1. A high-rise residential condominium with 320 dwelling units on the north side of North Parkway is ready to open. The ITE trip generation table is attached. Existing traffic on North Parkway in the PM peak is 920 vph eastbound and 410 vph westbound. It is expected that in the PM peak period of the adjacent street traffic, 70% of the primary trips will approach from the west, and 30% will approach from the east. Assuming that pass-by and link diverted trips are negligible, determine the volume and turning movements for the condo’s entrance and exit driveways during the PM peak.

2. Make a list of factors that influenced your choice of housing for the current semester. Will these factors be different when you choose your first permanent residence after getting your degree?

3. How does transportation planning influence land use? How does land use influence transportation planning?

4. Define the following terms: home-based work trips (HBW), home-based other trips (HBO), nonhome-based (NHB) trips, production, attraction, origin, destination.

5. What are three main factors that affect the demand for urban travel?
   1. Location and intensity of land use
   2. Socioeconomic characteristics of people living in the area
   3. Extent, cost, quality of available transportation services.

Production - trips generated at household
Attraction - land uses that 'attract' residents to a more
Origin - zone where trip begins, traveler’s initial location
Destination - zone where trip ends (traveler’s destination)
High line cable, $T = 0.34x + 15.47$

D.D. 62% enter, 38% exit

$T = 0.34(320) + 15.47 = 124.27$

Primary trips only (no pass-by or line diverted)

70% from west
30% from east

Existing Volume: 920 vph Eastbound
410 vph Westbound

Entering: $124.27 \cdot 0.62 = 77$

Exiting: $124.27 \cdot 0.38 = 47$

$T = 124$

Primary

Entering from East: $77 \cdot 0.30 = 23$
Entering from West: $77 \cdot 0.70 = 54$
Exiting to East: $47 \cdot 0.30 = 14$
Exiting to West: $47 \cdot 0.70 = 33$
High-Rise Residential Condominium/Townhouse
(232)

Average Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 5
Avg. Number of Dwelling Units: 444
Directional Distribution: 62% entering, 38% exiting

Trip Generation per Dwelling Unit

<table>
<thead>
<tr>
<th>Average Rate</th>
<th>Range of Rates</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.38</td>
<td>0.34 - 0.49</td>
<td>0.62</td>
</tr>
</tbody>
</table>

Data Plot and Equation

Caution - Use Carefully - Small Sample Size

Fitted Curve Equation: \( T = 0.34(X) + 15.47 \)
\( R^2 = 0.99 \)