OREGON CITY

Public Works

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TRAFFIC ENGINEERING – FACT SHEET

and Frequently Asked Questions

Definitions

- **TIA** – Transportation Impact Analysis, comes in the form of a TIS or TAL
- **TIS** – Transportation Impact Study, commonly required for larger projects which generate 24 or more peak hour trips and 250 or more daily trips
- **TAL** – Transportation Analysis Letter, commonly required for smaller projects which generate fewer than 24 peak hour trips and fewer than 250 daily trips
- **LOS** – Level of Service, which is assigned a grade of A, B, C, D, E, or F – also called Mobility Standards, it defines the average duration of delay a vehicle experiences. A v/c (volume to capacity) ratio may also be used as a criteria rather than a grade
- **TSP** – Transportation System Plan – the master plan document for transportation improvements
- **ITE** – Institute of Transportation Engineers – a national organization that provides data and guidelines to support transportation studies

Frequently Asked Questions:

1. **Which department handles transportation issues?**
    - Public Works
        - *Engineering staff* provides oversight of a traffic engineering consultant, development review, and design
        - *Operations and Maintenance staff* provide maintenance to the system such as signage, striping, patching and administration of the speed hump program and stop sign program

2. **Who is the City's traffic engineer?**
    - DKS Associates. They became under contract on March 1, 2022.

3. **What standards have the City adopted to assess transportation impacts (congestion, safety, access spacing)?**
    - Guidelines for Transportation Impact Analysis https://www.orcity.org/1164/Guidelines-for-Transportation-Impact-Ana
    - Oregon City Transportation System Plan https://www.orcity.org/854/Transportation-System-Plan

4. **What type of data is used to assess transportation impacts?**
    - Estimated number of trips generated by the development.
    - Historic collision data

5. **What is a "trip"?**

- A trip is the action a user of the road system takes to get from one place to another. Trips are defined as either inbound or outbound. One inbound action is one trip. One inbound and one outbound action is two trips

6. **How are the number of trips from a proposed development determined?**
    - ITE Trip Generation Manual
        This provides survey data used to estimate the number of vehicle trips anticipated for a specific land use at various hours of the day.
7. **How can the ITE Manual be relied on when the experience or feeling is that the numbers are different?**
    - ITE collects trip generation data for a wide variety of land uses and development types across North America. The data can be filtered for various characteristics and settings, such as a specific time of day and location (urban, suburban and rural) to best represent the proposed development. If it is determined that ITE data is not appropriate to estimate trips for a proposed development, an alternative method is to collect data at three or more existing developments that are comparable to the proposed development.

8. **What type of development creates fewer than 24 peak hour trips?**
    - 24 or fewer lot subdivision, office building of less than 15,000 square-feet, multi-family building of 42 or fewer units, a partition of a lot

9. **When does a project require a Traffic Impact Analysis (TIA)?**
    - When the development is anticipated to create some level of impact to the surrounding transportation system as determined by the City's traffic engineer and the Guidelines for Transportation Impact Analyses
    - Commonly required for larger projects which generate 24 or more peak hour trips and 250 or more daily trips

10. **When is trip generation measured?**
    - During the peak hour of operations for the proposed development during any given week. Most often this is the weekday evening peak commute hour either 4pm-5pm or 5pm-6pm, but can vary based on the proposed development type.

11. **Where is congestion measured?**
    - At intersections and driveways

12. **Why is congestion not measured along roadways?**
    - Delays on urban roadways are typically caused by the delays at intersections. The City does not have a standard for congestion along roadways.

13. **How does the City know what road improvements are needed within the City?**
    - Oregon Highway Plan
        - https://www.oregon.gov/odot/Planning/Documents/OHP.pdf
    - Oregon Transportation Planning Rule
        - https://www.oregon.gov/lcd/OP/Pages/Goal-12.aspx
    - Metro Regional Transportation Plan
        - https://www.oregonmetro.gov/regional-transportation-plan

- Clackamas County Transportation System Plan
  - https://www.clackamas.us/transportation/tsp.html
- Oregon City Transportation System Plan
  https://www.orcity.org/854/Transportation-System-Plan

14. What is the difference between Level of Service (LOS) A and F?

- At a signalized intersection, LOS A represents no congestion with average vehicle delays ranging from 0 to 10 seconds per vehicle during the peak hour. LOS F represents the most congested conditions with average vehicle delays greater than 80 seconds per vehicle during the peak hour.

15. What Level of Service (LOS) does Oregon City define as acceptable?

- The 2013 TSP states that signalized intersections shall function at level of service "D" or better during the peak hour for the intersection as a whole
  - Any individual leg of the intersection shall function at level of service "E" or better
- The 2013 TSP states that unsignalized intersections shall function at level of service "E" or better for turning movements that service more than 20 vehicles during the peak hour.
- The 2013 TSP states that unsignalized intersections shall function at level of service "F" or better for turning movements that service less than 20 vehicles during the peak hour. The TSP states this level of service will be tolerated.
- Note that intersections under ODOT jurisdiction on 99E, I-205, and OR213 follow different standards.

16. Why is a project not required to fix an intersection at Level of Service F?

- A development, by State law, is only required to construct their 'proportional share' which means the amount of congestion that development caused. There are previous developments and future developments which will also contribute to the congestion which are responsible for their proportional share.
- The City places projects into the TSP so that they can be funded with System Development Charges, but the charges must be built up over time to be able to fund a needed project. There are more projects than funds are available.

17. Are all transportation impact studies approved?

- Yes, but not as initially submitted
  - The study often goes through several revisions to meet the standards within the Guidelines for Transportation Impact Analysis

18. What can we do about speeding on our streets?

- Speeds are set by the State of Oregon
- Speeds in urban areas are set by the 50th percentile, meaning 50% of the traffic travels at that average speed
- Residents can pool funds together to request speed humps on local streets if traffic speeds are determined to be in excess based on the 50th percentile speed

- Quite often, perception of speed appears faster than the speed that is being traveled. For example, some people see a car going 25 mph., but think they are going 40 mph.