Transit Times
The Newsletter of the Action Committee for Transit of Montgomery County, Maryland
Volume 27, Number 3, July 2013

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ACT President’s Message

Tina Slater

The General Assembly passed transportation funding, thus bringing the Purple Line and other transit systems closer to reality. In May, Maryland Transit Administration’s Public-Private Partnership forum for firms interested to design, build, and operate the Purple Line was standing room only – the “scent of money” was there!

In April, May, June and July, ACT heard great speakers: District 20 Delegate Heather Mizeur on Transit and Equitable Economic Development, Larry Cole of the Planning Board staff about the County’s proposed Bus Rapid Transit routes and Maryland Area Rail Commuter expansion; Project Manager Sam Carnaggio on Metrorail’s Silver Line; and Gary V. Hodge, former Charles County Commissioner and President, Regional Policy Advisors with a briefing on Rail from Branch Avenue to Charles County. Join us more great topics coming up: August 13 – Attorney Gen. Doug Gansler on Maryland’s Transit Future; September 10 - Could Metrobus Run All Night?
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You can join ACT by remitting membership dues. Your membership dues are based on the category of membership that you choose:

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P.O. Box 7074
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You may also give your membership dues to Treasurer John Fay at the next ACT meeting. The address on your check will be used as the mailing address unless otherwise indicated.

Your dues support ACT Activities and this newsletter.

We’re excited about the County’s Capital BikeShare, due in September at several locations – Rockville, Shady Grove, Takoma Park, Silver Spring, Bethesda and Chevy Chase. Meanwhile, help us push for improved bike infrastructure with identifiable, safe places to ride.

ACT Succeeds in Raising Gas Tax in Maryland

Quon Kwan

On May 16, 2013, Maryland Governor Martin O’Malley signed the bill (now law) to raise the gas tax to bolster the state’s Transportation Trust Fund. ACT joined with the Coalition for Smarter Growth, Purple Line NOW!, and 35 other groups to create a coalition called Get Maryland Moving to lobby for passage of the bill in the House of Delegates and State Senate. The new law removes a major obstacle to building transit by enabling the State to contribute required funds to match the Federal grants to construct the 16-mile Purple Line between New Carrollton and Bethesda, 15-mile Corridor Cities busway between Clarksburg and Shady Grove, and 14-mile light rail Red Line between Woodlawn and Johns Hopkins Bayview Medical Center via downtown Baltimore. The new law would raise $4.4 billion over 6 years.

The current state gas tax of 23.5¢/gallon has not changed since it was levied in 1992. Under the new law, a new sales tax of 3% would be imposed on gas at the wholesale level phased in over the next three years starting in July 2013. Thus, in July, the gas tax would rise to 27.3¢/gallon and then to 36.5¢/gallon by July 2015. Another 2% sales tax would be added if Congress does not enact a Federal law by 2015 to allow states to collect sales taxes on out-of-state internet purchases. In such a case, the gas tax would rise to 43.7¢/gallon by July 2016. Thus, if Congress does enact such a law, the gas tax would stay at the high of 36.5¢/gallon, and the revenue from the sales tax imposed on out-of-state internet purchases would be earmarked for transportation. The Maryland law is similar to one that was enacted in Virginia several weeks ago. An additional provision in the new law makes it more difficult in the future to divert state Transportation Trust Funds to non-transportation spending.

Bad news – so far in 2013, 11 pedestrian fatalities — up from 6 in all of 2012. Three of the victims were killed while standing on sidewalks or medians. ACT has launched a “Safe Walk to School” campaign with the support of parents and students from all over the county. (e-mail your concerns by going to SafeWalkToSchool.com). Following our up-county pedestrian forum in January, ACT has sent letters to the County Council, Montgomery County Department of Transportation and Maryland State Highway Administration about dangerous conditions and asked for remediation, especially in school zones.

Transit Times, vol. 27, no. 3, July 2013
Memorial for Harry Sanders
Purple Line NOW! Announcement

ACT, Purple Line NOW!, members of the Woodside community, and Montgomery County Council members were at Woodside Urban Park (Spring Street & Georgia Ave.) on March 28, 2013 to commemorate a memorial plaque and redbud tree in honor of Harry Sanders – a valued friend and mentor for the next generation of transit. When Harry passed away in 2010, his neighbors on Noyes Lane in Silver Spring joined with his family and the Montgomery Parks Foundation, to work on the memorial. Harry had devoted much of his life for the Purple Line, a proposed 16-mile light rail line between Bethesda in Montgomery County and New Carrollton in Prince George’s County.

Many remember his tireless efforts and cheerful and tenacious activism. Harry’s vision for a vibrant, modern and sustainable Purple Line became ever closer to reality when a few days before the dedication, the Maryland House of Delegates passed a major bill, which would provide the state funds needed to match the Federal grant to build the Purple Line. Harry’s legacy was indeed alive in Annapolis as transit coalition representatives testified to support the bill.

“Harry remains an inspiration to us all as we work to realize his prescient vision for the County’s future,” said Purple Line NOW! President Ralph Bennett. Greg Sanders, an officer on the Purple Line NOW! Board of Directors and son of Harry and Barbara Sanders, reacted to the memorial, “This wonderful tree and plaque were gifts from my father’s neighbors who valued his work to form connections within the community. That same impulse motivated his work for the Purple Line. Transit is not mere concrete and steel – it is connecting people with jobs, family and friends, and education. Harry loved trains, but he loved people even more. Connecting all our people is worth paying for.”

Major Problems with Silver Spring Transit Center Revealed
Quon Kwan

On March 15, 2013, Montgomery County released the overdue engineering report drafted by an independent consultant (KCE Structural Engineers) evaluating problems in the Silver Spring Transit Center. Montgomery County General Services Department broke ground in 2008 and started construction in 2009 for the Center.

Parsons, Brinckerhoff, Quade, and Douglas (PB) designed the Center and oversaw construction. Foulger-Pratt (FP) constructed the Center. Facchina & RR Reinforcing, Inc. installed mild-steel and post-tensioning reinforcement. Robert B. Balter Company (RBB) performed independent inspections. For the time being, the Washington Metropolitan Area Transit Authority (WMATA) has refused to take over the Center, and it still has the prerogative to do so after all corrections are made.

The Center was built over the existing bus terminal at the Silver Spring Metrorail Station. At this location, 57,000 riders are expected to board, alight, or transfer to/from local buses, commuter buses, Metrorail, and MARC (not to mention the future Purple Line light rail). The Center was designed to be a cast-in-place, post-tensioned reinforced concrete structure.

Countywide Transit Corridors Functional Master Plan
What: County Council Public Hearing
When: September 24, 2013 (tentative), 7:30 pm
Where: 3rd Floor Council Hearing Room
The Center has three levels: the first level (at-grade) and second level (elevated) are for buses. The third level (elevated) is for “kiss-and-ride.” All levels are connected by ramps, stairs, escalators, and elevators near the middle of the Center. Except for an enclosed office suite and commuter store at its eastern end, the Center is primarily open to the elements. This means that virtually all of the structural elements are subjected to moisture changes, seasonal temperatures (e.g., cyclic freezing/thawing), de-icing salt, and weathering (i.e., concrete carbonation). The Center’s cost escalated from $93.3 million to $120 million.

During construction, a post-tensioning cable popped out of the concrete and cracking occurred. Specific concerns arose pertaining to: (i) thickness of the concrete slabs, (ii) extensive cracking in the slabs, and (iii) exposed post-tensioned ducts. In June 2012, the County retained KCE Structural Engineers to make an evaluation. The report from KCE Structural Engineers finds design flaws, inspection failures, inadequate strength (load-bearing capacity), non-compliant fire ratings, and insufficient durability.

The report finds design flaws: (i) electrical and other embedded items interfering with reinforcing and post-tensioning, (ii) mild-reinforcing and post-tensioning interfering with each other, (iii) post-tensioning stressing pockets in concrete conflicting with mild reinforcing, (iv) slab sloping to drains, (v) failing to take into account induced forces and stresses during post-tensioning that resulted in cracking, (vi) under designing certain structural elements to resist shear and torsion, among other things. These design flaws could have been averted if the design was made in accord with building codes and WMATA requirements, which are more stringent than the building codes.

The report finds that the independent inspections were not conducted as required, which may have yielded incorrect materials strength information. The independent inspections also did not raise concern about the numerous issues that were known or were visible (e.g., cracking and slab thicknesses) and did not follow up on those known issues.

The report finds that the concrete in the decks has a lower compressive strength than required based on sampling and testing. About 22% of the concrete on the two upper levels fails to comply with the required slab thickness. Concrete slabs in certain locations do not have adequate shear capacity. Lastly, cracking in some slabs is related to design issues, restraint conditions, concrete placement, and curing process; cracking leaves the concrete vulnerable to corrosion and freeze/thaw.

The report finds that certain beams in the driving lanes are not strong enough to support the design loads. Girders in certain locations do not have adequate strength to support design loads in combined shear and torsion. Some locations show insufficient concrete cover of the column reinforcement.

The report finds that the slabs, beams, and girders do not meet the three-hour fire rating prescribed in the building code. The columns do not even meet the two-hour fire rating per the building codes.

The report concludes that the Center will require repairs to meet building codes and WMATA requirements. The parties involved share the blame, including the County (especially for the lack of monitoring by its own Division of Permitting Services inspectors). In particular, are the report’s conceptual recommendations as follows:

- Replace concrete pour strips on the second level,
- Increase the combined shear and torsional capacity of selected post-tensioned (i) beams and (ii) girders,
- Increase certain columns to provide the required fire rating and durability, and
- Add detailed concrete overlay on the top surface for the slabs of the 2nd and 3rd levels to provide the required durability.

The contractors have agreed to make the corrections at their own cost.
U.S. Transit Infrastructure Graded “D” by Civil Engineers

Excerpt from Report Card for America’s Infrastructure

Every four years, the American Society of Civil Engineers (ASCE) makes a comprehensive assessment of the nation’s infrastructure. ASCE issued its Report Card for America’s Infrastructure (Report Card) on March 19, 2013. Using a school-like A-to-F grading system, ASCE assigns grades according to: capacity, condition, funding, future need, operation and maintenance, public safety, resilience, and innovation.

The grades in 2013 ranged from a high of “B-“ for solid waste disposal to a low of “D-“ for inland waterways and levees. Transit received a “D,” which means, “the infrastructure is in poor to fair condition and mostly below standard, with many elements approaching the end of their service life. A large portion of the system exhibits significant deterioration. Condition and capacity are of significant concern with strong risk of failure.”

Infrastructure for transit consists of rolling stock, vehicle maintenance facilities, fixed guideways, and public facilities, such as transit stations. The rolling stock is comprised mostly of transit buses and railcars. Transit buses carry the majority of riders (53% of unlinked trips in 2008); yet, their condition remains barely adequate, which has not changed over the past decade. In addition, 30% of urban bus maintenance facilities are rated below a three on a five-point scale (“5” is best).

Rail transit systems carry over a third of all transit trips (35%) but have the greatest maintenance needs of all transit modes, with a backlog of $59 billion as compared with $18 billion for non-rail systems. In addition, rail systems have larger-than-average annual normal replacement needs (i.e., annual costs required to maintain a state of good repair): $8 billion as compared with the average of $6 billion across all other transit modes.

Fixed guideways (i.e., tracks and roadways dedicated to transit) require the largest replacement costs and have more than tripled since 1970. Fixed guideways vary widely in condition, with not only the greatest share of assets in excellent condition (score of 4.8–5.0 on 5-point scale) in terms of replacement value, but also the highest share of assets in poor condition (score of 1.0–1.9 on 5-point scale).

This predicament poses a major financial challenge for transit authorities for several reasons: rail systems are some of the oldest assets still in use (especially heavy rail systems in cities like New York, Chicago, and Boston), as well as a recent, major growth area (e.g., new light rail systems in Denver, Salt Lake City, and Charlotte). Just as troubling as the maintenance backlog is the fact that many transit agencies do not systematically monitor the conditions of their facilities in order to keep their fleets in the state of good repair. Many agencies do not conduct regular, comprehensive asset condition assessments. Good asset management is essential to effectively manage complex systems and growing ridership.

A recent infusion of almost $4 billion in federal funds from the American Recovery and Reinvestment Act (ARRA) helped to improve some conditions, but it only reduced the backlog of repair and rehabilitation of transit assets by about 5%.

The Federal Transit Administration (FTA) still estimates a maintenance backlog of nearly $78 billion needed to bring all transit systems up to a state of good repair (generally defined as achieving a rating of 2.5 or higher on a scale of 1–5).

Despite these trends, FTA estimates a funding gap of $25 billion per year. If current trends continue, the 2010 investment gap of 40% will grow to 55% by 2040. Without significantly increased funding for transit maintenance and operations, conditions will inevitably decline as systems and assets age. These deficiencies, which currently cost about $90 billion per year in lost time and wasted fuel, will cost $570 billion in 2020 and over $1 trillion in 2040, should current trends continue. FTA’s State of Good Repair initiative directed $48 million in grants in 2010 and 2011 to 31 transit agencies to develop and improve asset management practices. However, with over 650 different agencies across the country, the many needs in this area remain unmet. ASCE recommends substantially increased investment in transit systems in order to support people’s ability to access jobs and enjoy independent mobility as they age.
Metrobus Priority Corridor Study of Routes C2- C4

Quon Kwan

Metrobus routes C2-C4 run mostly along University Blvd. between either Wheaton or Twinbrook (on the west) and either Greenbelt or Prince George’s Plaza (on the east). The C2-C4 routes have a combined average weekday ridership of about 11,458, one of the highest Metrobus riderships in Maryland. The highest number of boardings is between Wheaton Station and Riggs Rd. The routes have been identified as a Metrobus Priority Corridor and were studied between December 2012 and June 2013 in order to address schedule reliability and capacity problems, recommend service improvements, and estimate the costs of improvements. A rider survey, two focus groups, and two public meetings have been held for this study so far. A final report has been written, based on input received from the public and further analysis done by the study team.

The rider survey (based on 230 responses) indicated the following concerns (in order of decreasing number of times cited): (1) buses were not scheduled frequently enough, (2) buses were crowded, (3) buses arrived often late, and (4) buses were often platooning (bunching together) with long time intervals in between.

An analysis was done of run times (how long a C2-C4 trip actually takes versus how long such a trip is scheduled). The analysis showed that C4 trips often take longer than scheduled, especially during the morning and afternoon peak periods. The analysis also indicated that schedule adherence was problematic. The C4 was late 6% of the time during the AM peak, late 12% of the time during mid-day, and late 18% of time during PM peak periods. The C4 was late 16% of the time during the AM peak, late 17% of the time during mid-day, and late 34% of the time during PM peak periods. [Late is defined as actual arrival at the time point more than seven minutes after the scheduled arrival.]

An analysis was done of C2-C4 bus travel speeds. Bus travel speeds of 10 mph or less were uncommon except for AM and PM peak periods for very short distances (such as along Amherst Ave. between Reede Dr. and University Bl. in Wheaton and along Campus Drive on the University of Maryland campus. Bus travel speeds of 10-15 mph were common at both peak periods along Parklawn Dr., Viers Mill Rd. (between Randolph Rd. and Connecticut Ave.), University Blvd. (between U.S. 29 and I-495). Several-mile stretches of University Blvd. with bus travel speeds of 15-22 mph alternated with several-mile stretches of University Blvd, with bus travel speeds of greater than 22 mph. Congestion was analyzed based on volume/capacity ratios (v/c) on roadways. High v/c generally occurs where C2-C4 bus travel speeds are low. [High v/c signifies high congestion, and low v/c signifies low congestion.]

The study team concluded with seven preliminary recommendations below:

1. Increase C4 service frequency so as to add capacity and relieve crowding. There are four options to do so:
   a. Add trips at times and along route segments where crowding occurs
   b. Increase service frequency to 15 mins. during peak periods, 20 mins. during mid-day and early evening
   c. Operate new MetroExtra service during peak periods every 15 mins. (i) without change in local service (ii) with increased frequency (every 20 mins) of local mid-day service.
   d. Terminate C2 at Langley Park when Transit Center opens. Operate new local service between Langley Park and Greenbelt to meet demand.

2. Expand C2 service hours to coincide with Metrorail operating hours.

3. Increase C4 frequency on Saturdays to relieve crowding.

4. Designate supervisors during peak periods at Twinbrook, Greenbelt, and Prince George’s Plaza stations, and at Wheaton station all day to keep buses properly separated in time and running on time.

5. Perform a more detailed analysis of run times to decide if schedule adjustments are required

6. Speed up bus movements by:
a. timing traffic signals to give priority to buses  
b. enforcing parking restrictions and towing vehicles parked at bus stops  
c. relocating bus stops to allow enough distance for buses to cross multiple lanes of traffic before turning left  
d. consolidating bus stops closer than 0.20 – 0.25 miles apart  

7. Provide specified amenities at particular bus stops by installing: information cases, trash receptacles, sidewalks or bus stop pads, and shelters.

ACT Talks and Draws Transit at Fenton Street Market  
Ronit Dancis

On Saturday, June 8, ACT had a booth at the Fenton Street Market in downtown Silver Spring. ACT board members and volunteers talked with market attendees about transit, biking and walking. We also had children draw their commute to school. The kids were asked to draw how they get to school, or how animals would get to school. One favorite was a picture of a cat that goes to school on the moon - via trampoline. Caden Unger, son of ACT board member Darien Unger, drew his version of Metro and the Purple Line. (See photo!)

A Summer Stroll Up the Pike  
Tracey Johnstone, ACT Secretary

Last summer I needed something at a big box electronics store. I let my fingers do the walking and discovered that the store at Tenleytown was sold out, but that the item I needed was available at the Rockville store. As it was a Saturday, I dreaded the drive up the Pike and decided to take transit. The map, which linked to the store’s website, was not clear as to the closest Metro stop. When I called the store and selected “directions,” there was no mention of transit.

In order to find my bearings I asked a fellow pedestrian for directions. The problem is that there aren’t many pedestrians to ask. No one seems to walk the Pike. There’s a reason for that – it’s not safe or fun. When I tried to ask a driver at a red light, the light turned green and they sped off. I don’t think I looked like a beggar or vendor...so, I crossed the street to the west side when I saw someone. They were almost as confused as I was, so I crossed back to the east side and began to walk north. Crossing the Pike is true pedestrian polo. Don’t try it if you can avoid it. Turning cars do not expect to see pedestrians on the Pike, so they don’t seem to see them.

Adding to the general unpleasantness of walking near a major road in the summer was the sun factor. For major stretches of the walk, trees are uselessly planted on the east side of the sidewalk where they do not protect pedestrians from cars or from the hot afternoon sun.

The plus side of my walk up the Pike was discovering all sorts of small shops you’d either never see or get the chance to stop in while driving, or even taking the Metro. Rockville Pike is not all big box chain stores. There’s a bridge over the Metro tracks named for Maryland’s first casualty in the Korean War – John Brown. I finally was able to go to Sam’s Mediterranean grocery store and coffee shop. I discovered there are all sorts of specialty grocery stores in addition to a guilty pleasure all too rare in the Bethesda area: a Taco Bell. In all the years I’d been driving the Pike and riding Metro, I’d never seen these places, though I’d heard of Sam’s and had been wanting to go there. I would never have gone to them without first walking the Pike.

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Editorial Remarks

Your Transit Times editor is Quon Kwan. Cutoff date for receiving materials for the next publication is September 13. Send your materials to Quon at: qykwan@gmail.com or call him at: (h) 301-460-7454.

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Taking this walk gave me a greater appreciation for the Pike’s problems, but also why it, its merchants and residents, and John Brown deserve to be served better by planners and transit. When we think “Rockville Pike,” these shops should come to mind, not the congested highway that the Pike has become.

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In an effort to draw attention to the long delays and construction problems with the Silver Spring Transit Center, ACT celebrated the Center’s not-so “Sweet Sixteen” on April 23, 2013 by leafleting at the Silver Spring Metro. Thank you to all the volunteers who helped and to our very “Sweet Sixteen” representative Mariana Taitano (pictured left) - “I wasn’t even born when this started. I sure hope it’s finished before I graduate from high school.”

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Photo by Ronit Dancis