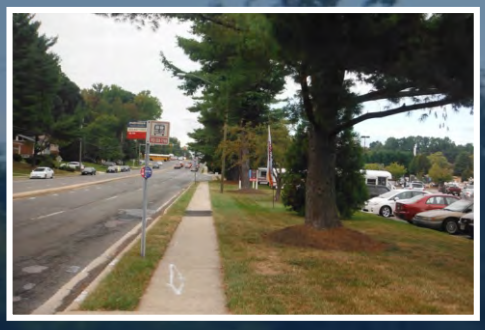
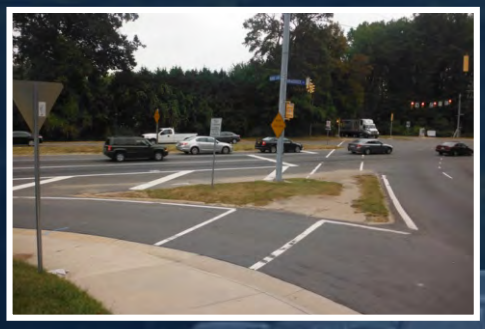
Braddock Road Multimodal Study

County of Fairfax, Virginia

Task Force Meeting Materials





RK&K

Date: April 6, 2016

April 6, 2016
Braddock Road Multimodal Study
Fairfax County, Virginia

Task Force Meeting

I. Introduction ..... Kevin Morse, Chairman

II. Progress Since Last Task Force Meeting (5 minutes)..... Michael Guarino/John McDowell

   a. Traffic simulation Development

   b. Preparation for Community Meeting for April 25, 2016

   c. MOE development

III. Upcoming Meetings (10 minutes)..... Michael Guarino/John McDowell

   a. Mid-April Task Force Meeting – April 20, 2016

      Purpose: Review of updated Traffic Simulations

   b. Community Meeting – April 25, 2016

   c. No May 2016 Task Force Meeting

IV. Discussion Items..... Michael Guarino/John McDowell

   a. Measures of Effectiveness (60 minutes)

      i. Roadway

      ii. Transit Center

   b. Community Meeting preparation (30 Minutes)

      i. Agenda/format

      ii. Lessons Learned

      iii. Role of Task Force at Meeting

   c. Transit Center/Bus Route Update (15 minutes)

V. Adjourn Meeting ..... Kevin Morse, Chairman

March 2, 2016

Braddock Road Multimodal Study
Fairfax County, Virginia

Task Force Meeting Minutes

Action Items

- **FCDOT** to check with the County Tax Administration department regarding property values of similar model homes.
- **RK&K / FCDOT** to transmit additional spot improvements to the task force in graphical format for review.
- **RK&K** to evaluate the addition of a HAWK signal at Grantham Street.
- **Task Force** to look at the bicycle / pedestrian maps, identify missing connections and provide information to the County.
- **Task Force** to evaluate the weights and MOEs and provide questions to the County.

Discussion

The meeting began with Tad Borkowski discussing the work completed over the last month. He noted the following activities since the last meeting:

- Continued development of the VISSIM models for the Spot Improvements, HOV and GP Widening scenarios. These models and the associated O-D is being refined based on the preliminary results.
- Further development of the MOEs and associated evaluation parameters.
- Began preparation for the April 25th Community Meeting which will be held at the Lake Braddock Secondary School.

A question was asked regarding the setup of the meeting and whether it would be the same but include the simulation? It was responded that yes, the simulations will be provided and the initial layout will be discussed later as part of the meeting. Tad mentioned that the next task force meeting is April 6th, but that the updated VISSIM results will not be ready so the County wanted to propose a second April meeting to discuss the VISSIM results prior to the community meeting.

Tad presented the Property Value Research based on the information assembled from the Tax Administration office. This data showed the increase in value for homes between 1982 and 1986. A question was asked how the properties values of similar model homes off the road were impacted? Michael Guarino noted that they do not have that information but will check with the County's Tax Administration department. It was noted that direct sales costs should be the comparison and not tax assessed value because the County will not take into account the location near the road. A question was asked about comparison Countywide and Michael noted that was discussed but was not presented due to concern regarding whether each area in the County would reasonably be expected to grow similarly. It was noted that of interest to some of the task force members was the relative change in values as a result of facilities in relation to projects such as Little River Turnpike and Franconia Road, Old Keene Mill. A question was asked regarding how the values will be used in the MOE evaluation and Michael noted that it is not currently include in the MOE's, and it is difficult to isolate the widening in terms of its impact on property values.

John McDowell presented the Roadway portion of the meeting. He noted that at the last meeting the VISSIM simulations were presented showing the bottlenecks at Guinea and Ravensworth and as a result two additional spot improvements have added:

- Dual eastbound left turn lanes at Ravensworth

- Extending the second northbound lane along Guinea to Burnetta.

John noted that we have are also re-evaluating the O-D data to assure that the patterns are within reason. It was asked why the design was running the lane along Guinea to Burnetta as opposed to King David and John responded this increased distance assists in addressing the merging concerns along northbound Guinea, and the grades, bridge and available right-of-way between Burnetta and King David were concerns. John further mentioned that the Ravensworth improvement includes adding a second lane along Ravensworth for merging. A task force member noted that one issue today is cars weaving across Braddock from the Beltway and John responded that one spot improvement is to tighten the radius and reduce the speed of merging vehicles and additional distance. Michael added that the additional improvements will be emailed to the task force in graphical format for review. John also noted that in response to the task force, one additional improvement being included is converting Grantham Street at Burke Lake Road to a Right-in/Right-out to eliminate the crossing conflicts. A question was asked about the time increase for someone trying to get the shopping center from Grantham? John said that this can be calculated and provided to the task force. A general concern was raised about pedestrians still crossing at Grantham regarding of closure since it is the shortest path. One task force member raised the question of a HAWK signal at this location. John noted that this will be evaluated.

Attention turned to the VISSIM simulations and John noted that we are not discussing the traffic simulations as was done in previous months since after last month when the HOV 2 inside and outside were presented, the team wanted to re-evaluate a few areas of concern and will have updated results in early April. Michael noted that the O-Ds are being re-evaluated again and a few exaggerated aspects are being addressed and while the pattern changes will still exist they will likely be much reduced. A question was asked about slug lines in an HOV scenario and where those will be set up? John responded that the expectation is that the slug lines will meet at the Transit Center. A comment was made that currently a lot of people park along Danbury Forest and how this gets accommodated in the jughandle condition should be considered to limit the impact of people living in the neighborhood. It was noted that this will be evaluated. A question was asked about whether the left turn onto the Express Lanes was maintained and John replied yes.

The meeting then turned to discussion about the Transit Center. John noted that the intersection at Red Fox does not meet signal warrants and therefore no signal was proposed. A question was asked how the transit center would make a left with no light. John noted that this is being evaluated as part of the circulation to get buses in and out efficiently. Michael noted that a mini-simulation of the triangle will be done to evaluate the operations of the buses in this area. John also noted that Rolling Road will be channelized to limit access across the road and limit the number of conflict points. The task force raised a good bit of concern related to the lefts out of the transit center and access to the west side of Rolling Road businesses.

Tad noted that the County was also going to speak with the shopping center development to discuss the possibility of a joint venture for the transit center and redevelopment. John presented the parking garage renderings. A question was asked about the number of parking spaces in the garage and John noted the estimated number is 300. A task force member asked a question about whether the scope of the project includes a cost-benefit analysis and Michael noted a planning level analysis was done once the project was approved.

John noted that examples from across the country are provided in the packet for review, then turned to the sites at the Training Center noting that these were developed without knowledge of the future use of this property. A question was asked about why 4 bus bays are provided at the Training Center but 8 at Kings Park. It was noted that the “nexus” of Burke Lake, Rolling and Braddock requires additional bays at Kings Park. A comment was made regarding a preference for Training Center site due to it being behind trees, and away from people. A question was asked about who is involved at the county regarding any proposed development at the Training Center once a developer is identified and Kiel Stone noted that the Supervisor’s office will be involved.

John turned the meeting to the presentation of the pedestrian/bicycle maps and treatments for the corridor. He noted that the maps show a meandering path utilizing the ROW. A question was asked about whether the path would follow the roadway and John noted it is likely to follow the roadway. Michael asked the task force whether they saw any gaps in the pedestrian crossings or connections to Braddock Road along the corridor. A task force member asked about an overpass/underpass at Wakefield Chapel in the streambed to remove the crossing at the signal and an overpass at Port Royal Road to get the pedestrians out of the traffic. Michael asked whether there was a lot of ped/bike traffic from the neighborhoods to the park and general sense was *some*. Another task force member asked why the shared used path along Danbury Forest stops at the power lines and why it can't be extended into the neighborhood. It was noted that this will be evaluated. A question was asked about the cost of a pedestrian bridge versus a tunnel under. The County said they would get some costs for comparison. John also mentioned that an underpass can present a safety problem because they are long tunnels. Michael asked task force to look at the maps and identify missing connections and provide information to the County.

John then presented the MOE tables including the side-by-side comparison of the measurements. John walked the task force through the MOE table for each alternative. He noted the weights are a weighted average of the votes from the December meeting and that these were initial, but that the task force needed to confirm the weights are still acceptable and provide a score for each MOE. Michael offered to allow more time for weighting discussions and scoring at a future meeting. A question was asked about why the ped/bike improvements were not included in the spot improvements and Michael noted that was still up for discussion. There was general agreement that the ped/bike improvements should be included in the spot improvements option.

The task force raised concern that each element is equally weighted in the average as is, but that each MOE could have "sub weights" for each measure. Michael noted that the challenge is comparing 10 minutes of travel time savings versus 2,000 feet of trail. It was noted that a challenge of this group will be comparing the ped, bike, trail, safety, vehicle traffic, etc. It was suggested that the group only evaluate one MOE first to work through the process so everyone gets on the same page and this seemed generally acceptable. A comment was made that the safety element for peds looks at the number of protected crossing but also needs to look at the number of unprotected crossings. Another member added that the MOE is really the difference between the number of protected and unprotected crossings.

Michael asked that the task force members to evaluate the weights and MOEs and see if any questions arise. If so, he requested that they be provided to the County prior to the next meeting. John suggested that we devout a good portion of the first April meeting to MOEs to get good input on weightings and scores and that the other portion of the meeting for community meeting planning, and this was agreed upon. A task force member asked for an example of a completed form and John said this could be provided. Michael asked if everyone was ok with doing an April 20th meeting and skip the May meeting and the task force approved this plan.

Planned Activities for March 2016:

- VISSIM Simulations – Refinements to Spot Improvements, HOV 2 and General Purpose Lane Widening models
- Further development of MOE parameters
- Prepare for April 25th Community Meeting

Upcoming Schedule:

- The next Task Force meetings will be as follows:
  - April 6, 2016 – Community Meeting prep and MOE analysis
  - April 20, 2016 – VISSIM simulations review
  - June 1, 2016 – Community Meeting debrief and continued MOE development
- Community Meeting scheduled for Monday, April 25, 2016

Should any revisions to these meeting minutes be required, please advise Tad Borkowski at tad.borkowski@fairfaxcounty.gov or John McDowell, PE at jmcdowell@rkk.com.

April 6, 2016

Braddock Road Multimodal Study, Fairfax County, Virginia

Roadway Measures of Effectiveness (MOE) Scoring Scenario

What you care about/MOE	Description of MOE	Performance Measures - Metrics	Scoring Notes
Environment	Availability for screening or landscaping enhancements	Area available for tree planting minus area of tree removal (square feet)	
	Will alternative provide additional opportunities for bike/ pedestrian travel?	Linear feet of additional paths and number of crosswalks, crosswalk signals or pedestrian overpasses (length in feet)	
	Park Land Impacts	Amount of land taken from parks for road (acres)	
	Does the alternative improve or degrade the noise levels experienced by those adjacent to the corridor?	Noise levels as measured by traffic models (decibels average)	
	Does the alternative improve or degrade the air quality experienced by those adjacent to the corridor?	Air quality levels as measured by traffic models (NOx particles average)	
Mobility	Does the alternative facilitate community access to Braddock Road?	Overall travel time for vehicles in the system to and from the neighborhoods (hours)	
	Does the alternative facilitate traffic through the corridor?	Total travel time in network. (hours)	
	Will the alternative provide better access and circulation for pedestrians and bicycles?	Number of new access points to neighborhoods~~ and total length of bike/pedestrian paths along corridor~~ (number)	
Safety	Is it likely that existing conflict areas improved?	Number of corridor-wide conflict points (number)	
	Is it likely that the suggested improvements will lower or increase potential crashes?	Highway Safety Manual Computed Expected Crash Rate (crashes/year)	
	Are safe movements provided to pedestrians and bicycles?	Number of signal-protected crossings and number of grade separated crossings	
Travel Time	Option that creates the least aggregate travel time	Vehicular travel time (minutes)	
	Travel time represented by critical movements	Transit Travel time (minutes)	
	Pedestrian/Bicycle travel time	Pedestrian/bicycle Travel time (minutes)	
Right-of-Way Impacts	Total area of right-of-way taken	Area of right-of-way taken (square feet or acres)	
	Number of parcels impacted	Number of impacted parcels (each)	

April 6, 2016

Braddock Road Multimodal Study
Fairfax County, Virginia

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Roadway MOE Measurements

What you care about/MOE	Description of MOE	Performance Measures - Metrics	No-Build	Spot Improvements	HOV2 Inside	HOV2 Outside	General Use Lane Addition
Environment	Availability for screening or landscaping enhancements	Area available for tree planting minus area of tree removal (square feet)	0	-24,500	-489,000	-489,000	-489,000
	Will alternative provide additional opportunities for bike/ pedestrian travel?	Linear feet of additional paths and number of crosswalks, crosswalk signals or pedestrian overpasses (length in feet)	0	2,344 feet 6-8 Crossings	23,680 feet 6-8 Crossings	23,680 feet 6-8 Crossings	23,680 feet 6-8 Crossings
	Park Land Impacts	Amount of land taken from parks for road (acres)	0	0.73	2.71	2.71	2.71
	Does the alternative improve or degrade the noise levels experienced by those adjacent to the corridor?	Noise levels as measured by traffic models (decibels average)					
	Does the alternative improve or degrade the air quality experienced by those adjacent to the corridor?	Air quality levels as measured by traffic models (NOx particles average)					
Mobility	Does the alternative facilitate community access to Braddock Road?	Overall travel time for vehicles in the system to and from the neighborhoods (hours)					
	Does the alternative facilitate traffic through the corridor?	Total travel time in network. (hours)					
	Will the alternative provide better access and circulation for pedestrians and bicycles?	Number of new access points to neighborhoods and total length of bike/pedestrian paths along corridor (number)	0	1 new access point	24,500 feet 1 new access point	24,500 feet 1 new access point	24,500 feet 1 new access point
Safety	Is it likely that existing conflict areas improved?	Number of corridor-wide conflict points (number)	597	510	480	480	480
	Is it likely that the suggested improvements will lower or increase potential crashes?	Highway Safety Manual Computed Expected Crash Rate (crashes/year)					
	Are safe movements provided to pedestrians and bicycles?	Number of signal-protected crossings and number of grade separated crossings					
Travel Time	Option that creates the least aggregate travel time	Vehicular travel time (minutes)					
	Travel time represented by critical movements	Transit Travel time (minutes)					
	Pedestrian/Bicycle travel time	Pedestrian/bicycle Travel time (minutes)					
Right-of-Way Impacts	Total area of right-of-way taken	Area of right-of-way taken (square feet or acres)	0	0.73 Acres	2.98 Acres	2.98 Acres	2.98 Acres
	Number of parcels impacted	Number of impacted parcels (each)	0	2	22	22	22

IN PROGRESS

April 6, 2016

Braddock Road Multimodal Study
Fairfax County, Virginia

Alternative: No-Build

Roadway Measures of Effectiveness (MOE)

What you care about/MOE	Description of MOE	Performance Measures - Metrics	Measurement	Element Score	Average		Weight *	MOE Score
Environment	Availability for screening or landscaping enhancements	Area available for tree planting minus area of tree removal (square feet)	0					
	Will alternative provide additional opportunities for bike/ pedestrian travel?	Linear feet of additional paths and number of crosswalks, crosswalk signals or pedestrian overpasses (length in feet)	0					
	Park Land Impacts	Amount of land taken from parks for road (acres)	0			**X**	**4.5**	
	Does the alternative improve or degrade the noise levels experienced by those adjacent to the corridor?	Noise levels as measured by traffic models (decibels average)						
	Does the alternative improve or degrade the air quality experienced by those adjacent to the corridor?	Air quality levels as measured by traffic models (NOx particles average)						
Mobility	Does the alternative facilitate community access to Braddock Road?	Overall travel time for vehicles in the system to and from the neighborhoods (hours)						
	Does the alternative facilitate traffic through the corridor?	Total travel time in network. (hours)				**X**	**4.7**	
	Will the alternative provide better access and circulation for pedestrians and bicycles?	Number of new access points to neighborhoods and total length of bike/pedestrian paths along corridor (number)	0					
Safety	Is it likely that existing conflict areas improved?	Number of corridor-wide conflict points (number)	597					
	Is it likely that the suggested improvements will lower or increase potential crashes?	Highway Safety Manual Computed Expected Crash Rate (crashes/year)				**X**	**4.7**	
	Are safe movements provided to pedestrians and bicycles?	Number of signal-protected crossings and number of grade separated crossings						
Travel Time	Option that creates the least aggregate travel time	Vehicular travel time (minutes)						
	Travel time represented by critical movements	Transit Travel time (minutes)				**X**	**2.6**	
	Pedestrian/Bicycle travel time	Pedestrian/bicycle Travel time (minutes)						
Right-of-Way Impacts	Total area of right-of-way taken	Area of right-of-way taken (square feet or acres)	0					
	Number of parcels impacted	Number of impacted parcels (each)	0			**X**	**3**	

***** **Initial weight shows the average of scores ranked by the Task Force at the December 2, 2015 Task Force meeting. Final weight factors are to be determined by Task Force.**

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April 6, 2016

Braddock Road Multimodal Study
Fairfax County, Virginia

Alternative: Spot Improvements

Roadway Measures of Effectiveness (MOE)

What you care about/MOE	Description of MOE	Performance Measures - Metrics	Measurement	Element Score	Average		Weight *	MOE Score
Environment	Availability for screening or landscaping enhancements	Area available for tree planting minus area of tree removal (square feet)	-24,500					
	Will alternative provide additional opportunities for bike/ pedestrian travel?	Linear feet of additional paths and number of crosswalks, crosswalk signals or pedestrian overpasses (length in feet)	2,344 feet 6-8 Crossings					
	Park Land Impacts	Amount of land taken from parks for road (acres)	0.73			**X**	**4.5**	
	Does the alternative improve or degrade the noise levels experienced by those adjacent to the corridor?	Noise levels as measured by traffic models (decibels average)						
	Does the alternative improve or degrade the air quality experienced by those adjacent to the corridor?	Air quality levels as measured by traffic models (NOx particles average)						
Mobility	Does the alternative facilitate community access to Braddock Road?	Overall travel time for vehicles in the system to and from the neighborhoods (hours)						
	Does the alternative facilitate traffic through the corridor?	Total travel time in network. (hours)				**X**	**4.7**	
	Will the alternative provide better access and circulation for pedestrians and bicycles?	Number of new access points to neighborhoods and total length of bike/pedestrian paths along corridor (number)	1 new access point					
Safety	Is it likely that existing conflict areas improved?	Number of corridor-wide conflict points (number)	510					
	Is it likely that the suggested improvements will lower or increase potential crashes?	Highway Safety Manual Computed Expected Crash Rate (crashes/year)				**X**	**4.7**	
	Are safe movements provided to pedestrians and bicycles?	Number of signal-protected crossings and number of grade separated crossings						
Travel Time	Option that creates the least aggregate travel time	Vehicular travel time (minutes)						
	Travel time represented by critical movements	Transit Travel time (minutes)				**X**	**2.6**	
	Pedestrian/Bicycle travel time	Pedestrian/bicycle Travel time (minutes)						
Right-of-Way Impacts	Total area of right-of-way taken	Area of right-of-way taken (square feet or acres)	0.73 Acres					
	Number of parcels impacted	Number of impacted parcels (each)	2			**X**	**3**	

* **Initial weight shows the average of scores ranked by the Task Force at the December 2, 2015 Task Force meeting. Final weight factors are to be determined by Task Force.**

IN PROGRESS

April 6, 2016

Braddock Road Multimodal Study
Fairfax County, Virginia

Alternative: General Use Lane Addition

Roadway Measures of Effectiveness (MOE)

What you care about/MOE	Description of MOE	Performance Measures - Metrics	Measurement	Element Score	Average		Weight *	MOE Score
Environment	Availability for screening or landscaping enhancements	Area available for tree planting minus area of tree removal (square feet)	-489,000					
	Will alternative provide additional opportunities for bike/ pedestrian travel?	Linear feet of additional paths and number of crosswalks, crosswalk signals or pedestrian overpasses (length in feet)	23,680 feet 6-8 Crossings					
	Park Land Impacts	Amount of land taken from parks for road (acres)	2.71			**X**	**4.5**	
	Does the alternative improve or degrade the noise levels experienced by those adjacent to the corridor?	Noise levels as measured by traffic models (decibels average)						
	Does the alternative improve or degrade the air quality experienced by those adjacent to the corridor?	Air quality levels as measured by traffic models (NOx particles average)						
Mobility	Does the alternative facilitate community access to Braddock Road?	Overall travel time for vehicles in the system to and from the neighborhoods (hours)						
	Does the alternative facilitate traffic through the corridor?	Total travel time in network. (hours)				**X**	**4.7**	
	Will the alternative provide better access and circulation for pedestrians and bicycles?	Number of new access points to neighborhoods and total length of bike/pedestrian paths along corridor (number)	24,500 feet 1 new access point					
Safety	Is it likely that existing conflict areas improved?	Number of corridor-wide conflict points (number)	480					
	Is it likely that the suggested improvements will lower or increase potential crashes?	Highway Safety Manual Computed Expected Crash Rate (crashes/year)				**X**	**4.7**	
	Are safe movements provided to pedestrians and bicycles?	Number of signal-protected crossings and number of grade separated crossings						
Travel Time	Option that creates the least aggregate travel time	Vehicular travel time (minutes)						
	Travel time represented by critical movements	Transit Travel time (minutes)				**X**	**2.6**	
	Pedestrian/Bicycle travel time	Pedestrian/bicycle Travel time (minutes)						
Right-of-Way Impacts	Total area of right-of-way taken	Area of right-of-way taken (square feet or acres)	2.98 Acres					
	Number of parcels impacted	Number of impacted parcels (each)	22			**X**	**3**	

* **Initial weight shows the average of scores ranked by the Task Force at the December 2, 2015 Task Force meeting. Final weight factors are to be determined by Task Force.**

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April 6, 2016

Braddock Road Multimodal Study
Fairfax County, Virginia

Alternative: HOV2 - Inside

Roadway Measures of Effectiveness (MOE)

What you care about/MOE	Description of MOE	Performance Measures - Metrics	Measurement	Element Score	Average		Weight *	MOE Score
Environment	Availability for screening or landscaping enhancements	Area available for tree planting minus area of tree removal (square feet)	-489,000					
	Will alternative provide additional opportunities for bike/ pedestrian travel?	Linear feet of additional paths and number of crosswalks, crosswalk signals or pedestrian overpasses (length in feet)	23,680 feet 6-8 Crossings					
	Park Land Impacts	Amount of land taken from parks for road (acres)	2.71			**X**	**4.5**	
	Does the alternative improve or degrade the noise levels experienced by those adjacent to the corridor?	Noise levels as measured by traffic models (decibels average)						
	Does the alternative improve or degrade the air quality experienced by those adjacent to the corridor?	Air quality levels as measured by traffic models (NOx particles average)						
Mobility	Does the alternative facilitate community access to Braddock Road?	Overall travel time for vehicles in the system to and from the neighborhoods (hours)						
	Does the alternative facilitate traffic through the corridor?	Total travel time in network. (hours)				**X**	**4.7**	
	Will the alternative provide better access and circulation for pedestrians and bicycles?	Number of new access points to neighborhoods and total length of bike/pedestrian paths along corridor (number)	24,500 feet 1 new access point					
Safety	Is it likely that existing conflict areas improved?	Number of corridor-wide conflict points (number)	480					
	Is it likely that the suggested improvements will lower or increase potential crashes?	Highway Safety Manual Computed Expected Crash Rate (crashes/year)				**X**	**4.7**	
	Are safe movements provided to pedestrians and bicycles?	Number of signal-protected crossings and number of grade separated crossings						
Travel Time	Option that creates the least aggregate travel time	Vehicular travel time (minutes)						
	Travel time represented by critical movements	Transit Travel time (minutes)				**X**	**2.6**	
	Pedestrian/Bicycle travel time	Pedestrian/bicycle Travel time (minutes)						
Right-of-Way Impacts	Total area of right-of-way taken	Area of right-of-way taken (square feet or acres)	2.98 Acres					
	Number of parcels impacted	Number of impacted parcels (each)	22			**X**	**3**	

* **Initial weight shows the average of scores ranked by the Task Force at the December 2, 2015 Task Force meeting. Final weight factors are to be determined by Task Force.**

IN PROGRESS

April 6, 2016

Braddock Road Multimodal Study
Fairfax County, Virginia

Alternative: HOV2 - Outside

Roadway Measures of Effectiveness (MOE)

What you care about/MOE	Description of MOE	Performance Measures - Metrics	Measurement	Element Score	Average		Weight *	MOE Score
Environment	Availability for screening or landscaping enhancements	Area available for tree planting minus area of tree removal (square feet)	-489,000					
	Will alternative provide additional opportunities for bike/ pedestrian travel?	Linear feet of additional paths and number of crosswalks, crosswalk signals or pedestrian overpasses (length in feet)	23,680 feet 6-8 Crossings					
	Park Land Impacts	Amount of land taken from parks for road (acres)	2.71			**X**	**4.5**	
	Does the alternative improve or degrade the noise levels experienced by those adjacent to the corridor?	Noise levels as measured by traffic models (decibels average)						
	Does the alternative improve or degrade the air quality experienced by those adjacent to the corridor?	Air quality levels as measured by traffic models (NOx particles average)						
Mobility	Does the alternative facilitate community access to Braddock Road?	Overall travel time for vehicles in the system to and from the neighborhoods (hours)						
	Does the alternative facilitate traffic through the corridor?	Total travel time in network. (hours)				**X**	**4.7**	
	Will the alternative provide better access and circulation for pedestrians and bicycles?	Number of new access points to neighborhoods and total length of bike/pedestrian paths along corridor (number)	24,500 feet 1 new access point					
Safety	Is it likely that existing conflict areas improved?	Number of corridor-wide conflict points (number)	480					
	Is it likely that the suggested improvements will lower or increase potential crashes?	Highway Safety Manual Computed Expected Crash Rate (crashes/year)				**X**	**4.7**	
	Are safe movements provided to pedestrians and bicycles?	Number of signal-protected crossings and number of grade separated crossings						
Travel Time	Option that creates the least aggregate travel time	Vehicular travel time (minutes)						
	Travel time represented by critical movements	Transit Travel time (minutes)				**X**	**2.6**	
	Pedestrian/Bicycle travel time	Pedestrian/bicycle Travel time (minutes)						
Right-of-Way Impacts	Total area of right-of-way taken	Area of right-of-way taken (square feet or acres)	2.98 Acres					
	Number of parcels impacted	Number of impacted parcels (each)	22			**X**	**3**	

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DRAFT

April 6, 2016
Braddock Road Multimodal Study
Fairfax County, Virginia

Transit Measures of Effectiveness (MOE) Scoring Scenario

What you care about/MOE	Description of MOE	Performance Measures - Metrics	Scoring Notes
Environment	Does the proposed site complement the adjacent land uses?	Conformity to community aesthetics (subjective)	
	Is the proposed site compliant with zoning codes	Will rezoning be required? (Yes or No)	
	Does the alternative increase noise levels?	Aggregate Noise Levels (decibels)	
	Does the alternative increase air pollution?	Aggregate Air Quality levels (NOx levels)	
	Will site lighting impact adjacent lands in a negative way?	Degree separation/screening between transit site and adjacent single-family properties (linear feet separation to closest residence)	
Mobility	Ease of access in/out for commuter and transit vehicles	Number of entrances (number)	
	Ease and convenience of access for pedestrians & bicycles	Number of signalized pedestrian crossings or grade separations to site (number)	
	Ease of access for transit routes	Number of drive entrances and signals for left-turn movements (number)	
Safety	Will vehicular access in/out of facility be safe?	Number of conflict points at entrances (number)	
	Are safe movements provided to pedestrians and bicycles?	Number of pedestrian/bicycle conflict points **with vehicles** (number)	
Roadway Travel Time	Braddock Road vehicle travel time	Travel time accounting for movements into and out of transit center (hours)	
	Pedestrian/Bicycle Travel time	Travel time over longest path (minutes)	
Trip Diversions	Number of Braddock Road trips converted to transit	Number of bus trips (number)	
	Number of potential carpool/slugging trips	Number of trips generated by ride sharing (number)	
	Reduction in SOV trips along corridor	Reduction in number of trips along Braddock Road (number)	

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Braddock Road Multimodal Study
Fairfax County, Virginia

IN PROGRESS

Transit Center MOE Measurements

What you care about/MOE	Description of MOE	Performance Measures - Metrics	Kings Park Shopping Center Garage	Kings Park Shopping Center Surface	NOVA Training Center East	NOVA Training Center West
Environment	Does the proposed site complement the adjacent land uses?	Conformity to community aesthetics (subjective)				
	Is the proposed site compliant with zoning codes	Will rezoning be required? (Yes or No)	Yes	Yes	Yes	Yes
	Does the alternative increase noise levels?	Aggregate Noise Levels (decibels)				
	Does the alternative increase air pollution?	Aggregate Air Quality levels (NOx levels)				
	Will site lighting impact adjacent lands in a negative way?	Degree separation/screening between transit site and adjacent single-family properties (linear feet separation to closest residence)	235	235	290	165
Mobility	Ease of access in/out for commuter and transit vehicles	Number of entrances (number)	2	2	1	2
	Ease and convenience of access for pedestrians & bicycles	Number of signalized pedestrian crossings or grade separations to site (number)	1	1	0	0
	Ease of access for transit routes	Number of drive entrances and signals for left-turn movements (number)	2 Entrances 0 Signals	2 Entrances 0 Signals	2 Entrances 1 existing signal for cars only	2 Entrances 1 existing signal for exiting traffic only
Safety	Will vehicular access in/out of facility be safe?	Number of conflict points at entrances (number)	78	78	31 Cars Only Entr/Exit	52
	Are safe movements provided to pedestrians and bicycles?	Number of pedestrian/bicycle conflict points (number)				
Roadway Travel Time	Braddock Road vehicle travel time	Travel time accounting for movements into and out of transit center (hours)				
	Pedestrian/Bicycle Travel time	Travel time over longest path (minutes)				
Trip Diversions	Number of Braddock Road trips converted to transit	Number of bus trips (number)	29 (AM Peak Hour)	29 (AM Peak Hour)	15 (AM Peak Hour)	15 (Peak Hour)
	Number of potential carpool/slugging trips	Number of trips generated by ride sharing (number)				
	Reduction in SOV trips along corridor	Reduction in number of trips along Braddock Road (number)	87 (AM Peak hour)	87 (AM Peak hour)	75 (AM Peak hour)	75 (AM Peak hour)

IN PROGRESS

April 6, 2016

Braddock Road Multimodal Study
Fairfax County, Virginia

Alternative: **Kings Park Shopping Center Garage**

Transit Measures of Effectiveness (MOE)

What you care about/MOE	Description of MOE	Performance Measures - Metrics	Measurement	Element Score	Average		Weight *	MOE Score
Environment	Does the proposed site complement the adjacent land uses?	Conformity to community aesthetics (subjective)						
	Is the proposed site compliant with zoning codes	Will rezoning be required? (Yes or No)	Yes					
	Does the alternative increase noise levels?	Aggregate Noise Levels (decibels)				**X**	**4.5**	
	Does the alternative increase air pollution?	Aggregate Air Quality levels (NOx levels)						
	Will site lighting impact adjacent lands in a negative way?	Degree separation/screening between transit site and adjacent single-family properties (linear feet separation to closest residence)	235					
Mobility	Ease of access in/out for commuter and transit vehicles	Number of entrances (number)	2					
	Ease and convenience of access for pedestrians & bicycles	Number of signalized pedestrian crossings or grade separations to site (number)	1			**X**	**4.7**	
	Ease of access for transit routes	Number of drive entrances and signals for left-turn movements (number)	2 Entrances 0 Signals					
Safety	Will vehicular access in/out of facility be safe?	Number of conflict points at entrances (number)	78					
	Are safe movements provided to pedestrians and bicycles?	Number of pedestrian/bicycle conflict points (number)				**X**	**4.7**	
Roadway Travel Time	Braddock Road vehicle travel time	Travel time accounting for movements into and out of transit center (hours)						
	Pedestrian/Bicycle Travel time	Travel time over longest path (minutes)				**X**	**2.6**	
Trip Diversions	Number of Braddock Road trips converted to transit	Number of bus trips (number)	29 (AM Peak Hour)					
	Number of potential carpool/slugging trips	Number of trips generated by ride sharing (number)				**X**	**1.9**	
	Reduction in SOV trips along corridor	Reduction in number of trips along Braddock Road (number)	87 (AM Peak hour)					

* **Initial weight shows the average of scores ranked by the Task Force at the December 2, 2015 Task Force meeting. Final weight factors are to be determined by Task Force.**

IN PROGRESS

April 6, 2016

Braddock Road Multimodal Study
Fairfax County, Virginia

Alternative: **Kings Park Shopping Center Surface**

Transit Measures of Effectiveness (MOE)

What you care about/MOE	Description of MOE	Performance Measures - Metrics	Measurement	Element Score	Average		Weight *	MOE Score
Environment	Does the proposed site complement the adjacent land uses?	Conformity to community aesthetics (subjective)						
	Is the proposed site compliant with zoning codes	Will rezoning be required? (Yes or No)	Yes					
	Does the alternative increase noise levels?	Aggregate Noise Levels (decibels)				**X**	**4.5**	
	Does the alternative increase air pollution?	Aggregate Air Quality levels (NOx levels)						
	Will site lighting impact adjacent lands in a negative way?	Degree separation/screening between transit site and adjacent single-family properties (linear feet separation to closest residence)	235					
Mobility	Ease of access in/out for commuter and transit vehicles	Number of entrances (number)	2					
	Ease and convenience of access for pedestrians & bicycles	Number of signalized pedestrian crossings or grade separations to site (number)	1			**X**	**4.7**	
	Ease of access for transit routes	Number of drive entrances and signals for left-turn movements (number)	2 Entrances 0 Signals					
Safety	Will vehicular access in/out of facility be safe?	Number of conflict points at entrances (number)	78					
	Are safe movements provided to pedestrians and bicycles?	Number of pedestrian/bicycle conflict points (number)				**X**	**4.7**	
Roadway Travel Time	Braddock Road vehicle travel time	Travel time accounting for movements into and out of transit center (hours)						
	Pedestrian/Bicycle Travel time	Travel time over longest path (minutes)				**X**	**2.6**	
Trip Diversions	Number of Braddock Road trips converted to transit	Number of bus trips (number)	29 (AM Peak Hour)					
	Number of potential carpool/slugging trips	Number of bus trips generated by ride sharing(number)				**X**	**1.9**	
	Reduction in SOV trips along corridor	Reduction in number of trips along Braddock Road (number)	87 (AM Peak hour)					

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IN PROGRESS

April 6, 2016

Braddock Road Multimodal Study
Fairfax County, Virginia

Alternative: NOVA Training Center East

Transit Measures of Effectiveness (MOE)

What you care about/MOE	Description of MOE	Performance Measures - Metrics	Measurement	Element Score	Average		Weight *	MOE Score
Environment	Does the proposed site complement the adjacent land uses?	Conformity to community aesthetics (subjective)						
	Is the proposed site compliant with zoning codes	Will rezoning be required? (Yes or No)	Yes					
	Does the alternative increase noise levels?	Aggregate Noise Levels (decibels)				**X**	**4.5**	
	Does the alternative increase air pollution?	Aggregate Air Quality levels (NOx levels)						
	Will site lighting impact adjacent lands in a negative way?	Degree separation/screening between transit site and adjacent single-family properties (linear feet separation to closest residence)	290					
Mobility	Ease of access in/out for commuter and transit vehicles	Number of entrances (number)	1					
	Ease and convenience of access for pedestrians & bicycles	Number of signalized pedestrian crossings or grade separations to site (number)	0			**X**	**4.7**	
	Ease of access for transit routes	Number of drive entrances and signals for left-turn movements (number)	2 Entrances 1 existing signal for cars only					
Safety	Will vehicular access in/out of facility be safe?	Number of conflict points at entrances (number)	31 Cars Only Entr/Exit			**X**	**4.7**	
	Are safe movements provided to pedestrians and bicycles?	Number of pedestrian/bicycle conflict points (number)						
Roadway Travel Time	Braddock Road vehicle travel time	Travel time accounting for movements into and out of transit center (hours)				**X**	**2.6**	
	Pedestrian/Bicycle Travel time	Travel time over longest path (minutes)						
Trip Diversions	Number of Braddock Road trips converted to transit	Number of bus trips (number)	15 (AM Peak Hour)					
	Number of potential carpool/slugging trips	Number of trips generated by ride sharing (number)				**X**	**1.9**	
	Reduction in SOV trips along corridor	Reduction in number of trips along Braddock Road (number)	75 (AM Peak hour)					

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IN PROGRESS

April 6, 2016

Braddock Road Multimodal Study
Fairfax County, Virginia

Alternative: NOVA Training Center West

Transit Measures of Effectiveness (MOE)

What you care about/MOE	Description of MOE	Performance Measures - Metrics	Measurement	Element Score	Average		Weight *	MOE Score
Environment	Does the proposed site complement the adjacent land uses?	Conformity to community aesthetics (subjective)						
	Is the proposed site compliant with zoning codes	Will rezoning be required? (Yes or No)	Yes					
	Does the alternative increase noise levels?	Aggregate Noise Levels (decibels)				**X**	**4.5**	
	Does the alternative increase air pollution?	Aggregate Air Quality levels (NOx levels)						
	Will site lighting impact adjacent lands in a negative way?	Degree separation/screening between transit site and adjacent single-family properties (linear feet separation to closest residence)	165					
Mobility	Ease of access in/out for commuter and transit vehicles	Number of entrances (number)	2					
	Ease and convenience of access for pedestrians & bicycles	Number of signalized pedestrian crossings or grade separations to site (number)	0			**X**	**4.7**	
	Ease of access for transit routes	Number of drive entrances and signals for left-turn movements (number)	2 Entrances 1 existing signal for exiting traffic only					
Safety	Will vehicular access in/out of facility be safe?	Number of conflict points at entrances (number)	52			**X**	**4.7**	
	Are safe movements provided to pedestrians and bicycles?	Number of pedestrian/bicycle conflict points (number)						
Roadway Travel Time	Braddock Road vehicle travel time	Travel time accounting for movements into and out of transit center (hours)				**X**	**2.6**	
	Pedestrian/Bicycle Travel time	Travel time over longest path (minutes)						
Trip Diversions	Number of Braddock Road trips converted to transit	Number of bus trips (number)	15 (AM Peak Hour)			**X**	**1.9**	
	Number of potential carpool/slugging trips	Number of trips generated by ride sharing (number)						
	Reduction in SOV trips along corridor	Reduction in number of trips along Braddock Road (number)	75 (AM Peak hour)					

* **Initial weight shows the average of scores ranked by the Task Force at the December 2, 2015 Task Force meeting. Final weight factors are to be determined by Task Force.**

April 6, 2016

Braddock Road – Planning for April 25, 2016 Community Meeting

Station/Items	Responsibility	Status
Sign-In Table – at door • Handout provided • Existing Conditions Boards • Miscellaneous boards from Community Meeting #1	Deana/Meredith Done Done	
Station No. 1: Study Goals and Timeline • Updated Schedule • Refined Study Goals "AS REVISED BY TASK FORCE INPUT" • Regional Projects Board	John John Done	
Station No. 2: What We Have Learned So Far • "WHAT WE HAVE LEARNED SO FAR" – key results from Meeting #1 & TF input	John/All	
Station No. 3: Roadway Alternatives • Traffic Board • Existing & No-Build/Simulation substation • Spot Improvements/Simulation substation • HOV2 (inside)/Simulation substation • HOV2 (outside)/Simulation substation • General Purpose Lanes/Simulation substation • Summary Board with MOEs • Arrange for Smart Screens	Stuart Andrew/Rob Andrew/Rob Andrew/Rob Andrew/Rob Andrew/Rob Andrew/Rob John John	Alignment boards to include static images of VISSIM videos and typical section. HNTB to re-do videos to focus on intersections, shorter durations, calibrated videos. John to arrange to have video clips "stitched" together.
Station No. 4: Pedestrian/Bicycle Alternatives • Large scale map showing proposed trails and sidewalks, proposed bridge crossings (Stonehaven, Transit Center, Burke Lake Road) • Locate Transit Stops and Shelters • Examples board	Meredith Tad Meredith	Tad to discuss locations of shelters with Transit Division; boardings by bus stop location
Station No. 5: Transit Center Alternative • Alternatives Boards • Renderings Mounted on boards • Transit Center examples • Transit Center tour (photos) • Sketch Planning of Alternative Routes • Pros and Cons of Transit Center Alternatives	Andrew John John/Stuart Andrew	

Station/Items	Responsibility	Status
Station No. 6: Next Steps • {Thought needed for this}	John	
Station No. 7: Comments • Same approach as Community Meeting #1	Deana	
Other Items • Self-Guided Station List	Meredith	
PowerPoint Presentation • Develop Draft	John	

TRANSIT CENTER LAYOUT - LOCATION 3C [SURFACE] DRAFT

TO ROUTE 123
(OX ROAD)

BRADDOCK ROAD

TO I-495

COMMUTER PARKING

210 ESTIMATED PARKING SPACES

CARS ONLY

KISS - N- RIDE / TAXI

BUS STATION / TRANSIT CENTER

BUS BAYS

CARS AND TAXI ONLY

BUS ONLY

TRUCK ENTRANCE

KINGS PARK SHOPPING CENTER

NEW GIANT STORE

BURKE LAKE ROAD

ROLLING ROAD

GRANTHAM STREET

RIGHT IN AND RIGHT OUT ONLY

PROPOSED SIGNAL

HAWK SIGNAL

LEFT TURN OUT PROHIBITED

EXHIBIT SHOWS RECONFIGURATION OF KINGS PARK SHOPPING CENTER ACCESS

RIGHT IN AND RIGHT OUT ONLY

RIGHT IN AND RIGHT OUT ONLY

RIGHT IN AND RIGHT OUT ONLY

HAWK SIGNAL

RIGHT IN AND RIGHT OUT ONLY

RIGHT IN ONLY

LEGEND

- PROPOSED BUS CIRCULATION
- CAR CIRCULATION
- PEDESTRIAN ACCESS
- SIGNAL
- HAWK SIGNAL
- PAVEMENT REMOVAL
- ALTERNATIVE EXIT ROUTE

SCALE

0 100' 200'

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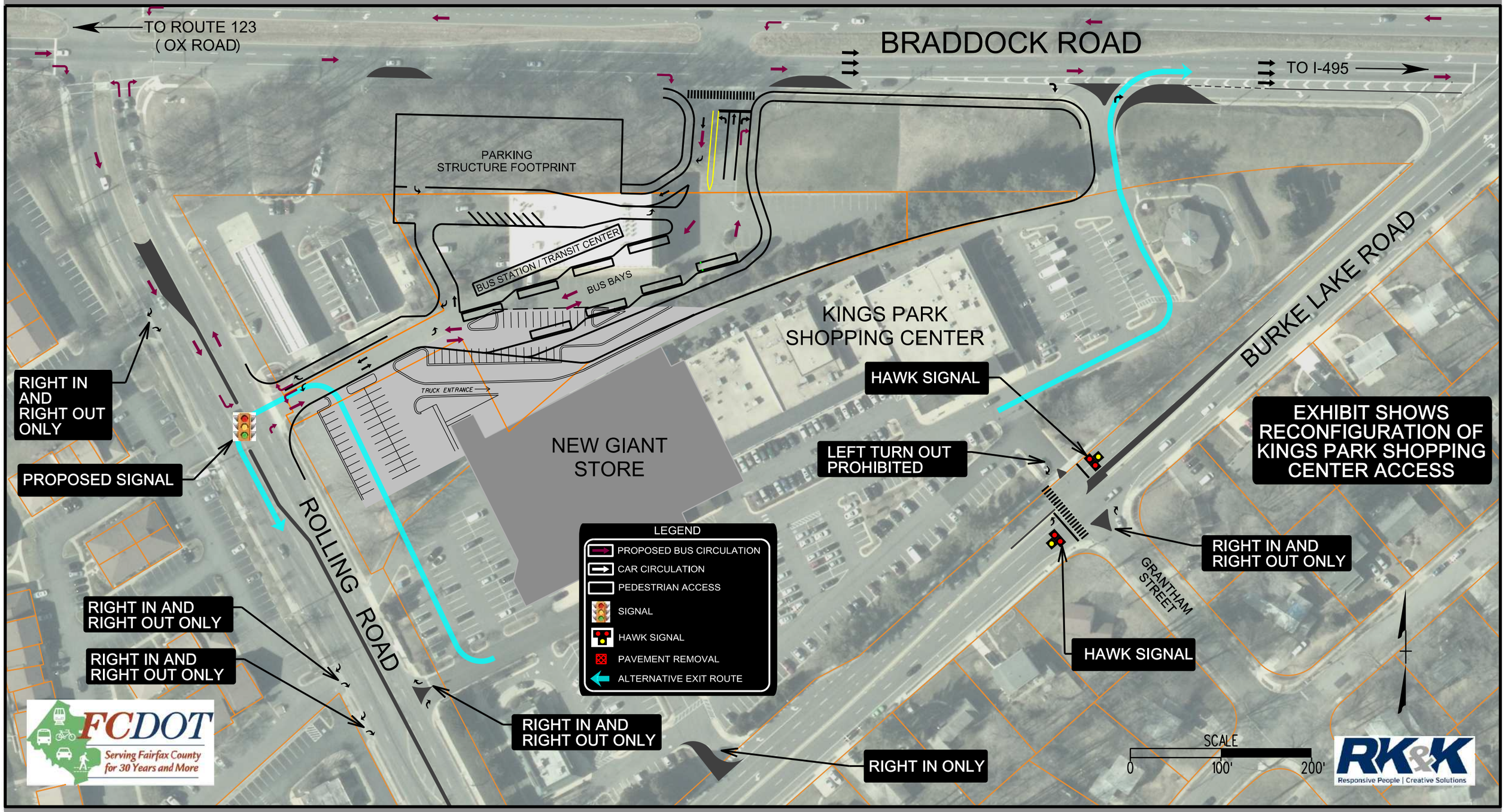
APRIL 26, 2016

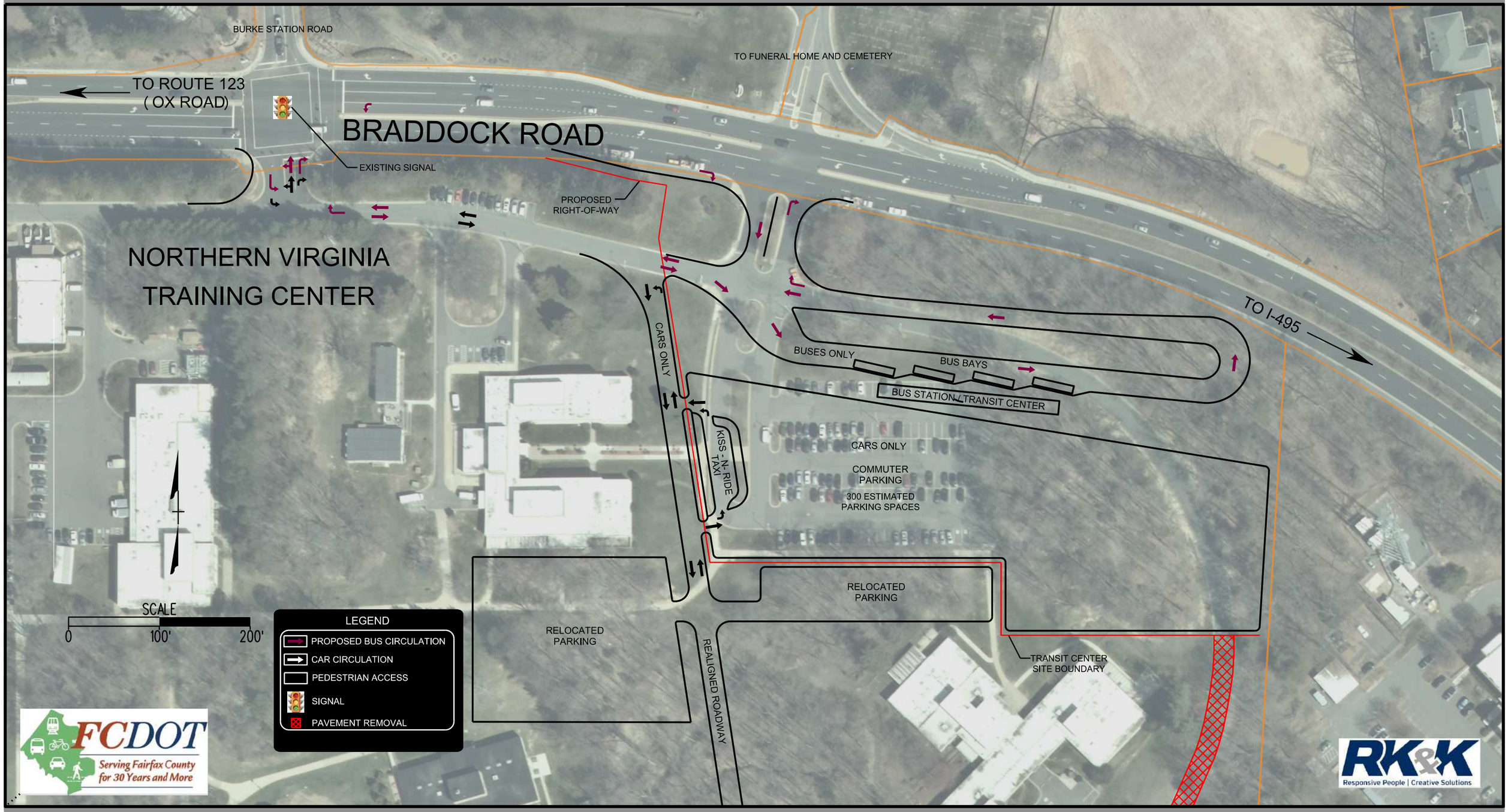
TRANSIT CENTER LAYOUT - LOCATION 3De [GARAGE] DRAFT



APRIL 26, 2016

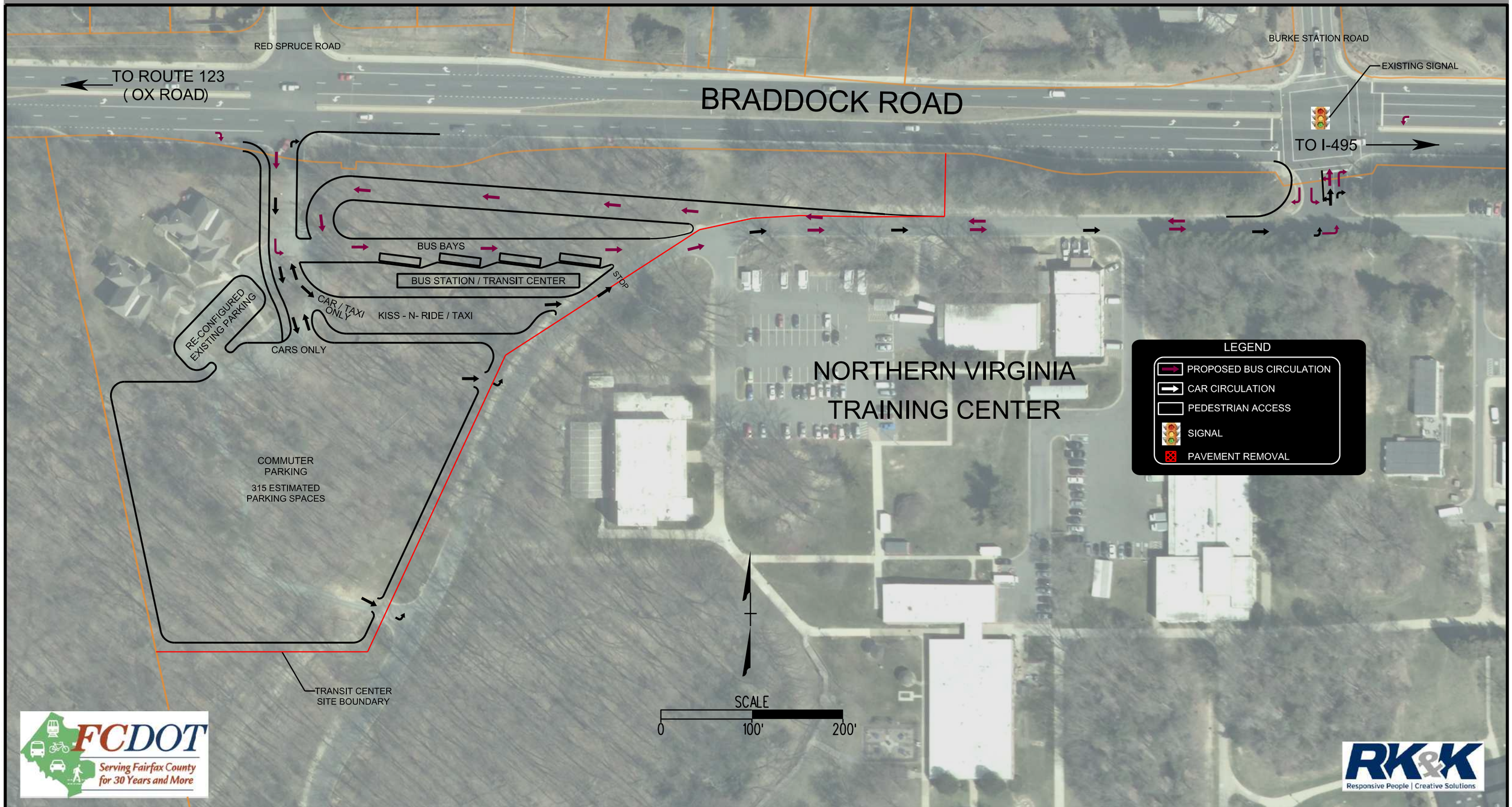
TRANSIT CENTER LAYOUT - LOCATION 2 [EAST]

DRAFT



APRIL 25, 2016

TRANSIT CENTER LAYOUT - LOCATION 1 [WEST] DRAFT



APRIL 25, 2016

April 5, 2016

Braddock Road Multimodal Study
Fairfax County, Virginia

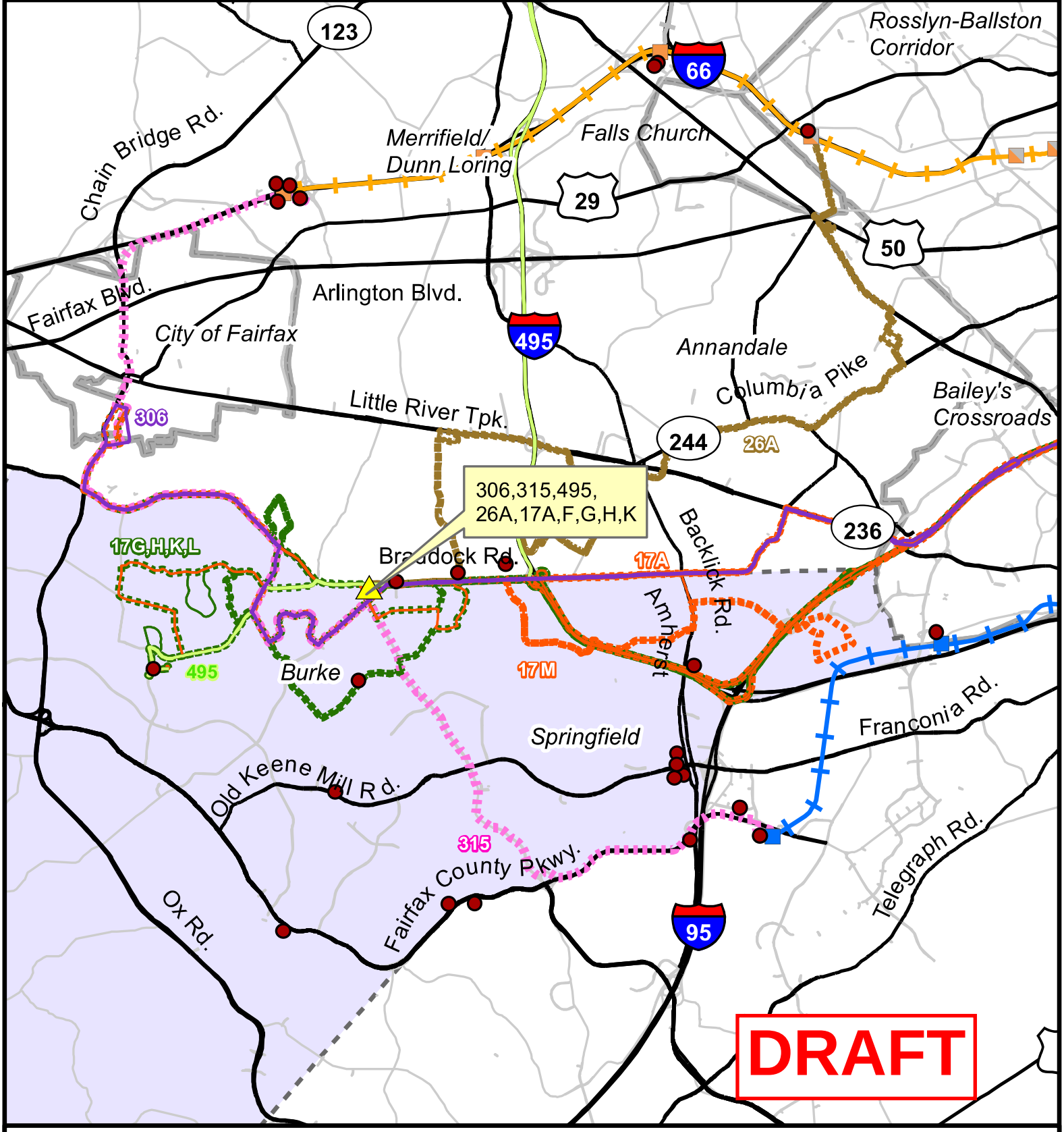
Transit Center Sites – Pros and Cons

Kings Park Shopping Center

- Pros
  - Substantial residential population within walking distance on all sides of site
  - More robust existing/planned bus route network
- Cons
  - Heavy background vehicular and pedestrian traffic within site and on opposite side of Rolling Road
  - Substantial traffic on road segments (Braddock Road, Burke Lake Road, Rolling Road) surrounding site – likely to impede site access/egress

Northern Virginia Training Center

- Pros
  - Can intercept drivers from west before reaching project area
  - Relatively light background vehicular and pedestrian traffic within site
- Cons
  - Lower residential population within walking distance near site
  - Less robust existing/planned bus route network

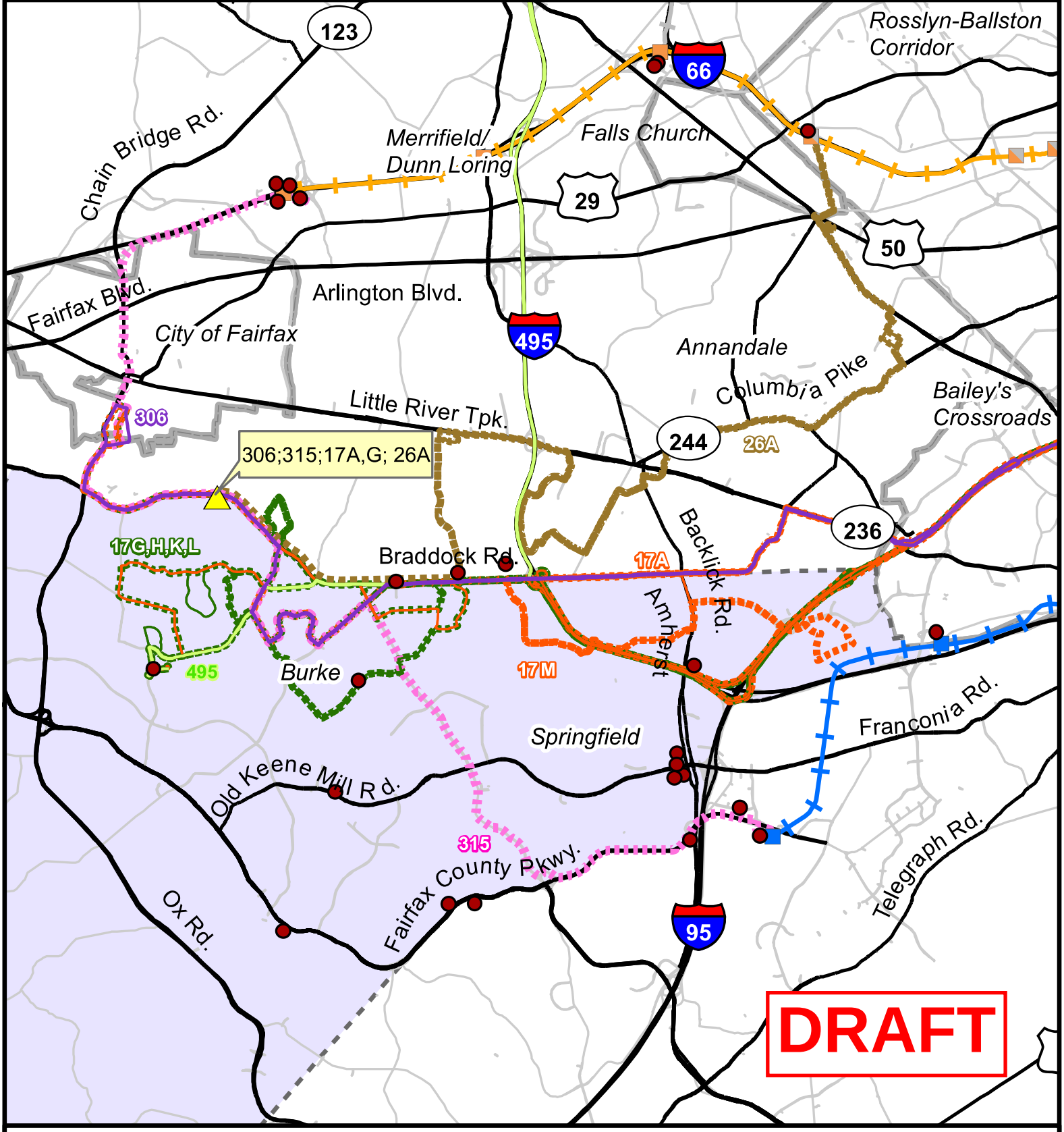


Kings Park Shopping Center

- Regional/ Political Boundaries
- Major Corridors
- Metrorail Line (by color)
- Metrorail Station (by color)

0 0.75 1.5 3 Miles

Current Bus Routes	Proposed Bus Routes
17A; 17B; 17F; 17M	17A; 17F; 17M
17G; 17H; 17K; 17L	17G; 17H; 17K; 17L
26A	26A
306	315 (new)
495	Proposed Transit Center
27	Park and Ride



Northern Virginia Training Center

- Regional/ Political Boundaries
- Major Corridors
- Metrorail Line (by color)
- Metrorail Station (by color)

0 0.75 1.5 3 Miles

Current Bus Routes

- 17A; 17B; 17F; 17M
- 17G; 17H; 17K; 17L
- 26A
- 306
- 495

Proposed Bus Routes

- 17A; 17F; 17M
- 17G; 17H; 17K; 17L
- 26A
- 315 (new)
- Proposed Transit Center
- Park and Ride

County of Fairfax, Virginia

RK&K

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