## Pre-Model Setup

### Project Information

<table>
<thead>
<tr>
<th>Project Name:</th>
<th>Facility Type:</th>
<th>Analysis Extents:</th>
<th>Analysis Tool:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freeway</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Arterial</td>
<td></td>
<td>Freeway</td>
</tr>
<tr>
<td></td>
<td>Downtown</td>
<td></td>
<td>Arterial</td>
</tr>
<tr>
<td>Network</td>
<td>Intersection/</td>
<td></td>
<td>Arterial</td>
</tr>
<tr>
<td></td>
<td>Interchange</td>
<td></td>
<td>Arterial</td>
</tr>
</tbody>
</table>

### Analysis Years:

<table>
<thead>
<tr>
<th>Analysis Years:</th>
<th>Why (optional):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing:</td>
<td>Base Year:</td>
</tr>
<tr>
<td></td>
<td>Design Year:</td>
</tr>
</tbody>
</table>

### Data

<table>
<thead>
<tr>
<th>Volume Data</th>
<th>Provided by KYTC</th>
<th>Collected by Consultant</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Volumes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume Forecasts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle Classification</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

| Speed Data        |                   |                          |       |
| Travel Time Data  |                   |                          |       |
| Origin- Destination Data |      |                          |       |
| Crash Data/ Incident Data |    |                          |       |

### Notes:

- Existing Volumes
- Volume Forecasts
- Vehicle Classification
- Speed Data
- Travel Time Data
- Origin- Destination Data
- Crash Data/ Incident Data
## Model Development

### Geometry Coding
- [ ] Lane geometry correct along all segment/intersections
- [ ] Lane add/lane drops coded according to best practices
- [ ] Desired speed decision points coded at all entry segments to new facilities
- [ ] Lane change/emergency stop distances were increased appropriately
- [ ] Intersection geometry segments coded correctly
- [ ] Reduced speed areas coded for all turning movements
- [ ] Conflict areas and/or priority rules coded
- [ ] Intersection control elements (signal heads, stop signs, detectors) coded
- [ ] Traffic signal timing match field data

### Vehicle Routing/Inputs
- [ ] Dynamic Assignment necessary?
- [ ] Vehicle routing is reflective of Origin-Destination patterns
- [ ] Vehicle Inputs correspond to routing decisions
- [ ] Vehicle Inputs/Input Matrix demonstrate peaking patterns

### Vehicle Composition
- [ ] KY default vehicle composition was used
  - If not, why?
- [ ] Local data
- [ ] Other

### Vehicle Speed Profiles
- [ ] KY default speed ranges were used
  - If not, why?
- [ ] Local data
- [ ] Other

### Driving Behaviors
- [ ] Transmodeler - Wiedemann 74 & 99 models used?
- [ ] Parameter values are within KY established ranges

### Model Assumptions/Notes:

---
Calculated Number of Simulation Runs: ____________________________

□ Multiple Simulation Runs
  □ Random Seeding
  □ Random Seeding Increment

AM

PM

Volume

Speed

Travel Time

Delay

Congestion (qualitative)

Compliance with Calibration Metrics

Unserved Demand (Average)

Unserved Vehicles

□ Geometry matches existing conditions

□ Signal timing matches existing conditions

□ Routing decision

□ Vehicle Composition matches KY default or project specific data

□ Speed Profile's match KY default or project specific speed data

□ Link Behaviors match roadway conditions

□ Driving Behavior parameter ranges are within KY approved ranges

Results Metrics

□ Volume/ Throughput

□ LOS/ Delay

□ Travel Time/ Speed

□ Queue

□ Other:

Model Review Comments:

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