Subdivision Staging
Transportation Recommendations

Subdivision Staging Policy
Community Meeting II
April 12, 2016
DISCUSSION TOPICS

Re-cap of 3/15 Public Meeting
Background and context
Recommended approach
Next steps and schedule
Don’t relax traffic congestion standards
Current process is “broken”
Don’t see what problem(s) the SSP update is trying to fix
Transit is not a viable option (for many folks)
Average area-wide measures ignore “hot spots”
CLV is a “flawed” process
SSP changes based on “unreliable” data
Schedule follow-up public meeting (That’s why we’re here today!)
INTRO

• Overview of the Subdivision Staging Policy (SSP)
  • Transportation
  • Schools
  • Infrastructure funding
  • Schedule
Several initiatives currently underway:

Forum on Growth & Infrastructure held on March 7, 2015.

Council-directed transportation research.

Cross-agency work group on school design options.

Meetings with the community of school issues.

Collaboration with MCPS on student generation rates.
Subdivision Staging Policy (aka Growth Policy until 2010) is...

Adopted every 4 years by the County Council.

Sets the rules for the administration of the Adequate Public Facility Ordinance (APFO).

Purpose is to coordinate the timing of development with the provision of public facilities – such as roads, transit and schools.

Next Subdivision Staging Policy to be adopted in 2016.
Mainly test the adequacy of the transportation network (roads and transit) and schools.

Current tools used to measure transportation adequacy:
- Transportation Policy Area Review (TPAR)
- Local Area Transportation Review (LATR)

Current tool to measure school adequacy:
- Annual School Test
Transportation Policy Area Review (TPAR) is an area-wide test of adequacy.
TRANSPORTATION

Roadway Adequacy:

Policy area average arterial roadway congestion cannot exceed specified standard.

Standard varies depending on transit availability and usage.

Relative to the 2012 TPAR test:

- White Oak (WO) & Fairland/Colesville (FC) are reported as separate policy areas
- For most policy areas, results are generally similar Countywide
- Three additional policy areas deemed inadequate—North Potomac (NP), Aspen Hill (AH) & Bethesda Chevy Chase (BCC)
**Transit Adequacy:***

Focuses on the availability and quality of existing local transit service

Three metrics considered: coverage, peak headway, span of service

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**Transit Adequacy Standards**

<table>
<thead>
<tr>
<th></th>
<th>Minimum Coverage</th>
<th>Maximum Headway</th>
<th>Minimum Span</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Urban</strong></td>
<td>≥80 percent</td>
<td>≤14 minutes</td>
<td>≥17 hours</td>
</tr>
<tr>
<td><strong>Suburban</strong></td>
<td>≥70 percent</td>
<td>≤20 minutes</td>
<td>≥14 hours</td>
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<tr>
<td><strong>Rural</strong></td>
<td>&gt;50 percent</td>
<td>&lt;60 minutes</td>
<td>≥4 hours</td>
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</table>

**Coverage** - How much of a policy area is within walking distance of transit?

**Peak Headway** - How frequently do buses arrive?

**Span of Service** - How many hours a day is transit service available?

If a policy area does not achieve adequacy for all three measures, that policy area is determined to be inadequate for transit.
Transportation Mitigation Payment

If projected transportation capacity in a policy area is inadequate, the Planning Board may approve a subdivision if the applicant commits to either:

- Fully mitigate the incremental traffic impact of the subdivision by adding capacity or implementing a trip reduction program; or
- Pay a Transportation Mitigation Payment as provided in County law.
Local Area Transportation Review (LATR)

- Tests capacity of nearby intersections.

- Applied to all projects generating 30 or more peak hour trips.

- If an intersection fails, developer can make improvements, mitigate trips or in limited cases – make a payment to the County.
Direction from Council following the 2012 SSP:

Convert recently adopted version of the MWCOG regional transportation model to a more refined tool suitable for application in Montgomery County.

Work underway with assistance from VHB, validating the model update now.

Update LATR trip generation rates to better reflect the traffic effects of mixed-use development and access to multi-modal travel options (last updated in 1989).

Work underway with assistance from Renaissance.

Identify and assess alternative LATR metrics and procedures (Transportation Impact Study Technical Working Group).

Formed the Transportation Impact Study Technical Working Group, putting together recommendations that will be brought to the Board early in 2016.

Refine the transit component of TPAR to reflect the travel implications of bus rapid transit.

Work underway with assistance from Renaissance.
NEW IDEAS

Direction from the Board following briefing this past summer:

- Expand the pro-rata share concept beyond White Oak
- Look at incorporating Vehicle Miles of Travel (VMT) metric into the LATR process
- Consider consolidation of LATR and TPAR into a single transportation test
- Look at other methods/tools used for transportation demand modeling

Work underway on these ideas with assistance from Fehr & Peers.
Motivation for change:

Current transportation adequacy tests/rules may inhibit the ability to achieve master plan vision …

Example: White Flint

Sector Plan area is exempt from transportation tests/rules in favor of a pro-rata share special taxing district

Recent White Flint Traffic Impact Studies (TIS) illustrate the limitations of current measures of adequacy.

- Stantec Study (SHA/MCDOT) – “Conventional” approach using CLV and HCM showed results exceeding performance thresholds in many study area locations.

- STV Study (WF Partnership) – “Micro-simulation” approach using more “robust” traffic assignment assumptions and delay-based system performance metrics showed results achieving adequate system performance.
Example: White Oak

TPAR “external traffic” Problem

- Largely due to traffic from neighboring jurisdictions, the White Oak Science Gateway Master Plan could not achieve area-wide “land use/transportation balance”.

LATR “free-rider” Problem

- Only those applicants whose development results in traffic that exceeds the LATR threshold pays for mitigation improvements. Applicants approved earlier in the process (whose estimated traffic is counted) do not pay.
- Major impetus for the evolving pro-rata share process in White Oak
Concerns with focusing on Critical Lane Volume (CLV) …

- “Sketch level” tool with only one measure of performance (i.e., CLV)
- Does not address queuing
- Calculation tends to “breakdown” as intersections approach saturated traffic conditions (i.e., CLV>1600)
- May overestimate the need for physical improvements

Response to date …

- LATR/TPAR Guidelines now require Highway Capacity Manual (HCM) application for congested intersections (i.e., CLV>1600)
- HCM is a more “robust” process supporting operational and multi-modal solutions
- HCM allows for detailed assessment of intersection and approach including:
  - Level of Service
  - Delay
  - Volume-to-Capacity Ratio
  - Queues
  - Flow Rates
  - Also has measures of performance for pedestrians, bicycles & transit
2016 Staff Recommendations Influenced By

- Literature review
- Speakers series
- TISTWG
- Public meetings
- Planning Board guidance
OBJECTIVES FOR LATR CHANGES

Streamlined & predictable
Less auto-centric, more multimodal
More robust technical analysis (delays, not CLV)
## SUMMARY OF PROPOSED LATR CHANGES: SCOPING

<table>
<thead>
<tr>
<th>Element</th>
<th>Current</th>
<th>Proposed</th>
<th>Streamlined &amp; Predictable</th>
<th>Multimodal</th>
<th>Robust</th>
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<tbody>
<tr>
<td>Change peak hour trip thresholds from vehicles to persons</td>
<td>30 vehicle trips</td>
<td>75 person trips in Metro areas 50 person trips elsewhere</td>
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<tr>
<td>Shift private sector studies to public sector monitoring in core areas</td>
<td>30 vehicle trips</td>
<td>Private sector studies replaced by transportation impact tax payment and biennial public sector monitoring with Comprehensive Local Area Transportation Review</td>
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<td>X</td>
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<tr>
<td>Introduce quantitative non-motorized and transit impact studies</td>
<td>N/A</td>
<td>50 transit trips, 100 pedestrian trips</td>
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<td>X</td>
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<td>Reduce reliance on CLVs</td>
<td>CLV up to 1600, then intersection vehicle delay</td>
<td>CLV up to 1600 or congested arterial per MWCOG, then network delay</td>
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<td>X</td>
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<tr>
<td>Maintain pedestrian crossing time</td>
<td>Check individual crosswalk crossing time</td>
<td>Maintain total pedestrian wait and walk time in urban road code areas</td>
<td></td>
<td>X</td>
<td>X</td>
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<tr>
<td>Offsite ped issue resolution for pedestrian sites</td>
<td>N/A</td>
<td>Fix or fund all ADA solutions within 500' of sites with &gt; 100 peak hour peds</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>Public sector implementation in complex areas</td>
<td>Payment in lieu of construction as last resort</td>
<td>Payment in lieu for urban road code areas</td>
<td></td>
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<td>X</td>
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<tr>
<td>Replace Policy Area Review with transit accessibility</td>
<td>10-year assessment of average roadway LOS and average bus route coverage, headway, and span</td>
<td>Proportional improvement in access to jobs (2025 as a proportion of 2040)</td>
<td></td>
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<td>×</td>
</tr>
<tr>
<td>Incorporate VMT into transportation impact tax rates</td>
<td>Impact tax rates based on vehicle trip generation</td>
<td>Impact tax rates based on vehicle-miles of travel</td>
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COUNTYWIDE OBJECTIVES

Streamlined & predictable
- LATR streamlined to allow payment in lieu implementing mitigation
- Fewer studies – core area payment in lieu, new tripgen rates, and person-trip thresholds

Less auto-centric, more multimodal
- Accessibility as a policy area measure of adequacy considering sensitivity to BRT performance

More robust technical analysis
- Greater reliance on operations rather than CLV
- VMT and NADMS as tools for non-regulatory policy area monitoring and study inputs; case-specific monitoring for regulatory review if applicant requests
NEW POLICY AREA IDEAS

February 18 discussion on policy area groups:

- Core
- Corridor
- Residential
- Rural
What matters where?

- Core
- Corridor
- Residential
- Rural

Challenge: The importance of attaining all three objectives is highest in core areas and lowest in rural areas. For core areas, proposal is to streamline private sector participation and conduct robust and multimodal public sector monitoring.
POLICY AREA MEASURE

Options:
- Transit Accessibility
- NADMS
- VMT

Considerations:
- Sensibility
- Ability to forecast
- Relevance to master plan implementation

Examination

How does each option compare across:
- Locations (policy areas)
- Timeframes (current/future)
- Adding Transit Facilities (test sensitivity to presence or absence of Purple Line and Corridor Cities Transitway in 2040 forecasts)
COORDINATION OF APFO AND POLICY TOOLS

Policy Tools:
- Areawide test
- LATR
- Mitigation payments and impact taxes

Considerations:
- “Adequacy”
- Efficient resource allocation
- Relevance to master plan implementation

Where have we been (prior to 3/18)?
- Defined context by categorizing policy areas
- Considered policy objectives
- Discussed areawide measures/metrics
- Established conceptual framework based on a new areawide test

Where are we now?
- Forecasting metrics – how sensitive are the proposed areawide metrics to change over time? How sensitive are they to LRT/BRT?

Where are we headed?
- Select areawide metric(s)
- Define adequacy
- Consider reasonable areawide payments (local + areawide + impact tax)
**METRICS DEFINITION**

**Accessibility to Jobs Within 45 Minutes**

Number of regional jobs available within 45 minutes by walk-access transit from households in each Policy Area

Travel/4 model TAZ data aggregated to Policy Area totals
**Non-Auto Driver Mode Share (NADMS)**

Percentage of trips to work by walk, bike, transit, auto passenger from households in each Policy Area

Travel/4 model TAZ data aggregated to Policy Area totals
Vehicle Miles of Travel (VMT)

Average trip length by auto drivers from households within each Policy Area
Travel/4 model TAZ data aggregated to Policy Area totals
**TRANSIT ACCESSIBILITY**

**Sensible:** Logically and highly responsive to both land use and transportation changes

**Ability to forecast:** Related to model inputs rather than outputs (not subject to latent demand)

**Relevant:** Measures progress towards transit system implementation
NADMS

Less sensible: Mildly responsive to land use and transportation changes

Lower ability to forecast:
Travel/4 model “lumpiness” in CBDs, latent demand concerns

Less relevant:
Only measures progress towards plan implementation/adequacy where NADMS specified by policy
Less sensible: Site-level monitoring an option but reduces applicant predictability

Lower ability to forecast: Travel/4 model “lumpiness” in CBDs, latent demand concerns

Mixed relevance: Related to congestion concerns, part of national interest led by California’s SB 743, but not related to master plan implementation/adequacy
EMPLOYING A NEW POLICY AREA METRIC

- Need to define adequacy
  - Organize by policy area groupings (like Corridor areas below)
  - Set threshold based on accessibility goal (do we expect R&D Village to achieve the same accessibility as Wheaton CBD?)
  - Compare current accessibility to forecast accessibility (in 10 years to forecast accessibility in 2040)
- Establish relationship to impact tax
## COMBINING POLICY AREA AND LOCAL AREA EVALUATION CONCEPTS

<table>
<thead>
<tr>
<th>New policy area test</th>
<th>Core</th>
<th>Corridor</th>
<th>Residential – Streets</th>
<th>Residential – Roads</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring</td>
<td>Monitoring</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Does not apply</td>
</tr>
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<table>
<thead>
<tr>
<th>LATR using mode-specific trip generation with multimodal intersection delay or CLV</th>
<th>Core</th>
<th>Corridor</th>
<th>Residential – Streets</th>
<th>Residential – Roads</th>
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<tr>
<td>Monitoring</td>
<td>Monitoring</td>
<td>Applies multimodal intersection delay</td>
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<td>Applies CLV</td>
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<table>
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<th>Development required to:</th>
<th>Core</th>
<th>Corridor</th>
<th>Residential – Streets</th>
<th>Residential – Roads</th>
<th>Rural</th>
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<tbody>
<tr>
<td>Pay impact tax</td>
<td>Pay impact tax</td>
<td>Provide local area study, check policy area adequacy, make mitigation payment, if applicable, and pay impact tax</td>
<td>Provide local area study, check policy area adequacy, make mitigation payment, if applicable, and pay impact tax</td>
<td>Provide local area study, check policy area adequacy, mitigate, if applicable, and pay impact tax</td>
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Note: Option to exempt residential applicants with minimal on-site parking based on VMT reduction remains applicable in Core areas to reduce or eliminate payment.
NEXT STEPS

- April 14 Planning Board guidance
- Early May Working Draft
- Early June Public Hearing
- June Planning Board Worksessions
- Late July Transmittal to Council
- Fall Council Worksessions
- November 15 Council Adoption