

Countywide Transit Corridors Functional Master Plan

Appendix 12
BRT Corridor Function Assessment

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To: Larry Cole, M-NCPPC
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Subject: BRT Corridor Function Assessment (FINAL)

The corridor function assessment task was conducted to generate a stronger understanding of the viable BRT corridors identified in the study conducted by the MCDOT. This effort included a scan of land uses for the purpose of developing definitions of corridor functions that are reflective of the types of trips (i.e., commuting trips or shorter-distance trips between and within activity centers) that would be supported along BRT corridors, based on a number of factors. The defined functions also reflect characteristics typically associated with certain trip patterns and identified along a given BRT corridor. As part of this effort corridors were assessed to determine the proposed transportation facilities that could enhance access to BRT stations for a given corridor type.

The following pages contain the corridor function assessments along each of the 16 proposed BRT corridors. The consulting team used information from *Transit Corridors and TOD: Connecting the Dots*, developed by Center for Transit-Oriented Development; guidance from M-NCPPC's scope of work and feedback on the draft corridor function assessment; and professional judgment to inform this task.

Four types of functions were identified for this assessment: commuter/express, corridor (renamed "activity center connector" for this study), and circulator (renamed "link" for this study).

A commuter corridor would have moderate to high ridership heading toward a central business district or transfer point to regional transit service during the peak periods. It typically would have a strong mix of land uses and/or premium transit service anchoring one terminus. While an intermediate destination (such as a major activity center or intermodal transfer point) could be present along the corridor, most peak-hour trips would end at a terminus. Supportive facilities at BRT stations along this corridor type could include shared park-and-ride lots at commercial centers and accommodations for connections to feeder bus service. Additional facilities include bicycle access for potential riders starting their trips within three miles of the stations, as well as bicycle storage at stations. Additionally, pedestrian facilities should be provided for potential riders starting their trips within one-half-mile of the stations.

An express corridor is very similar to a commuter corridor, except there are generally several miles between stations along the corridor.

An activity corridor connector would provide access to a number of activity centers, serving both employment and other destinations (such as retail, educational, and medical). Such a corridor would carry higher ridership during the peak period, but the mix of activities centers would encourage balanced ridership in both directions. Supportive facilities at BRT stations along this corridor type could include bicycle access for potential riders starting their trips within three miles of the stations and pedestrian facilities for potential riders starting their trips within one-half-mile of the stations. Also, station locations would be positioned to provide access to centers of development while also creating strong pedestrian connections to the existing networks.

A link corridor would typically serve activities centers (commercial, residential, and/or intermodal centers) located at or near the termini of each corridor. Thus, during the peak period, significantly higher ridership can be seen surrounding the termini as compared to the remainder of the corridor. Supportive facilities at BRT stations along this corridor type could include accommodations for feeder bus service, bicycle access for potential riders starting their trips within three miles of the stations, and pedestrian facilities for potential riders starting their trips within one-half-mile of the stations. Also, some consideration to stations in the interim areas could be assessed to determine whether they contribute to ridership of the line or would degrade service for the demand for trips connecting the two termini.

The consultant team conducted a qualitative assessment of the 16 proposed BRT corridors. This consisted of reviewing four criteria, defined for each corridor function. These criteria are as follows:

- *Peak-Period Trips by Destination* – reflects the number of BRT peak-period trips traveling to traffic analysis zones (TAZs) within a 1/2-mile radius of the corridor. Each corridor assessment summarizes this criterion in terms of the trips ending near the termini or activity centers, as well as along the remainder of a corridor. Data is based on the outputs of the BRT transit model under Year 2040 build conditions.¹
- *Land Use Type* – reflects the zoning within Montgomery County, based on 2008 parcel layer data obtained from Montgomery County. This assessment focused on zoning codes that are typically supportive of BRT service; these zoning codes are aggregated to four land-use categories: commercial (contains both commercial and office zoning codes), industrial, institutional, and residential.² Uses acreage to determine the percentage of a particular land-use type found within 1/2-mile of the corridor.
- *Roadway Functional Classification* – reflects the roadway classifications within Montgomery County, based on data from M-NCPPC's Master Plan of Highways database
- *Percent of Area Meeting BRT-supportive Densities* – reflects the percentage of the area within a 1/2-mile radius of each corridor that the minimum threshold for BRT-supportive densities (six households/acre or five employees/acre) under Year 2040 conditions, based on MWCOG's Round 8.0 socioeconomic data

¹ The data used for this assessment reflects all BRT trips ending within 1/2-mile of a corridor as does not differentiate among overlapping BRT corridors or those sharing the same stations.

² Other land use types exist within the County, but do not typically support BRT service. These include cultural, recreational, resource/agricultural, utilities, and vacant/unknown land uses. The percentage of the corridor with other land uses is provided, but the information does not contribute toward the assessment of land-use types.

Table 1 provides a summary of the characteristics of each criterion for each corridor type. It also lists the proposed supportive facilities that should be accommodated by the specified corridor type.

Table 1: Characteristics of Commuter Typology Criteria

	Commuter	Express	Activity Center Connector	Link
Peak-Period Trips by Destination				
<i>Near terminus</i>	•Significant	•Significant	•Significant	•Significant
<i>Within activity centers</i>	•Significant (if activity centers present)	•Significant (if activity centers present)	•Significant	•Significant (activity centers typically located at termini)
<i>Throughout remaining corridor</i>	•Low	•Low	•Low	•Low
Land Use Types	<ul style="list-style-type: none"> •Primarily residential along majority of corridor, with limited interspersing of other land use types •Pronounced cluster of mixed land use types and/or presence of premium transit station at terminus, as well as at activity center that may be present within corridor 	<ul style="list-style-type: none"> •Primarily residential along majority of corridor, with limited interspersing of other land use types •Pronounced cluster of mixed land use types and/or presence of premium transit station at terminus, as well as at activity center that may be present within corridor 	•Mix of land use types throughout corridor	•Prominent mix of land uses and/or presence of intermodal center located at termini
Roadway Functional Classification³	<ul style="list-style-type: none"> •Freeway •Highway (controlled major and major) •Arterial 	<ul style="list-style-type: none"> •Freeway •Highway (controlled major and major) •Arterial 	<ul style="list-style-type: none"> •Major highway •Arterial •Minor arterial 	<ul style="list-style-type: none"> •Arterial •Minor arterial
Percent of Area Meeting BRT-supportive Densities⁴	<ul style="list-style-type: none"> •Low to moderate percentage •Population density: About 35 percent or less •Employment density: About 60 percent or less 	<ul style="list-style-type: none"> •Low to moderate percentage •Population density: About 35 percent or less •Employment density: About 60 percent or less 	<ul style="list-style-type: none"> •Moderate to high percentage •Population density: More than about 35 percent •Employment density: More than about 60 percent 	<ul style="list-style-type: none"> •Moderate percentage •Population density: Between 20 and 35 percent •Employment density: Between 35 and 60 percent
Supportive Facilities	<ul style="list-style-type: none"> •Park-and-ride lots •Feeder bus bays •Increased bicycle access (within three miles of station) •Bicycle storage •Increase pedestrian access 	<ul style="list-style-type: none"> •Park-and-ride lots •Feeder bus bays •Increased bicycle access (within three miles of station) •Bicycle storage •Increase pedestrian access 	<ul style="list-style-type: none"> •Increased bicycle access (within three miles of station) •Bicycle storage •Increase pedestrian access 	<ul style="list-style-type: none"> •Feeder bus bays •Increased bicycle access (within three miles of station) •Bicycle storage •Increase pedestrian access

³ Definition of roadway functional classification obtained on September 29, 2011 from <http://www.montgomeryplanning.org/department/glossary.shtm#s>

⁴ Minimum thresholds based on average percentage of all corridors meeting BRT-supportive densities and associated standard deviations. Average population density: 21 percent; standard deviation: 11 percent. Average employment density: 35 percent; standard deviation: 22 percent.

The following summarizes the assessment of three representative BRT corridors using the characteristics outlined in Table 1. Figures 1-16 show the results of the GIS analyses for the proposed BRT corridors.

Corridor 3: Veirs Mill Road

The Veirs Mill Road corridor is about seven miles in length, with 11 proposed station locations and an average station spacing of 0.7 miles.

- *Peak-Period Trips by Destination:* A significant number of BRT trips within the corridor end near the termini. This corridor terminates at the Metrorail Red Line at each end, and BRT riders could likely travel in either direction to continue traveling toward final destinations that are closer to one of the two legs of the Red Line. Comparatively fewer trips end in locations along the remainder of the corridor.
- *Land Use Types:* More than 40 percent of the land uses found throughout the length of this corridor are residential. About six percent of the corridor's land-use types consist of either institutional or commercial facilities. Institutional land uses are found sparingly throughout the length of the corridor. Commercial land uses are primarily located at the ends of the corridor. Less than one percent of the corridor contains industrial land uses. Other land uses comprise about 47% of the corridor. This corridor is anchored by a Metrorail station at each end.
- *Roadway Functional Classification:* This corridor is primarily classified as a major highway.
- *BRT-Supportive Density:* Thirteen percent of the corridor meets the minimum threshold for BRT-supportive population density, reflecting the predominance of single-family detached housing. Thirty-seven percent of the corridor meets the minimum threshold for BRT-supportive employment density, reflective of the higher-density land uses surrounding both the Rockville and Wheaton Metrorail stations.

Based on this information, the Veirs Mill Road corridor closely matches the characteristics of a commuter corridor.

Corridor 4a: Georgia Avenue North

The Georgia Avenue North corridor is about 10 miles in length, with 12 stations and an average station spacing of 0.9 miles.

- *Peak-Period Trips by Destination:* A significant number of BRT trips within the corridor end near the corridor's southern terminus in Wheaton. Comparatively fewer trips end in locations along the remainder of the corridor.
- *Land Use Types:* About 42 percent of the land uses found throughout the length of this corridor are residential. About five and one-half percent of the corridor's land uses are institutional or commercial. A pronounced concentration of commercial land uses is primarily located at the southern terminus of the corridor. Less than one percent of the corridor contains industrial land uses. Other land uses comprise about 47 percent of the corridor. This corridor is anchored by a Metrorail station at its southern terminus.
- *Roadway Functional Classification:* This corridor is primarily classified as a major highway.
- *Density:* Sixteen percent of the corridor meets the minimum threshold for BRT-supportive population density, while 12 percent of the corridor meets BRT-supportive

employment density. Both percentages reflect the predominance of single-family detached housing. The southern terminus in Wheaton stands out as having supportive population and employment densities with a mix of commercial and residential land uses.

Based on this information, the Georgia Avenue North corridor closely matches the characteristics of a commuter corridor.

Corridor 4b: Georgia Avenue South

The Georgia Avenue South corridor is about four miles in length, with six stations and an average station spacing of 0.8 miles.

- *Peak-Period Trips by Destination:* A significant number of BRT trips within the corridor end near the termini in Wheaton and Silver Spring. Comparatively fewer trips end in locations along the remainder of the corridor.
- *Land Use Types:* About 42 percent of the land uses found throughout the length of this corridor are residential. About three percent of the corridor's land uses are institutional, while nine percent of the corridor consists of commercial land uses. A pronounced concentration of commercial land uses is primarily located at the corridor termini. Less than one percent of the corridor contains industrial land uses. Other land uses comprise about 45 percent of the corridor. This corridor is anchored by a Metrorail station at each terminus.
- *Roadway Functional Classification:* This corridor is primarily classified as a major highway.
- *Density:* Thirty-six percent of the corridor meets the minimum threshold for BRT-supportive population density, while 45 percent of the corridor meets the minimum threshold for BRT-supportive employment density. While the corridor contains a sizable portion of single-family detached housing, a pronounced mix of commercial and residential land uses exists at the termini.

Based on this information, the Georgia Avenue South corridor closely matches the characteristics of a commuter corridor.

Corridor 5: Rockville-LSC (formerly Rockville Loop)

The Rockville-LSC corridor is about five miles in length, with seven stations and an average station spacing of 0.9 miles.

- *Peak-Period Trips by Destination:* A significant number of BRT trips within the corridor end near the terminus in Rockville, as well as along the portion of the corridor west of I-270. Comparatively fewer trips end in locations along the remainder of the corridor.
- *Land Use Types:* About 33 percent of the land uses found throughout the length of this corridor are residential. About seven percent of the corridor's land uses are institutional, while almost 18 percent of the corridor consists of commercial land uses. Two percent of the corridor contains industrial land uses. Other land uses comprise about 40 percent of the corridor. A pronounced concentration of commercial land uses is primarily located at the Rockville terminus and in the central section of the corridor. A larger distributed mix of land uses is located at the western end of the corridor. A Metrorail station at the

eastern terminus and a proposed BRT or LRT station in the Life Sciences Center area anchors the western terminus.

- *Roadway Functional Classification:* This corridor is primarily classified as a controlled major highway.
- *Density:* Twenty-two percent of the corridor meets the minimum threshold for BRT-supportive population density, while 71 percent of the corridor meets the minimum threshold for BRT-supportive employment density. A mix of commercial and residential land uses exists in Rockville and similar, yet relatively greater area of mixed land uses exists in the Life Sciences Center area. Near Gude Drive and Research Boulevard is another concentration of BRT-supportive employment density.

Based on this information, the Rockville Loop corridor closely matches the characteristics of a link corridor.

Corridor 7: MD 124/Muddy Branch Road

The MD 124/Muddy Branch Road corridor is about seven miles in length, with ten stations and an average station spacing of 0.8 miles.

- *Peak-Period Trips by Destination:* A significant number of BRT trips within the corridor end near the termini at Lakeforest Mall and Life Sciences Center. Comparatively fewer trips end in locations along the remainder of the corridor.
- *Land Use Types:* About 26 percent of the land uses found throughout the length of this corridor are residential. About 16 percent of the corridor's land uses are institutional, while about 15 percent of the corridor consists of commercial land uses. Two percent of the corridor contains industrial land uses. Other land uses comprise about 41 percent of the corridor. A pronounced concentration of commercial land uses is primarily located at the Rockville terminus and in the central section of the corridor. A large distributed mix of land uses is located at the termini of the corridor. A large transit center located at Lakeforest Mall anchors the northern terminus and a proposed BRT or LRT station in the Life Sciences Center area anchors the southern terminus. National Institute of Standards and Technology (NIST) is a major employer within this corridor; however, its main entrance is located beyond the corridor's service area. Neighborhood and community shopping centers are also located along the corridor.
- *Roadway Functional Classification:* Most of this corridor is classified as a major highway, with shorter sections of controlled major highway and arterial.
- *Density:* Fifty-two percent of the corridor meets the minimum threshold for BRT-supportive population density, while 79 percent of the corridor meets the minimum threshold for BRT-supportive employment density. The presence of activity centers such as Lakeforest Mall, the North Frederick Avenue suburban employment center, NIST, and Life Sciences Center validate the high BRT-supportive densities found throughout the corridor.

Based on this information, the MD 124/Muddy Branch Road corridor closely matches the characteristics of a link corridor.

Corridor 8: Connecticut Avenue

The Connecticut Avenue corridor is about 9.5 miles in length, with ten stations and an average station spacing of 1.0 mile.

- *Peak-Period Trips by Destination:* A significant number of BRT trips within the corridor end near the southern terminus at Medical Center Metrorail station. Comparatively fewer trips end in locations along the remainder of the corridor.
- *Land Use Types:* About 37 percent of the land uses found throughout the length of this corridor are residential. About 12 percent of the corridor's land uses are institutional, while about 3 percent of the corridor consists of commercial land uses. Less than one percent of the corridor contains industrial land uses. Other land uses comprise almost one-half of the corridor. The length of the corridor is dominated by residential land uses. The strong presence of institutional land uses near the southern terminus reflects the presence of the National Navy Medical Center (NNMC)/National Institutes of Health (NIH) campuses. The Medical Center Metrorail station anchors the southern terminus of the corridor.
- *Roadway Functional Classification:* Most of this corridor is classified as a major highway, with a shorter section of arterial.
- *Density:* Six percent of the corridor meets the minimum threshold for BRT-supportive population density, which reflects the prominence of detached single-family housing. Seventeen percent of the corridor meets the minimum threshold for BRT-supportive employment density, reflective of the low percentage of commercial land uses in the corridors and institutional land uses on sprawled campuses. The primary center of BRT-supportive employment density is at the NNMC/NIH campuses near the Medical Center Metrorail station.

Based on this information, the Connecticut Avenue corridor closely matches the characteristics of a commuter corridor.

Corridor 10a: MD 355 North

The MD 355 North corridor is about 14.5 miles in length, with 16 stations and an average station spacing of 1.0 mile.

- *Peak-Period Trips by Destination:* A significant number of BRT trips within the corridor end near the termini, Lakeforest Mall, the Shady Grove area, and Montgomery College-Rockville Campus. Comparatively fewer trips end in locations along the remainder of the corridor.
- *Land Use Types:* About 32 percent of the land uses found throughout the length of this corridor are residential. About 10 percent of the corridor's land uses are institutional and about 12 percent of the corridor consists of commercial land uses. About three percent of the corridor contains industrial land uses. Other land uses comprise about 42 percent of the corridor. The corridor appears to exhibit a mix of land uses throughout its length, with residential being more prominent in the Clarksburg and Germantown areas. The Rockville Metrorail station anchors the southern terminus of the corridor.
- *Roadway Functional Classification:* Most of this corridor is classified as a major highway, with shorter sections of controlled major highway and arterial.
- *Density:* Twenty-one percent of the corridor meets the minimum threshold for BRT-supportive population density. While there are many detached single-family housing communities within the corridor, there are also a number of moderate- to high-density housing units present. TAZs with BRT-supportive population densities can be found primarily in Gaithersburg, Montgomery Village, Shady Grove/King Farm area, and

Rockville. Fifty-one percent of the corridor meets the minimum threshold for BRT-supportive employment density, reflecting the four suburban employment centers traversed by the corridor.

Based on this information, the MD 355 North corridor closely matches the characteristics of an activity center connector corridor.

Corridor 10b: MD 355 South

The MD 355 South corridor is about nine miles in length, with 13 station locations and an average station spacing of 0.7 miles.

- *Peak-Period Trips by Destination:* A significant number of BRT trips within the corridor are shown near key activity centers—namely, Rockville, White Flint, White Flint Mall, NNMC/NIH campuses, and Bethesda. Comparatively fewer trips terminate between these activity centers.
- *Land Use Types:* About 31 percent of the land uses found throughout this corridor are residential. About 12 percent of the corridor’s land uses are either institutional or commercial, and they are spread among the activity centers found throughout the corridor. One and a half percent of the corridor contains industrial land uses. Other land uses comprise about 43 percent of the corridor. The Rockville and Bethesda Metrorail stations anchor this corridor.
- *Roadway Functional Classification:* This corridor is primarily classified as a major highway.
- *Density:* With 33 percent of the corridor meeting the minimum threshold for BRT-supportive population density, this corridor reflects a mix of housing types that includes a significant number of high-rise apartments found in the central and southern portions of the corridor. Fifty-eight percent of the corridor meets the minimum threshold for BRT-supportive employment density, coinciding with the trips alighting at the BRT stations at the key activity centers

Based on this information, the MD 355 South corridor closely matches the characteristics of an activity center connector corridor.

Corridor 11: MD 650/New Hampshire Avenue

The MD 650/New Hampshire Avenue corridor is about nine miles in length, with nine stations and an average station spacing of 0.9 miles.

- *Peak-Period Trips by Destination:* A small number of peak-period BRT trips occur throughout the entire corridor. Larger numbers of trips are expected to alight at the White Oak/FDA Facility and Ft. Totten Metrorail station. Modeling efforts to be conducted in future tasks will verify this expectation.
- *Land Use Types:* Almost 40 percent of the land uses found throughout the length of this corridor are residential. About nine percent of the corridor’s land uses are institutional, while about 3 percent of the corridor consists of commercial land uses. Less than one percent of the corridor contains industrial land uses. Other land uses comprise almost one-half of the corridor. The strong presence of institutional land uses near the northern terminus reflects the White Oak/FDA Facility.

- *Roadway Functional Classification:* This corridor is primarily classified as a major highway.
- *Density:* Twenty-five percent of the corridor meets the minimum threshold for BRT-supportive population density, which reflects the prominence of detached and attached single-family housing. Twenty percent of the corridor meets the minimum threshold for BRT-supportive employment density. Key locations for BRT-supportive densities are White Oak/FDA Facility and Ft. Totten area.

Based on this information, the MD 650/New Hampshire Avenue corridor closely matches the characteristics of a commuter corridor.

Corridor 12: Montgomery Mall/Old Georgetown Road

The Montgomery Mall/Old Georgetown Road corridor is about seven miles in length, with nine stations and an average station spacing of 0.9 miles.

- *Peak-Period Trips by Destination:* A significant number of BRT trips within the corridor are shown near Rock Creek Business Park and Bethesda Metrorail station, as well as near Suburban Hospital. Comparatively fewer trips end in locations along the remainder of the corridor.
- *Land Use Types:* About 37 percent of the land uses found throughout the length of this corridor are residential. About nine percent of the corridor's land uses are either institutional or commercial. The corridor contains an insignificant percentage of industrial land uses. Other land uses comprise about 45 percent of the corridor. Much of the corridor contains residential land uses. There is a strong presence of commercial land uses at the northern end of the corridor at Montgomery Mall and Rock Creek Business Park. A mix of land uses exists in Bethesda, and the primary sites for institutional land uses coincides with the locations of Suburban Hospital and NIH. The Montgomery Mall Transit Center anchors the northern terminus and Bethesda Metrorail station anchors the southern terminus of the corridor.
- *Roadway Functional Classification:* Most of this corridor is classified as a major highway, with a short section of arterial.
- *Density:* Twelve percent of the corridor meets the minimum threshold for BRT-supportive population density, which reflects the prominence of detached single-family housing. Thirty-seven percent of the corridor meets the minimum threshold for BRT-supportive employment density, reflective of Rock Creek Business Park, the hospital, and downtown Bethesda.

Based on this information, the Montgomery Mall/Old Georgetown Road corridor closely matches the characteristics of a link corridor.

Corridor 14: Randolph Road

The Randolph Road corridor is about 5.5 miles in length, with seven stations and an average station spacing of 0.9 miles.

- *Peak-Period Trips by Destination:* A significant number of BRT trips within the corridor end within the White Flint area. Comparatively fewer trips end in locations along the remainder of the corridor.

- *Land Use Types:* Almost 40 percent of the land uses found throughout the length of this corridor are residential. About five percent of the corridor's land uses are institutional, while about nine percent of the corridor consists of commercial land uses. About three percent corridor contains industrial land uses. Other land uses comprise almost 45 percent of the corridor. Much of the corridor's residential land uses exist between Rock Creek Park and Georgia Avenue. There is a mix of commercial and residential land uses at the western end of the corridor in White Flint. White Flint and Glenmont Metrorail stations anchor the corridor.
- *Roadway Functional Classification:* This corridor is primarily a major highway, with a shorter segment of arterial roadway.
- *Density:* Twenty percent of the corridor meets the minimum threshold for BRT-supportive population density, which reflects the prominence of detached single-family housing. Forty-one percent of the corridor meets the minimum threshold for BRT-supportive employment density. The White Flint area contains most of the BRT-supportive population and employment densities for this corridor.

Based on this information, the Randolph Road corridor closely matches the characteristics of a commuter corridor.

Corridor 18: MD 193/University Boulevard

The MD 193/University Boulevard corridor is about 6.5 miles in length, with nine stations and an average station spacing of 0.8 miles.

- *Peak-Period Trips by Destination:* A significant number of BRT trips within the corridor end near the western terminus in Wheaton. Comparatively fewer trips end in locations along the remainder of the corridor.
- *Land Use Types:* About 43 percent of the land uses found throughout the length of this corridor are residential. Almost five percent of the corridor's land uses are either institutional or commercial. Less than one percent corridor contains industrial land uses. Other land uses comprise almost one-half of the corridor. Residential land uses dominate the entire length of the corridor. There is a mix of commercial and residential land uses at the western end of the corridor in Wheaton, where the Metrorail station anchors the corridor. The planned Takoma/Langley Transit Center Purple Line station anchors the eastern terminus.
- *Roadway Functional Classification:* This corridor is primarily a major highway.
- *Density:* Twenty-six percent of the corridor meets the minimum threshold for BRT-supportive population density, which reflects the prominence of detached single-family housing. Forty-one percent of the corridor meets the minimum threshold for BRT-supportive employment density. Both the Wheaton and Takoma/Langley Park areas provide BRT-supportive population and employment densities for this corridor.

Based on this information, the MD 193/University Boulevard corridor closely matches the characteristics of a commuter corridor.

Corridor 19: US 29

The US 29 corridor is about 13.5 miles in length, with 11 station locations and an average station spacing of 1.4 miles.

- *Peak-Period Trips by Destination:* A significant number of BRT trips within the corridor end near the southern terminus in Silver Spring, as well as near the commercial/industrial development at Tech Road. Comparatively fewer trips end in locations along the remainder of the corridor.
- *Land Use Types:* Over 40 percent of the land uses found throughout this corridor are residential. About five and seven percent of the corridor's land uses are institutional and commercial, respectively. Two percent of the corridor contains industrial land uses. A significant cluster of commercial land uses is located in Silver Spring; commercial, institutional, and industrial land uses are interspersed throughout the length of the corridor. This corridor is anchored by a Metrorail station at its southern terminus.
- *Roadway Functional Classification:* This corridor is primarily classified as a controlled major highway, transitioning to a major highway and finally to an arterial.
- *Density:* Eleven percent of the corridor meets the minimum threshold for either BRT-supportive population or employment density. There is a predominance of detached single-family housing throughout the majority of the corridor; however, there are higher BRT-supportive densities at the southern terminus in Silver Spring, as well as high employment density between New Hampshire Avenue and Randolph Road.

Based on this information, the US 29 corridor closely matches the characteristics of a commuter corridor.

Corridor 20: ICC

The ICC corridor is about 23 miles in length, with three station locations and an average station spacing of 11.5 miles.

- *Peak-Period Trips by Destination:* A significant number of BRT trips within the corridor end near the Washingtonian and Life Sciences Center areas. Comparatively fewer trips end in locations along the remainder of the corridor.
- *Land Use Types:* Almost 42 percent of the land uses found throughout this corridor are residential. About five and four percent of the corridor's land uses are institutional and commercial, respectively. About two percent of the corridor contains industrial land uses. Other land uses comprise about 47 percent of the corridor. A mix of all four land uses is located near the western end of the corridor.
- *Roadway Functional Classification:* The majority of this corridor is classified as a freeway, with shorter sections of controlled major highway and arterial.
- *Density:* Thirteen percent of the corridor meets the minimum threshold for BRT-supportive population density, while 17 percent meets the minimum threshold for BRT-supportive employment density. Most of the BRT-supportive population and employment densities are located on the western end of the corridor, in the Washingtonian and Life Sciences Center areas.

Based on this information, the ICC corridor closely matches the characteristics of an express corridor.

Corridor 21: North Bethesda Transitway

The North Bethesda Transitway corridor is about five miles in length, with seven station locations and an average station spacing of 0.9 miles.

- *Peak-Period Trips by Destination:* A significant number of BRT trips within the corridor end near the termini in Montgomery Mall and Grosvenor Metrorail station. Comparatively fewer trips end in locations along the remainder of the corridor.
- *Land Use Types:* Over 37 percent of the land uses found throughout this corridor are residential. About 13 percent of the corridor's land uses are institutional and over 6 percent of the corridor's land uses are commercial. An insignificant percentage of the corridor contains industrial land uses. Other land uses comprise about 43 percent of the corridor. A prominent center of commercial land uses is located on the western end of the corridor, in the Rock Spring Business Park area and Montgomery Mall. The Grosvenor Metrorail station is located at the eastern terminus.
- *Roadway Functional Classification:* The majority of this corridor is classified as an arterial, with shorter sections of major highway.
- *Density:* Nineteen percent of the corridor meets the minimum threshold for BRT-supportive population density, while 35 percent meets the minimum threshold for BRT-supportive employment density. The BRT-supportive densities are located at both ends of the corridor.

Based on this information, the North Bethesda Transitway corridor closely matches the characteristics of a link corridor.

Corridor 23: Midcounty Highway

The Midcounty Highway corridor is about 13.5 miles in length, with 10 station locations and an average station spacing of 1.5 miles.

- *Peak-Period Trips by Destination:* A small number of peak-period BRT trips occur throughout the majority of the corridor. Comparatively fewer trips end in locations along the remainder of the corridor. The terminus of the corridor at Shady Grove Metro station would be expected to serve as an important transfer point for travelers.
- *Land Use Types:* Almost 40 percent of the land uses found along this corridor are residential. About nine and three percent of the corridor's land uses are institutional and commercial, respectively. Less than one percent of the corridor contains industrial land uses. Other land uses comprise almost one-half of the corridor. Significant land uses in the corridor include the mixed-use development near Shady Grove Metro station and the commercial/residential center of Montgomery Village. This corridor is anchored by the Shady Grove Metrorail station at its southern terminus.
- *Roadway Functional Classification:* This corridor is primarily classified as a planned major highway from its northern terminus in Clarksburg down to Montgomery Village Avenue. It then transitions to an arterial from there through to its southern terminus at the Shady Grove Metrorail station.
- *Density:* Fifteen percent of the corridor meets the minimum threshold for BRT-supportive population density, while 11 percent meets the minimum threshold for BRT-supportive employment density. There is a predominance of detached single-family housing throughout the majority of the corridor, outside of the centers at Shady Grove Metrorail station, and in Montgomery Village.

Based on this information, the Midcounty Highway corridor closely matches the characteristics of a commuter corridor.

Table 2 provides a summary of each corridor's assessment.

Table 2: Summary of Corridor Function Assessment

Corridor	Peak-Period Trips by Destination	Land Use Types					Roadway Functional Classification	% of Corridor w/BRT-Supportive Density		Typology	Proposed Supportive Facility
		Commercial	Industrial	Institutional	Residential	Other		Population (5 HH/acre)	Employment (6 emp/acre)		
3: Veirs Mill Road	<i>Terminus:</i> High near both termini <i>Activity Center:</i> N/A <i>Corridor:</i> Low	6.0%	0.4%	5.7%	41.1%	46.8%	Major Highway	13%	37%	Commuter	<ul style="list-style-type: none"> •Shared Parking lots •Feeder bus bays •Increased bicycle access •Bicycle storage •Increase pedestrian access
4a: Georgia Avenue North	<i>Terminus:</i> High near southern end <i>Activity Center:</i> N/A <i>Corridor:</i> Low	5.5%	0.1%	5.4%	41.8%	47.2%	Major Highway	16%	12%	Commuter	<ul style="list-style-type: none"> •Shared Parking lots •Feeder bus bays •Increased bicycle access •Bicycle storage •Increase pedestrian access
4b: Georgia Avenue South	<i>Terminus:</i> High near both termini <i>Activity Center:</i> N/A <i>Corridor:</i> Low	9.1%	0.4%	3.2%	42.1%	45.3%	Major Highway	36%	45%	Commuter	<ul style="list-style-type: none"> •Shared Parking lots •Feeder bus bays •Increased bicycle access •Bicycle storage •Increase pedestrian access
5: Rockville-LSC (formerly Rockville Loop)	<i>Terminus:</i> High near both termini <i>Activity Center:</i> High at activity center (located near termini) <i>Corridor:</i> Low	17.5%	2.0%	7.0%	33.3%	40.2%	Controlled Major Highway	22%	71%	Link	<ul style="list-style-type: none"> •Feeder bus bays •Increased bicycle access •Bicycle storage •Increase pedestrian access
7: MD 124/Muddy Branch Road	<i>Terminus:</i> High near both termini <i>Activity Center:</i> High at activity center (located near termini) <i>Corridor:</i> Low	14.9%	2.2%	15.8%	25.6%	41.4%	Major Highway, Controlled Major Highway, Arterial	52%	79%	Link	<ul style="list-style-type: none"> •Feeder bus bays •Increased bicycle access •Bicycle storage •Increase pedestrian access
8: Connecticut Avenue	<i>Terminus:</i> High near southern end <i>Activity Center:</i> N/A <i>Corridor:</i> Low	2.9%	0.3%	11.9%	36.5%	48.4%	Major Highway, Arterial	6%	17%	Commuter	<ul style="list-style-type: none"> •Shared Parking lots •Feeder bus bays •Increased bicycle access •Bicycle storage •Increase pedestrian access
10a: MD 355 North	<i>Terminus:</i> High near both termini <i>Activity Center:</i> High at activity centers <i>Corridor:</i> Low	12.1%	3.3%	10.0%	32.3%	42.3%	Major Highway, Controlled Major Highway, Arterial	21%	51%	Activity Center Connector	<ul style="list-style-type: none"> •Increased bicycle access •Bicycle storage •Increase pedestrian access
10b: MD 355 South	<i>Terminus:</i> High near both termini <i>Activity Center:</i> High at activity centers <i>Corridor:</i> Low	12.1%	1.5%	11.8%	31.4%	43.2%	Major Highway, Arterial	33%	58%	Activity Center Connector	<ul style="list-style-type: none"> •Increased bicycle access •Bicycle storage •Increase pedestrian access
11: MD 650/New Hampshire Avenue	<i>Terminus:</i> Low near both termini (future modeling to verify) <i>Activity Center:</i> Low <i>Corridor:</i> Low	3.1%	0.7%	9.1%	39.0%	48.1%	Major Highway	25%	20%	Commuter	<ul style="list-style-type: none"> •Shared Parking lots •Feeder bus bays •Increased bicycle access •Bicycle storage •Increase pedestrian access
12: Montgomery Mall/Old Georgetown Road	<i>Terminus:</i> High near both termini <i>Activity Center:</i> High at activity center (located near terminus) <i>Corridor:</i> Low	9.1%	0.0%	8.5%	36.9%	45.4%	Major Highway, Arterial	12%	37%	Link	<ul style="list-style-type: none"> •Feeder bus bays •Increased bicycle access •Bicycle storage •Increase pedestrian access

Corridor	Peak-Period Trips by Destination	Land Use Types					Roadway Functional Classification	% of Corridor w/BRT-Supportive Density		Typology	Proposed Supportive Facility
		Commercial	Industrial	Institutional	Residential	Other		Population (5 HH/acre)	Employment (6 emp/acre)		
14: Randolph Road	<i>Terminus:</i> High near western terminus <i>Activity Center:</i> N/A <i>Corridor:</i> Low	9.4%	2.6%	5.3%	38.7%	44.0%	Major Highway, Arterial	20%	41%	Commuter	<ul style="list-style-type: none"> •Shared Parking lots •Feeder bus bays •Increased bicycle access •Bicycle storage •Increase pedestrian access
18: MD 193/University Boulevard	<i>Terminus:</i> High near western terminus <i>Activity Center:</i> N/A <i>Corridor:</i> Low	4.8%	0.1%	4.5%	43.1%	47.6%	Major Highway	26%	18%	Commuter	<ul style="list-style-type: none"> •Shared Parking lots •Feeder bus bays •Increased bicycle access •Bicycle storage •Increase pedestrian access
19: US 29	<i>Terminus:</i> High near southern end <i>Activity Center:</i> High in center near employment center <i>Corridor:</i> Low	7.0%	2.0%	4.9%	40.6%	45.5%	Controlled Major Highway, Major Highway, Arterial	11%	11%	Commuter	<ul style="list-style-type: none"> •Park-and-ride lots •Feeder bus bays •Increased bicycle access •Bicycle storage •Increase pedestrian access
20: ICC	<i>Terminus:</i> High near western terminus <i>Activity Center:</i> N/A <i>Corridor:</i> Low	4.4%	1.8%	5.1%	41.8%	46.9%	Freeway, Controlled Major Highway, Arterial	13%	17%	Express	<ul style="list-style-type: none"> •Park-and-ride lots •Feeder bus bays •Increased bicycle access •Bicycle storage •Increase pedestrian access
21: North Bethesda Transitway	<i>Terminus:</i> High near both termini <i>Activity Center:</i> High at activity center (located near termini) <i>Corridor:</i> Low	12.7%	0.0%	6.2%	37.4%	43.7%	Arterial, Major Highway	19%	35%	Link	<ul style="list-style-type: none"> •Feeder bus bays •Increased bicycle access •Bicycle storage •Increase pedestrian access
23: Midcounty Highway	<i>Terminus:</i> Low near both termini <i>Activity Center:</i> N/A <i>Corridor:</i> Low	2.8%	0.4%	8.9%	39.5%	48.4%	Major Highway, Arterial	15%	11%	Commuter	<ul style="list-style-type: none"> •Park-and-ride lots •Feeder bus bays •Increased bicycle access •Bicycle storage •Increase pedestrian access

Figure 1: Corridor 3: Veirs Mill Road Corridor Function Assessment

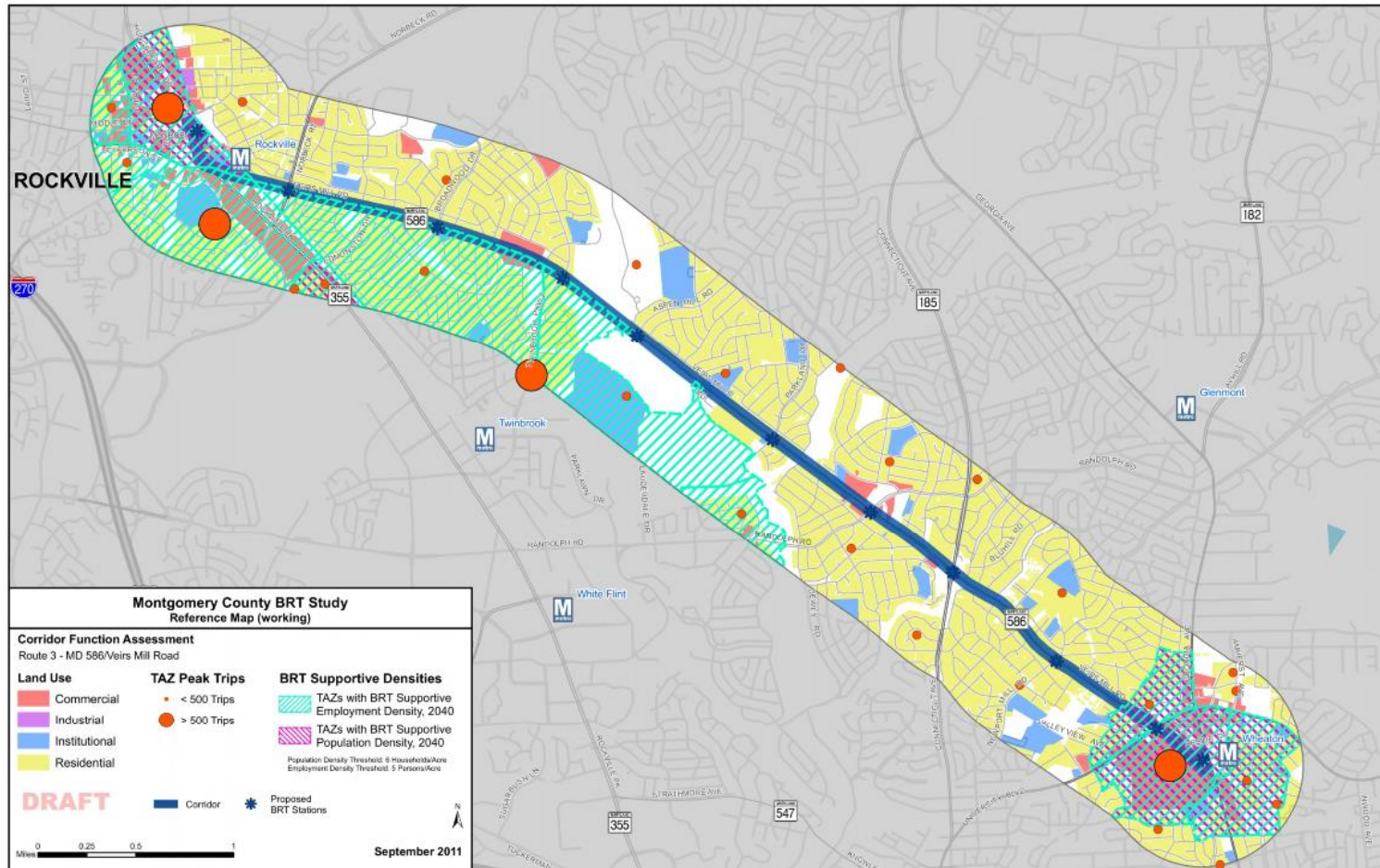


Figure 2: Corridor 4b: Georgia Avenue North Corridor Function Assessment

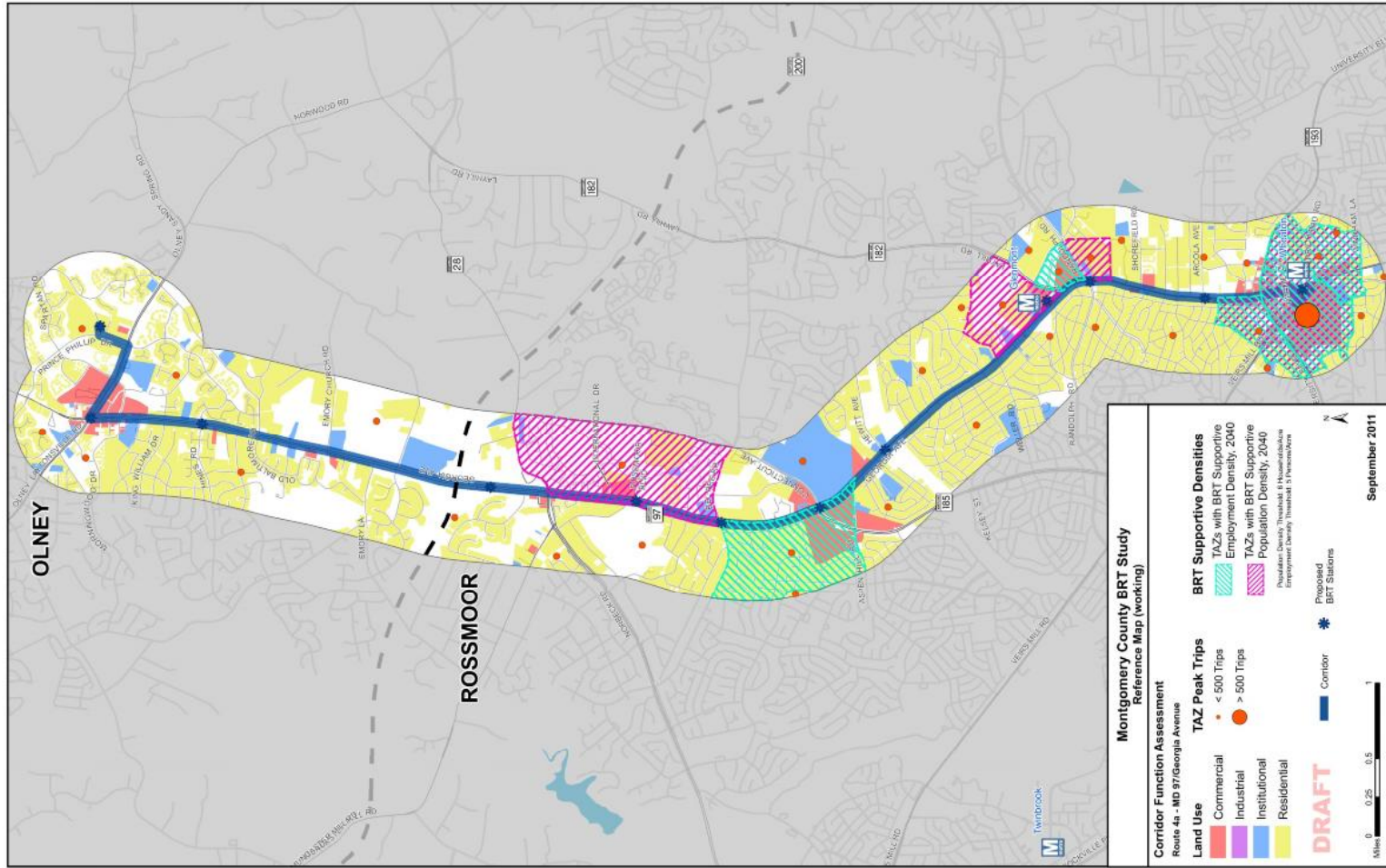


Figure 3: Corridor 4b: Georgia Avenue South Corridor Function Assessment

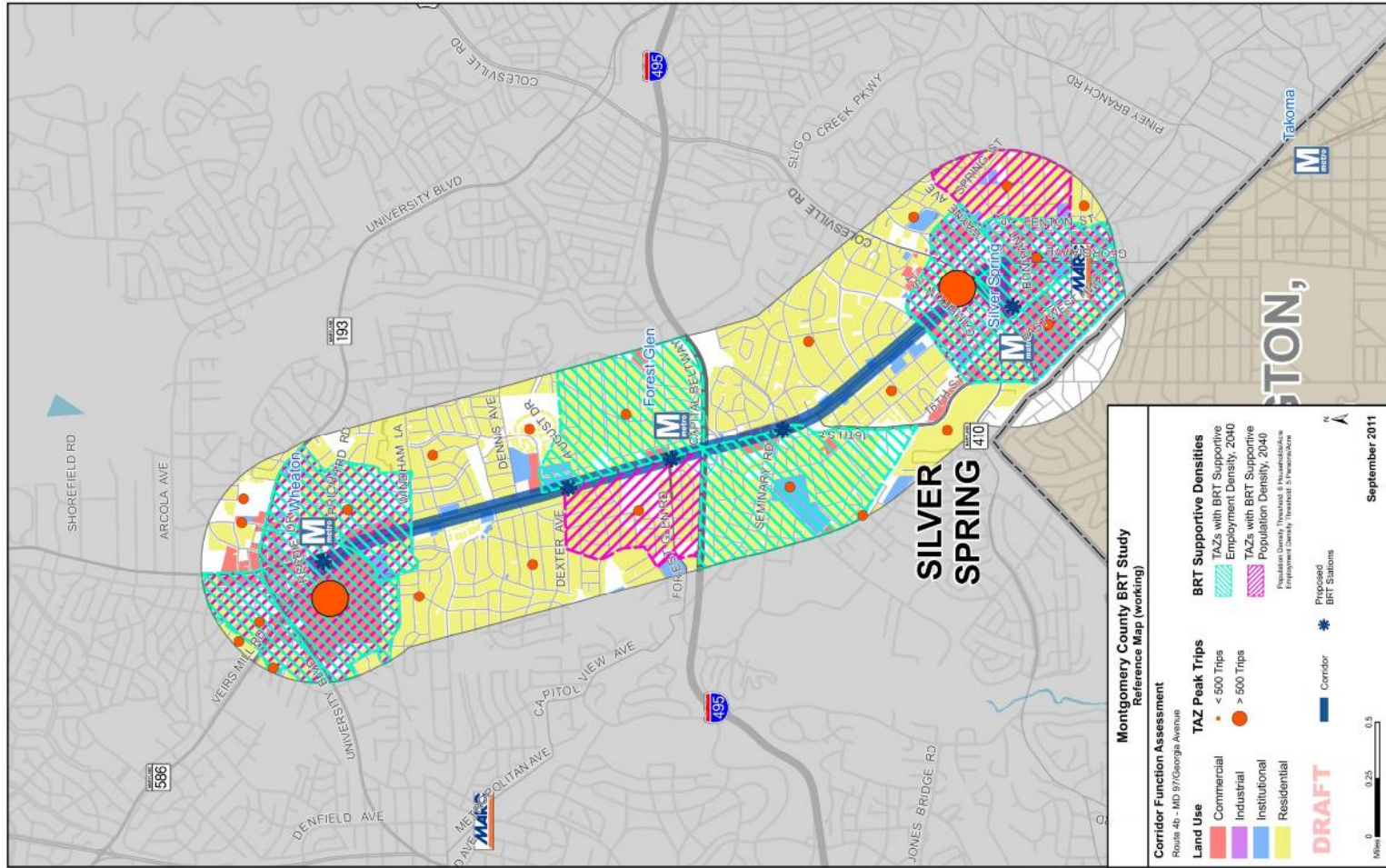


Figure 4: Corridor 5: Gude Drive / Key West Avenue Corridor Function Assessment

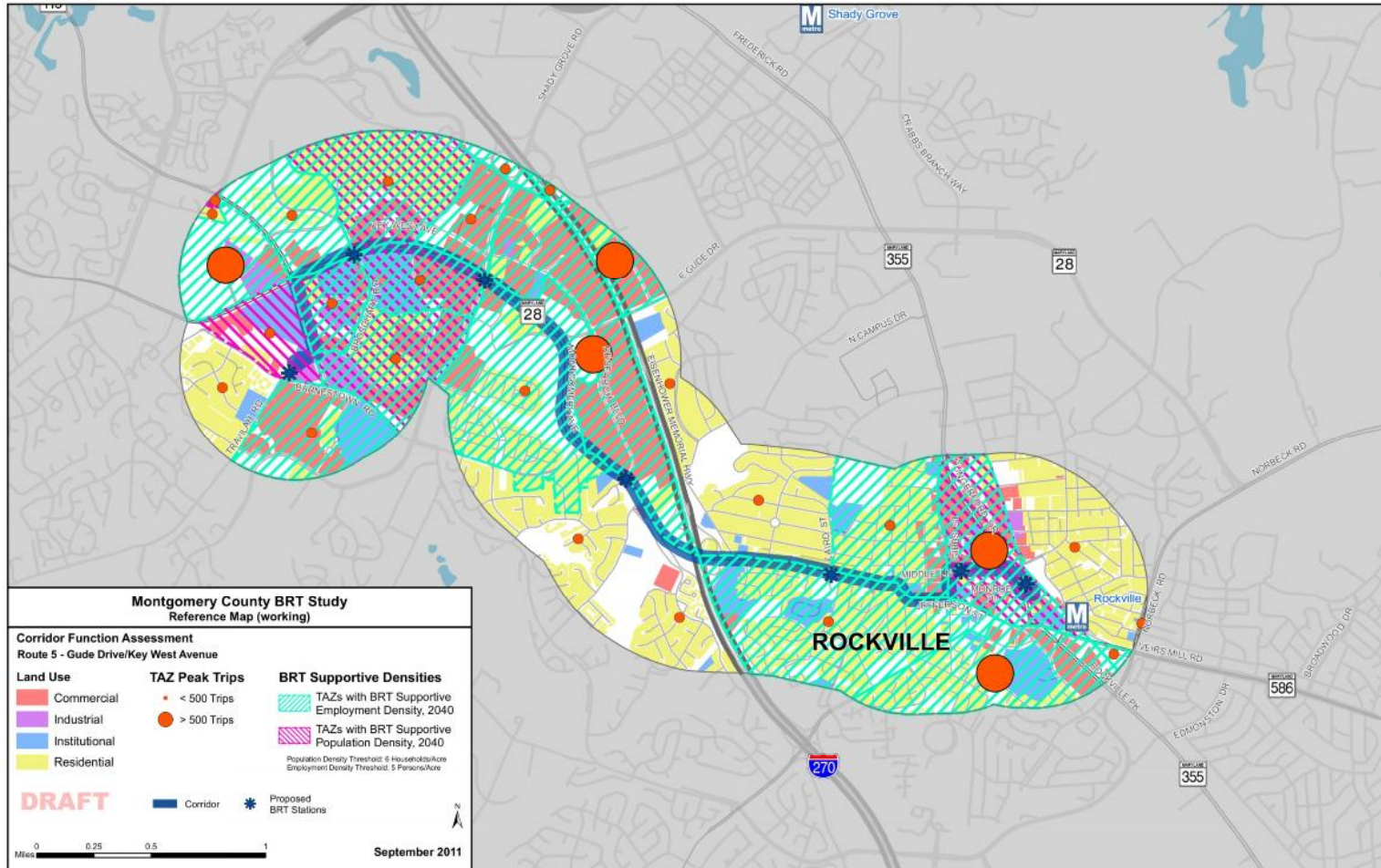


Figure 5: MD 124/Muddy Branch Road Corridor Function Assessment

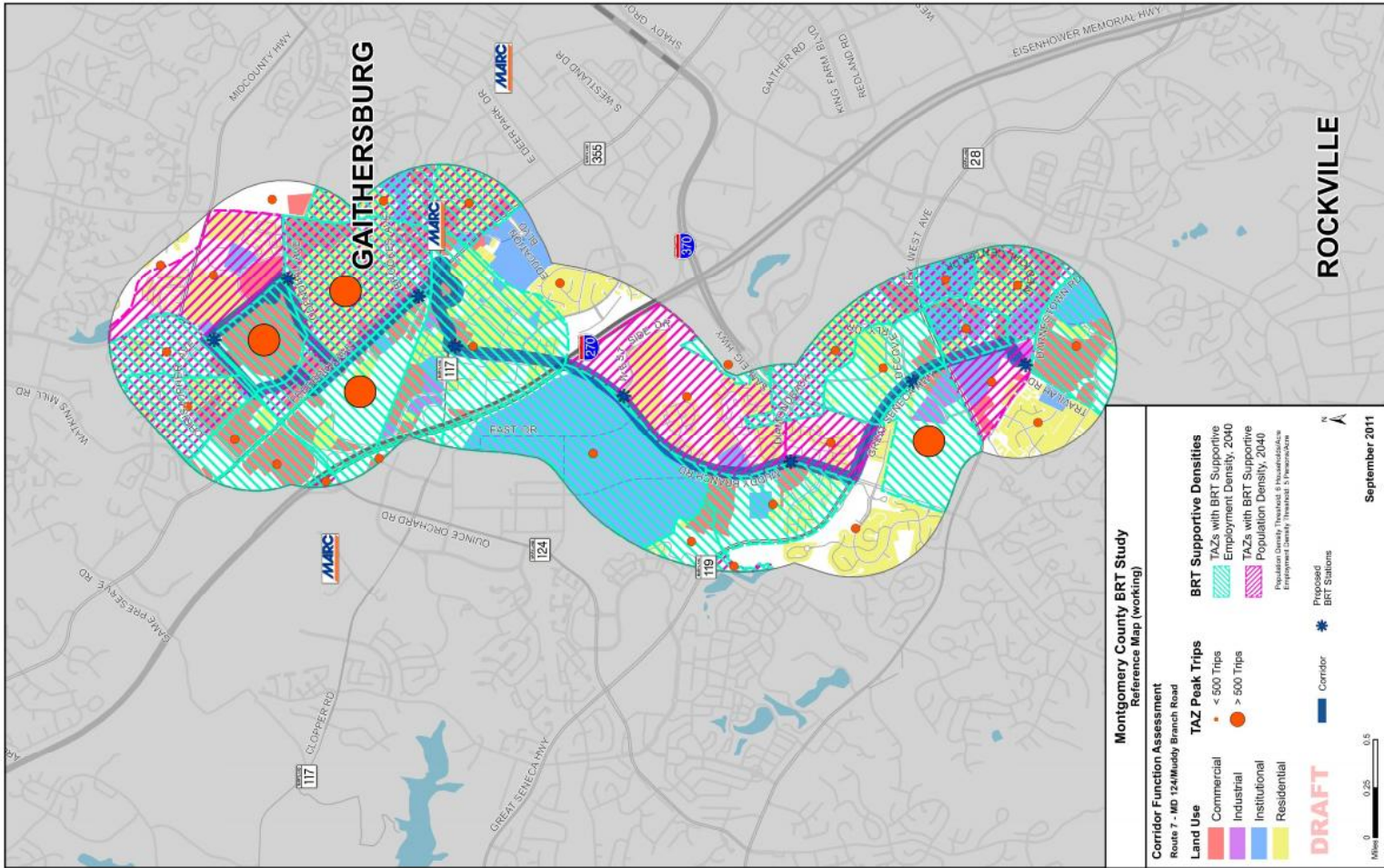


Figure 6: Corridor 8: Connecticut Avenue Corridor Function Assessment

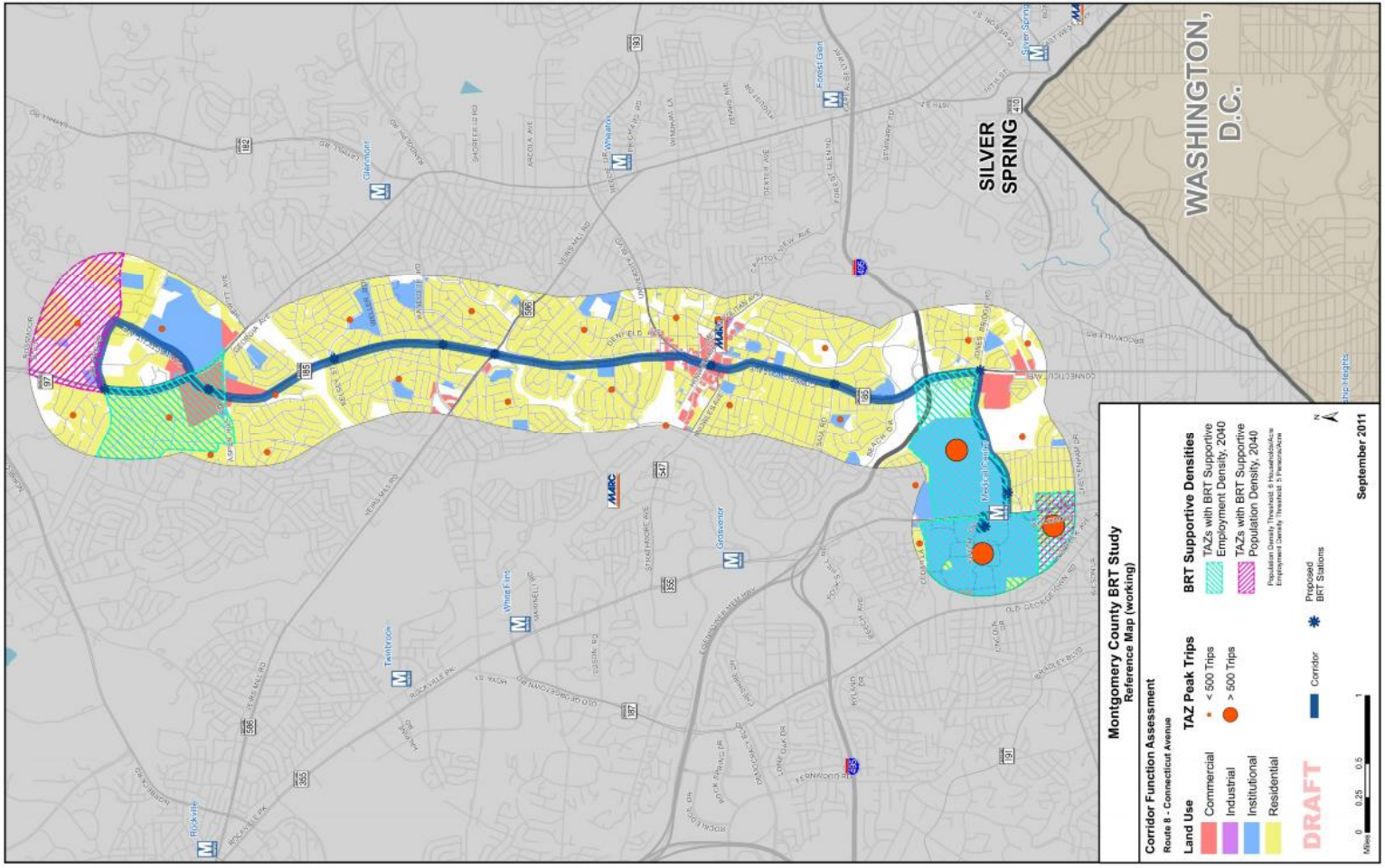


Figure 7: Corridor 10a: MD 355 North Corridor Function Assessment

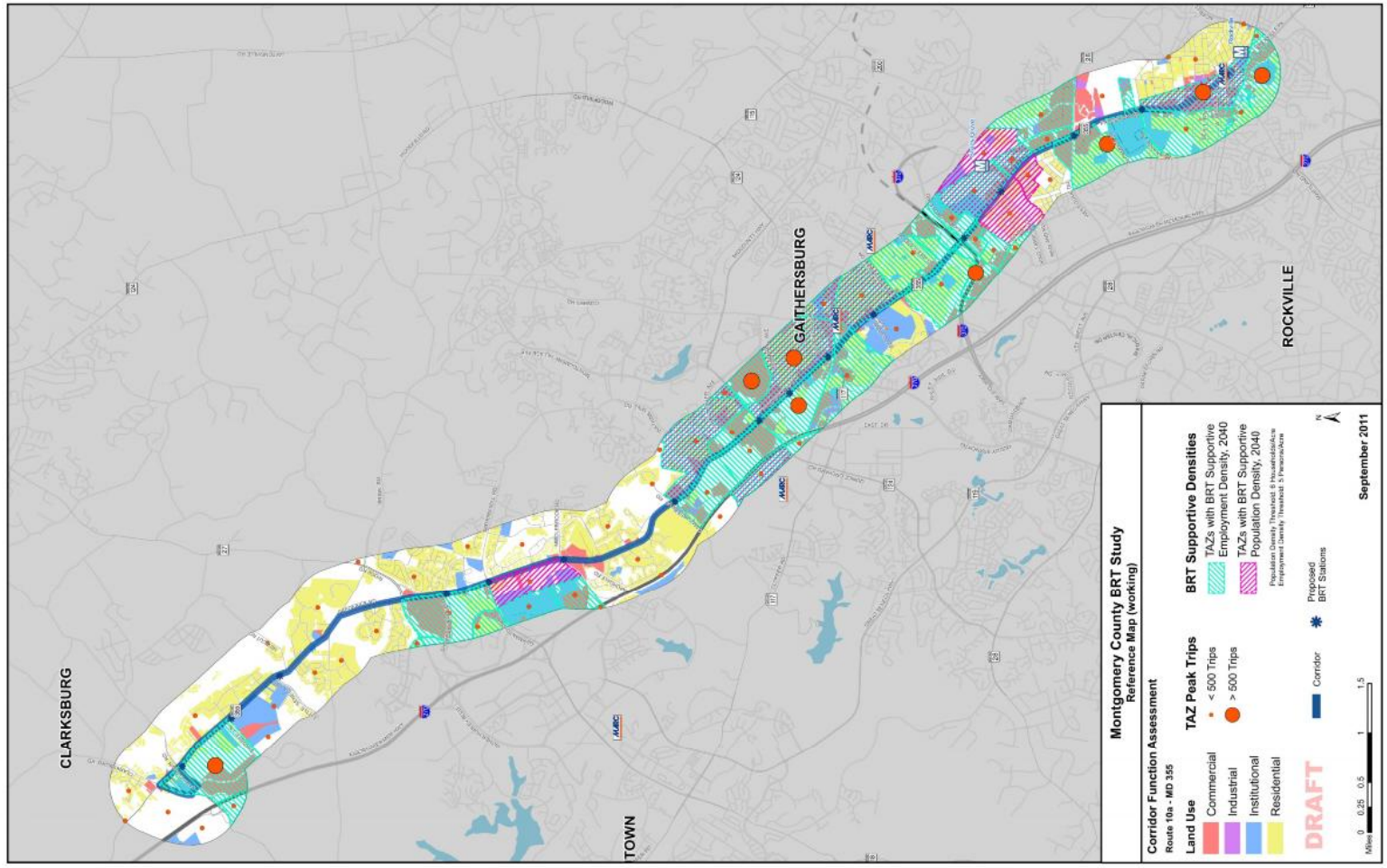


Figure 8: Corridor 10b: MD 355 South Corridor Function Assessment

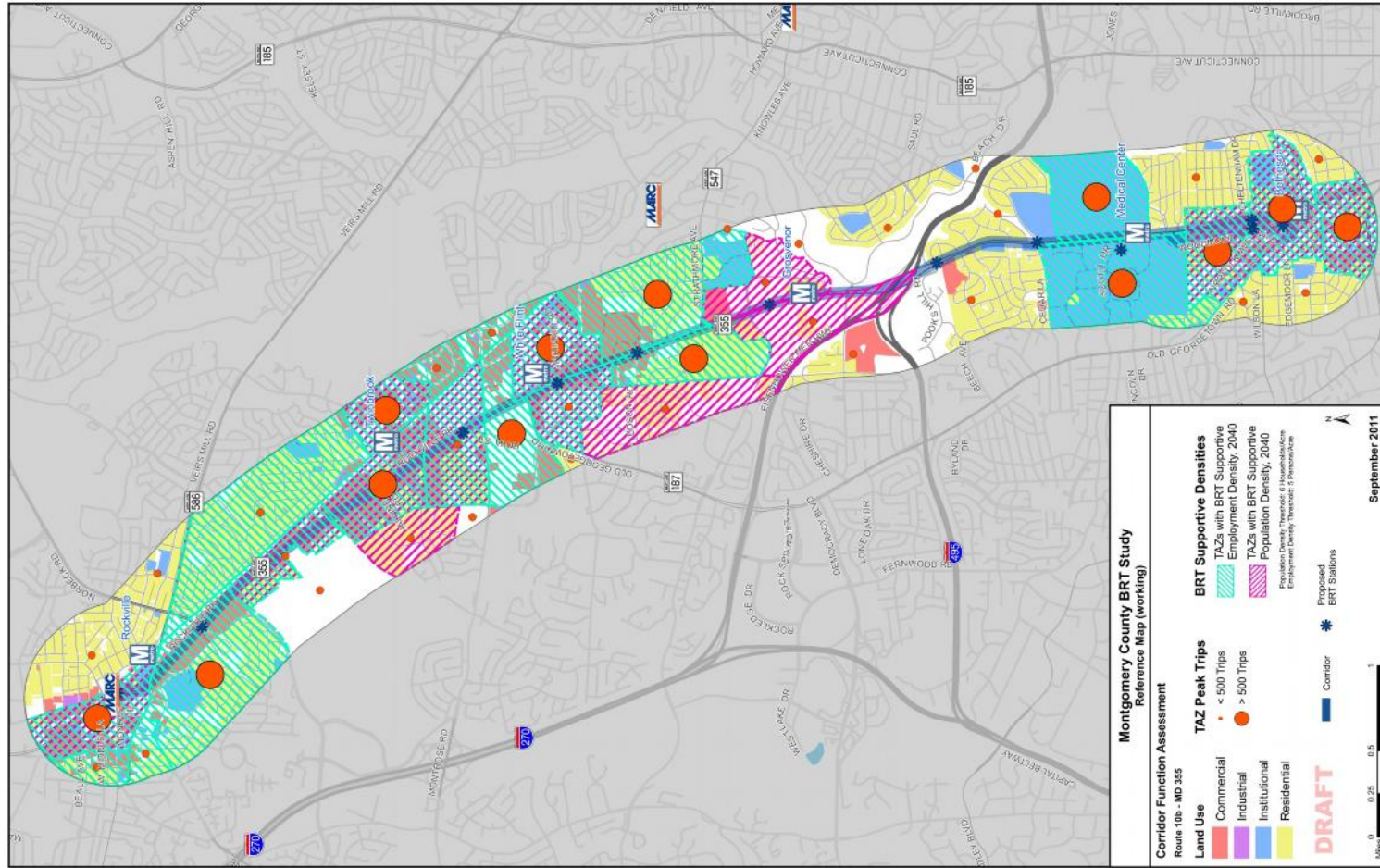


Figure 9: Corridor 11: MD 650/New Hampshire Avenue Corridor Function Assessment

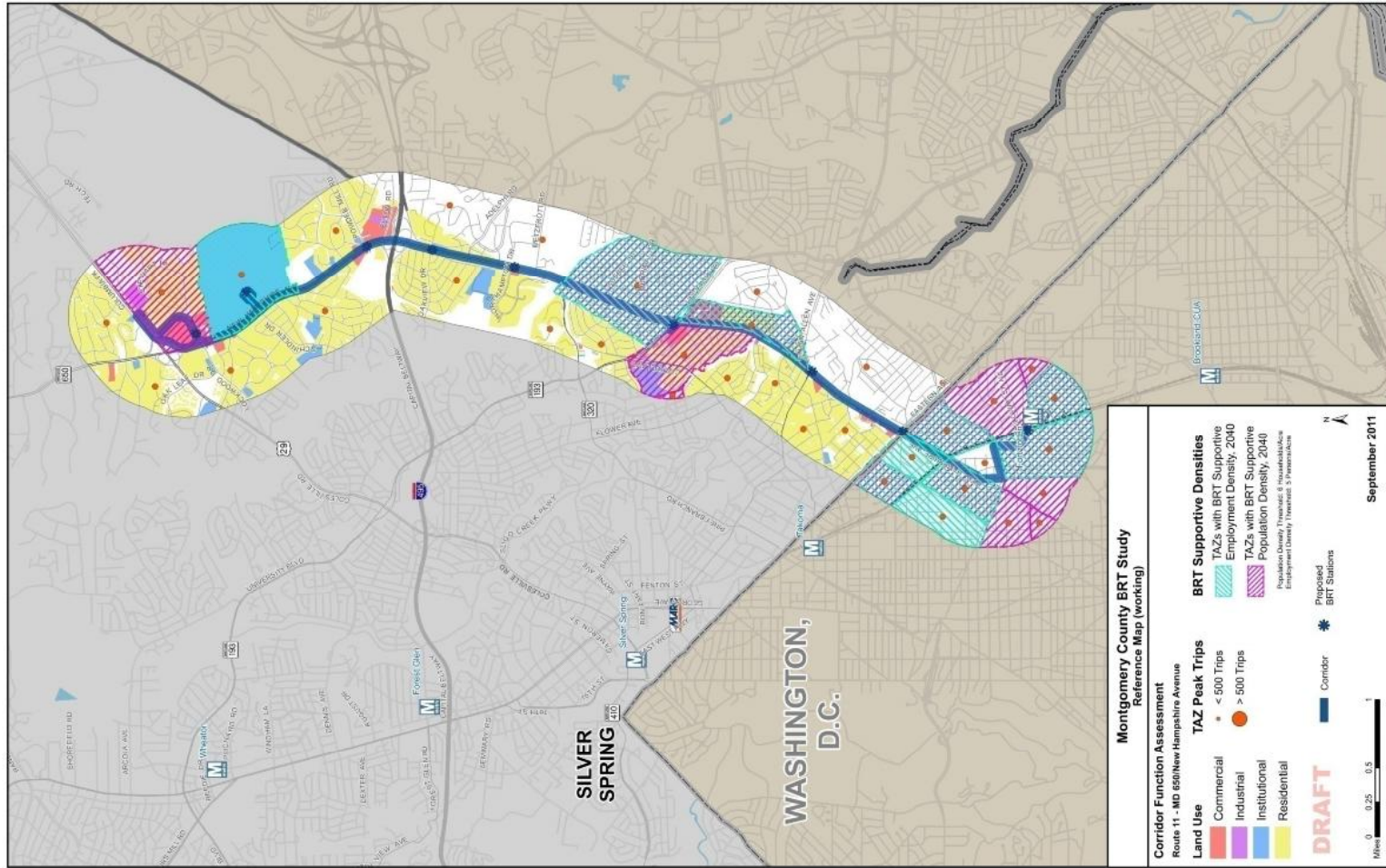


Figure 10: Corridor 12: Montgomery Mall/Old Georgetown Road Corridor Function Assessment

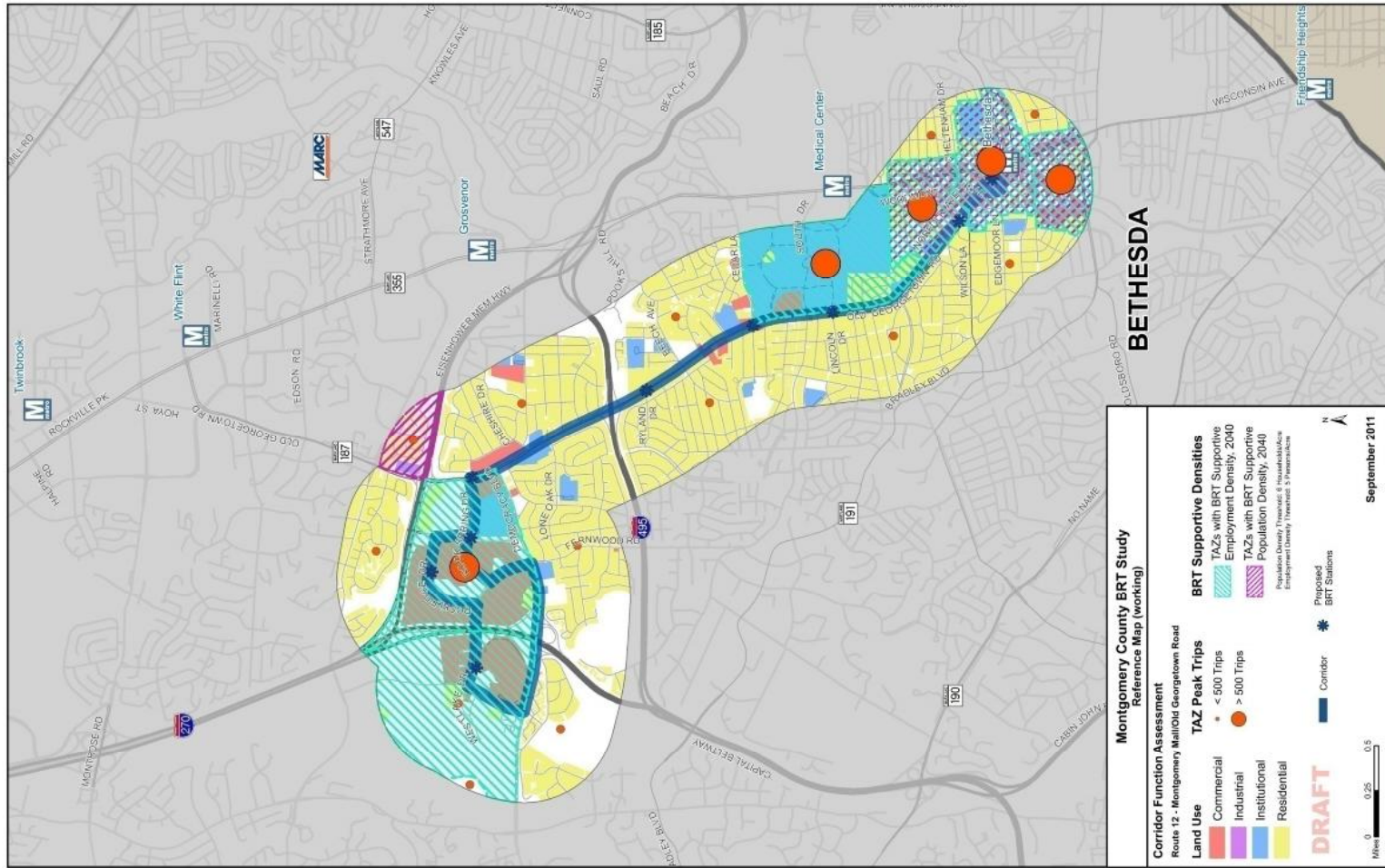


Figure 11: Corridor 14: Randolph Road Corridor Function Assessment

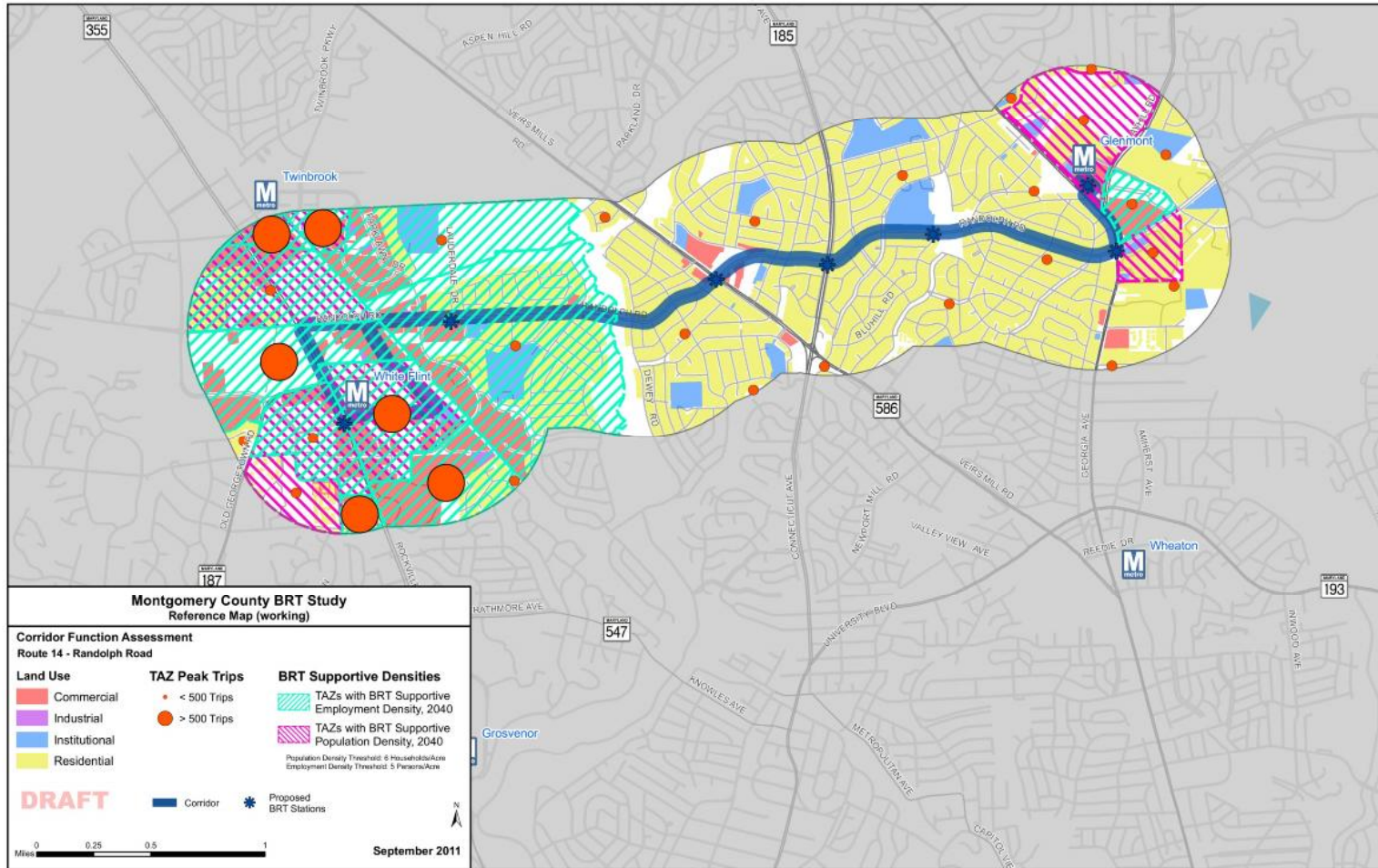


Figure 12: Corridor 18: MD 193/University Boulevard Corridor Function Assessment

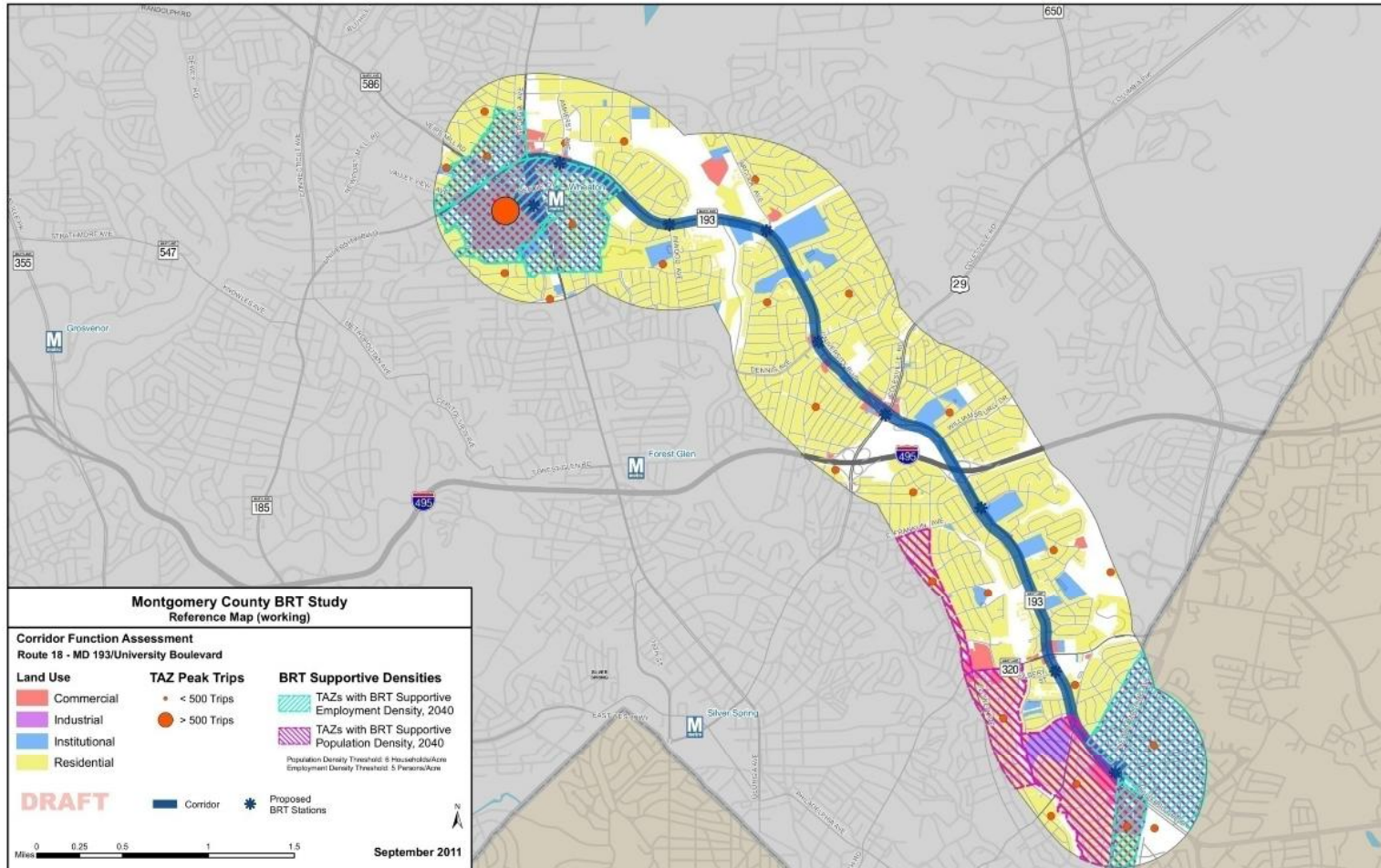


Figure 13: Corridor 19: US 29 Corridor Function Assessment

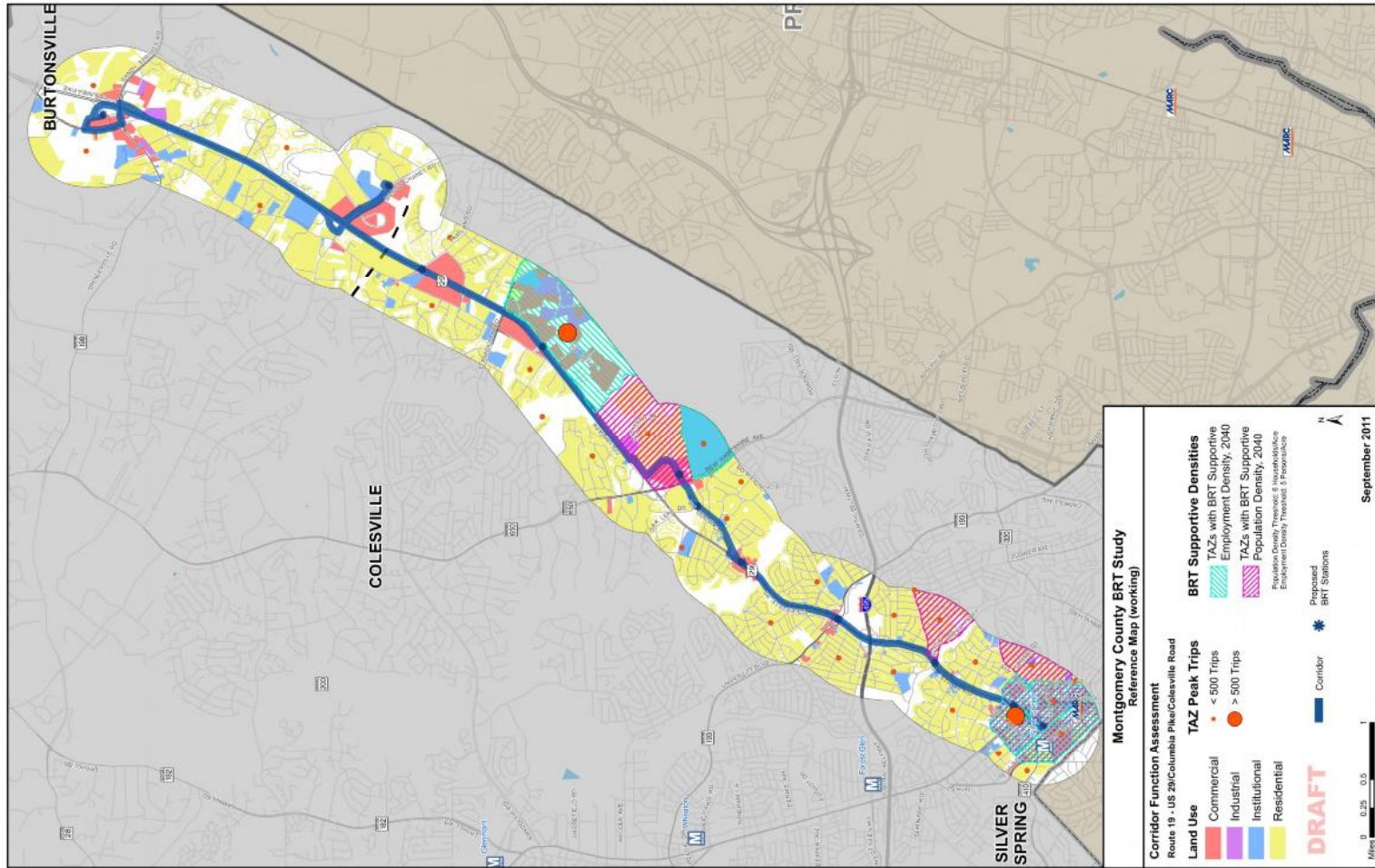


Figure 14: Corridor 20: ICC Corridor Function Assessment

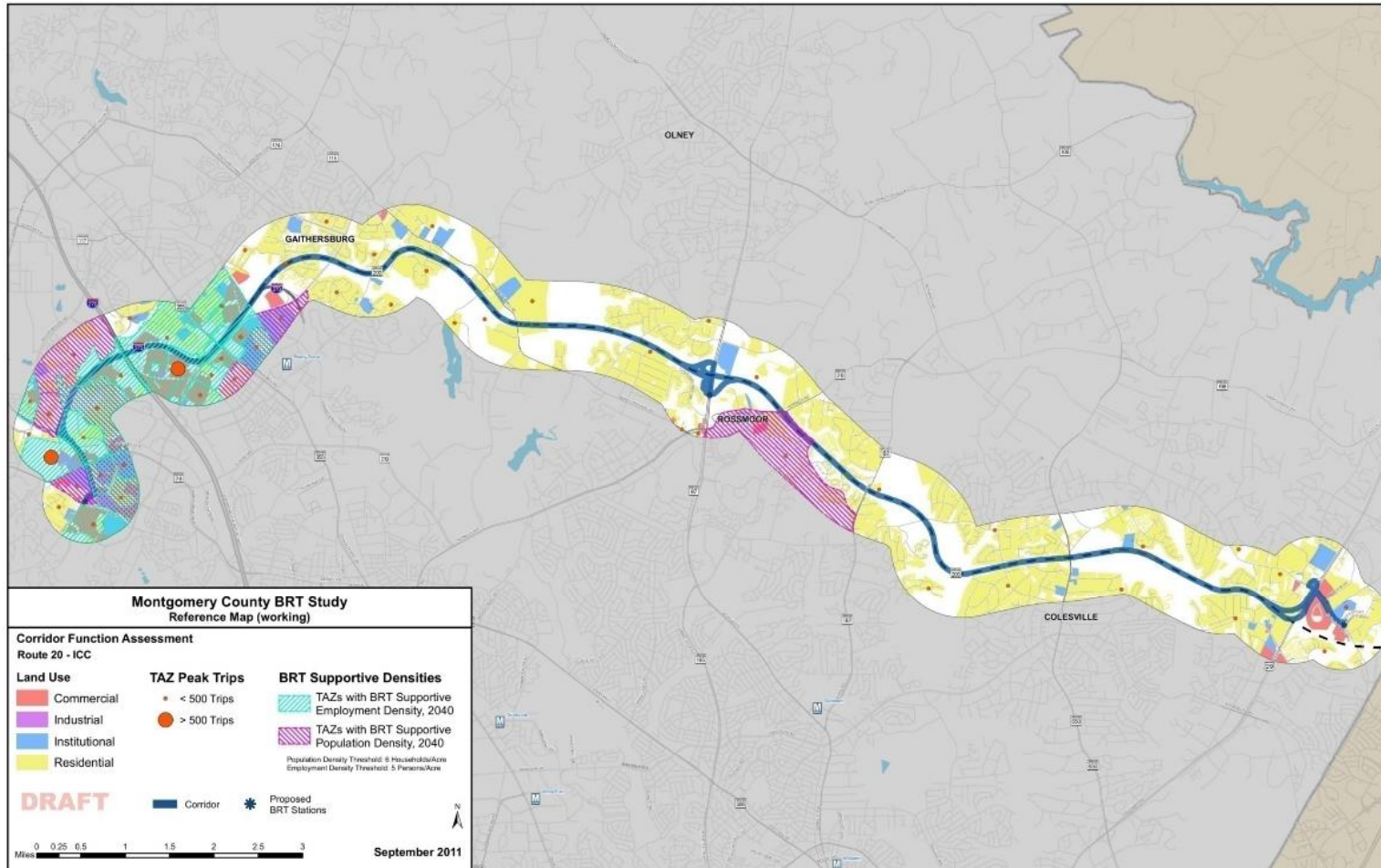


Figure 15: Corridor 21: North Bethesda Transitway Corridor Function Assessment

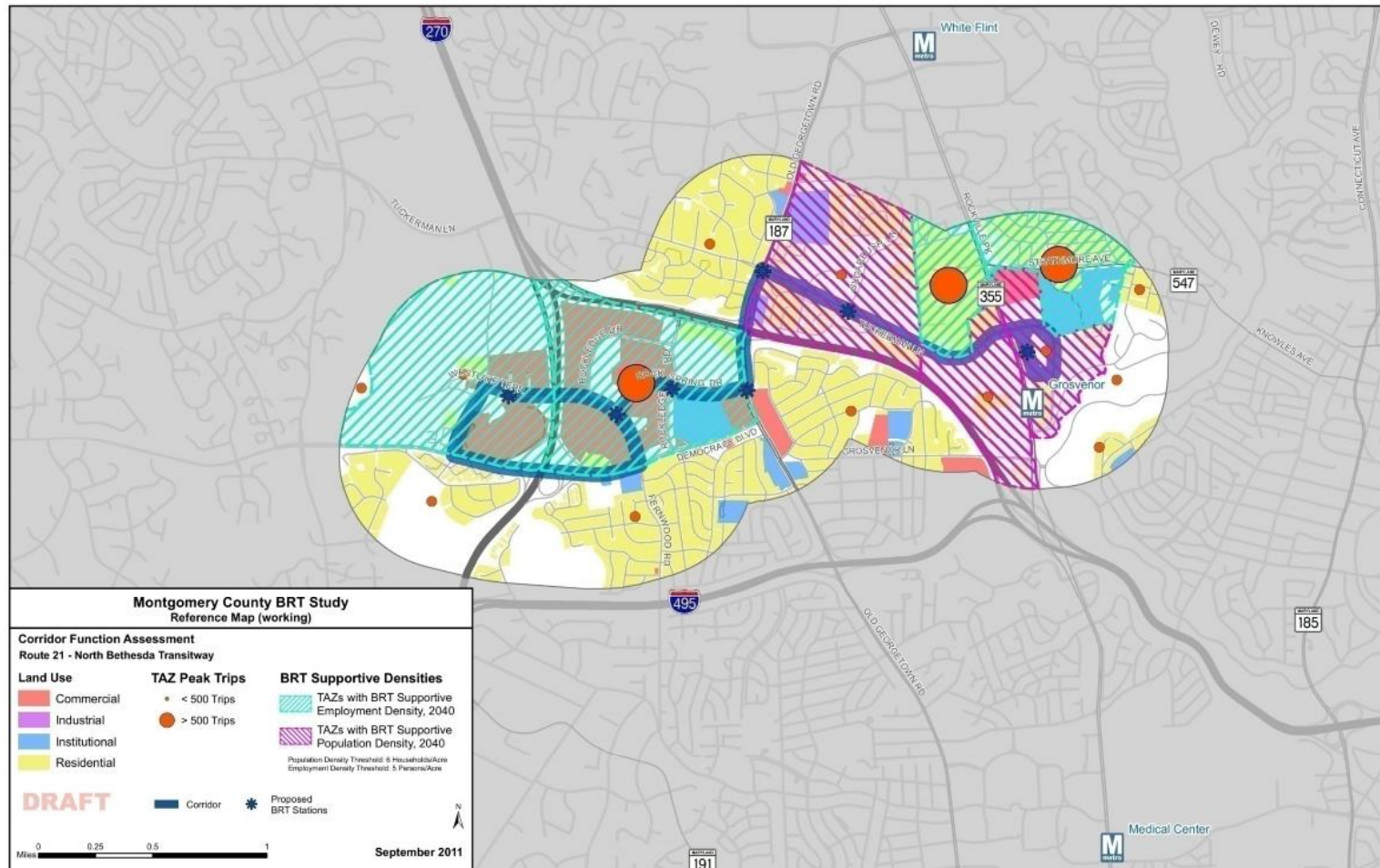


Figure 16: Corridor 23: Midcounty Highway Corridor Function Assessment

