Rt 29 Solutions Hydraulic Planning Advisory Panel

September 14, 2017
Agenda Item 1: Introductions

Hydraulic Planning Advisory Panel members

Technical Team members
Agenda item 2: Public Interaction and Feedback

Live Streaming

August 24, 2017    August 10, 2017

- Live Stream Viewers: 15    9
Agenda item 2: Public Interaction and Feedback (continued)

For the period August 21- September 13, 2017

• None
Agenda item 2: Public Interaction and Feedback (continued)

For the period August 21- September 13, 2017

Website input

• None
Agenda item 3: Response to Panel Feedback

- Make bike/ped connection east of Hillsdale
- Improve Meadow Creek Valley
- Zan Cross Section – Remove median green space
- Provide another base model with no land use changes
Agenda item 5: Land Use Update and Draft Land Use Plan Update
Haga clic para ampliar la vista. 

Agenda Item 4: Transportation Update

As discussed in the last meeting, the technical team and VDOT met to discuss the trip generation from the land use and what changes may be needed. From that meeting no land use or intensities have been revised. Instead a unique approach was developed to determine the future travel demand.
Results of revised approach

- Internal capture calculated based ITE Mixed-Use Criteria. PM trips – 24% AM trips – 18%
- Movements between quadrants calculated with identical methodology as internal capture instead of using existing data.
- Transportation horizon year to be 2045 and supported level of build-out will be determined based on recommended alternatives.
Agenda Item 4: Transportation Update

Travel Demand Growth & Build Out % at 2045

Build out % supported by transportation alternatives

Year

2017

2045

Final Build Out
2060-2070
Agenda Item 4: Transportation Update

Developing Future Travel Demand

- Determine and Grow Regional Through Travel Volumes Based on Existing O-D Data
- Analyze Land Use to Develop Future Travel
- Develop Internal Capture Rates Based on ITE Mixed-Use Methodology
- Distribute Trips From New Land Use Based on ITE Methodology AND Existing O-D Data
- Develop Transit Share
- Remove Bike/Ped Trips from “Local” Trips
- Trips Become Vehicle Movements Within Model and Routes Revised based on Transportation Alternatives
Agenda Item 4: Transportation Update - Travel Demand Percentages

- Regional Through Trips
- Internal Capture
- Study Area Trips
- Multi-modal
### Agenda Item 4: Transportation Update – Example Alternative Evaluation

<table>
<thead>
<tr>
<th>Project Alternatives</th>
<th>Criteria</th>
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<tr>
<td></td>
<td>Change in Travel Time</td>
</tr>
<tr>
<td>Alternative 1</td>
<td>-4%</td>
</tr>
<tr>
<td>Alternative 2</td>
<td>+3%</td>
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<tr>
<td>Alternative 3</td>
<td>-1%</td>
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Note – Data is illustrative only and is not related to the Hydraulic Road Study
Agenda Item 4: Transportation Update

Update on Alternative Concept Development
Concept to allow access to commercial driveways along US 29 & Hydraulic area impacted by potential grade separation

*For study only / Not-to-scale*
Concept to allow access to commercial driveways along US 29 & Hydraulic area impacted by potential grade separation

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For study only / Not-to-scale
Agenda Item 4: Transportation Update

**Alternative Concept – Continuous Flow Intersection (CFI)**
Agenda Item 4: Transportation Update

Intersection Alternative – Continuous Flow Intersection (CFI)
Agenda Item 4: Transportation Update

**Alternative Concept – Continuous Flow Intersection (CFI)**

**Pros**
- Less expensive than grade separation
- Minimal adjustment to Hydraulic Rd.
- Good operational track record
- Easier configuration for Bike/Ped than grade separation

**Cons**
- More R/W impact
- Some property access impacts
Agenda Item 4: Transportation Update

Next Steps:

• Continue to refine future VISSIM model based on panel feedback and revised travel demand
• Generate future operational performance parameters
• Compare to existing operational performance parameters
• Agree on modal share assumptions (bike, ped, transit)
• Test multimodal transportation scenarios
**Agenda item 5: Phase 1 Study Progress and Work Underway**
Agenda item 5: Phase 1 Study Progress and Work Underway (continued)
Rt 29 Solutions
Agenda item 5: Phase 1 Study Progress and Work Underway (continued)
Rt 29 Solutions

Agenda item 5: Phase 1 Study Progress and Work Underway (continued)
Rt 29 Solutions

Agenda item 5: Phase 1 Study Progress and Work Underway (continued)
Agenda item 5: Phase 1 Completed and Upcoming Tasks

To be complete by:

- **PROJECT KICK-OFF MEETING**
  - MAR 9 ✓
- **INITIAL SITE RECONNAISSANCE**
  - MAR 23 ✓
- **SITE RECONNAISSANCE**
  - MAR 31 ✓
- **DATA COLLECTION, RESEARCH AND MAP REVIEW**
  - APR 7 ✓
- **PROJECT BASE MAP DEVELOPMENT**
  - APR 7 ✓
- **REVIEW OF RELEVANT STUDIES**
  - APR 7 ✓
- **SITE INVENTORY AND ANALYSIS SUMMARY**
  - APR 7 ✓
- **BEGIN LAND USE PLAN DEVELOPMENT**
  - APR 7 ✓
- **CLIENT CHARETTE**
  - APR 11 ✓
### Agenda item 5: Phase 1 Completed and Upcoming Tasks (continued)

To be complete by:

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<thead>
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<tr>
<td>ALTERNATIVE LAND USE SCENARIOS</td>
<td>MAY 15 ✓</td>
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<td>INTERNAL TRANSPORTATION INPUTS</td>
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<td>DRAFT SMALL AREA PLAN</td>
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Agenda item 5: Phase 1 Completed and Upcoming Tasks (continued)

To be complete by:

- FINAL SMALL AREA PLAN: SEP 29
- PROJECT ABSTRACT: SEP 29
- COUNTY PLANNING COMMISSION: OCT (date tbd)
- CITY PLANNING COMMISSION: OCT (date tbd)
Agenda item 6: Neighborhood Meeting Update
Agenda item 7: Review of Upcoming Phase 1 Tasks

To be complete by:

- DRAFT SMALL AREA PLAN: SEP 15
- PLANNING COMMISSION DRAFT REVIEW COMPLETE: SEP 22
- FINAL SMALL AREA PLAN: SEP 29
- PROJECT ABSTRACT: SEP 29
Agenda Item 8: Panel open discussion and request for future agenda items

Potential Future Meeting Dates (2nd and 4th Thursdays)

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Agenda Item 9: New business and wrap up

Agenda item 10: Adjourn
Rt 29 Solutions Hydraulic Planning Advisory Panel

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