City of Dothan
Honeysuckle Road Improvements

ASCE Winter Meeting
March 7, 2019
Dothan, AL

Blair Perry, P.E.
Principal / Alabama State Transportation Leader
Gresham Smith
Honeysuckle Road Corridor Study

Study Area

- W. Main Street (US-84) to Campbellton Highway
- Four segments
  1. W. Main St to Fortner Street
  2. Fortner St. to Hartford Hwy. (AL Hwy. 52)
  3. Hartford Hwy. to South Park Ave.
  4. Extension to Campbellton Hwy.
Segment 1
W. Main Street (US-84) to Fortner St.
• Existing three-lane curb & gutter section
• 38’ wide
• Urban/developed context
Segment 2
Fortner St. to Hartford Hwy. (AL Hwy. 52)
- Existing three-lane curb & gutter section
  - 1 NB lane & 2 SB lanes
- Sidewalk along most of east side
- Residential, commercial & school
- West side largely undeveloped
Segment 3
Hartford Hwy. to South Park Ave.
• Two lane rural section
• 21’-22’ wide
• Residential
• Much of segment currently undeveloped
  o Residential development planned
Segment 4
Honeysuckle Rd. extension from S. Park Ave. to Campbellton Hwy.
• Undeveloped land
Project Tasks

- Assess potential improvements in roadway capacity and safety deficiencies as well as the impact of future growth along the corridor.
- Provide detailed concept plans showing roadway widening and intersection improvements.
- Prepare construction cost estimates for a variety of recommended improvements including right-of-way acquisition and utilities relocation.
- Recommend funding priority.
Traffic Analysis
2017 Daily Vehicle Volumes
Traffic Analysis Assumptions

Future traffic

• 1% growth in background traffic

• Analysis years
  o 2017 (Existing year)
  o 2022 (Opening year)
  o 2027 (10 years)
  o 2037 (20 years)

• Additional traffic from proposed developments
Roadway Segment Traffic Analysis
Projected Daily Vehicle Volumes
Projected No-Build Level of Service (LOS)
Intersection Traffic Analysis
Study Area Intersections

- 10 intersections
- Focus intersections
  - #10 – Honeysuckle Rd. at W. Main St.
  - #5, 6 & 7 – Honeysuckle Rd. at S. Park Ave./Hatton Rd./Moore Rd.
  - #4 S. Park Ave. at Taylor Rd.
W. Main Street (US-84) & Westgate Parkway/Honeysuckle Rd
W. Main Street & Westgate Parkway/Honeysuckle Road
PM Rush Hour
W. Main Street & Westgate Parkway/Honeysuckle Rd.
Intersection Operational Analysis
Existing Conditions (2017)

<table>
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<tr>
<th></th>
<th>Level of Service</th>
<th>PM Peak Hour Delay (s/veh)</th>
<th>Queue Length (ft.)</th>
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<td>Existing Conditions</td>
<td>F</td>
<td>102</td>
<td>1,225</td>
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<td>(One Southbound Through Lane)</td>
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- Overall Intersection Level of Service (LOS)
  - AM Peak Hour – LOS E
  - PM Peak Hour – LOS E
Honeysuckle Rd. at S. Park Ave./Hatton Rd./Moore Rd.

- Three intersections within less than 200’
- Existing AM Peak LOS B
- Existing PM Peak LOS B
S. Park Ave. at Taylor Rd.

- All-way stop controlled
- Existing AM Peak LOS B
- Existing PM Peak LOS F
Crash Analysis
Honeysuckle Rd. at S. Park Ave./Hatton Rd./Moore Rd.

- Three intersections within less than 200’
- 21 crashes 2010-2016
- 9 rear-end crashes (43%)
- 10 turning crashes (48%)

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<th>Year</th>
<th>Angle</th>
<th>Head On</th>
<th>Rear End</th>
<th>Sideswipe</th>
<th>Left Turn</th>
<th>Other (Single-Vehicle)</th>
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<tr>
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<td>1</td>
<td>9</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>21</td>
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Honeysuckle Rd. at South Park Ave./Hatton Rd./Moore Rd.

2014-2016 Crashes

- 8 crashes
  - 3 rear-end (38%)
  - 4 turning (50%)
  - 7 Property Damage Only (PDO)
  - 1 Injury
Honeysuckle Rd. south of Homestead Rd.

- 2 reported crashes in 2014
- More unreported crashes
Honeysuckle Rd. south of Homestead Rd.

- Compound horizontal curve 510'/740’ radii
- 40 mph posted speed \(\rightarrow\) e 7.9% & 6.9%
- Field-measured superelevation
  - NB lane varies 8.6% to 2.5%
  - SB lane varies 4.0% to -2.3%
- No paved shoulders
Improvement Alternatives
Segment 1
W Main St. to Fortner St.
ALDOT Improvements – W. Main St at Honeysuckle Rd.
Five Lanes with Bike Lanes & Sidewalks

Honeysuckle Rd from W Main St to Fortner St

Proposed Right-of-Way (105')

Approximate Existing Right-of-Way (80')
Five Lanes with Sidewalk & Shared-Use Path

Proposed Right-of-Way (100')

Approximate Existing Right-of-Way (80')

Honeysuckle Rd from W Main St to Fortner St
Five Lanes with Sidewalk on One Side

Honeysuckle Rd from W Main St to Fortner St

Proposed Right-of-Way (80')

Approximate Existing Right-of-Way (80')
Five Lanes with No Bike Lanes or Sidewalks

Honeysuckle Rd from W Main St to Fortner St

- Proposed Right-of-Way (85')
- Approximate Existing Right-of-Way (80')

10' Utility / Grading Strip 2' 2' 11' Drive lane 11' Drive lane 15' Raised Median 11' Drive lane 11' Drive lane 2' 2' 8' Utility / Grading Strip
Five Lanes with Bike Lanes & Sidewalks
Five Lanes with Bike Lanes & Sidewalks
Five Lanes with Bike Lanes & Sidewalks

Option 1
Five Lanes with Bike Lanes & Sidewalks

Option 1
Four Lane with Raised Median, Bike Lanes & Sidewalks

Option 1
Four Lane with Raised Median, Bike Lanes & Sidewalks

Option 2
Four Lane with Raised Median, Bike Lanes & Sidewalks
Four Lane with Raised Median, Bike Lanes & Sidewalks
Four Lane with Raised Median, Bike Lanes & Sidewalks
Improvement Alternatives
Segment 2
Fortner St. to Hartford Hwy. (AL Hwy 52)
Widened Three-Lane Section with Bike Lanes & Sidewalks

Honeysuckle Rd from Fortner St to Hartford Hwy

Proposed Right-of-Way (85')

Approximate Existing Right-of-Way (60')
Widened Three-Lane Section with Sidewalk & Multi-Use Trail

Honeysuckle Rd from Fortner St to Hartford Hwy

Proposed Right-of-Way (75' to 95')

Approximate Existing Right-of-Way (60')

10’ Utility / Grading Strip
5’ Sidewalk
2’ 2’ 11’ Drive lane
15’ Center turn lane
13’ Drive lane
2’ 5’
12’ Multi-Use Trail
8’ Utility / Grading Strip
Existing Three-Lane Section with Sidewalk on One Side

Honeysuckle Rd from Fortner St to Hartford Hwy

Proposed Right-of-Way (65')

Approximate Existing Right-of-Way (60')

8' Utility / Grading Strip
2' 11' Drive lane
14' Center turn lane
11' Drive lane
2' 5' Sidewalk
10' Utility / Grading Strip
No Changes | Fortner Street to Hartford Highway
No Changes | Fortner Street to Hartford Highway

Connect Sidewalks in front of Honeysuckle Middle School
No Changes | Fortner Street to Hartford Highway

Connect Sidewalks in front of Honeysuckle Middle School
No Changes | Fortner Street to Hartford Highway
Improvement Alternatives
Segment 3
Hartford Hwy. (AL Hwy 52) to South Park Avenue
Existing Two-Lane Section with Sidewalk on One Side

Honeysuckle Rd from Hartford Hwy to S Park Ave

Proposed Right-of-Way (70’ to 75’)

Approximate Existing Right-of-Way (60’)

8’ Utility / Grading Strip
4’ Shld
11’ Drive lane
11’ Drive lane
4’ Shld
12’ Planting Strip
5’ Sidewalk
8’ Utility / Grading Strip
Existing Two-Lane Section with Multi-Use Trail

Honeysuckle Rd from Hartford Hwy to S Park Ave
Realignment of Honeysuckle Road

- Proposed Residential Subdivision
- Curve Safety Improvements
- Honeysuckle Road Realignment
- Existing Roadway & Railroad Crossing (Remove)
- Proposed Cul-de-Sac
- New Railroad Crossing
- Selma Baptist Church
- Cemetery
- Shrewsbury Road
- Tuscany Lane
- Folsom Road
- Homestead Subdivision
- Proposed Cul-de-Sac Storage
Realignment of Honeysuckle Road – Typical Section Options

Honeysuckle Rd from Hartford Hwy to S Park Ave

Proposed Right-of-Way (70' to 75')
Approximate Existing Right-of-Way (60')

Honeysuckle Rd from Hartford Hwy to S Park Ave

Proposed Right-of-Way (80')
Approximate Existing Right-of-Way (60')
Improvement Alternatives
Honeysuckle Rd. at South Park Ave./Hatton Rd./Moore Rd.
Honeysuckle Rd. at S. Park Ave./Hatton Rd./Moore Rd. Roundabout

- LOS A for AM & PM Peak hour thru 2037
- Safer than existing intersections
- Don’t touch cemetery
- Limit impacts to Church
- Impacts to business on north side
- Look at smaller/compact design
Honeysuckle Road Extension
S. Park Ave. to Campbellton Hwy.
Extension of Honeysuckle Road
Extension of Honeysuckle Road

Honeysuckle Rd from S Park Ave to Campbellton Hwy / Taylor Rd Intersection

Proposed Right-of-Way (60')

Approximate Existing Right-of-Way (60')

2' 4' Shld 11' Drive lane 11' Drive lane 4' Shld 2'
Honeysuckle Rd. at S. Park Ave. Roundabout
Campbellton Hwy. at Taylor. Rd. Roundabout

- Houston County roundabout project
- Honeysuckle Rd. extension will be fourth leg
- LOS A in AM & PM Peak hour thru 2037
Honeysuckle Road Improvements
Phase 1
Widening from Fortner Street to W. Main St. (US-84)
Honeysuckle Road Improvements – Phase 1

- Widen existing 3-lane to 5-lane section
- Shared-use path on west side
Honeysuckle Road Improvements – Phase 1
Design Challenges

- Minimize property impacts
- Driveway tie-ins
- Stormwater management
- Utility coordination & relocation
Honeysuckle Road Improvements – Phase 1
Design Challenges

- Impacts to private detention ponds
- Beaver Creek bridge culvert extension
  - FEMA flood study
  - Environmental due-diligence & permitting
Honeysuckle Road Improvements
Phase 2 & 3
Relocation North of S. Park Ave. & Extension from S. Park Ave. to Campbellton Hwy.
HONEYSUCKLE ROAD
PROPOSED 2-LANE SECTION
WITH MULTI-USE TRAIL
Design Challenges

• Beaver & Limestone Creek crossings
• Wetlands
• Property impacts
• Property access
• Railroad coordination
• Tie to Houston County roundabout
Questions?

Blair Perry, P.E.
Gresham Smith
Principal Engineer / Alabama State Transportation Leader
205.298.9232
blair.perry@greshamsmith.com