



Town of Vienna

Town Council Meeting

January 6, 2020

Comprehensive Plan Edit – Level of Service (LOS) Requirement for Maple Ave.

Staff to provide overview of LOS and adding LOS requirements to the
Comprehensive Plan

Presentation Agenda

- What is Level of Service (LOS)?
- Background:
 - County's Comp Plan
 - FCDOT and VDOT MOU
 - NHS Roadways
 - Tysons Design Standards
- Town Comp Plan
- Adding LOS Requirements
- Current LOS of Maple Ave
- Pros and Cons
- Questions

Level of Service (LOS) – What is it?

- LOS is a qualitative measure used to rate the quality of vehicle flow.
 - Freeway/Roadway Corridors/networks LOS
 - Calculated using: free flow speed, actual speed, heavy vehicle factor, roadway configuration, number of access points (driveways).
 - LOS A: Free Flow - LOS F: Breakdown of Flow (gridlock: stop and go)

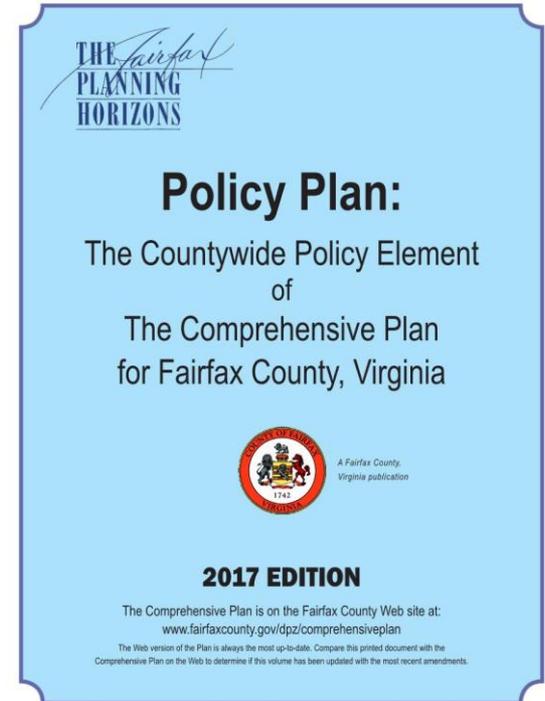
Level of Service (LOS) – What is it?

- LOS is a qualitative measure used to rate the quality of vehicle flow.
 - Intersection LOS
 - Calculated using average control delay (seconds/vehicle)
 - LOS A: Free Flow - LOS F Force Flow (congested and queues fail to clear)

Fairfax County's Comp Plan – LOS

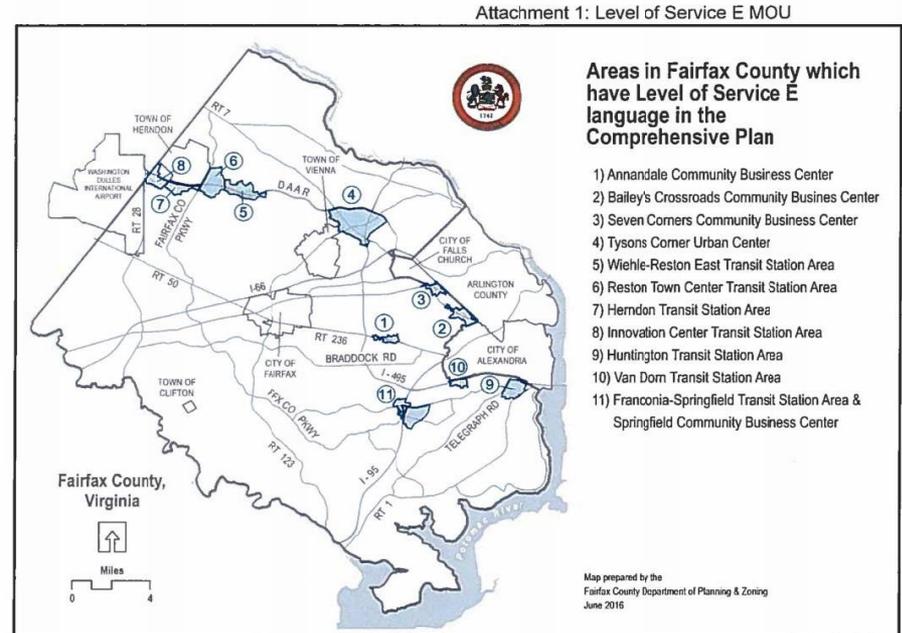
- From 2017 Edit of the Policy Plan – Transportation:
 - Objective 3, Policy b: “Provide a **street network** level of service as high as practical, recognizing the social, environmental, and financial constraints associated with the diverse areas of the county. **At a minimum, level of service D should be provided, except where a lower level of service has been determined acceptable.**”

- No specific LOS standard for intersections. Rule of thumb is to target intersection LOS D.



FCDOT and VDOT: MOU

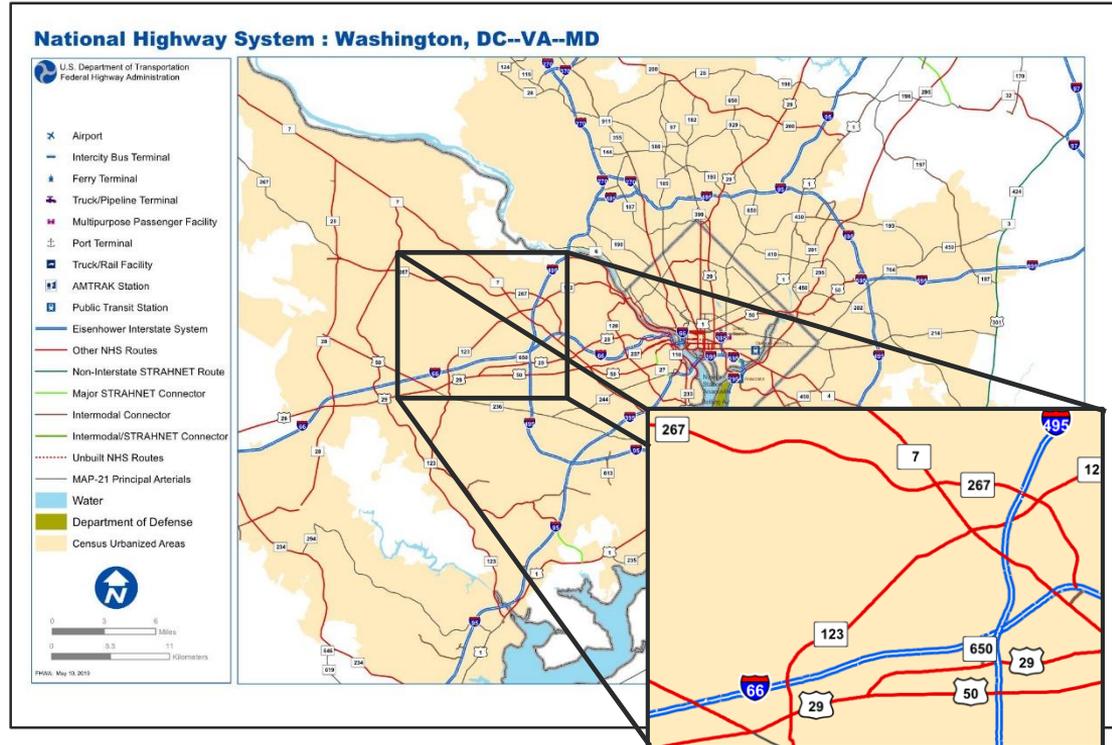
- County and VDOT share a Memorandum of Understanding:
 - For LOS in multimodal mixed use areas (activity centers).
 - Instead of LOS D they have agreed that LOS E would be acceptable for non-NHS roadways within activity centers.



NHS Roadways

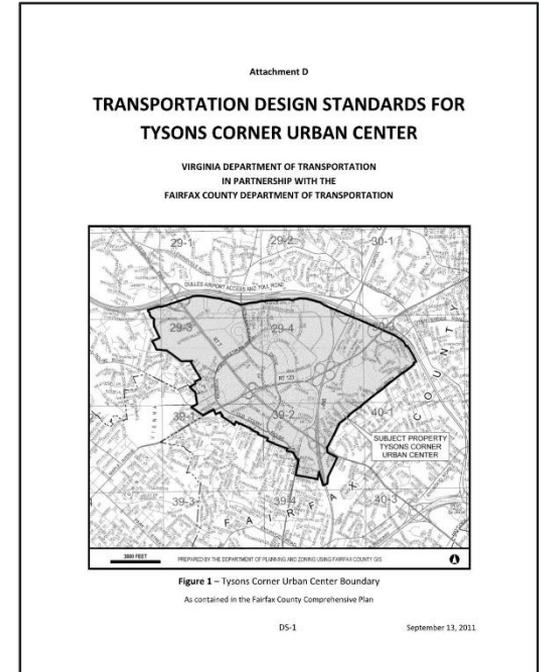
- **Maple Avenue (Route123) is a NHS Roadway**

- NHS – National Highway System: roadways deemed by the FHWA (Federal Highway Admin) as important to the nation’s economy, defense, and mobility.
- Typically the minimum standard for NHS roadways is LOS D, but there is flexibility.....



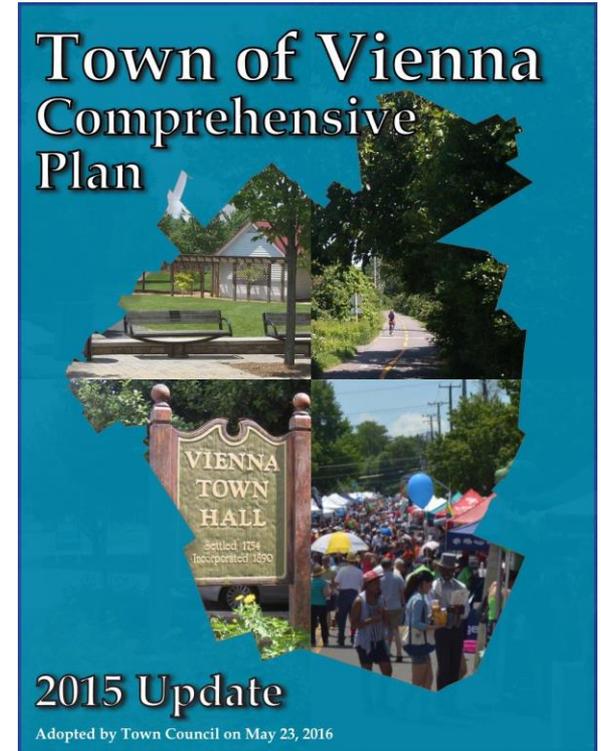
Fairfax County's Tysons Design Standards

- The Tysons Comp Plan (Fairfax County): LOS minimum standard Level of Service is LOS E.
- VDOT District Administrator may accept LOS E upon review of an Operational Analysis. **Even on NHS roadways.**
- A LOS waiver for NHS roadways would be required for LOS E.
- Where LOS D/E standard cannot be achieved, mitigation measures must be considered.



Town Comp Plan - LOS

- Currently there is no LOS requirement in the Town's Comprehensive plan.
- If a LOS requirement is desired then it could be added to the Town PIM (Public Infrastructure Manual) now. (staff recommends discussing with VDOT/County before adding a LOS requirements).
- A requirement could be added to the Comp Plan in 2021 (current Comp Plan was adopted on May 23, 2016).



Adding LOS Requirement for Maple Ave

- Town of Vienna Comprehensive Plan:
 - Planning Commission is required to review the Comp Plan every 5 years (last reviewed 2015-2016).
 - The plan is generally long-term and looks around 15 years ahead in time.
 - For amendments to the Comp Plan, state code requires that the Town Council directs Planning Commission to review the amendments and makes a recommendation to Town Council.
 - Council then needs to approve the amendments. Before doing so however, VDOT also must review any amendments to the Transportation Plan portion of the Comp Plan.

Current LOS of Maple Ave

- From the Maple Avenue Multimodal Study:
 - “Despite the congestion, overall maple avenue functions well at arterial LOS D, with travel times 8-10 minutes across the corridor in the peak direction”.
 - During the AM and PM peak hours most signalized intersections along Maple Ave are operating at LOS D or better. (The Maple Ave and Nutley St intersection is the only exception).
 - Left turns (both on to Maple Ave and on side streets) at some intersections (both signalized and unsignalized) operate with LOS E or F.
 - This is due to heavy left turn volumes and lack of gaps in the opposing traffic flow.
 - The number of commercial entrances also causes congestion (negatively impacts LOS).

Pros and Cons/Questions

Pros

- Provides LOS standard (target) for roadway improvements and developments.
- Establishes a LOS for Maple Ave and will force mitigations if requirements are not met.
- May improve future traffic flow along Maple Ave.

Cons/Questions

- Could be an extensive process. Will require coordination with County and VDOT.
- What level to establish? LOS D or E?
- What if the corridor naturally fails to meet the requirement?
(meaning outside influences cause Maple Ave to no longer meet the LOS requirements. Example: Tysons growth)

Questions and Comments?
