Transit Oriented Development
Right Sizing TODs & Travel

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TOD Parking Puzzle
The TOD Parking Puzzle

- TODs behave differently, yet
  - No definitive industry TOD parking ratios exist
  - Lenders tend to require conventional ratios in TODs
  - Developers tend to build TODs w/ conventional ratios

Changing parking key to TOD benefits being fully realized

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TODs create less traffic

• TOD residents are:
  – Twice as likely not to own a car as US Households
  – 5 times more likely to commute by transit than others in region

• Self-selection:
  – Responsible for up to 40% of TOD ridership bonus

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TOD Parking Research
TCRP Report 128

- Detailed look at 17 built TODs
- All multi-family residential
- Four US Metro areas
  - Washington, DC
  - Philadelphia / NJ
  - San Francisco
  - Portland
- Measured actual performance
  - Trips compared to ITE

Connect with ITE guidance

- Suburban bias w/ existing parking standards
  - Assumes everyone drives
  - Based on limited observations – from Florida
- Overstates TOD trip generation
  - A result is higher development fees
  - 24 hr based rates 50% high
- Parking likely overstated by same amount
TOD housing generates 50% less traffic than conventional housing

ITE Trip Manual
6.67 trips per unit

Detailed counts of 17 residential TODs
3.55 trips per unit
Testing the implications

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Testing the implications

- 8 acre theoretical site
- Four TOD-housing building products
  - Garden Apts
  - “Texas Donut”
  - Townhomes
  - 6-story Mid-rise
- Test two parking ratios
  - 2.2 spaces per unit
  - 1.1 spaces per unit
  - Both transit friendly
TOD Prototypes

Garden Apartment

- Density: 24 to 32 units per acre
- Height 2 to 3 stories
- Surface parking

Photo’s courtesy of PB PlaceMaking

Gresham Central Apartments, Gresham Oregon
**TOD Prototypes**

**Townhome**

- Density: 36 to 48 units per acre
- Height: 2 to 3 stories
- Surface parking

Photo’s courtesy of PB PlaceMaking

Cameron Hill Townhomes Silver Spring, Maryland
TOD Prototypes

Texas Donut

- Density: 90 to 120 units per acre
- Height: 4 to 5 stories
- Residential wrapped around structured parking

Photo’s courtesy of DART

Eastside Transit Village, Plano, Texas
TOD Prototypes

6 Story mid-rise

- Density: 100 to 120 units per acre
- Height: 6 stories
- Freestanding parking structure

Photo’s courtesy of PB PlaceMaking

Mission Bay, San Francisco, California
### Garden Apts

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<th>2.2 Spaces per unit</th>
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- **Lower ratio**
  - + 33% in Density
  - + 60 units
  - $98,000 parking saving

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### Townhomes

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- **Lower ratio**
  - + 33% in Density
  - + 96 units
  - $736,000 parking saving
<table>
<thead>
<tr>
<th>Lower ratio</th>
<th>Mid-Rise Apts</th>
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<tbody>
<tr>
<td>+ 20% in Density</td>
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</tr>
<tr>
<td>+ 162 units</td>
<td>+ 225 units</td>
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<tr>
<td>$5.3m parking saving</td>
<td>$12m parking saving</td>
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**“Texas Donut”**

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Implications
Case Study Implications

Going from 2.2 to 1.1:

- 20 to 33% higher residential density
- More units + lower parking costs (5 to 36% lower costs)
- Higher transit ridership
- More opportunity
  - Higher developer profits
  - Greater housing affordability
  - More projects financially feasible
Right Sizing TOD Parking

• New standards to reflect TOD should result in:
  – Developers paying lower fees and exactions
  – Diminished need to expand roads
  – Transit agencies realizing increased ridership
  – The public paying less for TOD housing
  – 20 to 33% increase in TOD density
The city is changing.
And
we must change how we plan for the future of cities.