

A Short Primer on Transportation Bell Schedules

The Transportation Bell Schedule

The transportation bell schedule is a complex, multi-page document that details the transportation-relevant times for each school, and each varied program time in those schools or centers. For example

Cluster	Trans	Schools	Programs	Earliest bus unloading time	School start time	School ending time	Earliest bus departure	End of AM KG and start of PM KG ALL indicates full day KG	Monday release time, or Excel indicates full day Monday	Number of Area / SE buses in school
C	A			06 - 07			KG Split	Early Close	Runs Area/SE	
1	3	Herndon HS		(7:00)	7:20-2:10	(2:20)			19 / 1	
1	3	Langley HS	<i>au</i>	(6:50)	7:20-2:10	(2:20)			23 / 6	
1	3	Longfellow MS	GT	(7:13)	7:30-2:20	(2:30)			19	
1	3	Clearview ES	GT/ESL/NC / <i>ps/pac</i>	(8:00)	8:10-2:50	(3:00)	ALL	12:00	6 / 1	
1	3	Hutchison ES	MR/FECEP/ <i>au</i>	(8:20)	8:30-3:00	(3:10)	ALL	Excel	4 / 1	
2	3	Kilmer MS	GT / <i>mr</i>	(7:25)	7:35-2:30	(2:40)			24 / 6	
2	3	Jackson MS	SUM	(7:40)	7:50-12:20	(1:20)			5	
2	3	Jackson MS		(7:40)	7:50-2:40	(2:30)			23 / 1	
2	3	Dunn Loring Ctr	ALC	(7:50)	8:00-1:30	(1:40)			5 / 1	
2	3	Kilmer Ctr	<i>mod/sd/aut</i>	(7:45)	8:00-2:00	(1:45)			/13	

Note the different times for middle school and center

Note the different times for middle school and summit program

There is a program-code key on the last page

<p>KEY: In the school listing:</p> <p>Program Codes: ALC – Alternative Learning Center AU – autistic ED – emotionally distressed ESL – English as a Second Language FECEP – Family & Early Childhood Education Program GT – Gifted/Talented HI – hearing impaired IMER – immersion LD – learning disabled TC – technical academy MR – mildly retarded MOD – moderately retarded MSC – modified school calendar</p>	<p>PROGRAM in uppercase is handled primarily by Area drivers <i>program</i> in lowercase is handled primarily by Special Education drivers</p> <p>NCLB – no child left behind NC – non-categorical OPT – receiving students opting out of mod calendar school PAC – extended autism PD – physically disabled PO – Project Opportunity PS – preschool SUM – Summit VI – visually impaired VO – vocational</p>
--	--

Because of the large number of midday times, there is a lengthy section for pre-school and PAC programs

06 - 07							
C	A	Schools	Programs	School Hours	KG Split	Early Close	Runs Area/SE
4	1	Washington Mill El	<u><i>pac</i></u>	(8:55) 9:00-3:30 (3:30)		1:00	
4	1	Mt. Vernon Woods El	<u><i>ps</i></u>	(9:05) 9:10-12:25 (12:30)		11:10	3
4	1	Stratford Landing El	<u><i>ps</i></u>	(9:05) 9:10-12:25 (12:30)		11:10	4
4	1	Stratford Landing El	<u><i>pac</i></u>	(9:05) 9:10-3:40(3:40)		1:00	4
5	1	Halley El	<u><i>ps</i></u>	(8:55) 9:00-12:15 (12:15)		11:00	6

Current limiters:

1. Length of week and days:

- Secondary level schools have 34 hour and 10 minute weeks, or
 - 6 hour and 50 minutes Monday through Friday.
 - For example, 7:20 a.m. – 2:10 p.m.
- Elementary schools have 30 hour and 35 minute weeks; typically
 - 4 hours and 30 minutes on Monday
 - 6 hours and 35 minutes, Tuesday through Friday.
 - For example, 8:30 a.m. – 1:00 p.m. on Monday and 8:30 a.m. – 3:05 p.m., T – F.

2. The schedule is currently structured so that the longer secondary schedules begin first in the morning and afternoon, and the shorter elementary schools begin later.

- The general education bell schedule now has approximately **40** minutes more available time in the morning than is available in the afternoon.
 - General education (GE) drivers typically cover three and occasionally four runs, morning and afternoon.
 - The length of day difference allows an **20** extra minutes of time in the morning between secondary and elementary runs that is unavailable in the afternoon. That allows the necessary time to get buses back into the neighborhoods or to out-of-boundary stops for elementary programs.
 - Because they can be left relatively unsupervised in the schools, high school students are often dropped at their schools early (at 7 a.m.) for an additional **20** minutes in the morning, providing the travel time necessary for the buses to reach the first stops of their middle school or other second runs on time.
- Special education (SE) programs in schools are required by law to begin and end at the same time as the general programs in that school. Centers where special needs students are independent of the regular school can be on different schedules.
 - Any school may have only one schedule that must be adhered to by both GE and SE programs, with the exception of pre-school and PAC programs.
 - SE runs are longer than general education runs as the boundaries for the programs normally exceed the school's boundary.
 - As a consequence, SE drivers can often do only two runs in the morning and afternoon.

- If the secondary and primary level schools are alternated (ES-HS-ES-MS) there will be an overlap of schedules. This will result from the difference in day length, necessitating additional buses in the afternoon, which is an impractical and costly requirement. See page 4

- *Note that the sample times shown on the diagram are the best case scenario times for students transported within the normal school boundaries. All but 30 schools have out-of-boundary students attending a special program and those students' runs are significantly longer, creating even more problematic overlaps in time.*

- With high and middle schools beginning earlier than elementary schools, there is additional time in the morning for buses to do short extra runs like some Academy shuttles, or more extensive runs like Thomas Jefferson that take more than the normal amount of time.

- If elementary schools begin early and high and middle schools later, the extra morning time resulting from the early high school drop would be eliminated, but there would be 20 minutes of additional layover time in the afternoon. Those 20 minutes would not be well used but would increase driver pay.

3. The Monday early closings for many elementary schools create conflicting requirements in bell schedule planning.

- Solutions that work for buses in the mornings and from Tuesday through Friday afternoon often cause a conflict between elementary runs and high school take-home runs on Mondays. The problem is often resolved by adding time on Tuesday through Friday afternoons and reducing the Monday schedule to balance to 30:50 per week. As this reduces the length of Monday and makes lunch service more difficult, it is not a solution desired by all schools.

- Those conflicts can sometimes be resolved by using different drivers for Monday take-home runs, but that is not practical for most and does create potential problems when using a driver unfamiliar with the route and the riders.

- Often, instead, the length of day for elementary schools is adjusted.

- An elementary schedule can be increased by five minutes on Tuesday through Friday, resulting in a 6:40 day. That provides an additional five minutes of time to get to the elementary school in the afternoon.

- To account for the additional time while maintaining the 30:50 week, the bell time on Monday is shortened by 20 minutes. That results in a 4:10 day.

- Incorporating the longer special education runs, whose arrival and departure times at schools must equate to those of regular education runs, complicates the bell schedule structure further.

Running Time Conflict – Example

- The reality of actual school beginning and ending times is completely variable, in five minute increments.
- Run length can be as short as two minutes or as long as or longer than 60 minutes.
- The length of deadhead (travel without students) times can be considerably longer than those shown. Minimizing deadhead time is one of the goals of route planning and optimization.

