Encompass 2040 Networks and Scenarios

- **2010**
  - Base Network
- **Scenario 1**
  - Alternate 1
  - Alternate 2
  - Alternate 3
- **Scenario 2**
  - Alternate 1
  - Alternate 2
  - Alternate 3
Scenario 1: Historical Trend

- **Attractions**: Trend and schools
- **Housing**: Lower density residential developments
- **Employment**: Separated from housing, along transportation corridors
- **Transportation**: Auto-dependent

Scenario 2: Nodal Growth

- **Attractions**: Downtowns, service areas, TODs
- **Housing**: Mixed-use, infill, higher density developments
- **Employment**: Downtowns, TODs, mixed-use
- **Transportation**: More transportation options (including regional transit)
2010 Base Network
- Current conditions as of 2010
- Regional streets
- Fixed transit routes

Alternate 1
- No Build Alternate
- Present + Committed Projects
- Roadways and transit routes
- Improvements from 2010 to December 2016
- ODOT 8-Year Construction Work Plan (through 2016)

Alternate 2
- Future Improvements
- Member entity projects
- Roadway and transit routes
- Gap projects
- Long-range ODOT projects

Alternate 3
- Illustrative Alternate
- Regional transit
- No dedicated funding source
Alternate 3 Components

• Base Network
• Present + Committed Network (Alternate 1)
• Future Transportation Improvements (Alternate 2)
  • Encompass 2040 Transportation Projects (member submitted)
  • ODOT Projects (long-range)
  • OTA Turnpikes
  • Gap Projects
  • Streetcar
• Regional Transit (1% mode share)
  • Commuter Rail
  • Bus Rapid Transit (BRT)
  • Supportive Bus Routes
Scenario 1
Scenario 2
Scenario 2: Nodal Population Density (2040) Existing (gray) and Future (red)

Scenario 2: Nodal Employment Density (2040) Existing (gray) and Future (green)
Alternate 1 for Scenario 2 (AM Peak)
Alternate 2 for Scenario 2 (AM Peak)
Alternate 3 for Scenario 2 (AM Peak)
<table>
<thead>
<tr>
<th>Demographic Data</th>
<th>2010 Base Network</th>
<th>Alternate 1 Scenario 1</th>
<th>Alternate 1 Scenario 2</th>
<th>Alternate 2 Scenario 1</th>
<th>Alternate 2 Scenario 2</th>
<th>Alternate 3 Scenario 1</th>
<th>Alternate 3 Scenario 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>1,142,338</td>
<td>1,595,168</td>
<td>1,595,168</td>
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<tr>
<td>Employment</td>
<td>601,839</td>
<td>875,402</td>
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<table>
<thead>
<tr>
<th>Daily Transportation Demand</th>
<th>2010 Base Network</th>
<th>Alternate 1 Scenario 1</th>
<th>Alternate 1 Scenario 2</th>
<th>Alternate 2 Scenario 1</th>
<th>Alternate 2 Scenario 2</th>
<th>Alternate 3 Scenario 1</th>
<th>Alternate 3 Scenario 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle Miles of Travel</td>
<td>30,266,000</td>
<td>45,299,000</td>
<td>44,321,000</td>
<td>46,550,000</td>
<td>45,517,000</td>
<td>45,997,000</td>
<td>44,927,000</td>
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<tr>
<td>Vehicle Hours of Travel</td>
<td>853,000</td>
<td>1,503,000</td>
<td>1,474,000</td>
<td>1,415,000</td>
<td>1,389,000</td>
<td>1,398,000</td>
<td>1,371,000</td>
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<tr>
<td>Vehicle Trips</td>
<td>4,165,000</td>
<td>5,896,000</td>
<td>5,976,000</td>
<td>5,858,000</td>
<td>5,928,000</td>
<td>5,788,000</td>
<td>5,851,000</td>
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<tr>
<td>Transit Ridership</td>
<td>15,700</td>
<td>22,800</td>
<td>26,200</td>
<td>22,900</td>
<td>26,600</td>
<td>91,100</td>
<td>108,900</td>
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<table>
<thead>
<tr>
<th>System Performance</th>
<th>2010 Base Network</th>
<th>Alternate 1 Scenario 1</th>
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<th>Alternate 2 Scenario 1</th>
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<th>Alternate 3 Scenario 1</th>
<th>Alternate 3 Scenario 2</th>
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<tbody>
<tr>
<td>Congested Road Miles</td>
<td>289</td>
<td>647</td>
<td>626</td>
<td>308</td>
<td>297</td>
<td>295</td>
<td>290</td>
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<tr>
<td>Average Overall Speed (mph)</td>
<td>35</td>
<td>30</td>
<td>30</td>
<td>33</td>
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<td>Average Freeway Speed (mph)</td>
<td>45</td>
<td>40</td>
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<td>Average Arterial Speed (mph)</td>
<td>35</td>
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<tr>
<td>Average Trip Length (miles)</td>
<td>7.27</td>
<td>7.68</td>
<td>7.42</td>
<td>7.95</td>
<td>7.68</td>
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<td>Average Trip Length (minutes)</td>
<td>12.29</td>
<td>15.30</td>
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<td>Daily Hours of Delay</td>
<td>138,000</td>
<td>454,000</td>
<td>425,000</td>
<td>366,000</td>
<td>340,000</td>
<td>349,000</td>
<td>322,000</td>
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<td>Delay per Trip (minutes)</td>
<td>1.99</td>
<td>4.62</td>
<td>4.27</td>
<td>3.75</td>
<td>3.45</td>
<td>3.62</td>
<td>3.31</td>
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* Please refer to handout for alternate network assumptions.
Conclusions

• Alternate 3
  • Versus Alternate 1 (no build option):
    • Significant increase in transit trips
    • Significant decrease in congested lane miles
    • Less delay
    • Less speed reduction

• Scenario 2: Nodal (compact regional footprint)
  • Even more transit ridership
  • Fewer congested lane miles
  • Less delay
Anticipated Next Steps

**July: ITTC**
- Alternate Results
- Costs
- Air Quality Model
- Impacts and EJ
- Benefit-Cost Analysis
- Draft Executive Summary

**August: ITPC**
- Alternate Results
- Costs
- Air Quality Model
- Impacts and EJ
- Benefit-Cost Analysis
- Draft Executive Summary

**September/October**
- Public Outreach
- Final Executive Summary
- Final Plan Approval

OCARTS Metropolitan Transportation Plan