Transportation Impact Study Technical Working Group (TISTWG) Friday, December 9, 2016 Meeting #17 MRO Auditorium 1:30-3:30 PM

Agenda

- 1) Introductions (10 min)
- 2) County Council SSP activities (30 min)
 - a) Summary of actions
 - b) Frequently asked questions
- 3) Key LATR considerations (40 min)
 - a) CLV and operational guidance (when and how to use)
 - b) Trip generation rates and guidance
 - c) Pedestrian, bicycle, and transit adequacy quantitative analyses
 - d) Traffic count currency/sufficiency
 - e) Other areas of attendee interest
- 4) LATR Guidelines format (10 min)
 - a) Objectives
 - b) Proposed outline
- 5) Related initiatives (20 min)
 - a) White Oak Science Gateway
 - b) SHA TIS Guidelines
 - c) TDM/TMAg review status
 - d) Update on Related ITE and TRB Annual Meeting items
- 6) Next steps and tentative meetings schedule (10 min)

| Subdivision Staging Policy ¹ | | | | |
|---|--|---|--|--|
| Transportation Policy Are | eas | | | |
| Element | Existing 2012-2016 SSP | Adopted 2016-2020 SSP | Explanation | |
| Policy Area Categories | Categorized into groups (urban, suburban and rural) based on the relative availability of Metrorail, Commuter Rail and local bus service. | Categorized into groups based on current land use patterns, prevalence of modes of travel other than single occupant vehicle and the planning vision for different parts of the County. | How trips are made varies by density, land use diversity, distance to regional core, and the travel options available. | |
| New Policy Areas | | Clarksburg Town Center (Orange) Burtonsville Town Center (Orange) Long Branch (Orange) Takoma/Langley (Orange) Chevy Chase Lake (Orange) Germantown Town Center – expanded (Orange) | Current plans in these areas envision either a transition to more intense land use as a maturing activity center supported in some cases by funded infrastructure improvements (e.g., the Purple Line). | |

¹ The information provided in this matrix covers changes pertaining to key transportation elements of the SSP. It also addresses key SSP-related transportation impact tax changes associated with Bill 37-16. SSP changes pertaining to schools are addressed in a separate document.

| Policy Area Review Test | | | | | |
|-------------------------|-----------------------------|-----------------------|------------------------------|--|--|
| Element | Existing 2012-2016 SSP | Adopted 2016-2020 SSP | Explanation | | |
| TPAR Roadway | Based on roadway Level of | N/A | Policy Area Test was | | |
| Adequacy | Service Congestion | | eliminated altogether. In | | |
| | Standards. | | lieu of TPAR, transportation | | |
| TPAR Transit Adequacy | Based on current Ride-On | | impact tax rates were | | |
| | and Metro Bus operations | | increased at a level to | | |
| | (coverage, headway, span of | | compensate for revenue | | |
| | service). | | estimated to be generated | | |
| Mitigation | Payment required for | | by the TPAR surcharge. | | |
| | roadway and transit | | | | |
| | inadequacy equal to 25% of | | | | |
| | impact tax. | | | | |
| Exemptions | Rural East and Rural West | | | | |
| | exempt from the Roadway | | | | |
| | Test; | | | | |
| | Metro Station Policy Areas | | | | |
| | (MSPAs) exempt from the | | | | |
| | Transit Test. | | | | |

| Local Area Review Test | | | | |
|------------------------|-------------------------------|---|--------------------------------|--|
| Element | Existing 2012-2016 SSP | Adopted 2016-2020 SSP | Explanation | |
| | | | | |
| Scoping Threshold | 30 Weekday Peak Hour | Red and Orange Policy Areas: | Person Trips reflect a | |
| | Vehicle Trips. | 50 Weekday Peak Hour Person | multimodal approach to | |
| | | Trips | impacts mitigation and | |
| | | Vallow and Groon Balicy Areas: | facilitate i Divi planning. | |
| | | Fellow and Green Policy Areas. | | |
| | | Trips and existing Critical Lane | | |
| | | Volume (CLV) above 1350 CLV | | |
| | | | | |
| | | The 2016-2020 SSP includes updated | | |
| | | and/or new trip generation rates for | | |
| | | Vehicle Trips (expressed as a percentage | | |
| | | adjustment to the Institute of | | |
| | | Transportation Engineer (ITE) Manual | | |
| | | rates) and default values for Transit and | | |
| | | Non-Motorized Mode Share (bike, | | |
| | | walking, etc.) by policy area. | | |
| | | 50 Vehicle, Pedestrian or Transit Trips | | |
| | | requires a pedestrian (and bike, if site is | | |
| | | proximate to bicycle trip generator) or | | |
| | | transit study, respectively. | | |
| Type of Analysis | Vehicle: Critical Lane Volume | Vehicle: | Considerable opposition to | |
| | (CLV), supplemented by | Operational analysis (based on | use of CLV alone as metric | |
| | Highway Capacity Manual | HCM/vehicle delay) required per the | for intersection vehicle level | |
| | (HCM) if CLV > 1600 | screening thresholds noted above. | of service. HCM thought to | |
| | | | be more representative of | |
| | | Network analysis required if, in addition to | level of service experienced | |
| | | the thresholds above, total future CLV is | by driver and passengers. | |
| | | greater than 1600 CLV or is greater than | | |
| | | 1450 CLV, future CLV increases by more | | |

| | | then 10 and interrection is deemed | LICM analysis for isolated |
|---------------------|--|---|--|
| | | than 10, and intersection is deemed | HCIM analysis for isolated |
| | | congested per local/regional agency traffic | intersections in some |
| | | congestion monitoring reports, or | instances may not |
| | | intersection spacing is less than 600'. | representative of current or |
| | | | forecast conditions and |
| | | | therefore a more robust |
| | | | network analysis is needed. |
| | | Transit: Peak Load of bus routes within | Level of Service for non- |
| | | 1000' of site boundary or nearest transfer | auto modes needs to the |
| | | point if slightly further, during peak hour. | evaluated and achieve LOS |
| | | | D (or made no worse) as |
| | | | result of development. |
| | | Pedestrian: Pedestrian Crosswalk Delay | Achieve LOS D or better |
| | | Bike: Condition of Level of Traffic Stress | Achieve site connection to |
| | | (LTS) 2 within 750' of site boundary. | low stress network |
| Adequacy/mitigation | Future Critical Lane Volume (CLV) exceeds the policy area standard. Mitigation needs to improve CLV by 150% of impact. | Vehicle: Mitigation required if future vehicle traffic congestion exceeds the applicable average vehicle delay policy area standard for any analyzed intersections requiring study. Trips associated with a delay more than the standard (or background conditions for intersections where background conditions are substandard) must be mitigated. | Better approximation of conditions experienced by travelers. Operational analysis facilitates more multimodal analysis and operational solutions as contrasted to capacity solutions. |
| | | Transit: Peak Load is a least Level of Service (LOS) D (less than 1.25 transit riders per seat during the peak period) at bus stops within 1,000 feet of the site, if not, applicant must fund improvements that would mitigate the trips exceeding the standard applicable to the development. | Project should participate in transit improvements necessary to maintain reasonable level of service and access via transit. |

| | Pedestrian: Ensure a minimum level of service (LOS D) for pedestrian delay; for intersections operating below LOS D, ensure no increase in pedestrian crossing time; fix or fund ADA non-compliance within 500' radius of site boundary. | Project increases exposure to safety concerns as defined by ADA. Project should participate in pedestrian access improvements to maintain reasonable level of access on foot. |
|-----------------------|---|--|
| | Bike: Any proposed development within 0.25 miles of an existing educational institution or existing/planned bikeshare station must make improvements needed to provide a low Level of Traffic Stress (LTS-2) to any existing similar facility within 750 feet of the development's boundary. An alternative is to provide a master planned improvement that provides an equivalent improvement in the level of traffic stress for cyclists. | Project should participate in necessary improvements to ensure low level of stress for cyclists in vicinity where cycling demand and/or infrastructure exists. |
| Mitigation Priorities | Non-auto mitigation prioritized over intersection improvements as follows: 1. TDM 2. Ped/bike improvements 3. Transit improvement 4. Intersection operational improvements 5. Roadway capacity improvements | Projects should look to least capital-intensive solutions for both applicant initial cost and public sector maintenance, including starting with methods that that increase NADMS. |
| | | |

| Unified Mobility | A version of a Unified | Create a series of Unified Mobility | Approach would provide |
|------------------|------------------------------|--|-------------------------------|
| Programs | Mobility Program (UMP) | Programs, similar to the one under | more predictability and |
| | exists in White Flint and is | development for the White Oak policy | transparency with respect |
| | under development in White | area as an eventual replacement to LATR | to assumptions, capital |
| | Oak | countywide. In its simplest form, the | costs and development of |
| | | White Oak UMP entails the development | per trip fee(s). Focuses |
| | | of (1) the forecast of new trips at master | private sector participation |
| | | plan buildout for a sub-area and (2) the | on implementing planned |
| | | capital costs thought to be necessary to | improvements rather than |
| | | fund the supporting infrastructure over | developing ad hoc |
| | | the same time period. Given that | mitigation (which, if |
| | | information, a cost per trip is identified | oriented towards auto |
| | | and applied to proposed development | capacity, may be |
| | | within the area in question. | inconsistent with the master |
| | | | plan guidance). Avoids issue |
| | | | of "last in" applicant having |
| | | | to bear disproportional |
| | | | share of cost. |

| Transportation Impact Taxes | | | | |
|---------------------------------|--|--|--|--|
| Element | Existing 2012-2016 SSP | Adopted 2016-2020 SSP | Explanation | |
| Basis for tax rate | Based on 2006 CIP, Round 7.0 Cooperative Forecasts, and ITE Trip Generation Rates | Based on 2006 CIP, Round 7.0 Cooperative Forecasts ² | Analysis of 2016 conditions found only a slight change from 2007 base for "countywide" rates. | |
| Adjustments to the base rate | Four sets of rates apply: (1) General District, (2) MSPA discount, (3) MARC station area discount, and (4) Clarksburg surcharge. | Four sets of rates apply: (1) Red Policy Area, (2) Orange Policy Area, (3) MARC station area discount, (4) Yellow and Green Policy areas The rates in the Red policy area category are unchanged (the same category was referred to as Metro Station Policy Areas). Rates in the Orange policy area category are equivalent to the General District Rate, with no adjustment factor applied. Rates in the Yellow and Green policy areas are equivalent to the General District rate, adjusted by 125% to account for a proportionately higher transportation usage in these areas. In addition, rates in the Orange, Yellow and Green policy area categories have | New analysis of VMT and NADMS confirmed that retaining Red areas at 50% of the "countywide" rate was appropriate and that Yellow and Green areas should be higher than the countywide rate. | |
| | | been increased to account in part for revenue loss associated with the elimination of the TPAR. | | |

² Council chose not to use more current information in support of the development of updated transportation impact tax rates.

SUBDIVISION STAGING POLICY

Frequently Asked Questions (FAQs) about Transportation

12/2/16 DRAFT

What is the Subdivision Staging Policy (SSP)?

The SSP is a set of policy tools that provides guidance for the timely delivery of public facilities to serve existing and future development in the County. The tools provide a common approach for use by the Planning Board, Executive Branch agencies (e.g., the Department of Permitting Services and the Department of Transportation), Montgomery County Public Schools, and developers in reviewing development plans.

How often is the SSP reviewed or changed?

Technically, the SSP can be revised at any time by the County Council. The County Code requires the SSP to be reviewed and adopted every four years at a minimum.

When does the new revised SSP go into effect?

The new SSP will apply to any development application (preliminary plan) accepted as "complete" by the Planning Department on or after January 1, 2017.

What are some of the most significant changes related to transportation that were approved by Council as part of this latest review of the SSP?

For development applications submitted prior to January 1, 2017, there are two "tests" to determine if adequate transportation facilities are either in place or funded to serve future development. One is an areawide test (Transportation Policy Area Review – or "TPAR"). The other is a local area test (Local Area Transportation Review – or "LATR").

TPAR provides a measurement of how peak hour travel time compares to uncongested travel time on specific arterial roadway corridors within each policy area and how extensive local bus service is within each policy area. Critics of TPAR thought it was overly complicated, placed too much emphasis on auto travel time and level of service, and could be influenced by traffic generated outside of the policy area, among other things. Mitigation under TPAR consisted of a surcharge to the transportation impact tax. The resulting change in this latest review of the SSP was to eliminate the policy area test altogether. There is no more "TPAR", although transportation impact tax rates have been increased to account for the fiscal effects of eliminating TPAR.

LATR currently provides a measure of the level of service at signalized intersections. In the case of LATR, the interest of most stakeholders was in making the evaluation consider more than intersection capacity for auto travel (additional discussion on this aspect of the SSP review is provided below). The method to be used in determining intersection level of service has changed however and that is discussed below.

What are the major changes with the local area test?

The biggest change is that intersection level of service will be determined using the Highway Capacity Manual (HCM) methodology in the more developed areas of the County - instead of the current method of relying solely (in most instances) on an estimate of the Critical Lane Volume (CLV). HCM measures vehicle delay and is more representative of a driver's actual experience. CLV methodology focuses more on theoretical intersection capacity.

Intersection analysis using CLV is still applicable in less developed areas where the analysis of the intersection(s) need not be as extensive (and therefore costlier in some instances) as HCM.

When is a developer required to do this analysis – whether it be HCM or CLV?

Another important change in the updated SSP involves the threshold that triggers the need for a Transportation Study that includes an analysis of the level of service for the applicable intersection(s) associated with the project application. Currently, projects that will generate more than 30 weekday peak hour (either am or pm) <u>vehicle</u> trips must submit a Transportation Study. The revised SSP changes the threshold to 50 <u>person</u> trips. The revised SSP also includes updated and/or new trip generation rates for vehicle trips (expressed as a percentage adjustment to Institute of Transportation Engineer (ITE) Manual rates) and default values provided by the Planning Department for transit and non-motorized mode share (bike, walking, etc.) by policy area.

Is a developer required to analyze transit, pedestrian, and bike facility level of service in the project vicinity?

Yes. There are similar thresholds that trigger a look at transit (i.e., 50 person trips in the peak hour) and pedestrian or bicyclist (i.e., 100 person trips in the peak hour) level of service.

What parts of the County will trigger an HCM analysis?

The updated SSP includes four policy area categories or groupings - Red, Orange, Yellow, and Green (see Figure 1).

The <u>Red</u> Group includes the CBD's of Bethesda, Silver Spring, and Wheaton, as well as the remaining Metro Station Policy areas (other defined areas that have a Metrorail Station).

The <u>Orange</u> Group includes areas that are not as developed as the Red Group but are more representative of activity centers where adopted plans provide the potential in some cases (but not all) for more development eventually supported by new infrastructure (e.g., the Purple Line, CCT, or new Metrorail station entrances).

A HCM analysis will now be required for any development application for a project located in the Red or Orange groups.

The <u>Yellow</u> Group includes policy areas that less developed and more likely to have intersections that are spaced further apart than you would typically find along corridors in the Red and Orange groups.

The <u>Green</u> Group consists of the Damascus, Rural East, and Rural West Policy Areas that are less developed than the Yellow Group.

What parts of the County will a CLV analysis suffice without having to do a HCM analysis?

Development applications for projects located in policy areas in the Yellow and Green groups will not be required to develop a HCM analysis for intersections scoped for the Transportation Study if it can be demonstrated that the intersection has an total future peak hour (am and pm) CLV below 1350. If the CLV is 1350 or higher (i.e., worse) a HCM analysis must be prepared.

What are the standards associated with the HCM analysis?

The standards vary by policy area and are expressed as average vehicle delay (i.e., seconds per vehicle) at the intersection in question. The actual numbers vary from 41 seconds for the Rural East and West Policy Areas to 120 seconds for the ten policy areas in the Red Group¹.

When is the developer required to mitigate the project's impact in response to the HCM analysis?

The project applicant is required to mitigate trips generated by the project that add to the existing average vehicle delay for the intersection(s) included in the Transportation Study when the delay exceeds the policy area standard. As an example, if a project generates enough trips to increase the average vehicle delay from 85 seconds to 90 seconds in a policy area where the standard is 80 seconds the trips that need to be mitigated are those that contribute (or cause) the 5 second increase in the average delay – all other input variables held constant. If the same project were instead located in a policy area where the standard is 120 seconds no mitigation would be required because the policy area standard is not being exceeded.

What type of mitigation is required?

The applicant must demonstrate that the trips can be mitigated through (in priority order) (1) Transportation Demand Management (TDM) approaches, (2) pedestrian or bicycle facility improvements, (3) transit facility or service improvements, (4) intersection operational improvements, and/or (5) roadway capacity improvements.

What kind of assumptions and parameters are included in a Transportation Study?

The scoping of the Transportation Study is important and requires agreement among the major stakeholders (e.g., the applicant, Planning Department, County Department of Transportation, and State Highway Administration). The scope must also be consistent with the the Board's LATR Guidelines.

¹ Properties within the White Flint Special Taxing District are exempt from LATR.

As previously noted, there are now updated ITE vehicle trip adjustment factors and mode choice default values to be used in the Transportation Study. There is also guidance on the number of intersections to be analyzed and the extent to which multiple intersections must be evaluated as a network as opposed to a series of isolated or individual intersections. There is guidance on how to evaluate pedestrian, bicycle, and transit system adequacy for applications large enough to trigger quantitative analysis for those modes.

What type of mitigation is required to address the level of service thresholds or standards for pedestrians, transit and bike riders?

Any site that generates more than 50 pedestrian peak hour trips must either fix or fund ADA non-compliance issues within a 500' radius of the site boundary and ensure a minimum level of service (LOS D) for pedestrian delay at LATR intersections within 500' of the site boundary or within a Road Code Urban Area / Bicycle Pedestrian Priority Area.

Transit adequacy for LATR is defined as providing a peak load of LOS D (less than 1.25 transit riders per seat during the peak period in the peak direction). For developments generating at least 50 peak hour transit riders and where the LOS at bus stops within 1,000 of the site exceeds (or is worse than) the standard, the applicant must provide or fund improvements that would mitigate the trips exceeding the standard that are attributable to the development.

Bicycle system adequacy is defined as a low level of traffic stress. Any proposed development generating 50 or more peak hour non-motorized trips and located within 0.25 miles of an existing educational institution or existing/planned bikeshare station must make improvements needed to provide a low Level of Traffic Stress to any existing similar facility within 750 feet of the development's boundary. An alternative is to provide a master planned improvement that provides an equivalent improvement in the level of traffic stress for cyclists. A low level of traffic stress as considered here is a facility that has some type of physical separation between the facility for the cyclists and the adjacent or nearby roadway. Examples include separated bike lanes or a shared use path (or side path). It does not include bike lanes next to travel lanes separated by pavement markings of some type.

What is an Urban Mobility Program and how would it eventually replace LATR?

The proposal to over time develop Urban Mobility Programs (UMPs) for specific areas within the County was advanced during work sessions and discussions held as part of the SSP review. The idea is to apply the White Oak model now under consideration as an eventual replacement to LATR for specific small areas countywide. In its simplest form, the White Oak model involves the development of (1) travel forecasts for a sub-area and (2) the capital costs necessary to fund the supporting infrastructure over the same time. Determining exactly what supporting infrastructure will be needed could be based on any number of things (e.g., an acceptable level of intersection delay, assumptions related to capital funds from other sources, etc.). Given that information, a cost per trip is identified and applied to proposed development within the area in question.

The development of UMPs will take some time. Initial discussions have focused on developing UMPs over the next 1-3 years for the Red Areas first and then follow with appropriately defined portions of the Orange and

Yellow areas in that order. UMPs would result in a more predictable mitigation (a fee) and avoid the current situation with LATR where the cost burden falls on the latest applicant (as opposed to those earlier applicants that may have avoided any mitigation when the applicable standards were not exceeded).

What are the changes to the Transportation Impact Tax?

The rate structure established in 2007 includes three main categories; (1) Metro Station Policy Areas and CBD's (now referred to as the Red Areas) (2) a General District Rate, and (3) a rate for Clarksburg.

The rate structure adopted in November 2016 as Bill 37-16 includes rates for land uses in each of the policy area groupings (Red, Orange, Yellow, and Green).

The rates in the Red Areas have been adjusted to reflect new estimates of the County's provision of transportation capacity over the next 25 years. The rates in the other Groups have been increased relative to their prior amounts to account in part for revenue loss associated with the elimination of the TPAR or areawide test.

What percentage of the total cost of all transportation projects in the County CIP is covered by the Transportation Impact Tax?

The Transportation Impact Tax estimated revenue amounted to about 4% of the total estimated cost of all projects included in the FY 2015-2020 County CIP.



Figure 1: SSP Policy Area Categorizations

DEFINING THE ELEPHANT: WHAT DIFFERENT TOOLS AND APPROACHES CAN "SEE"

- Any development generates trips using a series of modes for a series of purposes.
- What's most
 commonly reported
 on is often not a
 complete picture.

| Home- based Work | Home- based non-work | Non Home- based | TOTAL |
|------------------------|----------------------------|--|--|
| | | | |
| | | | |
| | | | |
| | | | |
| #15 | | | |
| | Home- based Work | Home- based based non-workWorkImage: Constraint of the second seco | Home- based mon-workNon Home- basedWorkImage: Constraint of the second sec |

- Any development
 generates trips using a
 series of modes for a
 series of purposes.
- What's most
 commonly reported
 on is often not a
 complete picture.

| Home- based Work | Home- based non-work | Non Home- based | TOTAL |
|------------------------|----------------------------|--|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | Home- based Work | Home- based workHome- based non-workImage: state | Home- based workHome- based home- basedWorkImage: Comparison of the second se |

ITE TRIP GENERATION MANUAL

AMERICAN COMMUNITY SURVEY (HOME END OF TRIP)

MONTGOMERY COUNTY TDM SURVEYS (OFFICE END OF TRIP)

- Any development
 generates trips using a
 series of modes for a
 series of purposes.
- What's most
 commonly reported
 on is often not a
 complete picture.

| | Home- based Work | Home- based non-work | Non Home- based | TOTAL |
|-------------------|------------------------|----------------------------|-----------------------|-------|
| Auto driver | | | | |
| Auto passenger | | | | |
| Transit | | | | |
| Walk/bike | | | | |
| Total | #17 | | | |

STEP I. START WITH VEHICLE TRIPS FROM ITE DATABASE

The proposed Subdivision Staging Policy shift to person trips follows the new ITE paradigm.

Example: 25,000 GSF Retail Site

| | Home- based Work | Home- based non-work | Non Home- based | TOTAL |
|-------------------|------------------------|----------------------------|-----------------------|-------|
| Auto driver | | | | 93 |
| Auto passenger | | | | |
| Transit | | | | |
| Walk/bike | | | | |
| Total | #18 | | | |

STEP II. EXPAND ITE DATA FROM VEHICLE TRIPS TO PERSON TRIPS

The proposed Subdivision Staging Policy shift to person trips follows the new ITE paradigm.

The **MWCOG model** provides the most robust method for estimating the missing data, based on the MWCOG/BMC Household Travel Survey, using Rural Montgomery County as the basis for a default "exurban" location.

Example: 25,000 GSF Retail Site (Rural West)

| | Home- based Work | Home- based non-work | Non Home- based | TOTAL |
|-------------------|------------------------|----------------------------|-----------------------|-------|
| Auto driver | | | | 93 |
| Auto passenger | | | | 33 |
| Transit | | | | 0 |
| Walk/bike | | | | 2 |
| Total | #19 | | | 128 |

STEP III. ADJUST PERSON TRIPS BY POLICY-SPECIFIC MODE SPLITS TO OBTAIN SITE GENERATED TRIPS BY MODE

The proposed Subdivision Staging Policy shift to person trips follows the new ITE paradigm.

Each policy area has specific mode split values based on land use and transportation system characteristics.

Example: 25,000 GSF Retail Site (North Bethesda)

| | Home- based Work | Home- based non-work | Non Home- based | TOTAL |
|-------------------|------------------------|----------------------------|-----------------------|-------|
| Auto driver | | | | 66 |
| Auto passenger | | | | 36 |
| Transit | | | | 8 |
| Walk/bike | | | | 18 |
| Total | | | | 128 |
| Page | #20 | | | |

STEP IV (OPTIONAL). DEVELOP TDM PROGRAM FOR WORK TRIPS TO ADJUST SITE GENERATED TRIPS BY MODE

The proposed Subdivision Staging Policy shift to person trips follows the new ITE paradigm.

TDM programs are most often geared towards home based work trips for employees, with approaches best customized for each applicant working with MNCPPC and MCDOT staff.

| | Home- based Work | Home- based non-work | Non Home- based | TOTAL |
|-------------------|------------------------|----------------------------|-----------------------|-------|
| Auto driver | -10 | | | 56 |
| Auto passenger | +5 | | | 41 |
| Transit | +3 | | | П |
| Walk/bike | +2 | | | 20 |
| Total | 0 #21 | | | 128 |

STEP V (OPTIONAL): DEVELOP TDM PROGRAM FOR ALL WORK TRIPS TO ADJUST SITE GENERATED TRIPS BY MODE

The proposed Subdivision Staging Policy shift to person trips follows the new ITE paradigm.

In certain cases, TDM programs may be developed to include other site visitors as well.

| | Home- based Work | Home- based non-work | Non Home- based | TOTAL |
|-------------------|------------------------|----------------------------|-----------------------|-------|
| Auto driver | -10 | -2 | -4 | 62 |
| Auto passenger | +5 | | | 36 |
| Transit | +3 | | | 8 |
| Walk/bike | +2 | +2 | +4 | 22 |
| | 0 #22 | 0 | 0 | 128 |

2017 LATR Guidelines December 2, 2016 DRAFT Outline

Objectives: Reorganize/rewrite from scratch without tracking prior changes to include needed information. Provide brief executive summary for general public. Organize body of guidelines for LATR practitioners/reviewers.

- 1) Executive Summary
- 2) Introduction
 - a) LATR Guidelines principles
 - b) Relationship to guiding documents (SSP, zoning, master plans)
 - c) Policy Area definitions
 - d) Mitigation priorities
 - e) Definitions of modal adequacy
- 3) LATR Study submission
 - a) Scheduling process
 - b) Scoping process
 - c) Contents required for completeness
 - i) Inventory
 - ii) Pedestrian and bicycle impact statement
 - iii) TDM strategy statement
 - iv) Adequacy determination
 - d) Review process
- 4) Roadway system adequacy
 - a) Analysis procedures and tools
 - i) CLV
 - ii) Isolated intersection delay
 - iii) Network delay
 - b) Determining baseline and total future conditions
 - c) Mitigation objectives and approaches
- 5) Pedestrian system adequacy
 - a) Analysis procedures and tools
 - i) ADA compliance
 - ii) Pedestrian crosswalk delay
 - b) Determining baseline and total future conditions
 - c) Mitigation objectives and approaches

- 6) Bicycle system adequacy
 - a) Analysis procedures and tools
 - i) Level of traffic stress
 - b) Determining baseline and total future conditions
 - c) Mitigation objectives and approaches
- 7) Transit system adequacy
 - a) Analysis procedures and tools
 - i) Local bus service capacity
 - b) Determining baseline and total future conditions
 - c) Mitigation objectives and approaches
- 8) Appendices
 - a) Person Trip Generation
 - i) Tables
 - ii) Examples
 - b) Vehicle Trip Distribution
 - c) Glossary
 - d) References