LANGLEY PARK NEIGHBORHOOD BICYCLE BOULEVARDS

STUDY SEGMENTS

KANAHMA STREET

15TH AVENUE

KEONEE STREET

NEW RIGGS ROAD RIGHTOF WAY

JASMINE TERRACE (EXTENSION) PARKING LOT

JASMINE TERRACE

Study Segments

Riggs Road - Langley Park Area Bicycle Boulevards

Legend

- County Boundary
- Biking Trails
- Water Bodies
- Study Segments
- Buildings
- Parks/Open Space

Proposed
Riggs Road Purple Line Station
LANGLEY PARK NEIGHBORHOOD BICYCLE BOULEVARDS

15TH AVENUE
UNIVERSITY BOULEVARD (MD 193) TO VILLAS AT LANGLEY APARTMENTS
CONCEPTUAL DESIGN ALTERNATIVES

EVALUATION MEASURE
ASSESSMENT

BICYCLE LEVEL OF TRAFFIC STRESS
MEDIUM

COST
LOW

PARKING IMPACTS
LOW

RIGHT OF WAY OR DRAINAGE & UTILITY IMPACT
LOW

EVALUATION MEASURE
ASSESSMENT

BICYCLE LEVEL OF TRAFFIC STRESS
LOW

COST
LOW

PARKING IMPACTS
HIGH

RIGHT OF WAY OR DRAINAGE & UTILITY IMPACT
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KEY MAP

OPTION 1: BICYCLE BOULEVARD

OPTION 2: SEPARATED BIKE Lanes

OPTION 3: CONVENTIONAL BIKE LANES + PARKING

EXISTING PHOTOS

OPTION 1: QUALITATIVE ASSESSMENT

OPTION 2: QUALITATIVE ASSESSMENT

OPTION 3: QUALITATIVE ASSESSMENT
LANGLEY PARK NEIGHBORHOOD BICYCLE BOULEVARDS

KANAWHA STREET
15TH AVENUE TO NEW RIGGS ROAD RIGHT OF WAY
CONCEPTUAL DESIGN ALTERNATIVES

**KEY MAP**

**EXISTING PHOTOS**

**EXISTING (LOOKING EAST)**
- KANAWHA ST
- Apartment Building
- Residential Parking Lot

**OPTION 1: BICYCLE BOULEVARD**
- (LOOKING EAST)
- Spot Median Island
- New Sidewalk - and Sidewalk Gaps
- Curb Extension
- Bike Route and Wayfinding Sign
- Residential Parking Lot
- Apartment Building

**OPTION 2: SEPARATED BIKE LANES**
- (LOOKING EAST)
- Separated Bike Lane
- Bike Route and Wayfinding Sign
- New Sidewalk - and Sidewalk Gaps
- Residential Parking Lot
- Apartment Building

**OPTION 3: CONVENTIONAL BIKE LANES + PARKING**
- (LOOKING EAST)
- Bike Lane
- Bike Route and Wayfinding Sign
- New Sidewalk - and Sidewalk Gaps
- Residential Parking Lot
- Apartment Building

**EVALUATION MEASURE ASSESSMENT**

<table>
<thead>
<tr>
<th>Option</th>
<th>Bicycle Level of Traffic Stress</th>
<th>Cost</th>
<th>Parking Impacts</th>
<th>Right of Way or Drainage &amp; Utility Impact</th>
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</thead>
<tbody>
<tr>
<td><strong>OPTION 1</strong></td>
<td><strong>LOW</strong></td>
<td><strong>HIGH</strong></td>
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<tr>
<td><strong>OPTION 2</strong></td>
<td><strong>LOW</strong></td>
<td><strong>HIGH</strong></td>
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</tr>
<tr>
<td><strong>OPTION 3</strong></td>
<td><strong>LOW</strong></td>
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KEOKEE STREET
RIGGS ROAD TO MERRIMAC DRIVE
CONCEPTUAL DESIGN ALTERNATIVES

BICYCLE ADVISORY SHOULDERS

Advisory shoulders make usable shoulders for bicyclists on a roadway that is otherwise too narrow to accommodate one. The shoulder is delineated by pavement marking and optional pavement color. Motorists may only enter the shoulder when no bicyclists are present and must overtake these users with caution due to potential oncoming traffic.

In order to install advisory shoulders, an approved Request to Experiment is required as detailed in Section 3A.10 of the MUTCD. FHWA is also accepting requests for experimentation with a similar treatment called “dashed bicycle lanes.”

Advisory bike lane in New Hampshire.
Source: streets.mn

Motorists travel in the center two-way lane. When passing a bicyclist, no lane change is to encroach into the advisory shoulder space.

Source: FHWA Small Town and Rural Multimodal Networks Guide

OPTION 1: QUALITATIVE ASSESSMENT

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LANGLEY PARK NEIGHBORHOOD BICYCLE BOULEVARDS

JASMINE TERRACE
RIGGS ROAD TO NEW RIGGS ROAD RIGHT OF WAY
CONCEPTUAL DESIGN ALTERNATIVES

**Evaluation Measure**

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**Key Map**

**Existing Photos**

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**Option 1: Bicycle Boulevard**

- **Evaluation Measure**
  - Bicycle Level of Traffic Stress: Medium
  - Cost: Low
  - Parking Impacts: Low
  - Right of Way or Drainage & Utility Impact: Low

**Option 2: Separated Bike Lanes**

- **Evaluation Measure**
  - Bicycle Level of Traffic Stress: Low
  - Cost: High
  - Parking Impacts: Low
  - Right of Way or Drainage & Utility Impact: Low

**Option 3: Conventional Bike Lanes + Parking**

- **Evaluation Measure**
  - Bicycle Level of Traffic Stress: Medium
  - Cost: High
  - Parking Impacts: High
  - Right of Way or Drainage & Utility Impact: High
LANGLEY PARK NEIGHBORHOOD BICYCLE BOULEVARDS

POTENTIAL TRAFFIC CALMING, CROSSING, AND BICYCLE BOULEVARD IDEAS

Bicycle Facility
Sidewalk
Shared Use Path/Trail

Potential Future Pedestrian & Bicycle Connection

TOOLBOX OF TREATMENTS

- Pedestrian Refuge Islands
- Raised Curb Extention
- Image Credit: City of Ann Arbor, MI

- Curb Extension/Bump-outs
- Mid Block Curb Extension Island
- Image Credit: City of Ann Arbor, MI

- Speed Hump/Bump
- Speed Bump
- Image Credit: NACTO

- Concrete Spot Median Island
- Concrete Spot Median Island
- Image Credit: NACTO

- Bike Route & Way-finding Signs
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- Bike Route & Way-finding Signs

Image Credit: Alta
Image Credit: James Barrera
Image Credit: Lucy Gibson
Image Credit: LKLA
Image Credit: Bike Provincetown
Image Credit: NACTO
Image Credit: City of Ann Arbor, MI
Image Credit: NACTO
NEW RIGGS ROAD RIGHT-OF-WAY (SHARED-USE PATH)
CONCEPTUAL DESIGN ALTERNATIVES

EXISTING CONDITIONS

• Site is part of an existing public right-of-way
• Several paths paved connecting University Gardens apartment complexes
• Storm water erosion from adjoining parking lots and streets
• Mature trees on edges, sparse landscaping
• Limited ADA accessible connections to adjoining roadways and sidewalks
A simple, linear path connects north and south between Keokee Street and Jasmine Terrace.

**Pros**
- Alignment conforms to existing site conditions
- Cost effective/easily implementable
- Direct connections to existing pedestrian networks

**Cons**
- Alignment limits spaces for additional amenities

**Potential Opportunity**
- To Extend Shared-Use Path within New Riggs Road Median

**Future Opportunity for Bicycle Connectivity to 15th Avenue**

**Shared-Use Path Design Alternative 1**
A more curvilinear path that follows the site’s natural topography.

**Pros**
- Alignment modestly enhances existing site conditions

**Cons**
- Increases paved areas
- Increases potential storm water runoff

**Potential Opportunity**
- To Extend Shared-Use Path within New Riggs Road Median
- Future Opportunity for Bicycle Connectivity to 15th Avenue
A more dynamic and curvilinear path that follows the site’s natural topography, slows bicyclist speeds, and offers more opportunities for additional recreational spaces.

**Pros**
- Curvilinear alignment increases travel time to allow greater engagement with green space
- Greater opportunity for programming

**Cons**
- Alignment has modest impact to existing grading
- More pavement increases runoff

**Potential Opportunity to Extend Shared-Use Path within New Riggs Road Median**
NEW RIGGS ROAD RIGHT-OF-WAY (SHARED-USE PATH)
CONCEPTUAL DESIGN ALTERNATIVES

PHASE ONE SITE AMENITIES

Curb Cut ADA Ramp with Bollards
Image Credit: wwwahycle.com

ADA Ramp with Adjacent Stairs
(Note: All Ramps and Stairs to Include Railing)
Image Credit: 123RF.com

Waste Receptacle
Image Credit: Victor Stanley

Bench
Image Credit: Victor Stanley

LED Shoe-Box Light Fixture
Image Credit: FYTLED

SHARED-USE PATH EXAMPLES

Shared-Use Path in Naturalized Setting
Image Credit: Glenstone Meadows

Shared-Use Path in Naturalized Setting
Image Credit: Houston Parks Board

Shared-Use Path in Naturalized Setting
Image Credit: Thewashcycle.com
NEW RIGGS ROAD RIGHT-OF-WAY (SHARED-USE PATH)
CONCEPTUAL DESIGN ALTERNATIVES

PHASE TWO SITE AMENITIES AND PROGRAMING

ADA Accessible Grill Station
Picnic Table, Typical
Naturalized Play Area
Naturalized Play Area
Public Art
Low Seat Wall with Mural
Bio-retention Planting

*Naturalized play area means recreating experiences found in nature to engage children in exploration, discovery, and imaginative play.*
NEW RIGGS ROAD RIGHT-OF-WAY (SHARED-USE PATH)
CONCEPTUAL DESIGN ALTERNATIVES

SHARED-USE PATH DESIGN ALTERNATIVE 1

- Public Art
- Grilling Station
- Picnic Station
- Play Area
- Bio-retention Area
NEW RIGGS ROAD RIGHT-OF-WAY (SHARED-USE PATH)
CONCEPTUAL DESIGN ALTERNATIVES

SHARED-USE PATH DESIGN ALTERNATIVE 2

- Public Art
- Grilling Station
- Picnic Station
- Play Area
- Bio-retention Area
LANGLEY PARK NEIGHBORHOOD BICYCLE BOULEVARDS

NEW RIGGS ROAD RIGHT-OF-WAY (SHARED-USE PATH)
CONCEPTUAL DESIGN ALTERNATIVES

SHARED-USE PATH DESIGN ALTERNATIVE 3

- Public Art
- Grilling Station
- Picnic Station
- Play Area
- Bio-retention Area
LANGLEY PARK NEIGHBORHOOD BICYCLE BOULEVARDS

NEW RIGGS ROAD RIGHT-OF-WAY (SHARED-USE PATH)
CONCEPTUAL DESIGN ALTERNATIVES

**OPTION 1**

- **EVALUATION MEASURE**: Bicycle Level of Traffic Stress
  - **ASSESSMENT**: Low
- **CONSTRUCTION AND MAINTENANCE COST**: Low
- **ADA ACCESSIBLE**: Yes
- **RIGHT-OF-WAY OR DRAINAGE & UTILITY IMPACT**: Low

**OPTION 2**

- **EVALUATION MEASURE**: Bicycle Level of Traffic Stress
  - **ASSESSMENT**: Low
- **CONSTRUCTION AND MAINTENANCE COST**: Medium
- **ADA ACCESSIBLE**: Yes
- **RIGHT-OF-WAY OR DRAINAGE & UTILITY IMPACT**: Medium

**OPTION 3**

- **EVALUATION MEASURE**: Bicycle Level of Traffic Stress
  - **ASSESSMENT**: Low
- **CONSTRUCTION AND MAINTENANCE COST**: High
- **ADA ACCESSIBLE**: Yes
- **RIGHT-OF-WAY OR DRAINAGE & UTILITY IMPACT**: High