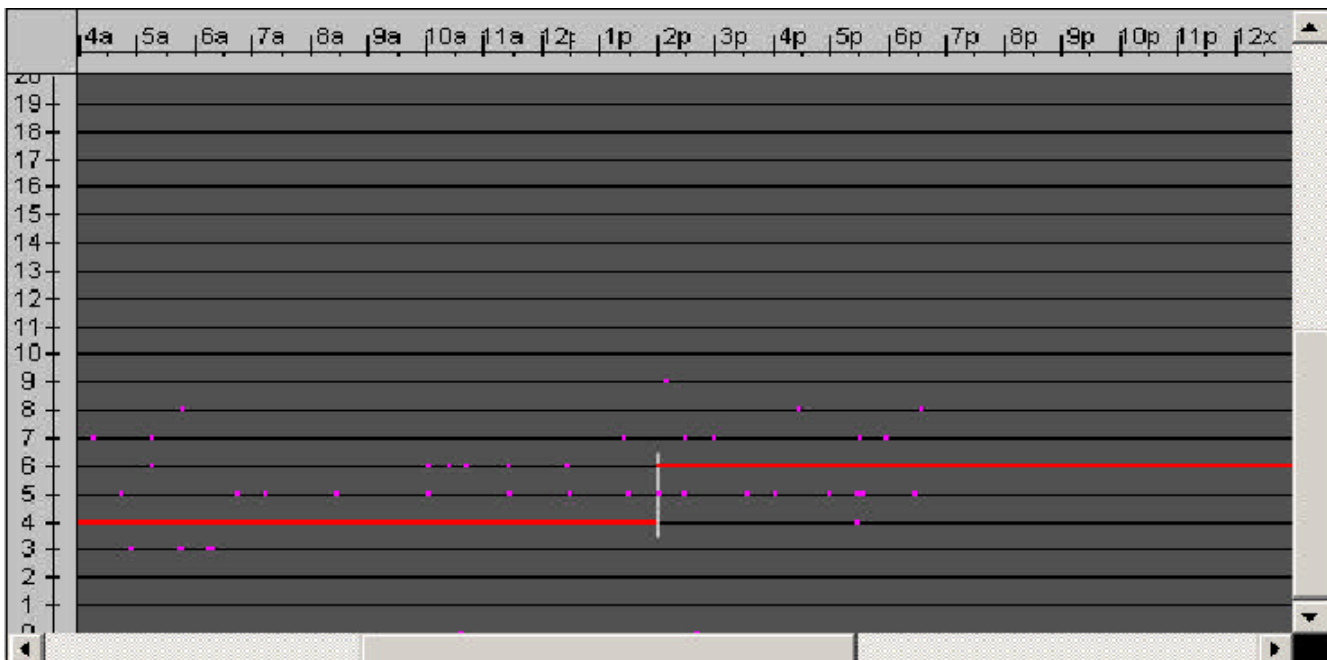
**Weekday APC Activity Observed (not factored up for scheduled trips)**

Signup :	SP02	FA01	SP01	Average
Ons :	268	224	232	241
Offs :	141	129	159	143
On+Off :				384

### HASTUS ATP Module

ATP is a module within HASTUS, Metro's transit scheduling application, that allows schedulers to use observed travel time data as a basis for scheduling travel time along transit routes. The scheduling group regularly imports AVL data into HASTUS. The AVL data is imported in the form of a flat, delineated file; the specifications for this file are given in Appendix E. After the data is imported into HASTUS, schedulers can graphically display the travel-time data. HASTUS can also use the data to recommend scheduled running times that more closely match observed running times.

Below is a screen-shot of data captured by the Smart Bus Demonstration Project and imported into HASTUS. The purple dots represent observed travel times for trips scheduled from timepoint 710 to timepoint 779. The red lines are HASTUS' recommended travel times for trips going from 710 to 779; HASTUS recommended four minutes be scheduled until 2:00 pm, and six minutes be scheduled after that.



## **Use of Ridership and Schedule Performance Data by Service Development**

### **Future Data Systems**

It should be noted that Service Development does not expect the On Board System Project to replace the functionality of the data systems it currently uses to access schedule and ridership data. Instead, we would prefer to have access to data that we could either use within our current applications or could use within future data systems. This gives us the flexibility to take advantage of new technology to develop new tools, or to design additional reports as they become necessary.

## Appendix A: APC File Descriptions Used by Service Development Applications

### Column Names in Aggregate Trip Table

Field Name	Type	Size	Description	TRAM	Access	PC Focus
Signrt	I		route number	Y	Y	RTENACCT
Part	A	1	A segment of a route that travels through a major center, such as Sea CBD, Bellevue CBD, or the U Dist. E.g, the route 7 has two parts; north and south of the Seattle CBD	Y	Y	PARTACCT
Ex	A	2	This indicates express or other route variation; indicates that begin with "E" are express; others are variations of route.	Y	Y	EXPACCT
I,o	A	1	"I" = inbound, "O" = outbound with reference to major attraction area on the route, e.g. Seattle CBD, UW, or Bellevue CBD	Y	InOut	DUMYACCT
DayCode	I		Day of week: 0 = M-F or SCL, 1 = SAT, 2 = SUN	Y	Y	DAY1
StartMin	I		The time the bus is scheduled to leave the first TP, in minutes past midnight.	Y	Y	TIMSCH1
KeyTrip	I		unique key for revenue and deadhead trips	Y	Y	Y
Day	A	3	M-F=Weekday, SAT=Saturday, SUN=Sunday/Holiday, SCL=School Days Only	Y	N	N
Time \$			AM\$=inbound ending 6-9, outbound starting 6-8:30; MID=between AM\$ and PM\$; PM\$=inbound ending 3:30-6, outbound starting 3-6; EVE=before 11PM; XNT=after 11PM; AAM=before AM\$ or before 6AM on weekends; DAY=6AM-6PM on	Y	N	N
KeyBlock	I		unique key for the block; route/run preceded by 1 if Saturday and 2 if Sunday	Y	Y	Y
EndMin	I		The time the bus is scheduled to arrive at the last TP, in minutes past midnight.	Y	Y	TIMSCH2
Dir	A	1	General direction of travel of the trip	Y	Y	Y
Sur	A	1	Peak Fare Surcharge or not; TRAM and PC Focus use "\$" if the trip has a peak surcharge, null if the trip does not have the surcharge; Access uses "P" and "O" to	Y	Y	SURCACCT
BusType	A	2	First two characters of the coach number; leading zeros truncated	Y	Y	COACHTYPE
Seats	I		Number of seats per bus	Y	Y	NUMSEATS
BaseTP	I		Code for operating base	Y	Y	BASETMPT
PlatMile	N		Platform Miles; deadhead miles allocated to subsequent trip, or preceding if last trip	Y	TripMile	TRIPMILE
RevMile	N		Revenue Miles	Y	Y	Y
StartTimeA	A	8	A text version of TimeDep. An "X" in the time indicates an am time that is actually part of the previous day's schedule.	Y	Y	TIME1
EndTimeA	A	8	A text version of TimeArr. An "X" in the time indicates an am time that is actually part of the previous day's schedule.	Y	Y	TIME2
StartTP#	I		Unique ID of the first time point; TRAM includes CBD, Access excludes	Y	Y	EPSTART
StartTPName	A	8	The name/location of the first TP.	Y	Y	TPSNAME
EndTP#	I		Unique ID of the last time point; TRAM includes CBD, Access excludes	Y	Y	TPEND
EndTPName	A	8	The name/location of the last TP.	Y	Y	TPENAME
Signup	N		Numeric code for service change	Y	N	N



## Appendix A: APC File Descriptions Used by Service Development Applications

### Column Names in Aggregate Trip Table

Field Name	Type	Size	Description	TRAM	Access	PC Focus
KeyType	A	4	ALT=Alternate terminal; Blank=Local, CUST=Custom Bus, DART=Dial-A-Ride, EX=Express; SH=Shuttle, short of inbound terminal; TB=Turnback, short of	Y	N	N
PlatHrs	N		Platform Hours; deadhead and layover hours allocated to subsequent trip, or preceding if last trip	Y	Y	N
RevHrs	N		Revenue Hours	Y	Y	N
AnnPlatMile	N		Annualized Platform Miles	Y	Y	N
AnnPlatHrs	N		Annualized Platform Hours	Y	Y	N
AnnRevHrs	N		Annualized Revenue Hours	Y	Y	N
Mode	A	7	DIESEL,DUAL,SMBUS,SUBCONT,TRANVAN,TROLLEY,WFSC	Y	N	N
Pattern	I		Unique ID for sequence of time points; DACS ID in DDB	Y	Y	N
TripNo	I		Unique key for revenue trips also applied to associated deadhead trips	Y	N	N
Obs	I		The number of times this trip was observed by the APC system.	Y	Y	COUNT
Rides	N		Inbound ons + outbound offs excluding the Ride Free Area	Y	Y	N
LoadAvg	N		Average of observed loads at the peak load point on the trip	Y	Y	AVEMLOAD
LoadMax	N		Highest observed load at the peak load point on the trip	Y	Y	MAXMLOAD
PassengerMiles	N		Average passenger load times miles traveled	Y	N	PSGRMILES
AnnRides	N		Annualized rides	Y	Y	N
AnnPassMiles	N		Annualized passenger miles	Y	N	N
Src	A	3	APC=Automated Passenger Counter; CRD=Driver Card Count; EST=Estimated; OLD=previous service change period	Y	Y	N
PrevRef	I		Corresponding keytrip number in a previous signup	Y	N	N
SamTime	A	7	Time periods used in Six Year Plan update;	Y	N	N
Headway	N		Average minutes from previous and subsequent trips, if any, on route/part/keytype	Y	N	N
TripMin			Platform Minutes; deadhead and layover hours allocated to subsequent trip, or preceding if last trip	N	Y	Y
RevMin			Revenue Minutes	N	Y	Y
OnsAvg			Average APC Ons	N	Y	AVEPON
OnsMax			Highest observed APC Ons	N	Y	MAXPON
OnsMin			Lowest observed APC Ons	N	Y	MINPON
OffAvg			Average APC Offs	N	Y	AVEPOFF
OffMax			Highest observed APC Offs	N	Y	MAXPOFF
OffMin			Lowest observed APC Offs	N	Y	MINPOFF
LoadMin			Lowest observed load at the peak load point on the trip	N	Y	MINMLOAD
StopsAvg			Average number of stops on the trip	N	Y	AVESTOPS
PsgrHours			Average passenger hours traveled	N	Y	PSGRHOURS
LdFact			Average load divided by seats	N	Y	N

## Appendix A: APC File Descriptions Used by Service Development Applications

### Column Names in Disaggregate Trip Table (Currently used by Desktop APC Access only)

Field Name	Type	Size	Description
<b>TPEnd</b>	I		Unique ID of the last first point of the trip (excludes CBD TP's)
<b>TPStart</b>	I		Unique ID of the last time point of the trip (excludes CBD TP's)
<b>Route</b>	I		route number
<b>Part</b>	A	1	A segment of a route that travels through a major center, such as Sea CBD, Bellevue CBD, or the U Dist. E.g, the route 7 has two parts; north and south of the Seattle CBD
<b>Express</b>	A	2	This indicates express or other route variation; indicates that begin with "E" are express; others are variations of route.
<b>InOut</b>	A	1	"I" = inbound, "O" = outbound with reference to major attraction area on the route, e.g. Seattle CBD, UW, or Bellevue CBD
<b>KeyTrip</b>	I		unique key for trip
<b>DateData</b>	Date		Date data was collected
<b>TimSch1</b>			The time the bus is scheduled to leave the first TP, in minutes past midnight.
<b>TimSch2</b>			The time the bus is scheduled to leave the last TP, in minutes past midnight.
<b>KeyTPI1</b>			First TPI of the trip (excludes CBD)
<b>KeyTPI2</b>			Last TPI of the trip (excludes CBD)
<b>POn</b>	I		Passengers boarding on trip
<b>POff</b>	I		Passengers de-boarding on trip
<b>PsngrMiles</b>	N		Passenger load multiplied by miles traveled
<b>MaxLoad</b>	I		Maximum passenger load on trip (excluding the Seattle CBD)
<b>NumStops</b>	I		Number of times the bus was observed to stop
<b>KeyCoach</b>	I		Coach number of vehicle on which data was collected
<b>KeyBlock</b>	I		unique key for the block
<b>KeyPattern</b>	I		unique key for time point pattern on which trip is operated
<b>DateMatch</b>	Date		Date data was matched to the schedule by the APC system
<b>Time1</b>	A	8	A text version of TimSch1 An "X" in the time indicates an am time that is actually part of the previous day's schedule.
<b>Time2</b>	A	8	A text version of TimSch2 An "X" in the time indicates an am time that is actually part of the previous day's schedule.
<b>Day</b>	I		Day of week: 0 = M-F & SCL, 1 = SAT, 2 = SUN & Holiday
<b>Day</b>	A	2	Day of week: "MF", "SA", or "SU"
<b>DiffTime</b>	N		Difference between scheduled running time and measured running time; negative values indicate trip took more time than was scheduled.
<b>Holiday</b>	A	25	When applicable, text indicating name of holiday or other day that may have atypical ridership (e.g., "Labor Day" or "Day after Thanksgiving").

**Appendix A: APC File Descriptions Used by Service Development Applications**  
**Column Names in Aggregate TPI Table**

Field Name	Type	Size	Description	Access	PC Focus
Route	I		route number	Y	RTEACCT
Part	A	1	A segment of a route that travels through a major center, such as Sea CBD, Bellevue CBD, or the U Dist. E.g, the route 7 has two parts; north and south of the Seattle CBD	Y	PARTACCT
Ex	A	2	This indicates express or other route variation; indicates that begin with "E" are express; others are variations of route.	Y	EXPRACCT
InOut	A	1	"I" = inbound, "O" = outbound with reference to major attraction area on the route, e.g. Seattle CBD, UW, or Bellevue CBD	Y	DUMACCT
Day	I		Day of week: 0 = M-F & SCL, 1 = SAT, 2 = SUN & Holiday	Y	DAY1
KeyTrip	I		unique key for trip	Y	Y
KeyTPI	I		unique key for TPI concatenated from ID numbers of beginning and ending time points; negative number indicates a deadhead TPI	Y	Y
KeyBlock	I		unique key for the block	Y	Y
TimeMid	I		The mid point between the "from" and "to" TP's, in minutes past midnight.	Y	Y
TimeDep	I		The time the bus is scheduled to leave the "from" TP, in minutes past midnight.	Y	Y
Time1	A	8	A text version of TimeDep. An "X" in the time indicates an am time that is actually part of the previous day's schedule.	Y	Y
TimeArr	I		The time the bus is scheduled to leave the "to" TP, in minutes past midnight.	Y	Y
Time2	A	8	A text version of TimeArr. An "X" in the time indicates an am time that is actually part of the previous day's schedule.	Y	Y
Surcharge	A	1	Peak Fare Surcharge or not	Y	Y
KeyPattern	I		unique key for time point pattern on which trip is operated	Y	Y
TripKind	A	1	S=Service, B=Base, Y=Other deadhead	Y	Y
Dir	A	1	General direction of travel of the trip	Y	Y
CoachType	A	2	First two characters of the coach number; leading zeros truncated	Y	Y
BaseTmpt	I		Code for operating base	Y	Y
TP1Name	A	8	The name/location of the "from" TP.	Y	Y
TP2Name	A	8	The name/location of the "to" TP.	Y	Y
Count	I		The number of times this TPI was observed by the APC system.	Y	Y
AveDev1	N		The average difference (in min.) between the scheduled leave time at the "from" TP, based on "count". "+" = early, "-" = late.	Y	Y
MaxDev1	N		The earliest departure from the "from" TP observed by the APC system.	Y	Y
MinDev1	N		The latest departure from the "from" TP observed by the APC system.	Y	Y
AveDev2	N		The average difference (in min.) between the scheduled arrival time at the "to" TP, based on "count". "+" = early, "-" = late.	Y	Y
MaxDev2	N		The earliest arrival at the "to" TP observed by the APC system.	Y	Y

**Appendix A: APC File Descriptions Used by Service Development Applications**  
**Column Names in Aggregate TPI Table**

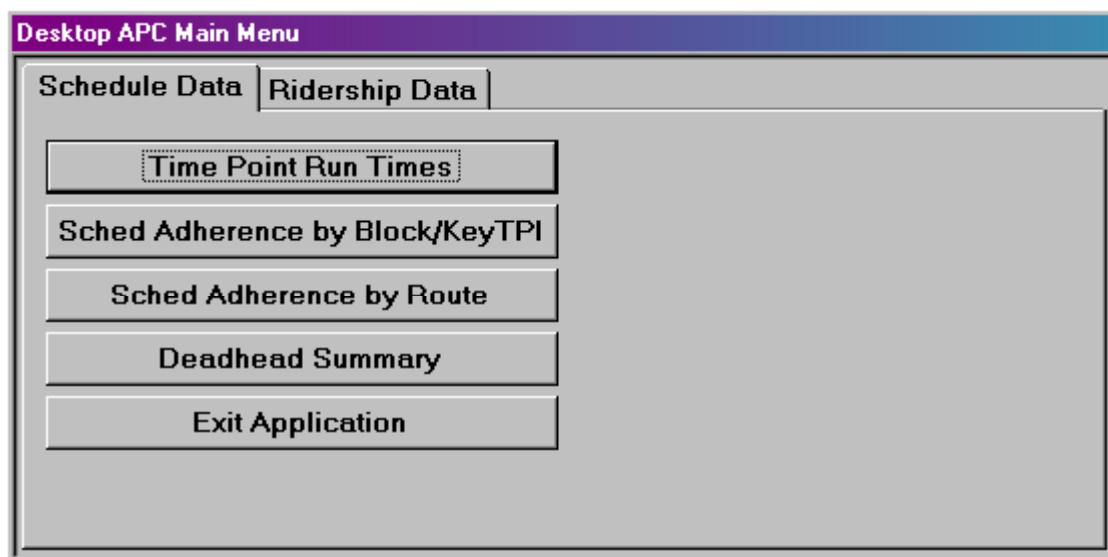
Field Name	Type	Size	Description	Access	PC Focus
MinDev2	N		The latest arrival at the "to" TP observed by the APC system.	Y	Y
AvePOn	N		Average passengers boarding on TPI	Y	Y
MaxPOn	I		Highest observed passengers boarding on TPI	Y	Y
MinPOn	I		Lowest observed passengers boarding on TPI	Y	Y
AvePOff	N		Average passengers de-boarding on TPI	Y	Y
MaxPOff	I		Highest observed passengers de-boarding on TPI	Y	Y
MinPOff	I		Lowest observed passengers de-boarding on TPI	Y	Y
AveMLoad	N		Average of highest loads along the TPI	Y	Y
MinMLoad	I		Lowest observation of highest load along the TPI	Y	Y
MaxMLoad	I		Highest observation of highest load along the TPI	Y	Y
AvePLoad	N		Average load approaching TP1	Y	Y
MaxPLoad	I		Highest observed load approaching TP1	Y	Y
MinPLoad	I		Lowest observed load approaching TP1	Y	Y
NumStops	I		Number of times the bus was observed to stop	Y	Y
NumSeats	I		Number of seats per bus	Y	Y
SchTmLvAr	I		Calculated from summary data, scheduled running time between the departure from the "from" TP and the arrival at the "to" TP.	Y	N
ActTmLvAr	N		Observed (average) running time between the departure from the "from" TP and the arrival at the "to" TP.	Y	N
LvArDiff	N		Calculated from summary data, difference between scheduled and average actual running time. "+" = early, "-" = late.	Y	N
TP1	I		The ID number of the "from" TP.	Y	N
LdFact	N		Calculated as AvePLoad/Seats	Y	N
ActTmArAr	N		Calculated from summary data, average arrive to arrive time	Y	N
ArArDiff	N		Calculated from summary data, difference from scheduled running time	Y	N
Dw/TmAr	N		Calculated from summary data, dwell time at first time point	Y	N

**Appendix A: APC File Descriptions Used by Service Development Applications**  
**Column Names in the Aggregate Zone Table**

Field Name	Type	Size	Description	TRAM	Access	PC Focus
<b>Zone#</b>	I		Unique ID for bus stop (zone) number	Y	Y	<b>KEYZONE</b>
<b>Period</b>			Time period that APC system observed the trip. "AAM" for before 6:00 am, "AM" for between 6:00 am and 9:00 am, "MID" for between 9:00 am and 3:15 pm, "PM" for between 3:15 pm and 6:15 pm, "XEV" for between 6:15 pm and 9:30 pm, and "XNT" for observations from 9:30 pm until the end of service.	Y	Y	<b>PERIOD</b>
<b>Signrt</b>	I		route number	Y	Y	<b>RTEACCT</b>
<b>E/L</b>	A	2	This indicates express or other route variation; indicates that begin with "E" are express; others are variations of route.		Y	<b>TYPSE</b>
<b>InOut</b>	A	1	"I" = inbound, "O" = outbound with reference to major attraction area on the route, e.g. Seattle CBD, UW, or Bellevue CBD	Y	Y	<b>DUMYACCT</b>
<b>ObsTrips</b>	I		The number of unique scheduled trips sampled by the APC system during the service period.	Y	Y	<b>UNIQTTRIPCNT</b>
<b>TotalObs</b>	I		The total number of trips of a given route in a given direction for which the APC system collected data during a given service period.	Y	Y	<b>TOTTRIPCNT</b>
<b>Stops</b>	I		The number of times the bus actually stopped at this stop, out of the number of total trips seen.	Y	Y	<b>STOPCNT</b>
<b>AvgOns/Trip</b>	N		The average number of passengers boarding the route per trip at this stop, based on ObsTrips.	Y	Y	<b>PONR</b>
<b>OnsObs</b>	N		ObsTrips multiplied by AvgOns/Trip	Y	Y	<b>ONTOTAL</b>
<b>AvgOffs/Trip</b>	N		The average number of passengers de-boarding the route per trip at this stop, based on ObsTrips.	Y	Y	<b>POFFR</b>
<b>OffsObs</b>	N		ObsTrips multiplied by AvgOffs/Trip	Y	Y	<b>OFFTOTAL</b>
<b>AvgArrLoad/Trip</b>	N		The average passenger load on the bus as it approaches the zone, based on ObsTrips	Y	Y	<b>PLOADR</b>
<b>AvgSeats/Trip</b>	I		Average number of seats on buses assigned to these routes, based on ObsTrips	Y	Y	<b>NUMSEATS</b>
<b>OnStreet</b>	A	20	Name of the street on which the stop is located	Y	Y	<b>ONSTREET</b>
<b>CrossStreet</b>	A	20	The nearest cross street to the stop	Y	Y	<b>CROSSSTREET</b>
<b>Inter</b>	A	2	Two-letter abbreviation that references the location of the stop with respect to the nearest cross street. "AT": at, "BT": between, "FM": far side of the intersection, mid block, "FS": far side of the intersection, "NM": near side of the intersection, mid block, "OP": opposite or across from.	Y	Y	<b>INTERSEC</b>
<b>Dir</b>	A	1	General direction of travel of the trip	Y	Y	<b>DIRECTION</b>
<b>SignUp</b>	N		Year (4 characters) followed by decimal point and then 1, 2, or 3 denoting the number of the signup (1 - Spring, 2 - Summer, 3 - Fall)	Y	N	N

## Appendix B: Desktop APC Report Samples

### Schedule (On-Time Performance) Reports



The Desktop APC Application includes four reports that display Schedule Data:

Time Point Run Times: This report displays the observed travel time along a timepoint interval (TPI). Two variations of travel time are shown: the arrive-arrive travel time, which is elapsed time between when a coach arrives a given timepoint and when it arrives at its next scheduled timepoint, and the leave-arrive travel time, which is the time between a coach's departure from one timepoint and its arrival at the next scheduled timepoint. The report also shows the dwell time at the first timepoint on the TPI.

Schedule Adherence by Block/KeyTPI: This report displays similar information to that in the Time Point Run Times report, except this report displays neither the arrive-arrive running time nor the dwell time. However, it does provide the user with information about the variability of the data collected.

Schedule Adherence by Route: This report is identical to the Schedule Adherence by Block/KeyTPI report, but it allows the user to run the report based on service route number, rather than on the Block or TPI.

Deadhead Summary: This report gives information on deadhead running times, by operating base. It also displays information about the variability of the data.

# Appendix B (continued)

## Time Point Run Times

Time Point Run Times

Select a sign-up and then enter one or more criteria to search on:

Note: Deadhead TPI's are negative.

Sign-up: 2002 FEB

Day: WK

☐ Sort by KeyTPI, then by leave time  
☐ Sort by KeyBlock, then by leave time  
☒ Sort by Route, then by leave time

KeyTPI:

Block:

Route #: 177

Part:

In/Out:

View Data

To Excel

Print Preview

Print

Clear

Day	Rte	Pt	Ex	I/O	KeyBl	KeyTPI	Obs	LvTP	ArrTP	SchLv	SchArr	ActTmArr	TP10ffSch
0	177			I	17701	81924046	5	FED P&R2	E-3 SPOK	5:27 AM	5:55 AM	27.7	0.2
0	177			I	17701	40460449	5	E-3 SPOK	ID N/B	5:55 AM	6:00 AM	6.7	2.2
0	177			I	17701	4490336	5	ID N/B	UNIVN/B	6:00 AM	6:04 AM	4.3	0.2
0	177			I	17701	3361749	5	UNIVN/B	CPS A/B	6:04 AM	6:08 AM	3.4	0.6
0	177			I	17702	81924046	0	FED P&R2	E-3 SPOK	5:36 AM	6:04 AM		0.0
0	177			I	17702	40460449	0	E-3 SPOK	ID N/B	6:04 AM	6:10 AM		0.0
0	177			I	17702	4490336	0	ID N/B	UNIVN/B	6:10 AM	6:14 AM		0.0
0	177			I	17702	3361749	0	UNIVN/B	CPS A/B	6:14 AM	6:18 AM		0.0
0	177			I	17703	81924046	2	FED P&R2	E-3 SPOK	5:46 AM	6:14 AM	29.3	-1.3
0	177			I	17703	40460449	2	E-3 SPOK	ID N/B	6:14 AM	6:20 AM	6.3	0.9
0	177			I	17703	4490336	2	ID N/B	UNIVN/B	6:20 AM	6:24 AM	4.7	0.2
0	177			I	17703	3361749	2	UNIVN/B	CPS A/B	6:24 AM	6:28 AM	3.9	-0.1
0	177			I	17704	81924046	1	FED P&R2	E-3 SPOK	5:55 AM	6:23 AM		-1.1

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12/17/02

# Scheduled and Actual Running Time

BASED ON DATA FROM SIGNUP SPR 02 FINAL, DATED 6/21/2002

SOURCE: SEATTLE METRO APC SYSTEM

DAY	RTE	PT	EX	I/O	KEYBL	KEYTPI	OBS	TP1 NAME	TP2 NAME	SCHED TIME 1	SCHED TIME 2	TP 1 OFF SCH	TP 2 OFF SCH	SCHED RUN TM	AR - AR RUN TM	TIME DIFF	TP 1 DWL TM	LV - AR RUN TM	TIME DIFF
WK	177	I			17701	81924046	5	FED P&R2	E-3 SPOK	5:27 AM	5:55 AM	0.2	2.9	28	27.7	0.3	2.4	25.3	2.7
177	I				17701	40460449	5	E-3 SPOK	ID N/B	5:55 AM	6:00 AM	2.2	1.2	5	6.7	-1.7	0.7	6.0	-1.0
177	I				17701	4490336	5	ID N/B	UNIVN/B	6:00 AM	6:04 AM	0.2	0.9	4	4.3	-0.3	1.0	3.3	0.7
177	I				17701	3361749	5	UNIVN/B	CPS A/B	6:04 AM	6:08 AM	0.6	1.5	4	3.4	0.6	0.4	3.0	1.0
177	I				17702	81924046	0	FED P&R2	E-3 SPOK	5:36 AM	6:04 AM	0.0	0.0	28					
177	I				17702	40460449	0	E-3 SPOK	ID N/B	6:04 AM	6:10 AM	0.0	0.0	6					
177	I				17702	4490336	0	ID N/B	UNIVN/B	6:10 AM	6:14 AM	0.0	0.0	4					
177	I				17702	3361749	0	UNIVN/B	CPS A/B	6:14 AM	6:18 AM	0.0	0.0	4					
177	I				17703	81924046	2	FED P&R2	E-3 SPOK	5:46 AM	6:14 AM	-1.3	1.4	28	29.3	-1.3	3.9	25.3	2.7
177	I				17703	40460449	2	E-3 SPOK	ID N/B	6:14 AM	6:20 AM	0.9	1.0	6	6.3	-0.3	0.5	5.9	0.1
177	I				17703	4490336	2	ID N/B	UNIVN/B	6:20 AM	6:24 AM	0.2	0.3	4	4.7	-0.7	0.8	3.9	0.1
177	I				17703	3361749	2	UNIVN/B	CPS A/B	6:24 AM	6:28 AM	-0.1	0.4	4	3.9	0.1	0.4	3.5	0.5
177	I				17704	81924046	1	FED P&R2	E-3 SPOK	5:55 AM	6:23 AM	-1.1	1.7	28				25.2	2.8
177	I				17704	40460449	1	E-3 SPOK	ID N/B	6:23 AM	6:29 AM	1.3	0.6	6	7.1	-1.1	0.4	6.7	-0.7
177	I				17704	4490336	1	ID N/B	UNIVN/B	6:29 AM	6:33 AM	-2.3	-2.3	4	6.9	-2.9	2.9	4.0	0.0
177	I				17704	3361749	1	UNIVN/B	CPS A/B	6:33 AM	6:37 AM	-2.7	-1.7	4	3.3	0.7	0.4	3.0	1.0
177	I				17705	81924046	4	FED P&R2	E-3 SPOK	6:03 AM	6:33 AM	2.6	3.2	30	32.3	-2.3	2.8	29.4	0.6
177	I				17705	40460449	4	E-3 SPOK	ID N/B	6:33 AM	6:39 AM	2.5	2.5	6	6.7	-0.7	0.7	6.0	0.0
177	I				17705	4490336	4	ID N/B	UNIVN/B	6:39 AM	6:43 AM	1.6	2.1	4	4.4	-0.4	0.9	3.5	0.5
177	I				17705	3361749	4	UNIVN/B	CPS A/B	6:43 AM	6:47 AM	1.6	2.7	4	3.4	0.6	0.6	2.8	1.2
177	I				17706	81924046	6	FED P&R2	E-3 SPOK	6:19 AM	6:49 AM	-0.8	2.0	30	30.0	0.0	2.8	27.2	2.8
177	I				17706	40460449	6	E-3 SPOK	ID N/B	6:49 AM	6:55 AM	1.3	1.7	6	6.3	-0.3	0.7	5.6	0.4
177	I				17706	4490336	6	ID N/B	UNIVN/B	6:55 AM	6:59 AM	0.6	0.1	4	5.7	-1.7	1.2	4.5	-0.5
177	I				17706	3361749	6	UNIVN/B	CPS A/B	6:59 AM	7:03 AM	-0.3	0.6	4	3.5	0.5	0.4	3.1	0.9
177	I				17707	81924046	9	FED P&R2	E-3 SPOK	6:32 AM	7:04 AM	-0.5	3.5	32	30.7	1.3	2.6	28.0	4.0
177	I				17707	40460449	9	E-3 SPOK	ID N/B	7:04 AM	7:10 AM	3.1	3.3	6	6.2	-0.2	0.4	5.8	0.2
177	I				17707	4490336	9	ID N/B	UNIVN/B	7:10 AM	7:14 AM	1.9	1.2	4	6.0	-2.0	1.4	4.7	-0.7
177	I				17707	3361749	9	UNIVN/B	CPS A/B	7:14 AM	7:18 AM	0.9	1.4	4	3.9	0.1	0.3	3.5	0.5
177	I				17708	81924046	7	FED P&R2	E-3 SPOK	6:44 AM	7:16 AM	-0.4	2.5	32	31.3	0.7	2.3	29.1	2.9
177	I				17708	40460449	7	E-3 SPOK	ID N/B	7:16 AM	7:22 AM	1.6	1.6	6	6.9	-0.9	0.9	6.0	0.0
177	I				17708	4490336	7	ID N/B	UNIVN/B	7:22 AM	7:26 AM	0.3	-0.6	4	6.2	-2.2	1.3	4.9	-0.9
177	I				17708	3361749	7	UNIVN/B	CPS A/B	7:26 AM	7:30 AM	-1.0	-0.7	4	4.1	-0.1	0.4	3.7	0.3
177	I				17709	81924046	8	FED P&R2	E-3 SPOK	6:55 AM	7:27 AM	-1.1	1.4	32	33.2	-1.2	3.7	29.6	2.4
177	I				17709	40460449	8	E-3 SPOK	ID N/B	7:27 AM	7:33 AM	0.6	0.7	6	6.7	-0.7	0.8	5.9	0.1
177	I				17709	4490336	8	ID N/B	UNIVN/B	7:33 AM	7:37 AM	-0.8	-1.3	4	6.0	-2.0	1.5	4.5	-0.5
177	I				17709	3361749	8	UNIVN/B	CPS A/B	7:37 AM	7:41 AM	-1.7	-0.9	4	3.5	0.5	0.4	3.2	0.8
177	I				17710	81924046	8	FED P&R2	E-3 SPOK	7:07 AM	7:39 AM	0.2	1.2	32	33.8	-1.8	2.8	31.0	1.0

● Indicates fewer than three observations during the signup

Arrive-Arrive running and dwell times are not shown for TPIs when followed by a layover or when OBS = 0

Where applicable, "+" = fast/early, "-" = slow/late

Print Date: 12/23/2002

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## Appendix B (continued)

### Schedule Adherence by Block/KeyTPI

TPI Schedule Adherence by Block/KeyTPI

Select a sign-up and then enter one or more criteria to search on:

Note: Deadhead TPIs may be included.

Sign-up: 2002 FEB

Block:

KeyTPI: 4504824

Day:

In/Out:

Pk/OffPk:

☐ Sort by KeyBlock, then by Leave Time
 ☒ Sort by Leave Time only

View Data

To Excel

Print Preview

Print

Clear

	Rte	Pt	Ex	I/O	KeyBl	KeyTPI	Obs	LvTP	ArrTP	SchLv	AvActLv	SchArr	AvActArr	Min
	550	EX	O		55002	4504824	4	ID S/B	I 90STA	5:37 AM	-2	5:41 AM	-1	
	550	EX	O		55001	4504824	9	ID S/B	I 90STA	5:52 AM	-1	5:56 AM	-1	
	550	EX	O		55004	4504824	12	ID S/B	I 90STA	6:07 AM	-2	6:11 AM	-2	
	550	EX	O		55003	4504824	10	ID S/B	I 90STA	6:22 AM	-2	6:26 AM	-1	
	550	EX	O		55009	4504824	11	ID S/B	I 90STA	6:37 AM	-2	6:41 AM	-2	
	550	EX	O		55005	4504824	10	ID S/B	I 90STA	6:51 AM	-1	6:55 AM	-1	
	550	EX	O		55006	4504824	12	ID S/B	I 90STA	7:05 AM	0	7:09 AM	0	
	550	EX	O		55012	4504824	12	ID S/B	I 90STA	7:21 AM	-2	7:25 AM	-2	
	550	EX	O		55010	4504824	13	ID S/B	I 90STA	7:36 AM	-1	7:40 AM	0	
	550	EX	O		55011	4504824	4	ID S/B	I 90STA	7:51 AM	-1	7:55 AM	0	
	550	EX	O		55013	4504824	9	ID S/B	I 90STA	8:06 AM	-1	8:10 AM	0	
	550	EX	O		55007	4504824	13	ID S/B	I 90STA	8:21 AM	-2	8:25 AM	-1	
▶	550	EX	O		55008	4504824	11	ID S/B	I 90STA	8:36 AM	-1	8:40 AM	0	

Record: 14

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12/17/02

# Time Point Schedule Adherence by Block/KeyTPI

INCLUDES DATA FROM SIGNUP SPR '02 FINAL, DATED 6/21/2002

SOURCE: SEATTLE METRO APC SYSTEM

DAY	KEYBL	RTE	PT	W0	EX	KEYTPI	OBS	LV TP	SCH LV			ARRTP	SCH AR			SCHED			ACT TIME
									TIME	AVG OFF	EARLIEST	LATEST	TIME	AVG OFF	EARLIEST	LATEST	RUN Tm	RUN Tm	DIFF
WK	55002	550	O	EX	4504824	4 ID S/B	5:37 AM	-2	-1	-2	190STA	5:41 AM	-1	0	-2	4	3.3	0.7	
	55001	550	O	EX	4504824	9 ID S/B	5:52 AM	-1	-1	-3	190STA	5:56 AM	-1	0	-2	4	3.3	0.7	
	55004	550	O	EX	4504824	12 ID S/B	6:07 AM	-2	0	-6	190STA	6:11 AM	-2	0	-6	4	3.6	0.4	
	55003	550	O	EX	4504824	10 ID S/B	6:22 AM	-2	2	-6	190STA	6:26 AM	-1	0	-5	4	3.6	0.4	
	55009	550	O	EX	4504824	11 ID S/B	6:37 AM	-2	1	-9	190STA	6:41 AM	-2	1	-9	4	3.9	0.1	
	55005	550	O	EX	4504824	10 ID S/B	6:51 AM	-1	1	-4	190STA	6:55 AM	-1	1	-3	4	3.4	0.6	
	55006	550	O	EX	4504824	12 ID S/B	7:05 AM	0	2	-3	190STA	7:09 AM	0	2	-2	4	3.7	0.3	
	55012	550	O	EX	4504824	12 ID S/B	7:21 AM	-2	0	-4	190STA	7:25 AM	-2	0	-4	4	3.8	0.2	
	55010	550	O	EX	4504824	13 ID S/B	7:36 AM	-1	3	-2	190STA	7:40 AM	0	2	-1	4	3.3	0.7	
	55011	550	O	EX	4504824	4 ID S/B	7:51 AM	-1	1	-2	190STA	7:55 AM	0	2	-1	4	3.3	0.7	
	55013	550	O	EX	4504824	9 ID S/B	8:06 AM	-1	1	-4	190STA	8:10 AM	0	2	-2	4	3.1	0.9	
	55007	550	O	EX	4504824	13 ID S/B	8:21 AM	-2	2	-5	190STA	8:25 AM	-1	1	-4	4	4.0	0.0	
	55008	550	O	EX	4504824	11 ID S/B	8:36 AM	-1	0	-3	190STA	8:40 AM	0	0	-1	4	3.2	0.8	
	55005	550	O	EX	4504824	8 ID S/B	8:48 AM	-2	0	-5	190STA	8:52 AM	-1	1	-4	4	3.2	0.8	
	55006	550	O	EX	4504824	11 ID S/B	9:03 AM	-1	1	-3	190STA	9:07 AM	0	2	-2	4	3.4	0.6	
	55004	550	O	EX	4504824	6 ID S/B	9:18 AM	-2	-1	-6	190STA	9:22 AM	-2	0	-4	4	3.2	0.8	
	55010	550	O	EX	4504824	10 ID S/B	9:33 AM	-2	0	-6	190STA	9:37 AM	-1	2	-4	4	2.9	1.1	
	21211	212	O		4504824	10 ID S/B	3:38 PM	-2	0	-7	190STA	3:42 PM	-1	1	-7	4	3.4	0.6	
	22511	225	O		4504824	6 ID S/B	3:53 PM	-2	-1	-3	190STA	3:57 PM	-1	0	-3	4	3.2	0.8	
	21212	212	O		4504824	17 ID S/B	4:03 PM	-2	1	-9	190STA	4:07 PM	-2	1	-8	4	3.4	0.6	
	22911	229	O		4504824	5 ID S/B	4:14 PM	-3	-2	-5	190STA	4:18 PM	-3	-1	-4	4	3.6	0.4	
	22512	225	O		4504824	9 ID S/B	4:23 PM	-6	1	-15	190STA	4:27 PM	-6	1	-14	4	4.2	-0.2	
	21213	212	O		4504824	17 ID S/B	4:32 PM	-7	-1	-19	190STA	4:36 PM	-7	-1	-18	4	3.7	0.3	
	21214	212	O		4504824	10 ID S/B	4:45 PM	-5	-2	-8	190STA	4:49 PM	-5	-2	-9	4	3.8	0.2	
	22912	229	O		4504824	8 ID S/B	4:46 PM	-4	-1	-7	190STA	4:50 PM	-4	-2	-7	4	3.9	0.1	
	21211	212	O		4504824	7 ID S/B	4:53 PM	-4	0	-12	190STA	4:57 PM	-4	0	-11	4	3.5	0.5	
	21215	212	O		4504824	8 ID S/B	5:00 PM	-5	0	-9	190STA	5:04 PM	-4	-1	-9	4	3.8	0.2	
	21212	212	O		4504824	16 ID S/B	5:08 PM	-2	0	-9	190STA	5:12 PM	-2	1	-8	4	3.2	0.8	
	22913	229	O		4504824	7 ID S/B	5:16 PM	-2	-1	-3	190STA	5:20 PM	-2	1	-5	4	3.6	0.4	
	25513	225	O		4504824	8 ID S/B	5:23 PM	-6	0	-20	190STA	5:27 PM	-6	0	-19	4	3.5	0.5	
	21216	212	O		4504824	13 ID S/B	5:31 PM	-3	-1	-7	190STA	5:35 PM	-3	0	-8	4	3.3	0.7	
	22511	229	O		4504824	6 ID S/B	5:46 PM	-4	-1	-6	190STA	5:50 PM	-4	0	-6	4	3.6	0.4	
	21213	212	O		4504824	17 ID S/B	5:50 PM	-6	1	-14	190STA	5:54 PM	-5	1	-13	4	3.3	0.8	
	21211	212	O		4504824	7 ID S/B	6:02 PM	-5	0	-13	190STA	6:06 PM	-4	0	-14	4	3.6	0.4	
	21215	212	O		4504824	8 ID S/B	6:14 PM	-1	6	-6	190STA	6:18 PM	-1	2	-6	4	4.4	-0.4	

● Indicates fewer than three observations during the signup  
Where applicable, "+" indicates fast/early, "-" indicates slow/late.

Print Date: 12/23/2002

## Appendix B (continued)

### Schedule Adherence by Route

Time Point Schedule Adherence by Route

Select a sign-up and then enter one or more criteria to search on:

Sign-up: 2002 SEP

In/Out: 0

Day: SA

Pk/OffPk:

Route: 56

Ex/Local:

Part:

View Data

To Excel

Print Preview

Print

Clear

	Rte	Pt	Ex	I/O	KeyBI	KeyTPI	Obs	LvTP	SchLv	AvActLv	ArrTP	SchArr	AvActArr	
►	56			0	101508	2210114	1	2 AV LEN	6:24 AM	-1	1 UNON	6:27 AM	-2	
	56			0	101508	1140101	1	1 UNON	6:27 AM	-2	1S JAXN	6:32 AM	-2	
	56			0	101508	1014017	1	1S JAXN	6:32 AM	-2	1S RBRM	6:34 AM	-1	
	56			0	101508	40174051	1	1S RBRM	6:34 AM	-1	1S SP W	6:38 AM	-1	
	56			0	101508	40510816	1	1S SP W	6:38 AM	-1	26SWSP W	6:41 AM	-2	
	56			0	101508	8166003	1	26SWSP W	6:41 AM	-2	CAL ADML	6:45 AM	-1	
	56			0	101508	60036017	0	CAL ADML	6:45 AM	0	61SWALKI	6:50 AM	0	
	56			0	101507	1140101	1	1 UNON	7:00 AM	-2	1S JAXN	7:05 AM	-2	
	56			0	101507	1014017	1	1S JAXN	7:05 AM	-2	1S RBRM	7:07 AM	-1	
	56			0	101507	40174051	1	1S RBRM	7:07 AM	-1	1S SP W	7:11 AM	-1	
	56			0	101507	40510816	1	1S SP W	7:11 AM	-2	26SWSP W	7:14 AM	-2	
	56			0	101507	8166003	1	26SWSP W	7:14 AM	-2	CAL ADML	7:18 AM	-2	
	56			0	101507	60036017	1	CAL ADML	7:18 AM	-2	61SWALKI	7:23 AM	-4	

Record: 1 of 201

# Time Point Schedule Adherence by Route

INCLUDES DATA FROM SIGNUP FALL '01 FINAL, DATED 4/26/2002

SOURCE: SEATTLE METRO APC SYSTEM

DAY	KEYBL	RTE	PT	I/O	EX	OBS	LV TP	SCH LV			ARR TP	SCH AR			SCHED	ACT	TIME
								TIME	AVG OFF	SCHED		TIME	AVG OFF	SCHED			
SA	101508	56	O			●	0 2 AV LEN	6:24 AM	0	0	0	1 UNON	6:27 AM	0	0	0	3
						●	0 1 UNON	6:27 AM	0	0	0	1S JAXN	6:32 AM	0	0	0	5
						●	0 1S JAXN	6:32 AM	0	0	0	1S RB RM	6:34 AM	0	0	0	2
						●	0 1S RB RM	6:34 AM	0	0	0	1S SP W	6:38 AM	0	0	0	4
						●	0 1S SP W	6:38 AM	0	0	0	26SWSP	6:41 AM	0	0	0	3
						●	0 26SWSP	6:41 AM	0	0	0	CAL AD ML	6:45 AM	0	0	0	4
						●	0 CAL AD ML	6:45 AM	0	0	0	61SWALKI	6:50 AM	0	0	0	5
SA	101506	56	O			●	0 1 UNON	7:00 AM	0	0	0	1S JAXN	7:05 AM	0	0	0	5
						●	0 1S JAXN	7:05 AM	0	0	0	1S RB RM	7:07 AM	0	0	0	2
						●	0 1S RB RM	7:07 AM	0	0	0	1S SP W	7:11 AM	0	0	0	4
						●	0 1S SP W	7:11 AM	0	0	0	26SWSP	7:14 AM	0	0	0	3
						●	0 26SWSP	7:14 AM	0	0	0	CAL AD ML	7:18 AM	0	0	0	4
						●	0 CAL AD ML	7:18 AM	0	0	0	61SWALKI	7:23 AM	0	0	0	5
						●	0 1 UNON	7:30 AM	0	0	0	1S JAXN	7:35 AM	0	0	0	5
SA	101514	56	O			●	0 1S JAXN	7:35 AM	0	0	0	1S RB RM	7:37 AM	0	0	0	2
						●	0 1S RB RM	7:37 AM	0	0	0	1S SP W	7:41 AM	0	0	0	4
						●	0 1S SP W	7:41 AM	0	0	0	26SWSP	7:44 AM	0	0	0	3
						●	0 26SWSP	7:44 AM	0	0	0	CAL AD ML	7:48 AM	0	0	0	4
						●	0 CAL AD ML	7:48 AM	0	0	0	61SWALKI	7:53 AM	0	0	0	5
						●	3 2 AV LEN	7:57 AM	1	3	0	1 UNON	8:00 AM	-1	-2	3	4.7
						●	3 1 UNON	8:00 AM	-1	-1	-2	1S JAXN	8:05 AM	-2	-1	5	5.2
SA	101518	56	O			●	3 1S JAXN	8:05 AM	-2	-1	-2	1S RB RM	8:07 AM	-1	-1	2	1.3
						●	3 1S RB RM	8:07 AM	-1	-1	-1	1S SP W	8:11 AM	-1	-1	4	3.7
						●	3 1S SP W	8:11 AM	-1	0	-2	26SWSP	8:14 AM	-1	-1	3	3.2
						●	3 26SWSP	8:14 AM	-1	-1	-1	CAL AD ML	8:18 AM	-1	-1	4	3.7
						●	3 CAL AD ML	8:18 AM	-1	-1	-2	61SWALKI	8:23 AM	-1	-2	5	5.2
						●	1 1 UNON	8:30 AM	-3	-3	-3	1S JAXN	8:35 AM	-3	-3	5	5.1
						●	1 1S JAXN	8:35 AM	-4	-4	-4	1S RB RM	8:37 AM	-3	-3	2	1.7
SA	101517	56	O			●	1 1S RB RM	8:37 AM	-4	-4	-4	1S SP W	8:41 AM	-3	-3	4	3.5
						●	1 1S SP W	8:41 AM	-4	-4	-4	26SWSP	8:44 AM	-4	-4	3	3.8
						●	1 26SWSP	8:44 AM	-4	-4	-4	CAL AD ML	8:48 AM	-4	-4	4	3.2
						●	1 CAL AD ML	8:48 AM	-4	-4	-4	61SWALKI	8:53 AM	-3	-3	5	4.7
						●	1 1 UNON	9:00 AM	-4	-4	-4	1S JAXN	9:06 AM	-2	-2	6	4.7
						●	1 1S JAXN	9:06 AM	-3	-3	-3	1S RB RM	9:08 AM	-3	-3	2	1.8
						●	1 1S RB RM	9:08 AM	-3	-3	-3	1S SP W	9:12 AM	-2	-2	4	3.8
SA	101519	56	O			●	1 1S SP W	9:12 AM	-3	-3	-3	26SWSP	9:15 AM	-3	-3	3	3.2
						●	1 1S SP W	9:12 AM	-3	-3	-3	26SWSP	9:15 AM	-3	-3	3	3.2
						●	1 1S SP W	9:12 AM	-3	-3	-3	26SWSP	9:15 AM	-3	-3	3	3.2
						●	1 1S SP W	9:12 AM	-3	-3	-3	26SWSP	9:15 AM	-3	-3	3	3.2
						●	1 1S SP W	9:12 AM	-3	-3	-3	26SWSP	9:15 AM	-3	-3	3	3.2
						●	1 1S SP W	9:12 AM	-3	-3	-3	26SWSP	9:15 AM	-3	-3	3	3.2
						●	1 1S SP W	9:12 AM	-3	-3	-3	26SWSP	9:15 AM	-3	-3	3	3.2

● Indicates fewer than three observations during the signup

Where applicable, "+" indicates fast/early, "-" indicates slow/late.

Print Date: 12/23/2002

# Appendix B (continued)

## Deadhead Summary

Deadhead Summary

Select a sign-up and base and one or more other criteria:

Sign-up: 2002 FEB

Base: North

Day: WK

☒ Sort by Time Off Schedule  
☐ Sort by Timepoint Number

Include the following:

☐ Base Routes Only  
☐ Y Routes Only  
☒ Both Base and Y Routes

View Data

To Excel

Print Preview

Print

Clear

Type	Trips	TtlObs	AvgObs	LvTP	ArrTP	KeyTPI	AveDiff	MaxDiff	MinDiff	AvgSch	MinSch	M
B	2	28	14	NO BASE	1N THOM	-74367	16.7	17.6	15.8	33	33	
B	5	44	9	MWAYWASH	NO BASE	-59400007	14.2	16.4	7.0	27	27	
B	1	14	14	NSHRP&R	NO BASE	-92280007	12.8	12.8	12.8	30	30	
B	1	11	11	NO BASE	UNIVPAC	-75542	12.4	12.4	12.4	25	25	
B	2	10	5	KEN P&RL	NO BASE	-92440007	12.1	12.6	11.7	30	30	
B	4	29	7	NO BASE	KEN P&RL	-79244	11.5	13.3	8.7	30	30	
B	4	31	8	NO BASE	NSHRP&R	-79228	10.1	14.1	7.1	30	30	
B	1	12	12	NO BASE	17 JEFF	-72150	9.8	9.8	9.8	35	35	
B	20	152	8	NO BASE	WOODP&R	-79409	9.6	14.6	3.7	35	35	
B	1	5	5	SHORCC	NO BASE	-90040007	9.5	9.5	9.5	20	20	
B	1	4	4	LKFRPKTC	NO BASE	-92400007	9.4	9.4	9.4	22	22	
B	2	7	4	28NE125	NO BASE	-36800007	9.0	9.3	8.7	18	18	
B	3	12	4	NO BASE	LYNNP&R	-79604	8.9	11.2	4.8	22	22	

Record: 13 of 193

# DEADHEAD SUMMARY FOR NO BASE

INCLUDES DATA FROM SIGNUP SPR '02 FINAL, DATED 6/21/2002

SOURCE: SEATTLE METRO APC SYSTEM

TRIP		KEY/PLV/TP	ARR TP	TRIPS TOTAL		AV OBS /TRIP	SCH RUN TIME	MAX SCH RUN TIME	MIN SCH RUN TIME	AV ACT RUN TIME	MAX ACT RUN TIME	MIN ACT RUN TIME	AVG DIFF	EARLIEST	LATEST
DAY	KIND			OBS	OBS										
WK	BASE	-74367 NO BASE	IN THOM	2	28	14	33	33	33	16.3	17.2	15.4	16.7	17.6	15.8
WK	BASE	-59400007 MWAYWAS	NO BASE	5	44	9	27	27	27	12.8	20.0	10.6	14.2	16.4	7.0
WK	BASE	-92280007 NSHRP&R	NO BASE	1	14	14	30	30	30	17.2	17.2	17.2	12.8	12.8	12.8
WK	BASE	-75542 NO BASE	UNIVPAC	1	11	11	25	25	25	12.6	12.6	12.6	12.4	12.4	12.4
WK	BASE	-92440007 KEN P&RL	NO BASE	2	10	5	30	30	30	17.9	18.3	17.4	12.1	12.6	11.7
WK	BASE	-79244 NO BASE	KEN P&RL	4	29	7	30	30	30	18.5	21.3	16.7	11.5	13.3	8.7
WK	BASE	-79228 NO BASE	NSHRP&R	4	31	8	30	30	30	19.9	22.9	15.9	10.1	14.1	7.1
WK	BASE	-72150 NO BASE	17 JEFF	1	12	12	35	35	35	25.2	25.2	25.2	9.8	9.8	9.8
WK	BASE	-79409 NO BASE	WOODP&R	20	152	8	35	35	35	25.4	31.3	20.4	9.6	14.6	3.7
WK	BASE	-90040007 SHORCC	NO BASE	1	5	5	20	20	20	10.5	10.5	10.5	9.5	9.5	9.5
WK	BASE	-92400007 LKFRPKTC	NO BASE	1	4	4	22	22	22	12.6	12.6	12.6	9.4	9.4	9.4
WK	BASE	-368000007 28NE125	NO BASE	2	7	4	18	18	18	9.0	9.3	8.7	9.0	9.3	8.7
WK	BASE	-79604 NO BASE	LYNNP&R	3	12	4	22	22	22	13.1	17.2	10.8	8.9	11.2	4.8
WK	BASE	-90410007 25NE 145	NO BASE	1	8	8	17	17	17	8.3	8.3	8.3	8.7	8.7	8.7
WK	BASE	-75577 NO BASE	3NE 100	2	14	7	17	17	17	8.3	8.9	7.6	8.7	9.4	8.1
WK	BASE	-73551 NO BASE	33W SMIT	2	12	6	38	38	38	29.3	31.5	27.2	8.7	10.8	6.5
WK	BASE	-36610007 35NE130	NO BASE	3	21	7	18	18	18	9.6	14.1	6.5	8.4	11.5	3.9
WK	BASE	-35510007 33W SMIT	NO BASE	3	19	6	38	38	38	29.7	34.3	23.9	8.3	14.1	3.7
WK	BASE	-73017 NO BASE	20NWLER	2	17	9	30	30	30	22.4	24.4	20.3	7.6	9.7	5.6
WK	BASE	-74045 NO BASE	6S ATL	6	40	7	26	26	26	19.1	26.0	15.3	6.9	10.7	0.0
WK	BASE	-56960007 NTC BAY6	NO BASE	1	4	4	14	14	14	7.2	7.2	7.2	6.8	6.8	6.8
WK	BASE	-96040007 LYNNP&R	NO BASE	4	48	12	22	22	22	15.3	21.9	8.7	6.7	13.3	0.1
WK	BASE	-75522 NO BASE	35NENE85	6	57	10	22	22	22	15.3	17.6	13.5	6.7	8.5	4.4
WK	BASE	-71601 NO BASE	10E ALHA	1	5	5	25	25	25	18.4	18.4	18.4	6.6	6.6	6.6
WK	BASE	-94090007 WOODP&R	NO BASE	21	151	7	35	35	35	28.5	39.8	19.9	6.5	15.1	-4.8
WK	BASE	-75940 NO BASE	MWAYWA	9	80	9	27	27	27	20.5	27.1	15.7	6.5	11.3	-0.1
WK	BASE	-56710007 SANDNETO	NO BASE	5	35	7	25	25	25	18.6	26.5	16.0	6.4	9.0	-1.5
WK	BASE	-73661 NO BASE	35NE130	6	44	7	18	18	18	12.0	16.2	9.4	6.0	8.6	1.8
WK	BASE	-79240 NO BASE	LKFRPKTC	2	7	4	22	22	22	16.4	19.3	13.6	5.6	8.4	2.8
WK	BASE	-95130007 2S DYTIN	NO BASE	3	23	8	20	20	20	14.5	15.8	13.3	5.5	6.7	4.2
WK	BASE	-79224 NO BASE	45NE203	1	11	11	20	20	20	14.6	14.6	14.6	5.4	5.4	5.4
WK	BASE	-92370007 62NE181	NO BASE	4	24	6	22	22	22	16.6	19.3	13.1	5.4	8.9	2.8
WK	BASE	-36820007 30NE143	NO BASE	5	37	7	15	15	15	9.7	12.3	7.0	5.3	8.0	2.7
WK	BASE	-59530007 12NECAMP	NO BASE	4	40	10	18	18	18	12.8	15.0	11.5	5.2	6.5	3.0
WK	BASE	-75694 NO BASE	NTC BAY4	2	23	12	16	16	16	10.8	11.7	9.9	5.2	6.1	4.3
WK	BASE	-30170007 20NWLER	NO BASE	4	65	16	30	30	30	24.9	28.2	21.3	5.1	8.7	1.8
WK	BASE	-59420007 UNIVCAMP	NO BASE	11	75	7	20	20	20	15.0	20.6	11.6	5.0	8.4	-0.6
WK	BASE	-56350007 NOAA3	NO BASE	3	52	17	22	22	22	17.0	19.0	15.7	5.0	6.3	3.0
WK	BASE	-70403 NO BASE	4S WASH	6	36	6	35	35	35	30.1	43.5	20.7	4.9	14.3	-8.5

## Ridership Reports

Desktop APC Main Menu	
Schedule Data	Ridership Data
<b>Bus Stop Activity</b>	<b>Trip Ridership</b>
Bus Stop Activity in Stop Order	Unsummarized Trip Ridership
Ons/Offs at Selected Locations	Identify High/Low Trip Loads
Time Point Screenline	Block Artic Productivity
Time Point Load Profile	Route Ridership History
Summarized Time Point Loads	Exit Application

The Desktop APC Application includes eleven reports that display Ridership Data:

**Bus Stop Activity:** The Bus Stop Activity Report, which is based on the APC ZONE file, shows ons and offs by route, direction, and time period. Because the FOCUS Zones system is not linked to schedule data, this and any other stop level report cannot report ons and offs at the stop level for individual scheduled trips, but only by time period. Therefore, there is no way for a user to determine whether APC did not sample one or more of the trips scheduled to serve a given stop. If a trip was in fact missed, the ons and/or offs may be underreported.

**Bus Stop Activity in Stop Order:** This report displays the same information as the Bus Stop Activity Report, but the data is displayed in stop order. Because the APC system does not have this information, it must be created from scratch. This report is only available for Fall service changes.

**Ons/Offs at Selected Locations:** This report, which is similar to the other two bus stop reports, allows the user to determine ons and offs at specific named locations (rather than by typing in individual zone numbers). This report is useful for obtaining stop-level data for those locations served by multiple bus stops (e.g., park-and-ride lots, transit centers, rail stations, and tunnel stations). The APC system does not include this feature; the table on which this feature is based is created and maintained by Service Development.

**Time Point Screenline:** The Time Point Screenline report is based on the APC TPI file, and provides passenger load data for all trips scheduled to serve a given timepoint.

**Time Point Load Profile:** This report provides data on passenger ons, offs, and loads *on a TPI* for one or more selected routes or blocks. The report is based on the APC TPI file, so it does not provide stop-level data.

**Summarized Time Point Loads:** This report, which is also based on the APC TPI file, provides daily passenger boardings, alightings, and loads for all the TPI's served by a specified route. The TPI's are sorted by the order in which they are served by the route. The sort order is not specified by the APC system; it is imported into the desktop APC Application from the Distribution Database (DDB).

**Trip Ridership:** The Trip Ridership report shows trip-level passenger ons, offs, and loads for specified trips or blocks. The report also provides the trip load factor and the average riders per hour for each trip. The Trip Ridership report is primarily based on the APC TRIP file. However, this report is supplemented with data from card counts. The report also estimates ridership for trips not observed by the APC system.

**Unsummarized Trip Ridership:** This report shows disaggregate trip-level data on passenger ons, offs, and loads for specified trips or blocks. The report is based on the disaggregate APC TRIP file, and allows staff to view data for each APC observation.

**Identify High/Low Trip Loads:** This report was designed to identify trips with very high or low passenger loads in comparison to the number of seats provided on the assigned bus type. The report contains data on passenger loads, as well as the trip load factor and the assigned bus type.

## Appendix B (continued)

Block Artic Productivity: This report is based on a table that is created using the APC TRIP file. The table summarizes all trips on a block to determine whether the average load of any trip is greater than the number of seats assigned to that block. The table also includes information on the completeness of the data.

Route Ridership History: The Route Ridership History report is based on a file developed and maintained by Service Development. The report displays trend data on route ridership over multiple service changes. Data provided include daily bus trips, riders per trip, riders per revenue hour, annualized platform hours and rides, and daily riders.



### ***Bus Stop Activity***

12/17/02

# Bus Zone Activity

WEEKDAY ONLY DATA FOR SIGNUP: SPR '02 FINAL, DATED 6/21/2002

SOURCE: SEATTLE METRO APC SYSTEM

ZONE#		ON STREET	NS/FS	CROSS STREET	DIR	TIME	I/O	ROUTE	SERV	TYPE	# OF UNIQUE TRIPS	# OF TOTAL TRIPS	# OF TIMES BUS STOPPED	ON AVG PSGRS	TOTAL ONS	OFF AVG PSGRS	TOTAL OFFS	LOAD APPR AVG	AVG NUM SEATS
620	4 AVS	NS	S JACKSON ST	N	PM	I		39	L		8	58	57	2.6	21	4.6	37	15.4	48
620	4 AVS	NS	S JACKSON ST	N	PM	I		42	L		7	73	73	2.7	19	4.4	31	18.8	45
620	4 AVS	NS	S JACKSON ST	N	PM	I		130	L		3	37	37	1.3	4	4.3	13	19.0	42
620	4 AVS	NS	S JACKSON ST	N	PM	I		136	L		3	34	34	2.2	7	10.0	30	30.6	49
620	4 AVS	NS	S JACKSON ST	N	PM	I		137	L		3	19	19	1.6	5	6.4	19	17.7	50
620	4 AVS	NS	S JACKSON ST	N	PM	I		174	L		9	128	128	0.9	8	9.0	81	32.2	64
620	4 AVS	NS	S JACKSON ST	N	PM	I		554	E		6	54	54	0.7	4	6.7	40	19.9	42
620	4 AVS	NS	S JACKSON ST	N	PM	I		570	E		5	86	15	0.1	0	0.3	1	0.8	42
620	4 AVS	NS	S JACKSON ST	N	PM	O		19	L		3	25	18	1.5	4	0.0	0	0.9	43
620	4 AVS	NS	S JACKSON ST	N	PM	O		26	E		2	14	12	4.7	9	0.1	0	0.8	54
620	4 AVS	NS	S JACKSON ST	N	PM	O		26	L		1	16	16	3.8	4	0.3	0	3.3	42
620	4 AVS	NS	S JACKSON ST	N	PM	O		28	E		3	19	17	2.7	8	0.0	0	0.7	57
620	4 AVS	NS	S JACKSON ST	N	PM	O		28	L		1	13	12	2.9	3	0.0	0	0.5	64
620	4 AVS	NS	S JACKSON ST	N	PM	O		35	L		2	15	13	0.6	1	3.1	6	10.4	53
620	4 AVS	NS	S JACKSON ST	N	PM	O		217	L		2	15	15	0.2	0	7.3	15	23.2	42
620	4 AVS	NS	S JACKSON ST	N	PM	O		250	L		5	41	39	1.5	7	0.0	0	0.1	42
620	4 AVS	NS	S JACKSON ST	N	PM	O		252	L		7	69	40	0.9	6	0.1	0	0.2	51
620	4 AVS	NS	S JACKSON ST	N	PM	O		257	L		5	38	31	1.1	5	0.0	0	0.2	59
620	4 AVS	NS	S JACKSON ST	N	PM	O		260	L		3	22	14	1.6	5	0.0	0	0.1	42
620	4 AVS	NS	S JACKSON ST	N	PM	O		261	L		6	47	30	0.6	3	0.0	0	0.3	53
620	4 AVS	NS	S JACKSON ST	N	PM	O		265	L		7	67	36	0.7	5	0.0	0	0.4	42
620	4 AVS	NS	S JACKSON ST	N	PM	O		268	L		5	54	46	1.3	6	0.1	0	0.2	50
620	4 AVS	NS	S JACKSON ST	N	PM	O		308	E		2	13	12	0.7	1	0.1	0	0.2	36
620	4 AVS	NS	S JACKSON ST	N	PM	O		311	L		7	83	62	1.7	12	0.0	0	0.3	57
620	4 AVS	NS	S JACKSON ST	N	PM	O		545	E		12	66	57	1.8	21	0.1	2	1.0	58
TOTALS FOR ZONE#		620					TOTAL TRIPS OBSERVED:				117			ONS:	171	OFFS:	276		

AAM: before 6am, AM: 6-9am, MID: 9am-3:15pm, PM: 3:15-6:15pm, XEV: 6:15-9:30pm, XNT: 9:30pm-close  
Please refer to "apnotes.doc" for an explanation of the terms used in this report, and a list of data limitations.  
Print Date: 12/20/2002

### ***Bus Stop Activity in Stop Order***

ServDev Data Req for OBS Appen B.doc

# Bus Zone Activity for Route: 212 Express Variant(s)

WEEKDAY ONLY DATA FOR SIGNUP: FALL '01 FINAL, DATED 4/26/2002

SOURCE: SEATTLE METRO APC SYSTEM

ZONE#	ON STREET	NS/S	CROSS STREET	DIR	I/O	TIME	# OF		AVE	ROUTE		AVE	ROUTE		AVE	LOAD	AVG
							UNIQUE	TOTAL		ONS	TOTAL	OFFS	TOTAL	OFFS		APPR	SEATS
							TRIPS	TRIPS	TRIP	ONS	ONS	TRIP	OFFS	OFFS			NUM
67015	EASTGATE P & R	AT	BAY 1 (OUTSIDE ZONE)	W	I	AM	11	95	29.7	327	585	0.4	5	42	1.5		63
85410	I-90 (WB ON RAMP)	FS	RICHARDS ROAD	W	I	AM	11	95	1.7	18	55	0.1	1	10	30.8		63
40150	I-90 FREEWAY STATIO	AT	RAINIER AV S	W	I	AM	11	95	0.4	4	16	0.1	1	23	32.4		63
98770	INT'L DIST STAGE	??	LANE 1-4	N	I	AM	11	95	0.2	2	22	0.2	2	19	32.7		63
98775	INT'L DIST STAGE	??	LANE 7-9	N	I	AM	11	95	0.0	0	2	0.0	0	3	32.7		63
621	INT'L DIST STA	AT	BAY A	N	I	AM	11	95	3.7	41	584	2.9	32	442	32.7		63
532	PIONEER SQ STA	AT	BAY A	N	I	AM	11	95	0.6	7	343	8.9	97	1187	33.4		63
565	UNIVERSITY STA	AT	BAY A	N	I	AM	11	95	0.2	2	252	13.2	145	1541	25.2		63
1121	WESTLAKE STA	AT	BAY A	E	I	AM	11	95	0.2	3	276	8.6	94	1243	12.3		63
1192	CONV PL STA	AT	BAY A	E	I	AM	11	95	0.1	1	136	3.7	40	475	4.0		63

AAW: before 6am, AM: 6-9am, MID: 9am-3:15pm, PM: 3:15-6:15pm, XEV: 6:15-9:30pm, XNT: 9:30pm-close  
Please refer to "apnodes.doc" for an explanation of the terms used in this report, and a list of data limitations.  
Print Date: 12/20/2002

# Appendix B (continued)

## Ons/Offs at Selected Locations

**P&R, Transit Center, and Tunnel Activity**

Select a sign-up and a location, and then select any additional search criteria.  
*To enter multiple routes, separate with commas.*

Location: Auburn Transit Center

Sign-up: 2002 FEB Time Period:

Route #: IB/OB:

View Data  
 To Excel  
 Print Preview  
 Print  
 Clear

Click to view Bus Stop Report explanatory notes

InOut:	Period:	SignRt:	Ex:	ObsTrips:	TotalObs:	Stops:	AvgOns/Trip:	OnsObs:	AvgOffs/Trip
	AM	0 L		1	10	3	0.0	0	0
	AM	0 L		1	10	5	0.1	0	0
	MID	0 L		1	28	9	0.4	0	0
I	AAM	150 L		3	34	34	5.1	15	0
I	AAM	151 L		3	24	24	0.1	0	4
I	AAM	152 L		3	11	11	3.9	12	0
I	AAM	154 L		1	9	9	2.0	2	0
I	AAM	565 E		2	16	16	3.1	6	0
I	AM	150 L		6	60	60	16.3	98	0
I	AM	151 L		6	49	49	0.5	3	10
I	AM	152 L		6	37	36	3.1	19	1
I	AM	154 L		1	5	5	1.0	1	0
I	AM	181 L		5	45	45	3.5	18	3
I	AM	185 I		1	7	6	2.1	2	0

Record: 49 of 80

# Bus Zone Activity at Auburn Transit Center

WEEKDAY ONLY DATA FOR SIGNUP: SPR '02 FINAL, DATED 6/21/2002

SOURCE: SEATTLE METRO APC SYSTEM

				# OF	# OF	# OF																
I/O	TIME	ROUTE SERV	TYPE	UNIQUE	TOTAL	TIMES	ON	TOTAL	OFF	TOTAL	LOAD	AVG	SEATS	ZONE#	ON STREET	NS/FS	CROSS STREET	DIR				
				TRIPS	TRIPS	BUS	AVG	ONS	PSGRS	AVG	OFFS	APPR	NUM									
-	AM	0 L		1	10	3	0.0	0	0.1	0	0.2		30	57842	B ST NE	FS	1 ST NE	S				
-	AM	0 L		1	10	5	0.1	0	0.0	0	0.1		30	57843	B ST NE	NS	E MAIN ST	S				
AM TOTALS:				2			0	0		0												
-	MID	0 L		1	28	9	0.4	0	0.1	0	1.1		38	57840	1 ST NE	NS	B ST NE	E				
MID TOTALS:				1			0	0		0												
UNKN TOTALS:				3			1	0		0												
IB	AAM	150 L		3	34	34	5.1	15	0.0	0	2.1		63	57840	1 ST NE	NS	B ST NE	E				
IB	AAM	151 L		3	24	24	0.1	0	4.1	12	4.4		30	57840	1 ST NE	NS	B ST NE	E				
IB	AAM	152 L		3	11	11	3.9	12	0.6	2	9.6		64	57840	1 ST NE	NS	B ST NE	E				
IB	AAM	154 L		1	9	9	2.0	2	0.1	0	4.0		42	57840	1 ST NE	NS	B ST NE	E				
IB	AAM	565 E		2	16	16	3.1	6	0.8	2	3.5		42	57840	1 ST NE	NS	B ST NE	E				
AAM TOTALS:				12			36	16		16												
IB	AM	150 L		6	60	60	16.3	98	0.2	1	4.4		63	57840	1 ST NE	NS	B ST NE	E				
IB	AM	151 L		6	49	49	0.5	3	10.6	64	12.2		30	57840	1 ST NE	NS	B ST NE	E				
IB	AM	152 L		6	37	36	3.1	19	1.0	6	7.0		64	57840	1 ST NE	NS	B ST NE	E				
IB	AM	154 L		1	5	5	1.0	1	0.0	0	1.0		42	57840	1 ST NE	NS	B ST NE	E				
IB	AM	181 L		5	45	45	3.5	18	3.0	15	6.0		30	57841	1 ST NE	FS	AUBURN WY N	W				
IB	AM	185 L		1	7	6	2.1	2	0.6	1	1.3		30	57842	B ST NE	FS	1 ST NE	S				
IB	AM	186 L		2	17	0	0.0	0	0.0	0	2.0		30	57840	1 ST NE	NS	B ST NE	E				
IB	AM	186 L		4	32	13	0.5	2	0.7	3	1.9		30	57843	B ST NE	NS	E MAIN ST	S				
IB	AM	186 L		2	15	0	0.0	0	0.0	0	4.1		30	57841	1 ST NE	FS	AUBURN WY N	W				
IB	AM	186 L		4	32	18	1.0	4	2.0	8	3.0		30	57842	B ST NE	FS	1 ST NE	S				
IB	AM	565 E		5	29	27	2.3	12	2.0	10	8.1		42	57840	1 ST NE	NS	B ST NE	E				
IB	AM	915 L		1	13	13	0.5	1	8.9	9	9.9		30	57840	1 ST NE	NS	B ST NE	E				
AM TOTALS:				43			159	116		116												
IB	MID	150 L		12	141	141	18.7	224	0.3	3	3.9		63	57840	1 ST NE	NS	B ST NE	E				
IB	MID	151 L		12	89	89	1.0	12	9.4	112	12.3		30	57840	1 ST NE	NS	B ST NE	E				
IB	MID	181 L		12	114	114	5.2	62	4.8	58	10.3		30	57841	1 ST NE	FS	AUBURN WY N	W				
IB	MID	185 L		6	42	0	0.0	0	0.0	0	4.1		30	57841	1 ST NE	FS	AUBURN WY N	W				
IB	MID	185 L		5	35	30	4.5	23	3.1	16	4.7		30	57842	B ST NE	FS	1 ST NE	S				
IB	MID	185 L		6	42	7	0.6	4	0.3	2	5.6		30	57843	B ST NE	NS	E MAIN ST	S				
IB	MID	186 L		5	35	8	0.2	1	0.5	3	2.7		30	57843	B ST NE	NS	E MAIN ST	S				
IB	MID	186 L		5	35	0	0.0	0	0.0	0	4.0		30	57841	1 ST NE	FS	AUBURN WY N	W				

AAM: before 6am, AM: 6-9am, MID: 9am-3:15pm, PM: 3:15-6:15pm, XEV: 6:15-9:30pm, XNT: 9:30pm-close

Please refer to "apcnotes.doc" for an explanation of the terms used in this report, and a list of data limitations.

Print Date 12/20/2002

## Appendix B (continued)

### Time Point Screenline

Time Point Screenline

Select a sign-up and enter a timepoint number. Other fields are optional.  
To enter multiple timepoints or routes, separate with commas.

Look up Timepoints

☒ Sort by Time
 ☐ Sort by Route, then Time

Sign-up: 2002 FEB

Time Point: 3670

Route:

Day: WK

IB/OB: I

Ex/Local:

Last Timepoint Selected: I5-NE 145FRWY STA

View Data

To Excel

Print Preview

Print

Clear

	TP	DepTm	Rte	Pt	Ex	KeyBl	I/O	Obs	AvPsLd	MxPsLd	MnPsLd	Seats	LdFact	TimeArr	OffSchAv	Off
▶	3670	5:15 AM	301			30101	I	3	16	19	13	63	0.25	5:25 AM	2	
	3670	6:35 AM	304			30401	I	6	29	37	22	42	0.68	6:49 AM	-3	
	3670	6:36 AM	370			37001	I	13	21	33	16	42	0.50	6:47 AM	-1	
	3670	6:56 AM	304			30402	I	14	21	27	15	42	0.51	7:10 AM	-1	
	3670	7:16 AM	304			30403	I	5	36	44	32	64	0.56	7:30 AM	-4	
	3670	7:21 AM	370			37002	I	14	29	36	19	64	0.46	7:34 AM	-2	
	3670	7:40 AM	304			30404	I	7	33	40	27	42	0.78	7:54 AM	0	
	3670	7:59 AM	370			37001	I	13	27	36	19	42	0.65	8:12 AM	-5	
	3670	8:02 AM	304			7701	I	21	32	41	24	64	0.49	8:16 AM	-4	
	3670	8:58 AM	370			7705	I	7	26	31	20	64	0.40	9:09 AM	0	
	3670	4:29 PM	301			30111	I	8	3	4	1	63	0.04	4:39 PM	-4	

Record: 1 of 11

ServDev Data Req for OBS Appen B.doc

B-18

12/17/02

SOURCE: SEATTLE METRO APC SYSTEM

WEEKDAY SCREENLINE TOTAL FOR 15 145 TRIPS: 11 LOAD APPR TOTAL: 272

12/17/02



## Appendix B (continued)

### Time Point Load Profile

Time Point Load Profile

Select a sign-up and then enter one or more criteria to search on:  
To enter multiple routes or blocks, separate with commas.

Sign-up: 2002 FEB

Part:

Day: WK

Route:

Block: 1558

IB/OB:

☒ Sort by Block, then by Leave Time
 

Ex/Local:

☐ Sort by Route, then IB/OB, then Leave Time
 

Pk/OffPk:

View Data

To Excel

Print Preview

Print

Clear

Rte	Pt	Ex	I/O	KeyBl	TP1Name	TP2Name	Time1	Time2	Obs	AvPON	MxPON	MnPON	AvPOff
0				1558	CENTBASE	3S WASH	5:00 PM	5:08 PM	8	0	2	0	0
18	EE	O		1558	3S WASH	3S JAXN	5:08 PM	5:10 PM	7	1	6	0	0
18	EE	O		1558	3S JAXN	1S JAXN	5:10 PM	5:11 PM	10	0	0	0	0
18	EE	O		1558	1S JAXN	1 UNON	5:11 PM	5:18 PM	10	42	58	24	2
18	EE	O		1558	1 UNON	1N DENY	5:18 PM	5:26 PM	10	13	19	3	7
18	EE	O		1558	1N DENY	BLRDMRKT	5:26 PM	5:40 PM	10	5	9	1	24
18	EE	O		1558	BLRDMRKT	24NwNw65	5:40 PM	5:42 PM	10	0	1	0	2
18	EE	O		1558	24NwNw65	24NwNw85	5:42 PM	5:48 PM	10	0	2	0	24
18	EE	O		1558	24NwNw85	TRTN100	5:48 PM	5:51 PM	10	0	1	0	2
18	EE	O		1558	TRTN100	24NwNw85	5:51 PM	5:55 PM	10	0	1	0	2
18		I		1558	24NwNw85	BLRDMRKT	6:28 PM	6:34 PM	10	6	12	3	2
18		I		1558	BLRDMRKT	15 SLERY	6:34 PM	6:37 PM	10	5	11	1	1
18		I		1558	15 SLERY	15w GRFD	6:37 PM	6:44 PM	10	9	13	7	3

Record: 16 of 28

ServDev Data Req for OBS Appen B.doc

B-20

12/17/02

# Time Point Load Profile

INCLUDES DATA FROM SIGNUP SPR '02 FINAL, DATED 6/21/2002

SOURCE: SEATTLE METRO APC SYSTEM

DAY	RTE	PT	I/O	KEYBL	EX	OBS	LV	ARR	LV NAME	ARR NAME	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN
Wk							TIME	TIME			PSGR ON	PSGR ON	PSGR ON	PSGR OFF	PSGR OFF	PSGR OFF	PSGR LD	PSGR LD	PSGR LD
0				1558	EE	8	5:00 PM	5:08 PM	CENTBASE	3S WASH	0	2	0	0	1	0	0	2	0
18			O	1558	EE	7	5:08 PM	5:10 PM	3S WASH	3S JAXN	1	6	0	0	0	0	1	6	0
18			O	1558	EE	10	5:10 PM	5:11 PM	3S JAXN	1S JAXN	0	0	0	0	0	0	1	6	0
18			O	1558	EE	10	5:11 PM	5:18 PM	1S JAXN	1 UNON	42	58	24	2	6	0	41	60	23
18			O	1558	EE	10	5:18 PM	5:26 PM	1 UNON	1N DENY	13	19	3	7	14	1	49	61	30
18			O	1558	EE	10	5:26 PM	5:40 PM	1N DENY	BLRDMKT	5	9	1	24	31	16	48	59	30
18			O	1558	EE	10	5:40 PM	5:42 PM	BLRDMKT	24NWNW65	0	1	0	2	9	0	28	34	15
18			O	1558	EE	10	5:42 PM	5:48 PM	24NWNW65	24NWNW85	0	2	0	24	30	13	27	34	15
18			O	1558	EE	10	5:48 PM	5:51 PM	24NWNW85	TRTN100	0	1	0	2	4	0	3	6	1
18			O	1558	EE	10	5:51 PM	5:55 PM	TRTN100	24NWNW85	0	1	0	2	3	0	2	3	0
18			I	1558	EE	10	6:28 PM	6:34 PM	24NWNW85	BLRDMKT	6	12	3	2	4	0	5	9	3
18			I	1558	EE	10	6:34 PM	6:37 PM	BLRDMKT	15 SLEERY	5	11	1	1	3	0	9	15	3
18			I	1558	EE	10	6:37 PM	6:44 PM	15 SLEERY	15W GRFD	9	13	7	3	4	1	15	21	10
18			I	1558	EE	10	6:44 PM	6:49 PM	15W GRFD	QANNMRCR	3	6	1	2	5	0	17	27	12
18			I	1558	EE	10	6:49 PM	6:52 PM	QANNMRCR	1N DENY	7	10	0	3	5	1	21	33	14
18			I	1558	EE	10	6:52 PM	7:00 PM	1N DENY	1 UNON	4	10	0	14	30	7	22	34	14
22			O	1558	EE	10	7:00 PM	7:06 PM	1 UNON	1S JAXN	9	19	4	7	10	5	13	29	7
22			O	1558	EE	10	7:06 PM	7:08 PM	1S JAXN	1S RBRM	1	2	0	2	7	0	12	28	3
22			O	1558	EE	10	7:08 PM	7:13 PM	1S RBRM	1S SP W	3	5	1	2	7	0	12	22	5
22			O	1558	EE	10	7:13 PM	7:16 PM	1S SP W	26SWSP W	1	5	0	1	4	0	11	23	5
22			O	1558	EE	10	7:16 PM	7:20 PM	26SWSP W	35SWAVLN	1	5	0	2	5	0	10	23	4
22			O	1558	EE	10	7:20 PM	7:24 PM	35SWAVLN	CAL ALSK	1	3	0	2	7	0	9	18	4
22			O	1558	EE	10	7:24 PM	7:31 PM	CAL ALSK	CAL FAUN	1	3	0	3	8	1	8	14	3
22			O	1558	EE	10	7:31 PM	7:35 PM	CAL FAUN	41SWTHSL	0	1	0	3	5	0	6	12	2
22			O	1558	EE	10	7:35 PM	7:39 PM	41SWTHSL	25SWHEND	1	4	0	2	5	0	4	7	1
22			O	1558	EE	10	7:39 PM	7:43 PM	25SWHEND	15SWRXBY	0	1	0	1	2	0	2	5	1
22			O	1558	EE	10	7:43 PM	7:48 PM	15SWRXBY	15SW106	0	1	0	1	4	0	1	4	0
0			O	1558	EE	10	7:48 PM	8:12 PM	15SW106	CENTBASE	0	0	0	0	1	0	0	1	0

● Indicates fewer than three observations during the signup

Print Date: 12/20/2002

## Appendix B (continued)

### Summarized Time Point Loads

Time Point Load Summary

Select a sign-up and then enter one or more criteria to search on:  
*To enter multiple routes, separate with commas.*

Sign-up: 2001 SEP

Route: 8

Day: WK

Ex/Local:

IB/OB:

View Data

To Excel

Print Preview

Print

Clear

Rte	I/O	TP1Name	TP2Name	#Trips	AvObs/Trip	TtlObs	TtlAvLd	AvPsLd	MxMxPsLd	TtlObs	TtlLd
8 I		1W MRCR	ARORDENY	41	6	237	591	14	36	508	
8 I		ARORDENY	BRWYJOHN	41	6	237	736	18	48	267	
8 I		BRWYJOHN	16E DENY	15	10	143	167	11	28	43	
8 I		BRWYJOHN	KINGMDSN	26	4	94	405	16	36	150	
8 I		KINGMDSN	23S JAXN	26	4	94	214	8	25	67	
8 I		23S JAXN	CLMTWLDN	26	4	94	147	6	17	61	
8 O		CLMTWLDN	MLK MASS	27	4	112	93	3	22	56	
8 O		MLK MASS	23S JAXN	27	4	112	133	5	22	55	
8 O		23S JAXN	KINGMDSN	27	4	112	238	9	23	161	
8 O		KINGMDSN	BRWYJOHN	27	4	112	374	14	37	263	
8 O		16E DENY	BRWYJOHN	14	9	122	86	6	23	53	
8 O		BRWYJOHN	ARORDENY	41	6	234	757	18	44	487	
8 O		ARORDENY	1W MRCR	41	6	231	578	14	35	107	

Record: 13 of 13

# Summarized Time Point Load Profile

FALL '01 FINAL, DATED 4/26/2002

SOURCE: SEATTLE METRO APC SYSTEM

DAY	ROUTE	I/O	# TRIPS	AVG OBS/TRIP	TTL OBS	LV NAME	ARR NAME	TOTAL PSGR LD	AVG PSGR LD	MAX PSGR LD	MAX PSGR LD	TOTAL ONS	TOTAL OFFS	ONS & OFFS
WK 8														
I			41	6	237	1W MRCR	ARORDENY	591	14	36		508	45	553
I			41	6	237	ARORDENY	BRWYJOHN	736	18	48		267	294	561
I			15	10	143	BRWYJOHN	16E DENY	167	11	28		43	171	214
I			26	4	94	KINGMDSN	23S JAXN	214	8	25		67	107	173
I			26	4	94	23S JAXN	CLMTWLDN	147	6	17		61	163	224
O			27	4	112	CLMTWLDN	MLK MASS	93	3	22		56	3	59
O			27	4	112	MLK MASS	23S JAXN	133	5	22		55	24	78
O			27	4	112	23S JAXN	KINGMDSN	238	9	23		161	71	232
O			27	4	112	KINGMDSN	BRWYJOHN	374	14	37		263	118	381
O			14	9	122	16E DENY	BRWYJOHN	86	6	23		53	2	55
O			41	6	234	BRWYJOHN	ARORDENY	757	18	44		487	353	840
O			41	6	231	ARORDENY	1W MRCR	578	14	35		107	565	673

### ***Trip Ridership***

12/17/02

# Trip Ridership Report

BASED ON DATA FROM SIGNUP: FALL '02 INTERIM, DATED 11/30/2002

SOURCE: SEATTLE METRO APC SYSTEM

Day	Rte	Pt	Ex	I/O	KeyBlock	Obs	StartTime	EndTime	BegTPName	EndTPName	Ons: 535   Offs: 535										Avg				Min Load	Rev	Rider				
											Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Mx	Ld	Mx	Ld	Mx				Ld	Fact	Min	per Hr
WK	75			O	7501	3	4:55 AM	5:59 AM	UNIVCAMP	20NWLEARY	12	14	11	12	14	11		6	7	5	0.1	64	11	42							
WK	75			I	7501	3	6:19 AM	7:30 AM	20NWLEARY	UNIVCAMP	53	75	24	43	61	15		31	45	14	0.7	71	45	42							
WK	75			O	7501	3	7:53 AM	9:00 AM	UNIVCAMP	20NWLEARY	63	82	28	73	96	36		35	49	9	0.8	67	65	42							
WK	75			I	7501	3	9:19 AM	10:30 AM	20NWLEARY	UNIVCAMP	66	85	34	62	78	35		26	39	9	0.6	71	56	42							
WK	75			O	7501	3	10:51 AM	12:02 PM	UNIVCAMP	20NWLEARY	58	67	52	63	73	51		20	23	14	0.5	71	53	42							
WK	75			I	7501	3	12:17 PM	1:29 PM	20NWLEARY	UNIVCAMP	60	67	51	54	66	42		18	19	17	0.4	72	50	42							
WK	75			O	7501	3	2:18 PM	3:34 PM	UNIVCAMP	20NWLEARY	103	135	67	108	135	76		37	54	26	0.9	76	85	42							
WK	75			I	7501	3	3:46 PM	5:00 PM	20NWLEARY	UNIVCAMP	73	81	65	65	77	56		27	35	21	0.6	74	59	42							
WK	75			AT	7501	3	5:33 PM	6:08 PM	UNIVCAMP	28NE125	37	59	13	46	72	23		34	53	11	0.8	35	79	42							
WK	75			AT	7501	3	6:19 PM	6:45 PM	28NE125	UNIVCAMP	10	13	9	9	13	8		5	7	4	0.1	26	23	42							
Total Trips: 10												Ons: 535   Offs: 535																			

- Indicates fewer than three observations during the signup
- Ⓢ Avg Max Load is greater than Seats

Printed on Friday, December 20, 2002

## Appendix B (continued)

### Unsummarized Trip Ridership

Unsummarized Trip Ridership

Select a sign-up and enter other criteria.

To enter multiple routes or blocks, separate with commas.

Sign-up: 2002 SEP

Sort by Route, Date, Time

Sort by Route, Time, Date

Sort by Block, Date, Time

Sort by Block, Time, Date

Day:

Block: 7501

Route:

IB/OB:

Part:

Ex/Local:

View Data

To Excel

Print Preview

Print

Clear

Day	Rte	Pt	Ex	I/O	KeyBl	StTime	EndTime	StTP	EndTP	Date	Ons	Offs	MaxLd	Holiday
Mon	75			I	7501	6:19 AM	7:30 AM	20NWLER	UNIVCAMP	11/4/2002	75	61	45	
Mon	75			I	7501	6:19 AM	7:30 AM	20NWLER	UNIVCAMP	11/11/2002	24	15	14	Veteran's D
Fri	75			I	7501	6:19 AM	7:30 AM	20NWLER	UNIVCAMP	11/22/2002	62	53	36	
Mon	75			I	7501	9:19 AM	10:30 AM	20NWLER	UNIVCAMP	11/4/2002	85	74	32	
Mon	75			I	7501	9:19 AM	10:30 AM	20NWLER	UNIVCAMP	11/11/2002	34	35	9	Veteran's D
Fri	75			I	7501	9:19 AM	10:30 AM	20NWLER	UNIVCAMP	11/22/2002	81	78	39	
Mon	75			I	7501	12:17 PM	1:29 PM	20NWLER	UNIVCAMP	11/4/2002	67	66	17	
Mon	75			I	7501	12:17 PM	1:29 PM	20NWLER	UNIVCAMP	11/11/2002	51	42	19	Veteran's D
Fri	75			I	7501	12:17 PM	1:29 PM	20NWLER	UNIVCAMP	11/22/2002	64	56	19	
Mon	75			I	7501	3:46 PM	5:00 PM	20NWLER	UNIVCAMP	11/4/2002	74	62	27	
Mon	75			I	7501	3:46 PM	5:00 PM	20NWLER	UNIVCAMP	11/11/2002	65	56	21	Veteran's D
Fri	75			I	7501	3:46 PM	5:00 PM	20NWLER	UNIVCAMP	11/22/2002	81	77	35	
Mon	75		AT	I	7501	6:19 PM	6:45 PM	28NE125	UNIVCAMP	11/4/2002	13	13	7	

Record: 14 15 of 15

ServDev Data Req for OBS Appen B.doc

B-26

12/17/02

Appendix B (continued)

## Unsummarized Trip Ridership Report

BASED ON DATA FROM SIGNUP: FALL '02 INTERIM, DATED 11/30/2002

Rte	Ex Pt	I/O	Block	From TP	To TP	StartTime	EndTime	Obs Day	Obs Date	Pass Ons*	Pass Offs*	Max Load	Num Stops	Bus Num
75		I	7501	20NWLE	UNIVCAM	6:19 AM	7:30 AM	Mon	11/04/02	75	61	45	48	3232
75		I	7501	20NWLE	UNIVCAM	6:19 AM	7:30 AM	Mon	11/11/02	● 24	15	14	28	3207
75		I	7501	20NWLE	UNIVCAM	6:19 AM	7:30 AM	Fri	11/22/02	62	53	36	39	3217
75		I	7501	20NWLE	UNIVCAM	9:19 AM	10:30 AM	Mon	11/04/02	85	74	32	50	3232
75		I	7501	20NWLE	UNIVCAM	9:19 AM	10:30 AM	Mon	11/11/02	● 34	35	9	30	3207
75		I	7501	20NWLE	UNIVCAM	9:19 AM	10:30 AM	Fri	11/22/02	81	78	39	50	3217
75		I	7501	20NWLE	UNIVCAM	12:17 PM	1:29 PM	Mon	11/04/02	67	66	17	45	3232
75		I	7501	20NWLE	UNIVCAM	12:17 PM	1:29 PM	Mon	11/11/02	● 51	42	19	37	3207
75		I	7501	20NWLE	UNIVCAM	12:17 PM	1:29 PM	Fri	11/22/02	64	56	19	42	3217
75		I	7501	20NWLE	UNIVCAM	3:46 PM	5:00 PM	Mon	11/04/02	74	62	27	47	3232
75		I	7501	20NWLE	UNIVCAM	3:46 PM	5:00 PM	Mon	11/11/02	● 65	56	21	41	3207
75		I	7501	20NWLE	UNIVCAM	3:46 PM	5:00 PM	Fri	11/22/02	81	77	35	43	3217
75 AT		I	7501	28NE125	UNIVCAM	6:19 PM	6:45 PM	Mon	11/04/02	13	13	7	17	3232
75 AT		I	7501	28NE125	UNIVCAM	6:19 PM	6:45 PM	Mon	11/11/02	● 9	8	4	10	3207
75 AT		I	7501	28NE125	UNIVCAM	6:19 PM	6:45 PM	Fri	11/22/02	10	8	5	12	3217

● Data collected on a holiday or other non-typical day

\* Ons and offs in the Ride Free Area are excluded.

Printed on Friday, December 20, 2002

SOURCE: SEATTLE METRO APC SYSTEM

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### ***Identify High/Low Trip Loads***

12/17/02

# Weekday Trip Loads Report

BASED ON DATA FROM SIGNUP: SPR '02 FINAL, DATED 6/21/2002

SOURCE: SEATTLE METRO APC SYSTEM

Base	Block	Rte	Ex	Pt	I/O	Dir	Obs	StartTime	EndTime	Load Fact	Avg Load	Max Load	Min Load	Seats	Bus Type
SO BASE	16806	\$ 164			O	E	16	7:27 AM	7:55 AM	1.13	34	50	15	30	11
SO BASE	16806	\$ 164			I	W	16	8:18 AM	8:48 AM	1.10	33	50	11	30	11
SO BASE	10110	\$ 101			I	N	12	6:44 AM	7:50 AM	1.10	69	97	50	63	50 Artic
SO BASE	18701	187			I	N	8	2:26 PM	2:57 PM	1.07	32	43	23	30	11
SO BASE	19409	194			O	S	7	2:44 PM	3:50 PM	1.05	66	76	50	63	50 Artic
SO BASE	17701	\$ 101 AT			I	N	5	7:06 AM	7:35 AM	1.02	64	77	46	63	50 Artic
SO BASE	10106	\$ 101			O	S	7	4:03 PM	5:06 PM	1.00	63	149	35	63	50 Artic
SO BASE	10107	101 AT			O	S	8	2:56 PM	3:33 PM	1.00	63	73	50	63	50 Artic
SO BASE	10109	\$ 101			I	N	3	6:13 AM	7:19 AM	0.94	59	64	54	63	50 Artic
SO BASE	10110	\$ 101			O	S	6	5:33 PM	6:36 PM	0.94	59	85	43	63	50 Artic
SO BASE	19408	194			O	S	11	2:12 PM	3:15 PM	0.94	59	85	41	63	50 Artic
SO BASE	10703	\$ 148			O	S	3	3:31 PM	4:01 PM	0.93	28	30	26	30	11
SO BASE	16802	164			O	E	12	2:37 PM	3:10 PM	0.93	28	41	10	30	11
SO BASE	14311	\$ 143 EE			O	S	● 1	4:44 PM	5:55 PM	0.92	59	59	59	64	23 Artic
SO BASE	10127	\$ 101			O	S	8	4:53 PM	5:56 PM	0.92	58	69	42	63	50 Artic
SO BASE	10703	\$ 107			O	S	5	6:50 AM	7:09 AM	0.90	27	34	14	30	11
SO BASE	16801	\$ 168			O	E	4	4:11 PM	4:53 PM	0.90	27	33	21	30	11
SO BASE	15811	\$ 158			O	S	● 1	5:12 PM	6:23 PM	0.89	57	57	57	64	23 Artic
SO BASE	10106	\$ 101			I	N	10	5:38 AM	6:43 AM	0.87	55	66	40	63	50 Artic
SO BASE	15005	150			O	S	9	1:09 PM	2:28 PM	0.87	55	69	35	63	50 Artic
SO BASE	15005	\$ 150 AT			O	S	9	5:04 PM	5:53 PM	0.87	55	77	38	63	50 Artic
SO BASE	10703	107			I	N	3	2:40 PM	3:00 PM	0.87	26	34	21	30	11
SO BASE	16806	164			O	E	16	10:32 AM	11:01 AM	0.87	26	44	11	30	11
SO BASE	10104	\$ 101 AT			I	N	7	6:28 AM	7:03 AM	0.84	53	65	41	63	50 Artic
SO BASE	10110	\$ 101 AT			O	S	7	3:18 PM	3:55 PM	0.84	53	68	47	63	50 Artic
SO BASE	10121	\$ 101 AT			O	S	13	3:43 PM	4:20 PM	0.84	53	69	29	63	50 Artic
SO BASE	10126	\$ 101			O	S	6	5:13 PM	6:16 PM	0.84	53	59	46	63	50 Artic
SO BASE	15009	150			O	S	10	1:40 PM	3:00 PM	0.84	53	71	42	63	50 Artic
SO BASE	13504	135			O	S	6	2:45 PM	3:27 PM	0.83	35	48	19	42	32
SO BASE	17906	\$ 179			I	N	3	7:00 AM	7:46 AM	0.83	35	39	31	42	32
SO BASE	10102	\$ 101 AT			I	N	12	6:24 AM	6:53 AM	0.83	52	72	43	63	50 Artic
SO BASE	10107	101 AT			I	N	9	8:57 AM	9:31 AM	0.83	52	67	40	63	50 Artic
SO BASE	10111	\$ 101 AT			I	N	9	6:44 AM	7:13 AM	0.81	51	66	41	63	50 Artic
SO BASE	10122	\$ 101 AT			O	S	7	4:13 PM	4:50 PM	0.81	51	63	38	63	50 Artic
SO BASE	13501	\$ 135 AT			O	S	9	3:15 PM	3:37 PM	0.81	34	41	30	42	32
SO BASE	13504	\$ 135			O	S	5	5:46 PM	6:30 PM	0.81	34	39	29	42	32
SO BASE	17721	\$ 177			O	S	6	3:38 PM	4:20 PM	0.81	51	59	40	63	50 Artic
SO BASE	17725	\$ 177			O	S	● 1	4:32 PM	5:16 PM	0.81	51	51	51	63	50 Artic
SO BASE	19402	194			I	N	7	10:57 AM	12:00 PM	0.81	51	58	45	63	50 Artic
SO BASE	19404	194			I	N	16	8:26 AM	9:31 AM	0.81	51	86	39	63	50 Artic
SO BASE	95214	952 EE			O	S	● 2	4:24 PM	6:30 PM	0.81	34	36	32	42	32
SO BASE	16805	\$ 164			O	E	13	3:39 PM	4:12 PM	0.80	24	42	13	30	11
SO BASE	16806	164			I	W	16	11:23 AM	11:52 AM	0.80	24	42	12	30	11
SO BASE	16806	166			O	N	16	12:57 PM	1:25 PM	0.80	24	42	6	30	11
SO BASE	16806	164			I	W	16	2:23 PM	2:55 PM	0.80	24	40	10	30	11
SO BASE	17914	\$ 179			O	S	7	5:14 PM	6:07 PM	0.80	24	28	20	30	11
SO BASE	18701	187			I	N	9	12:24 PM	12:55 PM	0.80	24	55	8	30	11
SO BASE	15210	\$ 152			O	S	10	3:39 PM	5:04 PM	0.80	51	64	44	64	23 Artic
SO BASE	17406	174 AT			I	N	22	1:26 PM	2:56 PM	0.80	51	67	34	64	23 Artic
SO BASE	17412	\$ 174 AT			I	N	18	1:57 PM	3:28 PM	0.80	51	76	32	64	23 Artic
SO BASE	10107	\$ 101 AT			I	N	9	6:52 AM	7:27 AM	0.79	50	65	34	63	50 Artic
SO BASE	10108	\$ 101 AT			I	N	3	8:12 AM	8:47 AM	0.79	50	55	44	63	50 Artic
SO BASE	15020	150			O	S	14	2:08 PM	3:30 PM	0.79	50	72	36	63	50 Artic
SO BASE	19406	194			I	N	8	11:58 AM	1:03 PM	0.79	50	72	38	63	50 Artic

● Indicates fewer than three observations during the sign-up (trips with no observations are excluded)

### Block Artic Productivity

12/17/02

Appendix B (continued)

# **RYERSON BASE Base Weekday Artic Productivity Report**

BASED ON DATA FROM SIGNUP: SPR '02 FINAL, DATED 6/21/2002

SOURCE: SEATTLE METRO APC SYSTEM

Time Period	Block	# of Trips	Bus Type	Top Seats	Min AvLd	Max Obs	Start Time	End Time	Artic Need	Comment
PK AM	2404	2	23 Artic	64	57	6	6	326	483	Yes
PK AM	2409	2	23 Artic	64	55	1	1	353	462	Yes?
PK AM	1705	2	23 Artic	64	53	2	7	325	475	Probably
PK AM	1715	3	23 Artic	64	52	10	10	382	536	Probably
PK AM	2606	3	23 Artic	64	52	6	6	345	469	Probably
PK AM	1601	3	23 Artic	64	51	3	4	283	476	Probably
PK AM	2811	2	23 Artic	64	48	3	7	402	545	Maybe
PK AM	3305	3	23 Artic	64	47	8	9	379	496	Maybe
PK AM	2414	1	23 Artic	64	46	2	2	406	467	Maybe?
PK AM	2807	4	23 Artic	64	46	7	8	358	586	Maybe
PK AM	2815	1	23 Artic	64	46	4	4	426	464	Maybe
PK AM	1612	3	23 Artic	64	45	4	6	442	649	Maybe
PK AM	2802	3	23 Artic	64	44	7	7	331	479	Maybe
PK AM	6004	6	32	42	44	4	5	395	844	Maybe
PK AM	1720	2	23 Artic	64	43	10	10	401	544	Maybe
PK AM	4807	10	32	42	43	12	13	388	857	Maybe
PK AM	1602	5	23 Artic	64	42	17	17	300	509	No
PK AM	1716	2	23 Artic	64	42	7	7	390	513	No
PK AM	1724	1	23 Artic	64	42	6	6	452	483	No
PK AM	2405	3	23 Artic	64	42	5	7	334	500	No
PK AM	2410	4	23 Artic	64	41	9	9	366	554	No
PK AM	2602	4	23 Artic	64	41	5	8	317	489	No
PK AM	2813	1	23 Artic	64	41	9	9	421	456	No
PK AM	3303	3	23 Artic	64	41	3	7	354	466	No
PK AM	1107	4	23 Artic	64	40	12	13	366	493	No
PK AM	2411	3	23 Artic	64	40	11	11	373	493	No
PK AM	2804	3	30	44	40	7	7	352	464	No
PK AM	2808	2	23 Artic	64	40	6	12	387	521	No
PK AM	804	4	30	44	39	4	4	377	597	No
PK AM	1605	7	32	42	39	12	19	340	853	No
PK AM	1710	2	23 Artic	64	39	2	2	353	467	No?
PK AM	2402	4	23 Artic	64	39	11	11	302	542	No
PK AM	2403	3	23 Artic	64	39	9	11	320	464	No
PK AM	4813	3	30	44	39	3	8	419	537	No
PK AM	1712	2	23 Artic	64	38	3	4	368	500	No
PK AM	4804	10	23 Artic	64	38	3	3	358	789	No
PK AM	6006	1	30	44	38	3	3	419	483	No
PK AM	1609	3	23 Artic	64	37	6	11	402	609	No
PK AM	2603	3	23 Artic	64	37	6	9	340	452	No
PK AM	4801	5	23 Artic	64	37	9	11	321	500	No
PK AM	1604	6	32	42	36	12	18	330	749	No
PK AM	2611	9	32	42	36	6	7	413	837	No
PK AM	1704	3	30	44	35	17	18	314	492	No
PK AM	1711	3	30	44	35	7	7	348	487	No
PK AM	2412	7	23 Artic	64	35	10	10	396	799	No
PK AM	4816	2	30	44	35	4	4	448	518	No
PK AM	802	4	30	44	34	5	5	347	532	No
PK AM	1103	4	23 Artic	64	34	5	8	303	480	No
PK AM	1610	2	30	44	34	6	6	415	528	No
PK AM	2604	7	30	44	34	7	7	341	649	No
PK AM	2407	2	30	44	33	4	5	347	527	No
PK AM	2610	3	30	44	33	6	11	407	515	No
PK AM	4811	2	30	44	33	4	4	419	488	No
PK AM	4812	4	30	44	33	4	5	428	555	No

● Indicates fewer than three observations for a least one trip of block.

Printed on Friday, December 20, 2002

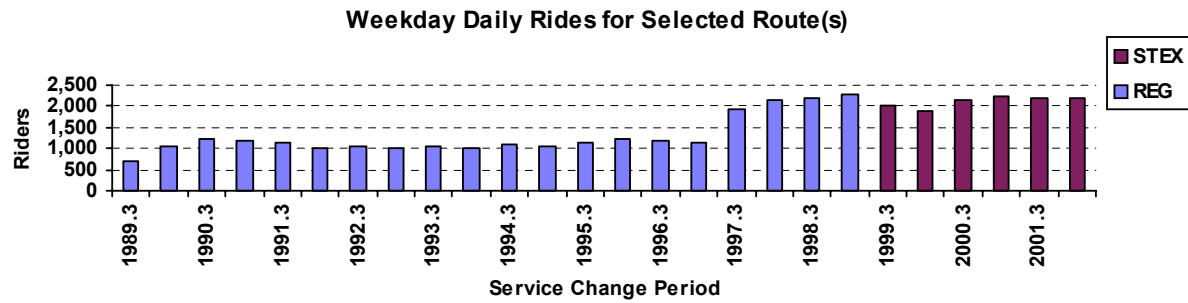
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### ***Route Ridership History***

ServDev Data Req for OBS Appen B.doc

## Saturday Ridership Statistics for Route(s) 226, 235, 550

SOURCE: SEATTLE METRO APC SYSTEM



Route	Type	Signup	Bus Trips	Riders/ Trip	Riders/ RevHour	Annual Platform Hours	Annual Rides	Daily Riders
226		1989.3	39	11	18	1,900	23,000	440
226		1990.1	39	13	22	1,900	25,800	500
226		1990.3	39	16	27	1,900	32,200	620
226		1991.1	39	0	25	1,900	31,400	600
226		1991.3	39	15	25	1,900	30,700	590
226		1992.1	38	15	25	1,900	29,300	560
226		1992.3	37	14	23	1,800	27,100	520
226		1993.1	37	13	22	1,800	25,500	490
226		1993.3	37	14	23	1,800	26,800	520
226		1994.1	37	13	22	1,800	24,500	470
226		1994.3	37	15	25	1,800	28,200	540
226		1995.1	32	14	26	1,600	23,500	450
226		1995.3	32	16	30	1,600	26,500	510
226		1996.1	32	16	31	1,600	27,500	530
226		1996.3	32	18	31	1,600	29,100	560
226		1997.1	32	17	32	1,600	28,800	550
226		1997.3	69	28	42	3,700	99,300	1,910
226		1998.1	69	31	48	3,700	112,600	2,160
226		1998.3	69	32	49	3,700	114,800	2,210
226		1999.1	69	33	50	3,700	117,600	2,260

## Appendix C: ADAP Report Samples

### Time Point Arrival Report

Dates: 2000-06-05 thru 2000-06-12

Time Period: 06:00 - 09:00

Schedule Type: Weekday

Timepoint: 4707

RAINIER AV S & S GRAHAM ST

Sorted Time.

Block	Run	Trip	Route	Dir	Sched	6/5/2000	6/6/2000	6/7/2000	6/8/2000	6/9/2000	6/12/2000	Average
7	9	2	7	S	06:01				-3	-3	1	-1.7
7	10	2	7	S	06:11		2		3		0	1.7
7	8	3	9	N	06:14	1	2	1	3		1	1.6
7	7	3	7	N	06:16			2	0	0		0.7
7	11	2	7	S	06:16	1			2	-3	2	0.5
7	52	2	7	N	06:21			-4	-3		-1	-2.7
7	9	3	7	N	06:26				-2	1	1	0.0
7	3	4	7	S	06:28	-1	-1	-1	1	-1	-7	-1.7
43	9	2	7	S	06:31	3	1	5	1		1	2.2
7	10	3	7	N	06:36		2		0	-6	-1	-1.3
7	14	2	7	S	06:39	2			3	4	1	2.5
7	11	3	9	N	06:43	0			1	-1	3	0.8
7	1	5	7	N	06:45	-1	0	1	-1	1	-5	-0.8
7	16	2	7	S	06:47	0	0	0	0			0.0
7	50	4	7	N	06:47	2	-2	2	1	1		0.8
43	9	3	7	N	06:55	2	0	3	1		-1	1.0
43	1	2	7	S	06:56		7	3	3	5	5	4.6
7	53	2	7	N	06:57	0	0	-1	0	1	-1	-0.2
7	6	4	7	S	06:59	-5	-1	0	-2	2	-2	-1.3
7	3	5	7	N	07:05	0	0	1	3	2	17	3.8
7	19	2	7	S	07:06	-1			-5	0		-2.0
7	54	2	7	N	07:07			-2			-2	-2.0
7	14	3	9	N	07:12	1			1	0	-35	-8.3
7	13	3	7	S	07:15	-1	-4	-2		1	0	-1.2
7	16	3	7	N	07:15	0	0	0	-1			-0.3
7	55	2	7	N	07:17	1				1		1.0
7	20	2	7	S	07:20	1	1	2	-1	1	1	0.8
7	21	2	7	S	07:24	4	2	1	3	2		2.4
43	1	3	7	N	07:24		2	4	1	4	0	2.2
7	2	6	7	S	07:30	-2	-10	-5	-3	2	-2	-3.3
941	1	4	7	N	07:31	-5	-2	-1	-2	-2	-3	-2.5
7	19	3	7	N	07:33	-4			-1	-1		-2.0
7	4	5	9	S	07:37	-2	-4	1	-3	-6	-8	-3.7
7	6	5	7	N	07:42	2	2	0	0	1	1	1.0
7	20	3	9	N	07:44	0	0	-1	-2	-2	0	-0.8
7	18	3	7	S	07:45	1	4	-7	0		-1	-0.6
7	22	2	7	S	07:48	1		-5	1	0		-0.8
2	51	7	7	N	07:50	0	1	2	0	1	1	0.8
7	21	3	7	N	07:52	1	0	1	0	2		0.8
7	13	4	7	N	08:02	0	-1			2	0	0.3
7	15	4	7	S	08:02	-3	-4	2	-3	-2		-2.0
7	5	5	9	S	08:04	3	0	-25	3	2	3	-2.3

## Appendix C: ADAP Report Samples

### Block Summary Report

Dates: 2000-06-05 thru 2000-06-12

Time Period: 06:00 - 09:00

Schedule Type: Weekday

Block: 5 / 1

Service Route	TripID	Location	Dir	Sched	6/5/2000	6/6/2000	6/7/2000	6/12/2000	Average
54	3	26 AV SW & SW BARTON ST	S	6:00		-2	-3	-2	-2.3
54	3	15 AV SW & SW 98 ST	XXX	6:05	-4	-1	-4	-1	-2.5
54	4	15 AV SW & SW 98 ST	XXX	6:36	1	-1	0		0.0
54	4	26 AV SW & SW BARTON ST	N	6:41	0		0	1	0.3
54	4	45 AV SW & SW WILDWOOD PL	N	6:47	-1	0	1	0	0.0
54	4	CALIFORNIA AV SW & FAUNTLEROY WY SW	N	6:54	0	0	1	2	0.8
54	4	CALIFORNIA AV SW & SW ALASKA ST	N	7:01	-2	0	0	2	0.0
54	4	35 AV SW & SW AVALON WY	N	7:07		-1	-2	0	-1.0
54	4	1 AV & UNION ST	N	7:20		2	-2	0	0.0
5	5	3 AV & PINE ST	XXX	7:23		2	-3	-1	-0.7
54	4	3 AV & PINE ST	XXX	7:23		2	-2	-1	-0.3
5	5	7 AV & DEXTER AV	N	7:29			-4	-3	-3.5
5	5	FREMONT WY N & N 38 ST	N	7:35			-5	-4	-4.5
5	5	PHINNEY AV N & N 46 ST	N	7:39			-6	-4	-5.0
5	5	GREENWOOD AV N & N 85 ST	N	7:47		1	-9	-5	-4.3
5	5	GREENWOOD AV N & HOLMAN RD N	N	7:52		1	-10	-5	-4.7
5	5	AURORA AV N & N 105 ST	N	7:54		1	-9	-6	-4.7
5	5	MERIDIAN AV N & N NORTHGATE WY	N	7:56		-1	-10	-6	-5.7
5	5	COLLEGE WY N & N 92 ST	N	8:00		-1	-10	-7	-6.0
5	5	NORTHGATE TC BAY 2	XXX	8:04	-3	-1	-9	-6	-4.8
5	6	NORTHGATE TC BAY 2	XXX	8:04	-40	-43	-41	-7	-32.8
5	6	NORTHGATE TC BAY 6	XXX	8:05	-41	-42	-41	-41	-41.3
5	7	NORTHGATE TC BAY 6	XXX	8:45	-1	-2	-1	-1	-1.3
5	7	COLLEGE WY N & N 92 ST	S	8:49				-3	-3.0
5	7	COLLEGE WY N & N 92 ST	XXX	8:49	0	-1	0		-0.3
5	7	MERIDIAN AV N & N NORTHGATE WY	S	8:53				-4	-4.0
5	7	MERIDIAN AV N & N NORTHGATE WY	XXX	8:53	0	-1	1		0.0
5	7	AURORA AV N & N 105 ST	S	8:55				-4	-4.0
5	7	AURORA AV N & N 105 ST	XXX	8:55	0	-2	0		-0.7
5	7	GREENWOOD AV N & HOLMAN RD N	S	8:58				-3	-3.0



## Appendix D: APC Files for PC Focus

APC (disaggregate) LogStop File Description (FOCUS)				
Element	FieldName	Format		
1	KEYBLOCK	I6		
2	BASETMPT	I4		
3	DATMATCH	I6		
4	DATEDATA	I6		
5	DAYOFWEEK	I1		
6	COACHTYPE	I2		
7	NUMSEATS	I2		
8	KEYCOACH	I4		
9	KEYPCU	I3		
10	STOPSEQN	I4		
11	KEYTRIP	I9		
12	DIRNAME	A8		
13	KEYPATTERN	I7		
14	KEYTPI	I9		
15	RTENACCT	I3		
16	EXPRACCT	A2		
17	PARTACCT	A1		
18	SURCACCT	A1		
19	DUMYACCT	A1		
20	RTENSIGN	I3		
21	EXPRSIGN	A2		
22	PARTSIGN	A1		
23	SURCSIGN	A1		
24	DUMYSIGN	A1		
25	RTENDPRT	I3		
26	EXPRDPRT	A2		
27	PARTDPRT	A1		
28	SURCDPRT	A1		
29	DUMYDPRT	A1		
30	TPIDIST	I6		
31	KEYZONE	I6		
32	NUMSHEL	I1		
33	RFAFLAG	I1		
34	PROFLAG	I1		
35	EANDH	I1		
36	STOPFLAG	I1		
37	TIMARIV	F7.2		
38	TIMDWELL	F7.2		
39	PLOAD	I3		
40	PON	I3		
41	POFF	I3		
42	MATCHDEL	I6		
43	TIMDEV	F9.2		

APC (aggregate) Zones File Description (FOCUS)			
Element	FieldName	Format	
1	KEYZONE	I6	
2	PERIOD	A3	
3	RTENACCT	I3	
4	TYPSE	A1	
5	DUMYACCT	A1	
6	UNIQTRIPCNT	I5	
7	TOTTRIPCNT	I5	
8	STOPCNT	I5	
9	PONR	F6.2	
10	ONTOTAL	F6.1	
11	POFFR	F6.2	
12	OFFTOTAL	F6.1	
13	PLOADR	F5.1	
14	NUMSEATS	I2	
15	ONSTREET	A20	
16	CROSSSTREET	A20	
17	INTERSECT	A2	
18	DIRECTION	A1	

## Appendix D: APC Files for PC Focus

APC (disaggregate) LogTPI File Description (FOCUS)		
Element	FieldName	Format
1	KEYBLOCK	I6
2	BASETMP	I4
3	DATMATCH	I6
4	DATEDATA	I6
5	DAYOFWEEK	I1
6	COACHTYPE	I2
7	NUMSEATS	I2
8	KEYCOACH	I4
9	KEYPCU	I3
10	TPSEQN	I4
11	KEYTRIP	I9
12	DIRNAME	A1
13	TPDELTA	I8
14	KEYPATTERN	I7
15	KEYTPI	I9
16	DRIVERRUNKEY	A5
17	RTENACCT	I3
18	EXPRACCT	A2
19	PARTACCT	A1
20	SURCACCT	A1
21	DUMYACCT	A1
22	RTENSIGN	I3
23	EXPRSIGN	A2
24	PARTSIGN	A1
25	SURCSIGN	A1
26	DUMYSIGN	A1
27	RTENDPRT	I3
28	EXPRDPRT	A2
29	PARTDPRT	A1
30	SURCDPRT	A1
31	DUMYDPRT	A1
32	TPIDIST	I6
33	KEYZONE	I6
34	NUMSTOPS	I3
35	PROFLAG	I1
36	NUMOVLDS	I2
37	MAXLOAD	I4
38	TIMDPML	F7.2
39	TIMDWELL	F7.2
40	PLOAD	I3
41	PON	I3
42	POFF	I3
43	TIMDEV1	F9.2
44	TIMSCH1	F7.2
45	TIMDEV2	F9.2
46	TIMSCH2	F7.2
47	DISPTRV	F7.1
48	TIMPTRV	F9.3
49	DISOTRV	F7.1
50	TIMOTRV	F9.3
51	DISODUR	I6
52	TIMODUR	F7.2
53	DISXTRV	F7.1
54	TIMXTRV	F7.3
55	DISXDUR	I6
56	TIMXDUR	F7.2

## Appendix D: APC Files for PC Focus

APC (aggregate) TPI File Description (FOCUS)			
Element	FieldName	Format	
1	RTENACCT	I3	
2	PARTACCT	A1	
3	EXPRACCT	A2	
4	DUMYACCT	A1	
5	DAY1	I1	
6	KEYTRIP	I9	
7	KEYTPI	I9	
8	KEYBLOCK	I6	
9	TIMEMID	I4	
10	TIMEDEP	I4	
11	TIME1	A8	
12	TIMEARR	I4	
13	TIME2	A8	
14	SURCHARGE	A1	
15	KEYPATTERN	I7	
16	TRIPKIND	A1	
17	DIR	A1	
18	COACHTYPE	I2	
19	BASETMPT	I4	
20	TP1NAME	A8	
21	TP2NAME	A8	
22	COUNT	I5	
23	AVEDEV1	F7.2	
24	MAXDEV1	F7.2	
25	MINDEV1	F7.2	
26	AVEDEV2	F7.2	
27	MAXDEV2	F7.2	
28	MINDEV2	F7.2	
29	AVEPON	F4.1	
30	MAXPON	I3	
31	MINPON	I3	
32	AVEPOFF	F4.1	
33	MAXPOFF	I3	
34	MINPOFF	I3	
35	AVEMLOAD	F5.1	
36	MAXMLOAD	I4	
37	MINMLOAD	I4	
38	AVEPLOAD	F5.1	
39	MAXPLOAD	I3	
40	MINPLOAD	I3	
41	NUMSTOPS	I3	
42	NUMSEATS	I2	

## Appendix D: APC Files for PC Focus

APC (aggregate) Trip File Description (FOCUS)			
Element	FieldName	Format	
1	RTENACCT	I3	
2	PARTACCT	A1	
3	EXPRACCT	A2	
4	DUMYACCT	A1	
5	DAY1	I1	
6	KEYTRIP	I9	
7	KEYBLOCK	I6	
8	TIMSCH1	F7.2	
9	TIMSCH2	F7.2	
10	DIR	A1	
11	SURCACCT	A1	
12	PSGRMILES	F7.1	
13	COACHTYPE	A2	
14	NUMSEATS	I3	
15	BASETMPT	I4	
16	TRIPMIN	I4	
17	TRIPMILE	F6.2	
18	REVMIN	I4	
19	REVMILE	F7.2	
20	COUNT	I5	
21	AVEPON	I3	
22	MAXPON	I3	
23	MINPON	I3	
24	AVEPOFF	I3	
25	MAXPOFF	I3	
26	MINPOFF	I3	
27	AVEMLOAD	I4	
28	MAXMLOAD	I4	
29	MINMLOAD	I4	
30	AVESTOPS	I3	
31	PSGRHOURS	F6.2	
32	TIME1	A8	
33	TIME2	A8	
34	TPSTART	I4	
35	TPSNAME	A8	
36	TPEND	I4	
37	TPENAME	A8	

## Appendix F: HASTUS ATP Data Specifications

### File Description

HASTUS ATP will import a flat, tilde-delimited (~) file (see table, below). The table should be sorted by Start Timepoint, End Timepoint, and Date Observed in order to facilitate importing it into HASTUS.

<b>Start Timepoint</b>	Timepoint ID of first timepoint on the TPI	Integer between 1 and 9999.
<b>End Timepoint</b>	Timepoint ID of second timepoint on the TPI	Integer between 1 and 9999.
<b>Time Observed</b>	Time data observed. Seattle Metro uses a 30-hour clock in order to identify trips that end on a different day than when they began. Such trips are part of the service for the day they began (e.g., a trip that begins at 9:30pm Friday and ends at 4:00am on Saturday is counted as a weekday trip)..	Times may be entered in military time or a/p/x time. For example 1:35pm would be entered as 13:35 or 135p. For times after midnight, an x is used. For example, 25:34 or 134x.
<b>Date Observed</b>	Date data observed	mm/dd/yyyy
<b>Travel Time</b>	The amount of time it takes the bus to travel between its <i>arrival</i> at the start timepoint and its <i>arrival</i> at the end timepoint.	mm;s For example, 3 minutes and 3 seconds is either 3;3 or 3;03
<b>Data Source</b>	Identifies the system that provided the data (e.g., AVL, APC, IBUS, etc)	Can be as much as 20 characters, but should be as short as possible to minimize data loading time
<b>Wait Time</b>	Trip wait time at the end timepoint. Due to the method of measuring travel time, the wait time is also included in the travel time of the previous TPI. HASTUS ATP uses the wait time for informational purposes only; it is not used in any calculations.	mm;s For example, 3 minutes and 3 seconds is either 3;3 or 3;03
<b>Route</b>	Service route number	Integer between 1 and 999.
<b>Trip ID</b>	Can be any number that uniquely identifies trips.	At Seattle Metro, the convention is Block Route Number/Block Run Number – Trip Number (e.g., 174/1-3).