

Parking at Yorktown High School

January 20, 2007

By Littleton MacDorman, PE

(Parts of this document were taken from notes dated November 13, 2006)

Present Parking Issues

- Parking at Yorktown High School and Greenbrier Park is a multi-use problem of significant proportion in relation to the space available to accommodate future demand. Inadequate parking supply creates problems for users and nonusers alike.
- The present APS staff recommendation of 268 off-street parking spaces stands in contrast to the prior Master Plan estimates for 346 spaces.
- Hundreds of Yorktown student vehicles line the streets of adjacent neighborhoods during the typical school day which adversely affect the quality and market value of those residential properties. Student parking almost anywhere during school hours is virtually unchecked.
- One has to be concerned with whether the adequacy of 126 parking spaces estimated by DPRCR will be enough to accommodate the number spectators expected to use the newly constructed 2,000 stadium bleacher seats at the south end of Greenbrier Park. The spillover effect on the surrounding streets late into the evening may be more than just a nuisance.
- The estimate of 82 spaces for Greenbrier Park taken from the Parking Generation Manual of the Institute of Transportation Engineers by the APS traffic consultant as 5.1 spaces per acre is based on a sample of one location in Santa Barbara, CA. The Santa Barbara 25-acre recreational facility is not of the same activity and use density as Greenbrier Park and its use is therefore inappropriate.
- Current accessible parking for midday handicap patrons of the Yorktown Aquatic Center is woefully short with only two (2) spaces. A recent survey of midday handicap patrons shows the need for six (6) accessible spaces now, during school renovation, and into the future.

School Planning Variables

- Capacity of school facilities, i.e., number of full-time equivalent students
- Number of faculty and staff (maximum/optimum)
- Number of visitors and their vehicles (maximum/optimum)
- Number of service vehicles (maximum/optimum)
- Uncertainty, e.g., future growth or decline of student population
- Student parking policies
- Off-campus student policies
- APS bus service policies or other options

Midday Pool Planning Variables

- Maximum peak capacity of facility
- Optimum capacity of facility
- Number of 25-yard (meter) lanes
- Training and diving tank availability
- Hours of operation
- Physical constraints such as total parking, accessible parking, and crowding of swim lanes
- Quality constraints such as air and water temperature reliability, cleanliness of facilities as it affects patronage
- Patron age mix
- Future growth of patrons, i.e., baby-boomers
- Pricing including admission and parking

Popular Parking Notion

- Everyone has a right to expect available and free parking. Convenient and affordable parking are considered a sign of welcome.

Parking Truths

- Free parking promotes urban sprawl and adversely impacts other travel alternatives.
- There is no such thing as free parking. Free parking for everyone at any time is expensive. For example, land alone in Arlington might be valued at \$800,000/acre which translates into roughly \$5,000 to \$7,500 per surface parking space.

Parking Strategies

- Adopt a parking management program that provides flexibility and encourages land-use efficiency — one that has the ability to accommodate new uses and respond to new demands.
- Adopt official student parking and off-campus policies to reduce the number of student automobiles parked on streets.
- Consider an APS bus policy and routes to pick up closer-in students who now drive.
- Consider a cooperative arrangement for multi-use parking with Greenbrier Park activities
- Enforce vehicle parking regulations including for reasons of safety and security
- Consider opportunities and reward for faculty and staff ride-sharing.
- Consider improved public transportation and incentives for faculty and student use.
- Consider bicycle use incentives and parking within protective storage structures.
- Improve walking access to school facilities.
- Consider a contingency-based overflow parking plan

- Consider how to reduce the amount of free parking
- Favor higher-priority uses and encourage efficiency
- Encourage land-use efficiency. Consider three-level, multi-use parking structure in the vicinity of the current pool and new Greenbrier parking lot. Convert much of current YHS surface parking into green space for a more attractive and compatible student and neighborhood campus.
- Carefully consider all the consequences of providing free parking spaces versus the many options to preserve the environment.
- Provide for the safety and security of all students, faculty and staff, and the citizens of Arlington County.

Summary of Conclusions

- Yorktown High School is one of Virginia's, if not the nation's, premier high schools. Greenbrier Park will be one of the finest sports complex in the region and will serve as the school's primary athletic facility.
- The total bill for the reconstructed school and park may well be over \$100M and, yet, it seems like Arlington County is going to end up with a two-dollar solution to the parking problem that seems sure to overwhelm the streets and neighborhood in the future.
- The size of the school and athletic complex footprint is so large compared to the available land, that recommending surface parking without seriously considering structured parking to provide spatial relief to an already overcrowded sprawl of vehicles that spill and overflow onto the streets surrounding the new education complex would be negligent.

Some Professional Insights

- The future is going to be "smart growth" (www.smartgrowth.org) — "New urbanism" (www.cnu.org)
- The trouble with minimum parking requirements. These requirements typically ensure that there are enough parking spaces to satisfy the peak demand for free parking. These requirements distort the markets for transportation and land.
- Parking minimums have been typically established by referencing other nearby jurisdictions assuming that because they have an adopted ordinance implies they knew what they were doing and it is relatively safe to adopt a standard "close to the average."
- Separately or additionally, locales consult the Institute of Transportation Engineers handbooks. A vast majority of the data is derived from jurisdictions which have little or no significant transit ridership. The objective of ITE surveys is to count the number of vehicles parked at the time of peak parking demand. Half of the more than 100 ITE parking generation rates are based on four or fewer surveys of parking occupancy and 22% of the parking generation rates are based on a single survey. Because parking is free for 99% of all U.S. auto trips, parking must be free at most of the ITE survey sites.