Scenario Planning Details (2) from Utah

MARC Scenario Planning Workshop

Ted Knowlton, WFRC
January 31, 2017
Outline

1. Understanding the impact of transportation on growth patterns
2. Communicating to underlying values
3. WFRC approach to external Driving Forces
Conventional Transportation Planning and Modeling

Land Use generates Travel demands

Road Capacity
If we don’t build

If we do build
Traffic improvements can be difficult to sustain...

Reduce Congestion

- "I can commute at 8:30 again"
- "I’ll take the Main Roads again"
- Range Farther: "maybe I’ll take that job across town"
- Move Home: "land is cheaper on the edge of town"

Congestion Returns?
Conventional Traffic Planning

20-Year Forecast

Capacity

Years
Forecasting Travel Demand – In the Past

Transportation Investment

New Development

Travel Patterns
Forecasting Travel Demand – Real Estate Market Model

Transportation Investment

New Development

Travel Patterns
Forecasting Tools

- Travel Demand Model
- Real Estate Market Model
REMM Inputs: Zoning and Allowable Densities

Baseline  
Scenario 2  
Scenario 3

Dwelling Units per Acre

- 0 - 2
- 3 - 4
- 5 - 8
- 9 - 16
- 17 - 75

Equivalent to baseline densities
Access to Opportunity:
How many valued destinations can be reached in a reasonable period of time

“How many job opportunities are within 30 minutes?”

“how many skilled laborers are within 30 minutes?”
Potential Workforce
Labor access within 30 minutes
Labor access within 30 minutes

Transportation Improvement
Labor access within 30 minutes
Labor access within 30 minutes
Methods to increase Access to Opportunity

Better speed

Bring growth near transportation

Reduce necessary travel distance
Analyzing Access

- >760,000 jobs within 30 minutes
- 130,000 jobs within 30 minutes
- >160,000 jobs within 30 minutes
- < 15,000 jobs within 30 minutes
Outline

1. Understanding the impact of transportation on growth patterns

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Values
Stakeholders
Scenarios
Public Input
Vision
Lasting Change Starts with Values

• Values are the foundation of personal decision making
• Stable and enduring
• Widely shared
## A Values Laddering Process

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
<th>Personal Consequence</th>
<th>Functional Consequence</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why did you rate the quality of life in Utah so high?</td>
<td>Why is it important for you to be more at ease?</td>
<td>What is the benefit to you when you can raise your son in a safe environment?</td>
<td>Why is that important to you?</td>
<td>“Security and love as a parent” (Family Love)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“Less worry - more at ease” (Less Worry)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“Raise son in a safe environment” (Feel Safe)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“Better place to raise family” (Good place for family children)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“People here just seem to be friendlier” (The People)</td>
</tr>
</tbody>
</table>
Utahns’ Values

Safe and Secure Environment

- Peace of Mind / Personal Security
- Feel Safe / Better Sense of Community
- Good Place to Raise Children / Spend Time with Family and Friends
- Family Friendly / Close-Knit Community
UTAHNS’ VALUES
SAFE AND SECURE ENVIRONMENT

CROWDS

CRIME/ BAD PLACE TO RAISE CHILDREN

FEEL LESS SAFE

PEACE OF MIND / PERSONAL SECURITY
UTAHNS’ VALUES
SAFE AND SECURE ENVIRONMENT

HOUSING OPTIONS NEAR ME

I HAVE CHOICES

MY CHILDREN CAN HANDLE LIFE’S PROBLEMS

PEACE OF MIND / PERSONAL SECURITY
The Words of Housing Affordability

- “DENSE” = “Stupid” or “Crowded”

- “CHOICE” = I have control, my children have more control
The Words of Transit

• “MASS” Transit = Crowded

• “PUBLIC” Transportation = I get my work done
UtaHns’ Values
Scenic Beauty and Outdoor Recreation

Outdoors Recreation / Scenic Beauty

Enjoy Outdoors / Spend Time With Family and Friends

Live Healthier / Better Life

Happiness / Personal Enjoyment
Communicate with Values

Persuade with Reason

Motivate with Emotion

Your message must be personally relevant or people won’t get involved, change or act differently.
Outline

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## Resiliency Test Approaches Draft

<table>
<thead>
<tr>
<th>MODEL DIALS</th>
<th>DISRUPTIVE TECHNOLOGY</th>
<th>RESILIENCY</th>
<th>TRANSIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Ownership</td>
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<tr>
<td>CMP</td>
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<tr>
<td>Failure Of Network (Bridges, Fault Line, Train Disruption, Liquefaction)</td>
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<tr>
<td>Freight [Heavy Vehicle] Factors</td>
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<td>Increased Transit Service</td>
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<td>Land Use/SE</td>
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<td>Mode Split</td>
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<td>Mode-Specific Constants</td>
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<td>Trip Generation</td>
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<tr>
<td>Trip Length</td>
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<tr>
<td>Vehicle Operating Cost</td>
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## TEST

<table>
<thead>
<tr>
<th>TEST</th>
<th>DISRUPTIVE TECHNOLOGY</th>
<th>RESILIENCY</th>
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<tbody>
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<td>Economic Recession</td>
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<td>Economic Boom</td>
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<td>Natural Disaster</td>
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