Rt 29 Solutions Hydraulic Planning Advisory Panel

April 26, 2018
Agenda Item 1: Introductions

Hydraulic Planning Advisory Panel members

Technical Team members
Agenda item 2: Public Interaction and Feedback

YouTube Views (Previous Meeting)

April 12, 2018

- YouTube Views: 55
Agenda item 2: Public Interaction and Feedback (continued)

For the period April 12 – April 25, 2018

Inbox and Phone

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

For the period April 12 – April 25, 2018

Website input

• None
Agenda item 3: Response to Panel feedback

- Include bike/ped network throughout study area
- Add a column for 2045 No-build in comparison table
- Change meeting schedule to reflect City Council meeting on May 7 rather than May 14 (revised HPAP presentation posted on web)
Agenda item 4: Transportation Progress Update

Progress since last meeting:

- Updated Scenario 1 – Variant 1, AM Peak Analysis
- Continued development of Bike / Pedestrian concepts with Scenario 1
- R/W and Utility Estimates for Projects A, B, & C
- Revised SMART SCALE Packaging Options
Agenda item 4a: Transportation Progress Update

Hydraulic Road/Michie Drive/Brandywine Drive Variant 1 Performance Update
**Agenda item 4a: Transportation Update – Scenario 1 vs. Scenario 1 Variant 1**

**Intersection Delay Comparison**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2045 No-Build Delay (sec)</td>
<td>2045 Scenario 1 Delay (sec)</td>
</tr>
<tr>
<td>US 29 &amp; Greenbrier</td>
<td>24.9</td>
<td>25.1</td>
</tr>
<tr>
<td>US 29 &amp; Lenox</td>
<td>4.0</td>
<td>0.8</td>
</tr>
<tr>
<td>US 29 &amp; Seminole</td>
<td>74.7</td>
<td>19.8</td>
</tr>
<tr>
<td>US 29 &amp; Hydraulic</td>
<td>139.2</td>
<td>11.7</td>
</tr>
<tr>
<td>US 29 &amp; Angus</td>
<td>47.6</td>
<td>4.6</td>
</tr>
<tr>
<td>Hydraulic &amp; US 250</td>
<td>55.4</td>
<td>25.5</td>
</tr>
<tr>
<td>Hydraulic &amp; Hillsdale (K-Mart)</td>
<td>89.2</td>
<td>35.2</td>
</tr>
<tr>
<td>Hydraulic &amp; District</td>
<td>46.3</td>
<td>10.0</td>
</tr>
<tr>
<td>Hydraulic &amp; Commonwealth</td>
<td>41.8</td>
<td>19.2</td>
</tr>
<tr>
<td>Hydraulic &amp; Georgetown</td>
<td>35.6</td>
<td>27.5</td>
</tr>
<tr>
<td>Commonwealth &amp; Greenbrier</td>
<td>9.8</td>
<td>10.3</td>
</tr>
<tr>
<td><strong>Average Vehicle Delay Through Network</strong></td>
<td>184.3</td>
<td>56.7</td>
</tr>
</tbody>
</table>

**Source:** CalTrans
**Agenda item 4a: Transportation Update – Scenario 1 vs. Scenario 1 Variant 1**

**Travel Time Comparison**

<table>
<thead>
<tr>
<th>Route</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2045 No-Build</td>
<td>2045 Scenario 1</td>
</tr>
<tr>
<td></td>
<td>Travel Time (min)</td>
<td>Travel Time (min)</td>
</tr>
<tr>
<td>A to C</td>
<td>9.3</td>
<td>4.0</td>
</tr>
<tr>
<td>A to E</td>
<td>9.1</td>
<td>4.3</td>
</tr>
<tr>
<td>B to C</td>
<td>10.4</td>
<td>3.6</td>
</tr>
<tr>
<td>B to E</td>
<td>11.5</td>
<td>4.5</td>
</tr>
<tr>
<td>C to A</td>
<td>6.0</td>
<td>3.0</td>
</tr>
<tr>
<td>C to B</td>
<td>8.1</td>
<td>4.4</td>
</tr>
<tr>
<td>C to D</td>
<td>5.2</td>
<td>2.6</td>
</tr>
<tr>
<td>D to C</td>
<td>5.8</td>
<td>2.4</td>
</tr>
<tr>
<td>D to E</td>
<td>2.3</td>
<td>2.9</td>
</tr>
<tr>
<td>Avg. Travel Time of ALL Trips</td>
<td>4.7</td>
<td>2.8</td>
</tr>
</tbody>
</table>

*Multiple ways to get to the same place.*
Agenda item 4a: Transportation Update – 2045 Scenario 1 Variant 1 AM Peak
Agenda item 4b: Transportation Progress Update

Scenario 1 Bicycle and Pedestrian Option
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Agenda item 4b: Transportation Progress Update

Scenario 1 – Option 4

Legend
- Shared-Use Path / Sidewalk
- Ramps to Pedestrian Underpass
- Pedestrian crossing below US 29 and at-grade with Hydraulic Rd.
- Unsignalized At-Grade Ped. Crossing
- Barrier Separating Vehicle and Ped.

Considerations
- Connects all four quadrants of intersection.
- One vehicle conflict is signalized (US 29 SB left turn).
- Ramp system may not be inviting for bikes.
- Crossing of right-turn lanes are at-grade and unsignalized.
Agenda item 4b: Transportation Progress Update

Current & Proposed Bicycle and Pedestrian Network
Agenda item 4b: Meadow Creek Stream Valley Master Plan 2013
Agenda item 4b: Transportation Progress Update

Updates to Scenario 1 Variant 1 Estimates
Agenda item 4b: Transportation Update – Scenario 1 Variant 1 Update

Estimated R/W and Utility Cost
R/W – 68,700 sq ft Total: $5M - $6M
Utility – $10M - $12M

R/W estimate based on $/sq ft assessment value of parcels in the area.
Agenda item 4b: Transportation Update – Scenario 1 Variant 1 Update

Estimated R/W and Utility Cost
R/W Area: 46,000 sq ft
Total: $2.5M - $3.5M
Utility: $1.5M - $2M

Estimated R/W and Utility Cost
R/W Area: 43,000 sq ft
Total: $3M - $4M
Utility: $2.5M - $3.5M

R/W estimates based on $/sq ft assessment value of parcels in the area.
Agenda Item 4c: Phase 2 Upcoming Tasks & Combined Schedule

Next Steps:

- Continued Updates to RW & Utility Estimates for Remaining Projects
- Finalize SMART SCALE Packaging
- Continued Development of Other Long Term Project Ideas
- Initiate Material Creation for June 1st SMART SCALE Applications
Agenda Item 4c: Phase 2 Upcoming Tasks & Combined Schedule

To be complete by:

1) City Council CPA Adoption/SMART SCALE Endorsement  May 7
2) County BOS CPA Adoption/SMART SCALE Endorsement  May 9
3) MPO resolution to support and LRTP Amendment (if req’d)  May 23
4) SMART SCALE Application Creation Deadline  June 1
5) Complete SMART SCALE Applications  July 1
6) SMART SCALE Submission Deadline  August 1
Agenda item 5

Information from Previous SMART SCALE Awards
Agenda item 5 – Previous SMART SCALE Awards

Round 1 Summary:

• 17 projects ranging in cost from $900K to $145M were submitted

• 10 projects were funded, including the south Warrenton Interchange at a cost of $27M (currently the highest funded Smart Scale project in the District). Also included were Emmett St. at $12M and Fontaine Ave. at $11.7M

• The average cost of projects funded was $7.0M
Agenda item 5 – Previous SMART SCALE Awards

Round 2 Summary:

• 35 projects ranging in cost from $1.3M to $45.7M were submitted

• 11 projects were funded, including the Exit 124 Interchange at a cost of $18.4M (highest funded district project for the round)

• *The average cost of projects funded was $5.8M*
Agenda item 6

Proposed SMART SCALE Packaging
 Agenda item 6 – Proposed SMART SCALE Packaging – Package 1

**Smart Scale Submission Package 1**

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>$52M - $63M</td>
</tr>
<tr>
<td>B</td>
<td>$6.7M - $8.8M</td>
</tr>
<tr>
<td>C</td>
<td>$8.8M - $11.5M</td>
</tr>
<tr>
<td>D</td>
<td>$8M - $10M</td>
</tr>
<tr>
<td>E</td>
<td>$11M - $13M</td>
</tr>
<tr>
<td>F</td>
<td>$4M - $6M</td>
</tr>
<tr>
<td>G</td>
<td>$3M - $4M</td>
</tr>
</tbody>
</table>

* Costs for projects D – G don’t yet include utility or R/W estimates.

Package would include remaining funding (appx. $18M) from US 29 / Hydraulic PE budget and Hillsdale Ext. project.

Note: Largest Smart Scale project from 2017 in Culpeper District was $27M.
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Agenda item 6 – Proposed SMART SCALE Packaging – Package 2

**Smart Scale Submission Package 2**

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>2018</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>$52M - $63M</td>
</tr>
<tr>
<td>B</td>
<td>$6.7M - $8.8M</td>
</tr>
<tr>
<td>C</td>
<td>$8.8M - $11.5M</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td><strong>$67.5M - $83.3M</strong></td>
</tr>
</tbody>
</table>

-To include remaining funding (approx. $8M) from US 29 / Hydraulic PE budget.

Note: Largest Smart Scale project from 2017 in Culpeper District was $27M.
Agenda item 6 – Proposed SMART SCALE Packaging – Package 3

Smart Scale Submission Package 3

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>E*</td>
<td></td>
<td>$11M - $13M</td>
</tr>
<tr>
<td>F*</td>
<td></td>
<td>$4M - $6M</td>
</tr>
<tr>
<td>G*</td>
<td></td>
<td>$3M - $4M</td>
</tr>
</tbody>
</table>

* Costs for projects E – G don’t yet include utility or R/W estimates.

To include additional funding (aprx. $10M) remaining from Hillsdale Extension.

Note: Largest Smart Scale project from 2017 in Culpeper District was $27M.

E. Angus Rd. Grade-Separated Intersection and Signalized U-Turn
F. Hillsdale Dr. Connection to Holiday Dr.
G. Relocation of WB US 250 Ramps to Hillsdale Extension
Agenda Item 7: Panel Open Discussion and Requests for Future Items

Agenda Item 8: New business and wrap up

Agenda item 9: Adjourn