Data Matters:
How Big Data and Engagement Numbers Drove the Horizon 2040 Plan

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Today’s Speakers

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Greenville County

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Kimley-Horn
Why Data Matters.

A data diagnostic is critical.
Set expectation → Catalog available data → Identify other data options → Consider available resources.

Big and small data can be impactful.
But you have to couple it with a communication strategy.

Data should lead to action.
How Engagement Data Flipped the Script

Keith Brockington
Study Area

- Portions of Greenville, Pickens, Anderson, Laurens, and Spartanburg Counties
- 777 square miles
- 700,000+ population
Horizon 2040 Approach

- Shifting Paradigms
  - Rapidly Urbanizing
  - National Recognition
  - Shifting Demographics
- Aging and Tech-savvy
- From Textiles to Educational/Healthcare/Technology Research
- Modal Shifts
  - Desire for walkable communities
  - Shifts away from vehicle ownership
  - Transit needs for job/education/healthcare access
- Strong focus from Technology sector for Automated R&D
- Increasing Traffic Congestion
Horizon2040 Approach

• Knowledge that Priorities have Shifted
• VS. Historical Funding Priorities
  – South Carolina “Guideshare” (80% STBG, 20% State)
  – Approx. $18 million per year
  – New Roads
  – Widenings
  – Intersections
• Recent years
  – Bike and Pedestrian facilities WITH Road Projects
  – Signal Timing
• NO Dedicated Guideshare for Alternative Transportation
• GPATS Needed to find out the actual Public Will.
  – MASSIVE Public Outreach Effort for Horizon2040
Public Outreach

- **Policy Committee Meetings**
  - 3 meetings (June 2016, April 2017, Aug 2017)

- **Regional Workshops**
  - Visioning (Sept 2016)
  - Open House (Aug 2017)

- **Sub-Regional Community Meetings**
  - Round 1 (8 meetings; Oct 2016)
  - Round 2 (9 meetings; May-June 2017)

- **Stakeholder and Small Group Interviews**
  - 25 meetings (January – April 2017)

- **Focus Group Work Sessions**
  - 3 sessions (March 2017)

- **Statistically-Valid Survey**
  - 525 households; 95% level of confidence

- **MetroQuest Survey**
  - 1,436 participants; 1,800 comments; 33,110 data points

- [www.GPATS.org](http://www.GPATS.org)
- **Social Media**
Public Outreach

• **Fall for Greenville Trolley Stop**
  - Captive Audience
  - Regional Draw
  - Getting to Event = Concerned About Transportation
  - Massive Response Hike!
Guiding Principles

Culture & Environment
Enhance the region’s quality of life by preserving and promoting its valued places and natural assets.

Growth & Development
Make traveling more efficient by coordinating transportation investments with land use decisions.

Safety & Security
Promote a safe and secure transportation system by reducing crashes, making travel reliable and predictable, and improving emergency response.

Economic Vitality
Support regional economic vitality by making it easier to move people and freight within and through the region.

Mobility & Accessibility
Provide a balanced transportation system that makes it easier to bike, walk, and take transit.

System Preservation & Efficiency
Extend the life of the transportation system and promote fiscal responsibility by emphasizing maintenance and operational efficiency.
Regional and Sub-Regional Meetings: ~475 participants

- Activity-Based Meetings
- One Word
- Priority Pyramid
- Thought Wall
- More or Less
- Mapping
- Exit Questionnaire
MetroQuest: 1,436 participants
Statistically Valid Survey: 525 respondents (95% CI)

Q10. When considering transportation safety and security, we should be focusing on...

- Improving safety: 37%
- Making it easier to bike & walk: 19%
- Investing in smart transportation technologies: 15%
- Reducing emergency response times: 12%
- Making travel times more predictable: 12%
- Don’t know: 4%

Source: ETC Institute (2017)
Q1 How would you spend $100 on transportation improvements in the region? You can spend it on one thing or spread it around. Be sure your total equals $100.

Answered: 125  Skipped: 0
Key Takeaways….FROM THE PUBLIC

The region is growing rapidly, leading to increased congestion and travel delays.

Safety should be a priority as road improvements are considered.

Active transportation is popularity throughout the region, and we should expand the opportunities for residents to bike and walk to their destinations.

There is widespread interest to provide public transportation to expanded service areas.

Improving our transportation system is linked to regional economic development.

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Our Transportation Priorities

1st: Safety & Security
2nd: Growth & Development
3rd: Mobility & Accessibility
4th: System Preservation & Efficiency
5th: Economic Vitality
6th: Culture & Environment
**Recommendations**

### Roadway

- Greenville County
  - 94 corridors | 98 intersections
- Pickens County
  - 17 corridors | 23 intersections
- Anderson County
  - 7 corridors | 8 intersections
- Spartanburg County
  - 4 corridors | 1 intersection
- Laurens County
  - 1 corridor | 1 intersection

### Bicycle & Pedestrian

- 695 | on-street and off-street bicycle facilities
- 145 | priority sidewalk zones based on elementary and middle schools

Fully coordinates with roadway recommendations to take advantage of incidental improvements.
Financial Constraint – Costs vs. Revenues

**Cost**
- **Corridors** ➤ $920+ million
- **Intersections** ➤ $430+ million
- **Bike/Ped** ➤ $343+ million

**Revenues**

**GPATS Guideshare Revenue (including inflation)**

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Amount</th>
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<tbody>
<tr>
<td>2017-2023</td>
<td>$110,343,000</td>
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<tr>
<td>2024-2030</td>
<td>$126,546,000</td>
</tr>
<tr>
<td>2031-2040</td>
<td>$180,780,000</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$417,669,000</strong></td>
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</table>
Financial Constraint – Guideshare Modal Split

HISTORIC FUNDING ALLOCATION

- Corridors and Intersections: 99%
- Signal Improvements: 1%
- Bicycle and Pedestrian: 0%
- Transit: 0%
PROPOSED FUNDING ALLOCATION

- Corridors: 50%
- Bicycle and Pedestrian: 10%
- Transit: 10%
- Signal Improvements: 5%
- [CATEGORY NAME]s [PERCENTAGE]
Funding levels better aligned with public will

- Robust public feedback dispels the notion that “we only hear from the advocates”
- Elected and appointed officials can more clearly understand the voice of their constituents
How Big Data Leads to Big Decisions

Tim Padgett
Background

Entry into market – cost of use

Reliability

Education
Corridor study with focus on O&D data
Coordinated with Horizon 2040
GPATS wanted to maximize $$
What else could data be used for?
This map shows the percentage of daily trips traveling from zones outside of the study area (origin) to zones inside of the study area (destination).
This map shows the percentage of daily trips traveling from the study area (origin) to zones outside of the study area (destination).
Woodruff Road

Travel Demand Model

- General O&D
- External Stations

StreetLight Data
Conclusions and Takeaways

In the end, it was pretty easy to set the project up to provide data for multiple levels of geography (corridor, model TAZ, etc.).

Helped answer primary question of through traffic but we experienced some analysis paralysis.

Steep learning curve in analysis

Must build in time (and $$$) for analysis
Panel Discussion

Horizon 2040 was adopted in November 2018. One year later, how does data continue to matter in the Greenville region?

It seems like an update to the LRTP is always around the corner. How will lessons learned be applied next time?
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