

**CATEGORICAL EXCLUSION and
DOCUMENTED CATEGORICAL EXCLUSION WORKSHEET**

The purpose of this worksheet is to assist sponsoring agencies in gathering and organizing materials for environmental analysis required under the National Environmental Policy Act (NEPA), particularly for projects that may qualify as a documented Categorical Exclusion (23 CFR 771.118). Provide a response for each lettered paragraph. If you feel an item does not apply to your project, explain why. Provide letters, maps, graphics, and any other information that will assist in the substantiation of responses. Fields are expandable, so feel free to use more than a line or two to provide descriptions.

Submission of the worksheet by itself does not meet NEPA requirements. Project activities, including property acquisition and final design, may not begin until this process is complete. Contact the FTA Region 3 office at (215) 656-7100 if you have any questions or require assistance. If this is the first time you have filled out this form, FTA encourages you to contact your regional contact for guidance.

I. PROJECT DESCRIPTION

Sponsoring Agency	Date Submitted	FTA Grant Number(s) (if known)
Montgomery County Department of Transportation	8/3/2017	

Project Title

US 29 Bus Rapid Transit Improvements Project

Project Description

The project proposes a new, 14-mile Bus Rapid Transit (BRT) service along US 29 from the Silver Spring Transit Center (SSTC) to the Burtonsville Park and Ride. The project includes new BRT service along existing travel lanes and shoulders; construction of eleven station stops along the corridor; implementation of Transit Signal Priority (TSP) at several signalized intersections; and improvements to landscapes, sidewalk, and bicycle facilities. This project is to receive a federal Transportation Investment Generating Economic Recovery (TIGER) grant from the FTA.

Purpose and Need for Project (brief, 1-2 sentences, what are you building and why do you need it, how many vehicles and/or patrons does it need to accommodate).

The purpose of the project is to improve mobility options by accommodating a high frequency, reliable transit service operating within existing right-of-way (ROW) on US 29 between the SSTC and the Burtonsville Park and Ride. The project will satisfy the following study corridor needs: growing transit demand and attractiveness; impeded bus and rider mobility due to traffic congestion; and lack of transit system connectivity and choice. A preliminary Purpose and Need Statement is included in Chapter 3 of the *US 29 Corridor Planning Study: Corridor Report* (Maryland Department of Transportation, April 2017),¹ located in **Attachment A**.

Project Location (include City and Street address)

The project study corridor for the US 29 BRT Improvements Project includes US 29 (Colesville Road/Columbia Pike), from SSTC at the intersection of Wayne Avenue and US 29 to the Burtonsville Park and Ride at the intersection of US 29 and MD 198 (Sandy Spring Road); and Lockwood Drive, Stewart Lane, Briggs Chaney Road, and Castle Boulevard; within Montgomery County, Maryland. The project study corridor is shown on **Attachment B, Map 1**.

¹ Maryland Department of Transportation. (April 2017). *US 29 Corridor Planning Study: Corridor Report*. <<https://mta.maryland.gov/us29brt>>.

Note: The *Corridor Report* was supplemental to the development of this Categorical Exclusion but was not a requirement of the TIGER grant.

Project Contact (include phone number, mailing address and email address)

Ms. Joana Conklin
Rapid Transit System Development Manager
Montgomery County Department of Transportation
Office of the Director
101 Monroe Street, 10th Floor
Rockville, MD 20850
240-777-7195
Joana.Conklin@montgomerycountymd.gov

If your project involves construction, include the following maps:

The following attachments are included with this CE document:

- **Attachment A:** US 29 Bus Rapid Transit Corridor Planning Study Corridor Study Report, April 2017
- **Attachment B:** Categorical Exclusion Maps
 - Map 1: Study Corridor
 - Map 2: Service Routes and Stations
 - Map 3: Land Use
 - Map 4: Zoning
 - Map 5: Potential Environmental Justice Block Groups
- **Attachment C:** Preliminary Service Plan
- **Attachment D:** Conceptual Design Plans
- **Attachment E:** Station Stop Design Concepts
- **Attachment F:** Air Quality Technical Report
- **Attachment G:** FEMA Floodplain Map for Burnt Mills Station Stop
- **Attachment H:** Hazardous Materials Environmental Screening Assessment Memorandum
- **Attachment I:** Noise Analysis Summary Memorandum
- **Attachment J:** Section 106 Process Consultation and Effects Determination
- **Attachment K:** Natural Resources Inventory Memorandum
- **Attachment L:** US 29 Public Involvement Plan (PIP): Preliminary Design Phase

II. NEPA Class of Action

Answer the following questions to determine the project's potential class of action. If there are potentially significant adverse impacts, FTA may require the preparation of a NEPA environmental assessment (EA), even for project types normally approved with a Categorical Exclusion.

A. Does the project appear on the following list of potential Categorical Exclusions (CEs)?

The projects listed in 23 CFR 771.118(c), unless certain circumstances exist, such as the presence of wetlands, historic buildings and structures, parklands and floodplains in the project area, are Categorical Exclusions that do not usually require documentation in order to approve.

- YES (If checked AND there are no special circumstances, **you do not need to complete the checklist.** Mark the applicable environmental finding in TEAM.)
- NO (continue to Section D)

NOTE: A determination that an action qualifies for a CE under the Agencies' NEPA procedures is not an exemption from the environmental laws that apply to that project. A project may not require the higher level of NEPA analysis associated with an EA or EIS and still require analysis under section 106 of the NHPA, section 404 of the CWA, section 7 of the ESA, or section 4(f) of the DOT act. Applicants need to apply and obtain applicable environmental

permits and approvals even for projects that qualify as CEs. If there are special circumstances contact the Regional Office to determine what documentation will be required.

Category C Projects:

(1) *Acquisition, installation, operation, evaluation, replacement, and improvement of discrete utilities and similar appurtenances (existing and new) within or adjacent to existing transportation right-of-way, such as: utility poles, underground wiring, cables, and information systems; and power substations and utility transfer stations.*

(2) *Acquisition, construction, maintenance, rehabilitation, and improvement or limited expansion of stand-alone recreation, pedestrian, or bicycle facilities, such as: a multiuse pathway, lane, trail, or pedestrian bridge; and transit plaza amenities.*

(3) *Activities designed to mitigate environmental harm that cause no harm themselves or to maintain and enhance environmental quality and site aesthetics, and employ construction best management practices, such as: noise mitigation activities; rehabilitation of public transportation buildings, structures, or facilities; retrofitting for energy or other resource conservation; and landscaping or re-vegetation.*

(4) *Planning and administrative activities which do not involve or lead directly to construction, such as: training, technical assistance and research; promulgation of rules, regulations, directives, or program guidance; approval of project concepts; engineering; and operating assistance to transit authorities to continue existing service or increase service to meet routine demand.*

(5) *Activities, including repairs, replacements, and rehabilitations, designed to promote transportation safety, security, accessibility and effective communication within or adjacent to existing right-of-way, such as: the deployment of Intelligent Transportation Systems and components; installation and improvement of safety and communications equipment, including hazard elimination and mitigation; installation of passenger amenities and traffic signals; and retrofitting existing transportation vehicles, facilities or structures, or upgrading to current standards.*

(6) *Acquisition or transfer of an interest in real property that is not within or adjacent to recognized environmentally sensitive areas (e.g., wetlands, non-urban parks, wildlife management areas) and does not result in a substantial change in the functional use of the property or in substantial displacements, such as: acquisition for scenic easements or historic sites for the purpose of preserving the site. This CE extends only to acquisitions and transfers that will not limit the evaluation of alternatives for future FTA-assisted projects that make use of the acquired or transferred property.*

(7) *Acquisition, installation, rehabilitation, replacement, and maintenance of vehicles or equipment, within or accommodated by existing facilities, that does not result in a change in functional use of the facilities, such as: equipment to be located within existing facilities and with no substantial off-site impacts; and vehicles, including buses, rail cars, trolley cars, ferry boats and people movers that can be accommodated by existing facilities or by new facilities that qualify for a categorical exclusion.*

(8) *Maintenance, rehabilitation, and reconstruction of facilities that occupy substantially the same geographic footprint and do not result in a change in functional use, such as: improvements to bridges, tunnels, storage yards, buildings, stations, and terminals; construction of platform extensions, passing track, and retaining walls; and improvements to tracks and railbeds.*

(9) *Assembly or construction of facilities that is consistent with existing land use and zoning requirements (including floodplain regulations) and uses primarily land disturbed for transportation use, such as: buildings and*

associated structures; bus transfer stations or intermodal centers; busways and streetcar lines or other transit investments within areas of the right-of-way occupied by the physical footprint of the existing facility or otherwise maintained or used for transportation operations; and parking facilities.

(10) Development of facilities for transit and non-transit purposes, located on, above, or adjacent to existing transit facilities, that are not part of a larger transportation project and do not substantially enlarge such facilities, such as: police facilities, daycare facilities, public service facilities, amenities, and commercial, retail, and residential development.

(11) The following actions for transportation facilities damaged by an incident resulting in an emergency declared by the Governor of the State and concurred in by the Secretary, or a disaster or emergency declared by the President pursuant to the Robert T. Stafford Act (42 U.S.C. 5121):

(i) Emergency repairs under 49 U.S.C. 5324; and

(ii) The repair, reconstruction, restoration, retrofitting, or replacement of any road, highway, bridge, tunnel, or transit facility (such as a ferry dock or bus transfer station), including ancillary transportation facilities (such as pedestrian/bicycle paths and bike lanes), that is in operation or under construction when damaged and the action:

(A) Occurs within the existing right-of-way and in a manner that substantially conforms to the preexisting design, function, and location as the original (which may include upgrades to meet existing codes and standards as well as upgrades warranted to address conditions that have changed since the original construction); and

(B) Is commenced within a 2-year period beginning on the date of the declaration.

(12) Projects, as defined in 23 U.S.C. 101, that would take place entirely within the existing operational right-of-way. Existing operational right-of-way refers to right-of-way that has been disturbed for an existing transportation facility or is maintained for a transportation purpose. This area includes the features associated with the physical footprint of the transportation facility (including the roadway, bridges, interchanges, culverts, drainage, fixed guideways, mitigation areas, etc.) and other areas maintained for transportation purposes such as clear zone, traffic control signage, landscaping, any rest areas with direct access to a controlled access highway, areas maintained for safety and security of a transportation facility, parking facilities with direct access to an existing transportation facility, transit power substations, transit venting structures, and transit maintenance facilities. Portions of the right-of-way that have not been disturbed or that are not maintained for transportation purposes are not in the existing operational right-of-way.

(13) Federally-funded projects:

(i) That receive less than \$5,000,000 of Federal funds; or

(ii) With a total estimated cost of not more than \$30,000,000 and Federal funds comprising less than 15 percent of the total estimated project cost.

B. Does the project appear on the following list of potential documented Categorical Exclusions?

These projects may be categorical exclusions under 23 CFR § 771.118(d), and require additional documentation demonstrating that the specific conditions or criteria for the CEs are satisfied and that significant effects will not result.

YES (Check and continue to Part III)

NO or NOT SURE (Contact FTA Regional Office, not everything fits into these descriptions)

Category D Projects:

- (1) Modernization of a highway by resurfacing, restoring, rehabilitating, or reconstructing shoulders or auxiliary lanes (e.g., lanes for parking, weaving, turning, climbing).
- (2) Bridge replacement or the construction of grade separation to replace existing at-grade railroad crossings.
- (3) Acquisition of land for hardship or protective purposes. Hardship and protective buying will be permitted only for a particular parcel or a limited number of parcels. These types of land acquisition qualify for a CE only where the acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects, which may be required in the NEPA process. No project development on such land may proceed until the NEPA process has been completed.
- (i) Hardship acquisition is early acquisition of property by the applicant at the property owner's request to alleviate particular hardship to the owner, in contrast to others, because of an inability to sell his property. This is justified when the property owner can document on the basis of health, safety or financial reasons that remaining in the property poses an undue hardship compared to others.
- (ii) Protective acquisition is done to prevent imminent development of a parcel which may be needed for a proposed transportation corridor or site. Documentation must clearly demonstrate that development of the land would preclude future transportation use and that such development is imminent. Advance acquisition is not permitted for the sole purpose of reducing the cost of property for a proposed project.
- (4) Acquisition of right-of-way. No project development on the acquired right-of-way may proceed until the NEPA process for such project development, including the consideration of alternatives, has been completed.
- (5) Construction of bicycle facilities within existing transportation right-of-way.
- (6) Facility modernization through construction or replacement of existing components.
- (7) Minor transportation facility realignment for rail safety reasons, such as improving vertical and horizontal alignment of railroad crossings, and improving sight distance at railroad crossings.
- (8) Modernization of minor expansions of transit structures and facilities outside existing right-of-way, such as bridges, stations, or rail yards.
- Other: General exclusion (no specific activity category applies, but the project is still exempt per the conditions of 23 CFR 771.118(a) and (b) Facility modernization through construction or replacement of existing components.

III. Information Required for Documented Categorical Exclusions

If you checked "Yes" to any of the options in Part II, Section D, complete Part III and submit to FTA.

A. Detailed Project Description

Include a project description and explain how the proposal satisfies the purpose and need identified in Part I. What are you building and why is it needed? What activities are you proposing to pay for with FTA funds?

The project proposes a 14-mile BRT line along US 29 and local streets, from SSTC to Burtonsville Park and Ride. The BRT service will occur entirely on existing roadway. The project has evolved from a previous conceptual plan, the *US 29 Corridor Planning Study: Corridor Report* (Maryland Department of Transportation, April 2017),² and is currently being advanced by the Montgomery County Department of Transportation (MCDOT).

The study corridor, shown on **Attachment B, Map 1**, currently has a strong transit market with robust bus ridership, and this transit demand is expected to increase as planned development in the study corridor adds more

² Maryland Department of Transportation. (April 2017). *US 29 Corridor Planning Study: Corridor Report*. <<https://mta.maryland.gov/us29brt>>.

vehicle trips to US 29. With eleven station stops along the 14-mile corridor, the project will provide an accessible transit option to existing and future riders. Furthermore, existing bus and rider mobility deficiencies, such as unpredictable service, longer travel times, and schedule delays are likely to increase with additional traffic congestion. The project will address these issues by providing a frequent and reliable transit service that utilizes TSP. Finally, with station stops located near existing and planned densely populated mixed-use developments, the project will address the continuous connection that is missing from residential and mixed-use developments to local and regional employment and activity centers.

As currently proposed, the project includes four components: new BRT service along existing travel lanes and shoulders; construction of eleven station stops along the corridor; implementation of TSP at 15 signalized intersections; and improvements to sidewalk, bicycle facilities, and landscaping.

New BRT Service

The BRT buses will run north and south along US 29 and local streets in existing travel lanes and shoulders along the 14-mile study corridor. For approximately five miles on US 29, between MD 198 (near the Burtonsville Park and Ride) and Tech Road, BRT buses will operate on the existing outside shoulders. Where no outside shoulder is available south of Tech Road along US 29 and along Lockwood Drive, Stewart Lane, Briggs Chaney Road, and Castle Boulevard, BRT buses will run solely in existing general travel lanes, a combined distance of approximately nine miles.

The project offers two service plans, as detailed in **Attachment C** and shown on **Attachment B, Map 2**. The Burtonsville Park and Ride Service will operate buses along US 29 directly between the SSTC and the Burtonsville Park and Ride. This service will occur during peak hours on weekdays only, from 5:00 am to 9:00 am and 3:30 pm to 9:00 pm, stopping at the following proposed stations:

- Silver Spring Transit Center
- Fenton Street
- University Boulevard
- Burnt Mills
- Tech Road
- Burtonsville Park and Ride

The Briggs Chaney Park and Ride Service will operate buses along US 29 and several local streets between the SSTC and the Briggs Chaney Park and Ride. This service will occur from 5:00 am to midnight on weekdays, and 7:00 am to midnight on weekends, stopping at the following stations:

- Silver Spring Transit Center
- Fenton Street
- University Boulevard
- Burnt Mills
- Oak Leaf Drive
- White Oak Transit Center
- Stewart Lane
- Tech Road
- Castle Ridge
- Briggs Chaney Park and Ride

Per the preliminary Service Plan, buses on both routes will operate with 15-minute headways from their respective termini, serving shared station stops every 7.5 minutes during peak periods. During off-peak periods, buses will serve station stops every 15 - 20 minutes.

BRT Station Stops

Table 1 lists the eleven station stops that are being proposed as part of this project. General locations of the station stops along the study corridor are shown on **Attachment B, Map 2**. For each station stop, a study area was identified for the area to review for potential environmental resources and conduct field work. Based on additional conceptual design, Limits of Disturbance (LOD) were determined within each station stop study area as the area necessary to accommodate BRT station platforms, station amenities, and any potential landscaping, pedestrian access improvements, stormwater management, or potential construction impacts at each site. The LODs were also used to assess the impacts to environmental resources. The study areas and LODs for each station stop are shown on the conceptual design plan sheets in **Attachment D**.

Station stops will be located on the sidewalk (public right-of-way) adjacent to the right travel lane. The footprint will be positioned within existing transportation ROW (roadway and sidewalk) to the greatest extent possible. A single station stop will accommodate both northbound and southbound travel. Two platforms with associated features will be located on opposing sides of the roadway. The exception to these configurations are located at Park and Ride lots, which may include a single platform along existing lot sidewalks for both northbound and southbound travel, and on Castle Boulevard where both northbound and southbound buses can serve a single platform. The length of station stop platforms will be, depending on the urban context of the location, 65 feet to accommodate one articulated bus; or 125 feet to accommodate two articulated buses. In some locations, a smaller platform 45-50 feet in length may be considered to minimize potential impacts. These platform lengths will also include additional length needed to provide the American with Disabilities Act (ADA) -compliant ramps to the platforms and is accounted for in the station stop LODs.

Station Stop 1: Silver Spring Transit Center could involve minor modifications to the existing platform located at the middle level of the transit center. Station Stop 10: Briggs Chaney Park and Ride and Station Stop 11: Burtonsville Park and Ride will each include a curbside platform that accommodates two buses. The other eight station stops will involve curbside concrete platforms. It is assumed that canopies and benches will be installed at all station stops where feasible. These station canopies will be based on concept designs developed through a separate study considering all planned BRT corridors in Montgomery County, and the varied station configurations. Canopies have been designed to be modular and expandable depending on needs at each station stop. **Attachment E** presents station stop prototypes that are being considered for all of Montgomery County’s BRT System.

Station stop elements will include ADA-compliant amenities and design features. Depending on its location, a station stop may include some or all of these amenities:

- Raised platform for level boarding;
- Canopy and wind-screen shelter from weather elements;
- Off-board fare collection and ticket vending machines;
- Pedestrian, bicycle, and ADA access;
- Bicycle racks, as well as Capital Bikeshare facilities;
- Real-time transit information screens; and
- Lighting, benches, trash receptacles, and other hardscape and street furniture features.

Table 1: Station Stop Locations

Station Stop	Location	Number of Platforms	Position
Station Stop 1: Silver Spring Transit Center	US 29 at 2 nd Avenue/Wayne Avenue	1	Transit Center Interior
Station Stop 2: Fenton Street	US 29 at Fenton Street	2	Sidewalk
Station Stop 3: University Boulevard	US 29 at University Boulevard	2	Sidewalk
Station Stop 4: Burnt Mills	US 29 at Burnt Mills	2	Sidewalk
Station Stop 5: Oak Leaf Drive	Oak Leaf Drive at Lockwood Drive	2	Sidewalk
Station Stop 6: White Oak Transit Center	White Oak Transit Center at Lockwood Drive	2	Sidewalk
Station Stop 7: Stewart Lane	Stewart Lane at April Lane	2	Sidewalk
Station Stop 8: Tech Road	US 29 at Tech Road	2	Sidewalk
Station Stop 9: Briggs Chaney Park and Ride	Briggs Chaney Road at Gateshead Manor Way	2	Sidewalk
Station Stop 10: Castle Ridge	Castle Boulevard at Castle Ridge Circle	1	Sidewalk
Station Stop 11: Burtonsville Park and Ride	US 29 at MD 198	1	Sidewalk

Transit Signal Priority

Transit Signal Priority (TSP) will be installed at fifteen signalized intersections along the corridor, with final locations to be determined as traffic design progresses. The work will include modifications to the signal controllers so that “early green” or “green extension” signal phases can be given to the BRT buses to decrease travel time.

Sidewalk/Bicycle/Landscape Improvements

At each of the station locations, the existing sidewalks will be modified to provide pedestrian access around the station stop platform. To further improve pedestrian accessibility, new sidewalk could be added to connect the station stop platforms to adjacent parking facilities. Sidewalk needs have been identified within each station stop LOD and a preliminary assessment is shown on the conceptual design plan sheets in **Attachment D**.

New bicycle racks will be installed at all station stops, where feasible. Additionally, ten new Capital Bikeshare facilities will be implemented at station locations that will be identified as station planning progresses. All bicycle facilities have been accounted for within the station stop LOD.

Station stop designs and/or stormwater management facilities will also include landscaping elements to improve the visual aesthetics of the station areas. Potential stormwater management facilities and landscaping features have been accounted for within the station stop LOD identified on the conceptual design plan sheets in **Attachment D**.

B. Location and Zoning

Attach a site map or diagram, which identifies and labels the land uses and resources on the site and the adjacent or nearby land uses and resources. This is used to determine the probability of impact on sensitive receptors (such as schools, hospitals, residences) and on protected resources. Be sure to show the location of the project on the map.

The US 29 BRT Improvements Project study corridor is located in the suburban areas of Burtonsville, Fairland, and White Oak, as well as the densely urban Silver Spring. Existing land uses adjacent to the proposed US 29 BRT Improvements Project study corridor include transportation ROW, residential, office and retail, institutional, industrial, and open space. Existing zoning surrounding the study corridor includes transportation, commercial, very low/low/medium/high-density residential, and mixed use. Land use and zoning within 1.5 miles of the study corridor are shown on **Map 3** and **Map 4 of Attachment B**.

Land use and zoning acreages were calculated for the study areas of the eleven proposed BRT station stops using 2015 Montgomery County Geographic Information Systems (GIS) data. In total, the eleven station stop study areas encompass 19.7 acres. The most prominent land uses within the station stop study areas are vacant, parking, or transportation uses (16.6 acres), and other land uses include office and retail, multifamily residential, and institutional uses (3.1 acres). The most prominent zoning is roadway ROW (14.3 acres). Other zones include commercial, high- and medium-density residential, and mixed-use (5.4 acres).

No impacts to land use and zoning patterns along the US 29 BRT study corridor are anticipated. The proposed BRT stations will be located along existing sidewalks and, overall, predominately within existing transportation/public ROW. Negligible changes to land use may occur along the sliver edges of private properties where the private property line meets the sidewalk. Additional detail on potential minor impacts outside transportation ROW are found in **Section Q: Property Acquisition**. Any potential additional sidewalk needs have been accounted for within the stations’ LOD.

Community facilities along the proposed US 29 BRT Improvements Project corridor were identified using 2015 Montgomery County GIS data. A total of 56 community facilities are located within 0.5-mile of the station stop study areas, including six fire and rescue, recreation, and library facilities; 33 places of worship; and 17 schools and education centers. Employees of and visitors to these community facilities may benefit from the addition of a more efficient and reliable transit system, accessible within a short distance of their destination. No permanent impacts

will occur to community facilities. Construction of the proposed BRT station stops may cause temporary impacts to several community facilities. These impacts are detailed in **Section O: Construction**.

C. Traffic

Describe potential traffic impacts; including whether the existing roadways have adequate capacity to handle increased bus and other vehicular traffic. You may provide a letter from the traffic engineer or other appropriate official verifying the traffic impacts.

Existing 2015 AM and PM Level of Service (LOS)³ data along US 29 is presented in Section 2.3 of the *US 29 Corridor Planning Study: Corridor Report*, located in **Attachment A**. Analysis presented in Table 2-8 of the *Corridor Report* revealed that, of the 42 intersections (21 AM and 21 PM) evaluated, nine intersections are graded LOS A and LOS B; 27 intersections are graded LOS C and LOS D; and six intersections are graded LOS E and LOS F. Additionally, existing 2015 Average Daily Traffic (ADT) ranges from 39,600 vehicles per day to 79,400 vehicles per day. The project will add eight buses-per-hour per direction in the peak period to the roadways where transit service and significant vehicle traffic already occur; therefore, no impacts to overall traffic patterns in the study corridor are anticipated.

To further reduce the potential for traffic impacts on US 29, the BRT station stops and their associated platforms will be placed along the outside curb line, away from the potentially higher speed left travel lane. No median BRT stations are proposed with this project, and the project will not repurpose travel lanes or turn lanes from general traffic operations.

Additionally, eight of the eleven station stops are proposed for sites not directly on the high-volume US 29. At these locations, buses will stop in the Park and Rides/SSTC, along low-volume local streets, or on the US 29 shoulder (at Tech Road). Only three stations (Fenton Street, University Boulevard, and Burnt Mills) will require buses to stop in the right travel lane of US 29. Dwell time at these stations will be held to a minimum as fare collection will be completed prior to boarding and multiple bus doors will be available for boarding and alighting.

On-street parking is available in limited locations along Lockwood Drive and US 29. Four parking spaces will be impacted on Lockwood Drive at the proposed Oak Leaf Drive station stop. At the Fenton Street station stop, four parking spaces on US 29 with time of day restrictions (parking allowed only between 9:30 am and 3:30 pm) will be impacted. At the Burtonsville Park and Ride, the proposed station layout will impact 29 parking spaces. However, the current parking lot has 592 parking spaces and experiences about 50 percent utilization.

TSP will be installed at 15 of the 31 signalized intersections along the US 29 BRT study corridor. TSP is an operational strategy that facilitates the movement of in-service BRT buses through signalized intersections. It is implemented at intersections during times when excess capacity exists at a signalized intersection. TSP reduces control delay to in-service BRT buses by extending green-light phases or shortening red-light phases. General traffic traveling in the same direction experiences this benefit as well. The operations plan for the project with its two service patterns will travel through a total of 31 signalized intersections. TSP implementation will be designed to maximize peak direction traffic flow efficiency while not negatively impacting cross street traffic flow. When the overall intersection LOS is poor, the TSP request from the in-service BRT bus will not be granted.

Based on evaluations of other TSP systems, a negligible adverse impact to local traffic on side streets is anticipated from US 29 BRT Improvements Project TSP implementation. Certain conditions will be set for each intersection and TSP will not be granted unless all conditions are met. Additionally, the County's Traffic Control Center can monitor the corridor and modify signal timing as needed.

³ See **Attachment A** (page 31, Figure 2-11) for an explanation of Level of Service.

D. Aesthetics

Will the project substantially degrade the existing visual character or quality of the site and its surroundings?

- No
- Yes, describe

Implementation of the US 29 BRT Improvements Project will have minimal impact on study corridor aesthetics. The study corridor has the built-out visual characteristics common to roadway-heavy suburban and urban areas. The visual character of the stations will be similar to the existing transportation/transit-heavy visual character of their proposed locations within sidewalks and Park and Ride lots. The project will add eight buses-per-hour per direction during the peak period to the roadways where transit service and significant vehicle traffic already occur.

E. Air Quality

Is the project located in an Environmental Protection Agency (EPA)-designated non-attainment or maintenance area?

- NO
- YES, indicate the criteria pollutant and contact FTA to determine if a hot spot analysis is necessary.

- Carbon Monoxide (CO)
- Ozone (O₃)
- Particulate Matter (PM₁₀)

Does the project have the potential to impact air quality?

- NO, It is exempt from conformity analysis under 40 CFR Part 51 § 93.126 or regional analysis under §93.127
- YES, it is not exempt under §93.126 or §93.127

The project was reviewed in accordance with the Clean Air Act Amendments of 1990 and the Transportation Conformity Rule (40 CFR Parts 51 and 93). The results of this analysis found that the US 29 BRT Improvements Project will not add roadway capacity, increase traffic volumes, or affect the vehicle mix within the corridor. Therefore, the project does not have the potential to impact air quality. Additional information is available in **Attachment F**, the Air Quality Technical Report.

If the non-attainment area is also in a metropolitan area, was the project included in the MPO’s Transportation Improvement Program (TIP) air quality conformity analysis?

- NO
- YES

The project is included in the currently approved National Capital Region Transportation Planning Board’s Fiscal Year 2017-2022 *Transportation Improvement Program*⁴ (TIP) (ID 6397) and the 2016 Constrained Long Range Plan⁵ (CLRP), as an amendment (SR17-2017).⁶ The project is not considered to be regionally significant and does not need to be included in the Air Quality Conformity Analysis⁷ in order to be included in the TIP and CLRP.

Additional information is available in **Attachment F**, the Air Quality Technical Report.

⁴ National Capital Region Transportation Planning Board. (November 2016.) *Transportation Improvement Program FY 2017 – 2022*. http://www1.mwcog.org/clrp/resources/KeyDocs_2016.asp

⁵ National Capital Region Transportation Planning Board. (November 2016.) *2016 Constrained Long-Range Transportation Plan*. http://www1.mwcog.org/clrp/resources/KeyDocs_2016.asp

⁶ National Capital Region Transportation Planning Board. (March 2017.) *Resolution on an Amendment to the CLRP and the FY 2017 – 2022 TIP to Include Funding for the US 29 BRT Improvements Project, as Requested by MDOT*. https://www.mwcog.org/assets/1/28/SR17-2017_-_MDOT_MTA_CLRP_TIP_Amendment_-_March_3_-_TIP_ID_6397.pdf

⁷ National Capital Region Transportation Planning Board. November 2016. *Air Quality Conformity Analysis of the 2016 CLRP Amendment and FY 2017 – 2022 Transportation Improvement Program*. http://www1.mwcog.org/clrp/resources/KeyDocs_2016.asp

F. Environmental Justice

Indicate whether the project will have disproportionately high and adverse impacts on minority or low-income populations. Describe any potential adverse effects. Describe outreach efforts targeted specifically at minority or low-income populations.

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, was published in 1994 and directs federal agencies to identify and address any disproportionately high and adverse human health or environmental effects on minority and low-income populations. The US Department of Transportation (USDOT) published Order 5610.2(a), *Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* in 1997, which outlined Environmental Justice strategies tailored to USDOT activities; Order 5610.2(a) was updated in 2012. Subsequently in 2012, FTA published Circular 4703.1, *Environmental Justice Policy Guidance for Federal Transit Administration Projects*, to provide Environmental Justice analysis guidance specific to FTA projects. Guidance from Executive Order 12898, USDOT Order 5610.2(a), and FTA Circular 4703.1 was used in the Environmental Justice for the US 29 BRT Improvements Project.

FTA Circular 4703.1 defines persons of minority races and ethnicities as those who identify as Hispanic or Latino, American Indian, Alaska Native, Asian, Black or African American, Native Hawaiian, and other Pacific Islander, or more than one race. The Circular also defines a low-income person as a person whose household income is at or below the Department of Health and Human Services (HHS) poverty guidelines. A *minority population* or *low-income population* is a group of minority persons or a group of low-income persons who live in geographic proximity.

For this evaluation, the 21 Census Block Groups that intersect the BRT station stop study areas were identified, and demographic data for from the American Community Survey Five-Year Estimates (2011-2015) was gathered for each. These 21 Census Block Groups are shown on **Attachment B, Map 5**.

Table 2 shows the percent of persons who identify as minority races and ethnicities, as well as the median household income for each of the 21 Census Block Groups. A Block Group was considered a potential Environmental Justice population if:

- The Block Group's percent population of persons of minority races/ethnicities is 50 percent or higher; and/or
- The Block Group's median household income is 80 or less percent of Montgomery County's median household income.⁸ Eighty percent of Montgomery County's median household income is \$79,550 (2015 US dollars).

⁸ This calculation is based on US Department of Housing and Urban Development 2015 Income Limits Summary (<https://www.huduser.gov/portal/datasets/il/il2015/2015summary.odn>). Per this summary, a household is considered *low-income* if its income is 80 percent of the area (Montgomery County) median income. By using 80 or less percent as a threshold, the calculation includes not only *low-income* households, but also *very low-income* and *extremely low-income* households.

Table 2: Potential Environmental Justice Census Block Groups

Geography	Percent Population Minority Race/Ethnicity	Median Household Income	Potential EJ
Maryland	47%	\$74,551	N/A
Montgomery County	53%	\$99,435	N/A
Block Group 7014.10 2	76%	\$83,469	Yes
Block Group 7014.14 4	90%	\$65,922	Yes
Block Group 7014.17 2	76%	\$79,375	Yes
Block Group 7014.21 1	96%	\$83,250	Yes
Block Group 7014.22 2	100%	\$43,594	Yes
Block Group 7014.23 2	94%	\$52,667	Yes
Block Group 7015.05 2	50%	\$126,786	Yes
Block Group 7015.05 3	48%	\$102,629	No
Block Group 7015.06 2	68%	\$118,000	Yes
Block Group 7015.08 3	90%	\$68,673	Yes
Block Group 7015.09 2	91%	\$37,578	Yes
Block Group 7015.09 3	97%	\$40,114	Yes
Block Group 7015.09 4	99%	\$45,703	Yes
Block Group 7021.02 2	16%	\$137,059	No
Block Group 7025.00 1	61%	\$54,176	Yes
Block Group 7025.00 4	63%	\$83,226	Yes
Block Group 7029.00 3	45%	\$81,875	No
Block Group 7029.00 4	47%	\$80,404	No
Block Group 7030.00 1	35%	\$129,531	No
Block Group 7031.00 3	46%	\$108,173	No
Block Group 7031.00 4	44%	\$34,821	No

Source: American Community Survey Five-Year Estimates (2011-2015)

Fourteen of the 21 Census Block Groups that intersect the study areas of the proposed station stops are considered potential Environmental Justice populations; these Block Groups are indicated with a “Yes” in the “Potential EJ” column of **Table 2** and highlighted on **Attachment B, Map 5**.

No adverse or disproportionately high impacts to these Block Groups are anticipated. Construction of the proposed BRT station stops will occur in existing transportation ROW. Any construction outside of transportation ROW will only occur in sliver portions where the edges of property lines meet existing sidewalks. No residents or businesses will be displaced. Additional detail on potential minor impacts outside transportation right-of-way are found in **Section Q: Property Acquisition**.

Potential temporary impacts to air and water quality, safety and security, existing traffic patterns, and property access due to construction will be minimal and will be mitigated to the greatest extent possible. Project operations will not impact any of these resources in the long-term.

Additionally, in the long-term, communities of low-income persons and/or persons of minority races and ethnicities may benefit from increased mobility and more efficient, cost-effective transit service choices. The proposed stations will be accessible to current transit-dependent riders.

Potential Environmental Justice communities along the study corridor have been engaged in the project process through a comprehensive public involvement program. In order to reach busy, transit-dependent riders, the Project Team has hosted a series of pop-up events at transit, shopping, and employment centers along the study corridor. Additionally, the Project Team has worked with Corridor Advisory Committees to identify and target Community Based Organizations for outreach efforts. Details on the Public Involvement Plan are featured in **Section R: Public Notification**.

Additional socioeconomic data for the larger study area surrounding the US 29 BRT Improvements Project study corridor is available in the *US 29 Corridor Planning Study: Corridor Report* in **Attachment A**.

G. Floodplains

Is the proposed project located within the Federal Emergency Management Agency (FEMA) 100-year floodplain?

No

Yes, describe potential impacts and include the FEMA map with the project location identified.

Approximately 45,900 square feet of Federal Emergency Management Agency (FEMA) 100-year floodplain fall within the proposed station study area at the Burnt Mills station. The FEMA map of the Burnt Mills station LOD is included in **Attachment G**.

Construction and operations of the US 29 BRT Improvements Project will not have an impact on the existence of 100-year floodplains in the study corridor, and the project meets the requirements of Executive Order 13690, *Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input*.

H. Hazardous Materials

Is there any known or potential contamination at the project site?

No, describe the steps taken to determine whether hazardous materials are present on the site. Has a Phase I site assessment for contaminated soil and groundwater been performed? If a Phase II site assessment is recommended, has it been performed?

Yes, note mitigation and clean-up measures that will be taken to remove hazardous materials from the project site. What steps will be taken to ensure that the community in which the project is located is protected from contamination during construction and operation of the project? State the results of consultation with the cognizant State agency regarding the proposed remediation.

A Hazardous Materials Screening Assessment conducted for the project found several documented contamination release sites that were identified as a high environmental concern relative to the proposed construction activities for several stations. These sites are identified in **Table 3**.

To address the hazardous material concerns identified in the Screening Assessment, Phase I Environmental Site Assessments (ESAs) conforming to ASTM Standard E1527-13 will be performed during the design phase of the project prior to the initiation of invasive subsurface work along the proposed alignment. A Phase I ESA involves a review of government records, a visual site inspection, and interviews with any persons familiar with the site operations. This assessment can provide further information on whether areas within each identified sites will be considered Recognized Environmental Conditions relative to the project. If such concerns are found, then the Phase I ESA may recommend a Phase II ESA.

A Phase II ESA involves invasive testing and analysis of the site – typically including subsurface sampling of the soil, groundwater and/or soil vapor. Such testing can determine the existence, magnitude, and extent of contamination at the site, and whether the concentrations exceed federal or state standards for worker and environmental safety. These steps will provide further information necessary to make any recommendations regarding protective measures during project construction or potential mitigation.

Table 3: Sites of Environmental Concern for Hazardous Materials

Station Stop	Site of Environmental Concern	Potential Hazardous Material Impact at Site
Station Stop 3: University Boulevard	Woodmoor Shopping Center (Woodmoor Cleaners), 10117 Colesville Road	PCE and petroleum in soil, groundwater and soil vapor
	Stuart Petroleum, 10101 Colesville Road	Petroleum in groundwater
	Shell, 100 W University Boulevard	Petroleum in groundwater and soil vapor
Station Stop 4: Burnt Mills	BP, 10711 Columbia Pike	Unknown contaminants in soil and groundwater
	Sunoco, 10810 Columbia Pike	Petroleum in groundwater
Station Stop 6: White Oak Transit Center	Exxon, 11177 New Hampshire Avenue	Petroleum in soil
	PEH, LLC / White Oak Shell, 11150 New Hampshire Avenue	Petroleum in groundwater
Station Stop 8: Tech Road	Safety Kleen Corp., 12164 Tech Road	Unknown contaminants in groundwater
Station Stop 11: Burtonsville Park and Ride	Burtonsville Crossing (with Burtonsville Crossing Cleaners and Giant Food), 15179 Old Columbia Pike	PCE and petroleum in soil, groundwater and soil vapor

Source: US Route 29 BRT – Hazardous Materials Environmental Screening Assessment Memorandum, RK&K, April 2017.

Additional details on potential hazardous materials impacts are presented in the Hazardous Materials Environmental Screening Assessment Memorandum in **Attachment H**.

I. Vibration

Does the proposed project cross or have the potential for vibration impacts? See the screening guidance for steel-wheeled projects in the FTA Noise and Vibration Manual.

- No, rubber tired projects typically do not have vibration impacts or; there no receptors within the screening distance outlined in the FTA Noise and Vibration Manual (say which below).*
- Yes, describe potential impacts and discuss mitigation measures.*

The US 29 BRT Improvements Project will operate rubber-tired BRT vehicles, which typically do not have vibration impacts.

J. Noise

Does the project have the potential to increase noise?

- NO, there are no receptors within the applicable screening distance for this type of project. (FTA Noise and Vibration Manual, Chapter 4).*
- YES, there are receptors within the screening distance. A General Noise Assessment following the procedures in Chapter 5 of the Noise and Vibration Manual is attached. Describe whether or not it indicates there will be impacts, proposed mitigation measures, and remaining impacts after mitigation (if any).*

A General Noise Assessment was conducted for the US 29 BRT Improvements Project. The operational effects were evaluated using the guidelines set forth by the FTA’s *Transit Noise and Vibration Assessment Guidance Manual*.⁹

Noise impacts were assessed using the FTA General Assessment methodology for Category 2 (residential) and Category 3 (commercial) land uses. These analyses are presented in **Table 4** and **Table 5**. The offset distance is to the closest building observed along that section of roadway, and is representative of the worst-case scenario,

⁹ Federal Transit Administration. (May 2006.) *Transit Noise and Vibration Assessment Guidance Manual*. Report FTA-VA-90-1003-06.

closest to the proposed improvements. The Category 2 analysis is based upon L_{dn} ,¹⁰ while Category 3 uses L_{eq} .¹¹ For Category 2 land uses, L_{dn} noise levels generated by the project-only are predicted to range from 49 to 57 dBA (A-weighted decibel). Since these noise levels are significantly lower than the impact criteria for each receptor, the project is predicted to create no impact at any Category 2 land use adjacent to US 29 in the study corridor. For Category 3, predicted project-only L_{eq} noise levels range from 45 to 54 dBA, which also indicate no impact.

Table 4: Operational Effects Analysis for Category 2 Land Uses (Residential)

Receptor Location	Offset Distance	Noise Metric	Existing Noise Level	Project Noise Impact Criteria		Project Noise Levels	Impact Type
				Moderate	Severe		
Sligo Creek Parkway	42'	L_{dn}	69	64	69	57	None
Sonata Way	95'	L_{dn}	67	62	67	49	None
Wexhall Drive	90'	L_{dn}	67	62	67	50	None

Source: US 29 BRT Improvements Project Noise Analysis Summary Memorandum, RK&K, April 2017.

An analysis was also performed for the proposed BRT Station 7: Stewart Lane, located at Stewart Lane and Lockwood Drive. This location consists of a two-lane roadway with primarily Category 2 residential land use, in addition to some Category 3 land use. Noise measurements were not recorded at this location; however existing noise levels can be estimated to range from 55 to 65 dBA per the FTA guidance manual (Table 5-7), *Estimating Existing Noise Exposure for General Assessment* for typical community L_{dn} levels.

Table 5: Operational Effects Analysis for Category 3 Land Uses (Commercial)

Receptor Location	Offset Distance	Noise Metric	Existing Noise Level	Project Noise Impact Criteria		Project Noise Levels	Impact Type
				Moderate	Severe		
Sligo Creek Parkway	42'	L_{eq}	68	68	73	54	None
Sonata Way	95'	L_{eq}	66	66	72	45	None
Wexhall Drive	90'	L_{eq}	66	66	72	46	None

Source: US 29 BRT Improvements Project Noise Analysis Summary Memorandum, RK&K, April 2017.

Using a Category 2 land use analysis, the project L_{dn} is predicted to be 52 dBA at 40 feet. At this predicted project L_{dn} noise level, in order to be considered impacted, the existing community L_{dn} noise level would need to be 47 dBA, which is much lower than the actual typical range of 55 to 60 dBA for this environment. Therefore, no impact is predicted. Similarly, no impact is predicted for Category 3 land uses given a project L_{eq} of 51 dBA, which would require an existing community L_{eq} noise level of only 35 dBA to create an impact.

Table 6 shows the results of the operational effects analysis for each land use category at the Station 7: Stewart Lane location.

Using the FTA General Assessment methodology, the US 29 BRT Improvements Project is not anticipated to impact to Category 2 or 3 land uses in the project corridor. Therefore, no mitigation is warranted.

Additional details are available in the Noise Assessment Memorandum in **Attachment I**.

¹⁰ The 24-hour day-night average sound level, an average sound level which includes a 10-decibel penalty added between 10:00 pm and 7:00 am to account for greater nighttime sensitivity to noise.

¹¹ The equivalent sound level, which is the level of constant noise with the same acoustical energy as the fluctuating noise levels observed during a given time interval (such as one hour).

Table 6: Operational Effects Analysis for Station 7: Stewart Lane

Receptor Location	Analysis Type	Noise Metric	Typical Existing Noise Level	Existing Noise Level Necessary to Trigger Impact	Project Noise Levels	Impact Type
Stewart Lane/Lockwood Drive	Category 2	L _{dn}	55-60	47	52	None
Stewart Lane/Lockwood Drive	Category 3	L _{eq}	50-60	35	51	None

K. Prime and Unique Farmlands

Does the proposal involve the use of any prime or unique farmlands?

- No
 Yes, describe potential impacts and any coordination with the Soil Conservation Service of the U.S. Department of Agriculture.

L. Other Resources

Does the project have the potential to impact any of the resources listed below?

- NO
 YES, if checked, describe resource and impacts in the areas below. Impacts to cultural, historic, or recreational properties may trigger Section 4(f) evaluation, which requires consideration of avoidance alternatives.

Historic— Describe any cultural, historic, or archaeological resource that is located on or in the immediate vicinity of the proposed project and the potential of the project to affect historic resources. Determining the presence of these resources may require coordination with the State Historic Preservation Officer, and consulting parties. Attach any relevant correspondence.

If the project has the potential to affect historic resources, the Section 106 process must be followed.

A letter initiating the Section 106 process for the US 29 BRT Improvements Project was sent to the Maryland Historical Trust (MHT) on April 25, 2017. This letter requested concurrence on the Area of Potential Effect (APE), identified historic resources along the study corridor, and determined a finding of No Adverse Effect. MHT concurred with the No Adverse Effect finding in a letter sent on May 25, 2017 (**Attachment J**).

One historic property is located within the historic architectural APE, the National Register of Historic Places (NRHP)-eligible Montgomery Arms Apartments (M: 36-7-2), last evaluated in 2003. Other previously surveyed resources include the Silver Spring Commercial District (M: 36-7), which has not been evaluated for the NRHP; and the Fairway, Chalfonte Country Club Park, Country, Club View (M: 32-16), which was evaluated for the NRHP in 2000 and found to not be eligible for the NRHP. In addition, ten properties more than 45 years of age have been identified within the historic architectural APE. No previously identified archaeological resources are located within the study area of any of the proposed station stop locations.

The US 29 BRT Improvements Project will not have a direct effect on the Montgomery Arms Apartments (M: 36-7-2). While the study area extends onto the front yard of the property, the proposed work within the LOD will be limited to the sidewalk area located in the State of Maryland’s transportation/public ROW. The project will have an indirect effect on historic properties. However, because the elements of the project (i.e. platforms, canopies, benches, sidewalks, bicycle storage areas, and streetscape improvements) will be consistent with other existing street elements and the existing character within the APE, the project will not introduce new visual, atmospheric, or audible elements. Therefore, the project will not alter any of the characteristics of historic properties that qualify them for inclusion in the NRHP in a manner that will diminish their integrity (36 CFR Part 800.5(a)(1)). The undertaking will have no adverse effect on historic properties.

The Section 106 Initiation Letter, including maps of historic resources within the APE, as well as MHT’s Concurrence Letter, are available in **Attachment J**.

Recreational- Describe and public parks and recreation areas in the vicinity of the project. If the activities and purposes of these resources will be affected by the project, state how.

Parks along the proposed US 29 BRT Improvements Project study corridor were identified using 2015 Montgomery County GIS data. A total of 33 parks are located within 0.5-mile of the station stop study areas, including urban parks, local parks, special parks, neighborhood parks, neighborhood conservation areas, and stream valley units. All parks are owned by Maryland National-Capital Park and Planning Commission (M-NCPPC) except for one that is owned by the Washington Suburban Sanitary Commission and used for water supply. Recreational facilities in the vicinity of the project are discussed in **Section B: Location and Zoning**.

Visitors to these parks may benefit from the addition of a more efficient and reliable transit system, accessible within a short distance of their destination.

The project will be implemented on existing roadway and other paved surfaces, predominately within existing transportation/public ROW. No use of parks or historic properties will occur under project construction or operation. Therefore, an evaluation under Section 4(f) of the US Department of Transportation Act would not be required for the US 29 BRT Improvements Project.

While construction may result in temporary access impacts to Montgomery Blair High School athletic fields (as detailed in **Section O: Construction Impacts**), neither this nor other temporary impacts will result in a constructive use of activities, features, or attributes of any proximal parks or historic properties.

Biological—Describe any natural areas (woodlands, prairies, wetlands, rivers, lakes, streams, designated wildlife or waterfowl refuges, and geological formations) on or near the proposed project area. If present, state the results of consultation with the US Fish and Wildlife Service and state department of natural resources on the impacts to these natural areas and on threatened and endangered fauna and flora that may be affected. Provide correspondence substantiating consultation and results.

Requests for information on the presence of fisheries resources and Rare, Threatened, and Endangered (RTE) species were sent to the Maryland Department of Natural Resources (MDNR) Project Review Division (PRD) and Wildlife and Heritage Section (WH) on April 3, 2017. MDNR-WH responded in a letter dated April 26, 2017 that there are records of the Acuminate Crayfish (*Cambarus acuminatus*), a species with In Need of Conservation status in Maryland, documented within the project study corridor at the US 29 crossings over Northwest Branch and Paint Branch. MDNR-PRD responded in a letter dated May 4, 2017, confirming the presence of a resident fish species in the aforementioned Use I and Use IV streams. The US Fish and Wildlife Service (USFWS) online database confirmed on March 22, 2017 that no federally proposed or listed threatened or endangered species are known to occur in the study corridor.

The proposed project will include construction near the Northwest Branch of the Anacostia River at Station 4, Burnt Mills, and near an unnamed tributary to the Paint Branch at the Stewart Lane station. While it is not anticipated for the US 29 BRT Improvements Project to impact either of these streams, any shifts in the LOD that would require in-stream work would occur outside of the restricted time windows for spawning fish in Use I and Use IV streams. Additionally, best management practices for erosion and sediment control will be adhered to during any work near these stream crossings in order to reduce the likelihood of adverse impacts to the Acuminate Crayfish and other important aquatic species in these streams.

A review of forests and individual trees within the station stop study areas was conducted. No forest stands within the station stop study areas were identified. Two hundred and twenty-two individual trees were identified, including six significant trees (≥ 24 inches diameter at breast height (DBH)) and six specimen trees ($\geq 30''$ DBH). The investigation methods for the forest stand characterization and tree survey were based on the Montgomery

County Code Chapter 22A, using methodology described in the *Environmental Guidelines, Guidelines For Environmental Management Of Development In Montgomery County* (Maryland-National Capitol Park and Planning Commission (M-NCPPC), 2000); and *Trees, Approved Technical Manual* ((MNCPPC), 1992). The *Trees, Approved Technical Manual* defines a forest as “a biological community dominated by trees and other woody plants covering a land area of 10,000 square feet or greater. Forest includes (1) areas that have at least 100 trees per acre with at least 50% of those having a two-inch or greater diameter at 4.5 feet above the ground and larger; and (2) forest areas that have been cut but not cleared. Forest does not include orchards.”

An inventory of all stand-alone trees ≥ 6 " DBH, including significant (≥ 24 inches DBH) and specimen (≥ 30 " DBH or 75% of the size of the state champion) trees, was completed within the station stop study areas. The inventory also included all trees within the state ROW regardless of size. The tree species, DBH, and condition were recorded for each of the inventoried trees. The condition of each tree was assessed by an ocular estimation of growth form, visible signs of decay, live crown ratio, and indications of disease or insect infestation. Each inventoried tree was numbered consecutively. Data obtained from the field reconnaissance was collected using an iPad and external GPS receiver.

A team of environmental scientists inventoried 222 trees, including six significant trees (≥ 24 inches DBH) and six specimen trees (≥ 30 " DBH) within the station stop study areas. No forested areas were identified within the study areas. Impacts to trees were estimated based on the assumed LODs for each station stop, shown on mapping in **Attachment D**. Within the station stop LODs, approximately 94 street trees and 3 specimen/significant trees may be impacted.

As the design moves forward, tree impacts will be avoided and minimized to the greatest extent practicable using tree protection measures as specified in the Maryland Department of Natural Resources (DNR) requirements, Maryland-National Capital Park and Planning Commission (M-NCPPC) Trees Approved Technical Manual and the Montgomery County Roadside Tree Protection Law. Tree protection measures may include tree protection fencing, root pruning, branch pruning, and supplemental watering. Critical Root Zone (CRZ) impacts will be limited to one third or less of the total CRZ when possible.

The US 29 BRT Project will be exempt from Forest Conservation Plan submittal requirements under the Montgomery County Chapter 22A - Forest Conservation Law (Section 22A-5e and 22A-9), as a county highway Capital Improvements Project (CIP). Impacts to trees within state and county road ROW will be mitigated for in accordance with the Montgomery County Roadside Tree Protection Law and the Maryland Roadside Tree Law. Tree removal within state road ROW will be mitigated 1:1, with the installation of one tree for every tree removed, in accordance with DNR requirements. The Montgomery County Roadside Tree Protection Law requires payment of \$500 into the Montgomery County Department of Transportation (MCDOT) street tree planting fund for removal of roadside trees designated on a MCDOT street tree inventory or >6 " DBH within the county road ROW, and planting of one tree within the immediate vicinity of the project area as mitigation for the roadside tree removal. An additional fee of \$250 is required for each replacement tree that cannot be planted within the immediate vicinity of the study areas. A mitigation planting plan will be developed for tree replacement within the study areas where possible during the final project design stages for review and approval by MCDOT.

Additional details, including agency correspondence, are available in the Natural Resources Inventory Memorandum in **Attachment K**.

Wetlands – show potential Wetlands and Waters of the U.S. on or adjacent to the project, describe potential impacts, attach correspondence with the US Army Corps of Engineers.

The project is located within the Anacostia River Watershed (hydrologic unit code 02140205), and waterways in the surrounding area are designated as Use Class IV. The National Wetlands Inventory (NWI) mapping and MDNR GIS wetland mapping do not identify any wetlands or waterways within the study corridor.

Additional details, including NWI mapping and MDNR GIS wetland mapping, is available in the Natural Resources Inventory Memorandum in **Attachment K**.

M. Safety and Security

Address measures that would need to be taken to provide for the safe and secure operation of the project after its construction.

The US 29 BRT Improvements Project will prioritize passenger and pedestrian safety, both on and off the BRT vehicle. At the proposed station stops, lighting will be installed at the pedestrian level to provide greater platform safety and comfort. In some locations, additional pedestrian level lighting may be installed on the sidewalk approaches to the platforms. Street lighting currently exists at all of the proposed station locations, but will be reviewed to verify that each area is appropriately lit.

The proposed station stops will be located in areas where adjacent activities are generally moderate to high during much of the day. Except at the Burtonsville Park and Ride facility, the station stops will be immediately adjacent to the roadway at the roadway edge offering full visibility. The station stop amenities and landscaping will be designed to minimize blind spots. For example, wind screens are planned to be glass with the canopy constructed using slender columns. Shrubbery near the platform will have a low profile to maintain long sight lines.

Public address systems and emergency equipment will be included in the station design and signage and pavement markings will be installed to limit potential pedestrian/vehicle conflict points. Where feasible, the proposed station stops will be constructed near intersections with signalized and/or marked crosswalks to encourage safe crossings and careful consideration is being given to locations where bus transfers are anticipated. BRT buses are anticipated to be equipped with video cameras and audio recording devices. On the vehicle, roaming fare inspection officers will add an added level of security to the well-lit bus cabins.

N. Water Quality

Does the project have the potential to impact water quality, including during construction.

- No
- Yes, describe potential impacts and mitigation measures.

Per the Natural Resources Inventory Memorandum in **Attachment K**, no wetlands or waterways are located within the study corridor.

Will there be an increase in new impervious surface or restored pervious surface?

- No
- Yes, describe potential impacts, proposed treatment, or permitting required for stormwater runoff.

Land disturbance activities on the US 29 BRT Improvements Project will be limited to the area within the LOD. The improvements will occur alongside the roadway edge and in most cases will use area occupied by the existing sidewalk. The combined new and/or reconstructed impervious areas associated with the proposed eleven station stops is expected to be greater than 2,000 square feet. Therefore, the project must satisfy stormwater management requirements in accordance with Chapter 19, Article I, Section 2 of the Montgomery County Code. Since the County prefers stormwater management requirements to be met within the vicinity of the construction, each proposed station stop's LOD will be evaluated for stormwater management requirements and, if feasible, adequate facilities will be installed. If not feasible at each site, compensatory treatment of offsite impervious areas will be added to proposed facilities at feasible station site locations, as required.

O. Construction Impacts

Describe the construction plan and identify impacts due to construction noise, utility disruption, debris and spoil disposal, and staging areas. Address air and water quality impacts, safety and security issues, and disruptions to

traffic and access to property.

Construction for the US 29 BRT Improvements Project will occur with the implementation of the following project elements:

- Station stop platforms and adjacent amenities;
- Minimal relocation of impacted utilities;
- Addition of pedestrian/bicyclist connections; and
- Altered driveway access at Briggs Chaney Park and Ride.

Because project construction will occur in suburban and urban areas and will be limited to areas at or near each planned station stop locations, temporary construction impacts on air and water quality, safety and security, existing traffic patterns, and property access will be minimal.

Separate platforms will be constructed to serve northbound and southbound boardings and alightings. At the Silver Spring Transit Center, Castle Ridge, Briggs Chaney Park and Ride, and Burtonsville Park and Ride locations, one platform would be constructed to serve both northbound and southbound boardings and alightings.

Field surveys have identified all physical features within the station stop study areas. In many locations, the planning station platforms have been shifted to avoid impacts on nearby residences, businesses, and utilities. For example, placing the station platform between driveways or utility poles to avoid or minimize impacts. Platform construction will involve canopy foundations, concrete platform slabs, and any related pedestrian and bicycle improvements. Generally, construction along the roadway will be from the face of curb toward the ROW. Minimal construction will occur in the roadway and should be limited to curb and gutter modifications. Temporary lane closures may be required during the construction of platforms. Lane closures will be restricted to non-peak periods and will not require any traffic detours or major diversions.

Construction equipment will be relatively small in scale, suitable for the constrained work environment. A small boom truck may be required for the installation of the canopy. Each platform construction is anticipated to take no more than 60 days with work occurring at multiple stations simultaneously. Construction sequencing is expected to occur as follows:

1. Establishment of alternative pedestrian routes and closure of the construction zone
2. Relocation of impacted utilities
3. Removal of existing sidewalks, etc.
4. Site grading
5. Installation of foundations and underground infrastructure
6. Construction of platform and adjacent facilities
7. Installation of windscreen and canopy
8. Installation of station amenities such as ticket vending, benches, landscaping, signage, etc.

Construction of the BRT station stops may cause temporary, access impacts to East County Community Recreation Center, Montgomery Blair High School, Silver Spring United Methodist Church, and Silver Spring Day School. Access to these large community facilities is available through entrances at more than one location. The proposed station construction zones will have only limited temporary impacts to these driveways as construction equipment is repositioned. No direct construction impacts are anticipated, and temporary impacts will be time limited due to the overall short construction period. Alternative access points will be utilized as appropriate and the project team will coordinate with these potentially impacted facilities before and during construction.

Extensive coordination with the Maryland State Highway Administration (SHA) will be conducted to minimize impacts to pedestrian and vehicular traffic operations near the construction zones. Construction zones will be away

from the primary building access points with minimal impacts expected to connecting sidewalks and approaches. In addition, these facilities generally have multiple entry points and approaches. If necessary, flagger operations will be implemented to ensure safe vehicular and pedestrian access.

Land uses that are sensitive to transportation noise are also sensitive to construction noise. Temporary noise impacts may occur from construction activity related to the proposed bus stations. Areas around the construction zones will experience varied periods and degrees of noise that differ from that of surrounding ambient community noise levels. The contractor's operations should be performed in such a manner that noise levels should not substantially impact nearby noise sensitive activities.

Generally, increased construction noise and vibration are limited to areas within 300 feet of the source. To limit the effects, construction activities will be executed in accordance with the Montgomery County Noise Control Ordinance. The ordinance contains certain standards specific to construction noise, and the Department of Environmental Protection has several tools available to help mitigate and regulate this potential source of disturbance.

P. Cumulative and Indirect Impacts

Are cumulative and indirect impacts likely?

No

Yes, describe the reasonably foreseeable:

a) Cumulative Impacts, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Combined with past, present, and reasonably foreseeable future development actions, the US 29 BRT Improvements Project may contribute to minor and gradual cumulative impacts on socioeconomic, cultural, and environmental resources as identified in Section 5.4 of the *US 29 Corridor Planning Study: Corridor Report (Attachment A)*. An increase in mobility options, connectivity, and transit access along the high-volume US 29 corridor could encourage additional development in the already highly built-out urban and suburban study area.

Future transportation improvements and other development may result in ROW acquisition, property displacement, or impacts to community facilities, historic properties, parks, forested areas, or waterways. These potential impacts caused by future development will be anticipated by the State or Montgomery County and mitigated during future projects' development.

b) Indirect impacts, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air, water and other natural systems, including ecosystems.

As described throughout this document, the US 29 BRT Improvements Project will have little to no direct impacts on socioeconomic, cultural, and environmental resources because it will be implemented predominately on existing roadway and other paved surfaces. While the project may contribute to cumulative effects on development in the study area, as described above, indirect impacts on land use, population density, and natural resources are not anticipated.

Q. Property Acquisition

If property is to be acquired for the project, indicate whether acquisition will result in relocation of businesses or individuals.

Note: *To ensure the eligibility for federal participation, grantees may not acquire property with either local or*

federal funds prior to completing the NEPA process and receiving written concurrence in the NEPA recommendation. Chapter IV of FTA Circular 5010.1D provides guidance on FTA requirements for real property, including relocation and appraisal requirements under the Uniform Act. For acquisitions over \$500,000, FTA concurrence in the property's valuation is also required.

No full residential or business acquisitions or displacements are anticipated as part of the US 29 BRT Improvement Project. However, limited partial property acquisitions along the roadway frontage, where a private property line meets the sidewalk, may be necessary due to the overall station platform footprint. These acquisitions will be kept to a minimum through careful platform siting and other efforts to reduce the overall footprint, such as incorporating the impacted sidewalk into the station platform. Temporary easements will likely be needed to facilitate the construction efforts within the station stop's LOD.

Specific locations where acquisitions will be required are not known at this time but, where needed, will be completely within the station stop study areas. The proposed improvements will predominately occur on existing roadway and sidewalk surfaces within the public ROW.

R. Public Notification

Describe public outreach efforts undertaken on behalf of the project and summarize public comments received. Indicate opportunities for public hearings, (e.g. board meetings, open houses, special hearings). Indicate any significant concerns expressed by agencies or the public regarding the project. FTA does not have standards for public notification of Categorical Exclusion projects. Describe any outreach efforts you have made locally.

A comprehensive Public Involvement Plan was developed for the US 29 BRT Improvements Project, supplementing the BRT general education campaign initiated by Montgomery County in November 2016. As described below, online communication, stakeholder engagement and public outreach events have been key components of the Public Involvement Plan. The Public Involvement Plan is available in **Attachment L**.

Online Communication

The Project Team has maintained all online promotion and outreach through the project website, www.getonboardbrt.com, and social media platforms (i.e., Twitter, Facebook, Instagram, and YouTube). Public open houses, described below, have been promoted through contact with local organizations, community boards/meetings, community listservs, on social media, Montgomery County's website and e-mail listserv, and through civic associations. Public open house materials have been made available to the public on the "Get on Board BRT" website. A digital survey designed for upcoming outreach efforts has been embedded into the project website and promoted through social media. In addition, all events and programs have been posted to the project website's calendar, and promoted through real-time social media engagement.

Stakeholder Engagement

Three Corridor Advisory Committees (CACs), for the northern, central, and southern segments of the project study corridor, have been established to ensure that local stakeholder voices are represented in the planning and design of the project. (Originally conceived as two meeting groups for the northern and southern segments, the US 29 CACs were divided into three segments in May 2017 due to a request by the CAC members to provide geographic parity and enhance the level of discourse.) The US 29 North CAC is composed of members who primarily have project interest north of New Hampshire Avenue; the US 29 South CAC is composed of members who primarily have project interest inside the Capital Beltway; and the US 29 Central CAC comprises those who primarily have project interest between New Hampshire Avenue and the Capital Beltway.

The CACs began meeting in February 2015 and have continued to meet regularly to receive technical updates on the project status and provide input on existing corridor conditions, alternatives development, and project design elements. The CACs have also worked with the Project Team to identify additional outreach opportunities within the larger community. During the development of the *US 29 Corridor Planning Study: Corridor Report* (MDOT, 2017) from February 2015 to March 2017, 19 CAC meetings were held. Since the initiation of the MCDOT's US 29

BRT Improvements Project, MCDOT plans to hold a total of fourteen additional CAC meetings. Dates and discussion topics for these meetings are shown in **Table 7**. Announcements for and meeting materials from CAC meetings, as well as detailed project documents, have been and will continue to be made available at Montgomery County’s project website, <https://www.montgomerycountymd.gov/brt/>.

With the guidance of the CAC members, the Project Team is conducting targeted public outreach throughout the study corridor, including monthly e-newsletters; pop-up events at local transit centers; and outreach to schools, umbrella civic groups, Silver Spring Opinion Leaders groups, large residential communities, religious institutions, recreational centers, shopping centers, and community events. Community updates on the project have been provided to local citizen groups such as community advocacy groups, and Chambers of Commerce. MCDOT is also currently preparing a project newsletter that will be mailed to approximately 35,000 residents and businesses in the corridor.

Community meetings are providing opportunities for additional, focused discussion. Residents are able to request a community meeting on a topic through contacting the project team through community updates, the project website, via email, or through a CAC meeting. The Project Team has identified key partners to assist in community meeting outreach, including home owners’ associations, public agency partners (e.g., libraries, schools, etc.), and Community Based Organizations (CBOs) such as Casa de Maryland.

Table 7: Corridor Advisory Committee Meeting Schedule¹²

Meeting Date/Location		Meeting Topics
CAC #10	<p>South CAC: April 3, 2017 (Silver Spring Civic Center)</p> <p>North CAC: April 6, 2017 (East County Regional Services Center)</p>	<ul style="list-style-type: none"> • Introductions • Expectations • Overview of CAC Program Plan and Public Involvement Plan • Topics for future meetings • Project Schedule and Update
CAC #11	<p>South CAC: May 23, 2017 (Silver Spring Civic Center)</p> <p>Central CAC May 24, 2017 (Silver Spring Methodist Church)</p> <p>North CAC: May 25, 2017 (East County Regional Services Center)</p>	<ul style="list-style-type: none"> • Station Locations • Station Architecture • Service Planning Overview
CAC #12	<p>South, Central, and North CAC:</p> <p>South CAC: July 10, 2017 (Silver Spring Civic Center)</p> <p>Central CAC July 13, 2017 (Silver Spring Methodist Church)</p> <p>North CAC: July 12, 2017 (East County Regional Services Center)</p>	<ul style="list-style-type: none"> • Bicycle and Pedestrian Accommodations • Transit Signal Priority • Environmental Documentation
CAC #13	<p>South, Central, and North CAC: Week of September 11, 2017</p>	<ul style="list-style-type: none"> • BRT Operations Plan/Local Bus Service Plan Overview • Stormwater Management/Low Impact Development • Review of Project Impacts
CAC #14	<p>South, Central, and North CAC: Week of October 16, 2017</p>	<ul style="list-style-type: none"> • Other Topics of Interest to CAC Members • Project Status/Outreach Update • Next Steps

¹² Schedule current as of May 3, 2017.

Public Outreach Events

In addition to this stakeholder engagement, the Project Team is continually conducting a variety of public outreach events. The Project Team hosted three public open houses on the following dates:

- Tuesday, March 7, 2017, from 6:30 pm to 8:30 pm at the Silver Spring Civic Center;
- Monday, March 13, 2017, from 7:00 pm to 9:00 pm at Montgomery Blair High School; and
- Wednesday, March 15, 2017, from 6:30 pm to 8:30 pm at White Oak Community Center.

Approximately 190 attendees reviewed display boards and spoke with Project Team members about the proposed corridor and service plans, BRT benefits and budget, strategies to improve the local bus service, station design criteria, and additional opportunities for public input. Attendees shared questions, concerns, and positive feedback on a variety of project elements, such as the following: station locations, service routes, BRT vehicles, outreach materials, public education, pre-boarding payment, fare affordability, existing bus service, pedestrian and bicyclist accommodations, potential for property impacts, traffic impacts, and project schedule. Additional public open houses will be held in November 2017 to update the public on findings from the preliminary design phase of the project.

Agency Stakeholder Coordination

The Project Team holds regular stakeholder meetings with Washington Metropolitan Area Transit Authority (WMATA) and Maryland SHA to ensure that the US 29 BRT Improvements Project design is being advanced with minimized impacts to WMATA and SHA facilities. The Project Team coordinates closely with technical staff at the agencies to answer questions and address any concerns related to the project. Since project initiation in March 2017, the Project Team has hosted four agency stakeholder meetings on the following dates:

- WMATA: Monday, April 10, 2017
- SHA Headquarters: Wednesday, April 12, 2017
- SHA District 3: Monday, April 24, 2017
- MCDOT (Interdepartmental Staff): Monday, April 24, 2017, Thursday, June 22, 2017, and Tuesday, July 25, 2017

S. State and Local Policies and Ordinances

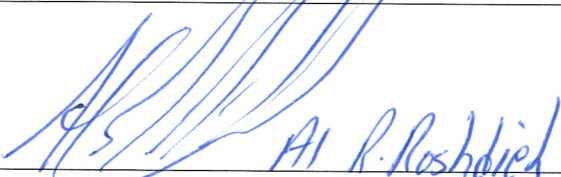
Is the project in compliance with all applicable state and local policies and ordinances?

- No, describe
- Yes

List of Attachments:

- A:** US 29 Bus Rapid Transit, Corridor Planning Study, Corridor Study Report, April 2017
- B:** Categorical Exclusion Maps
- C:** Preliminary Service Plan
- D:** Conceptual Design Plans
- E:** Station Stop Design Concepts
- F:** Air Quality Technical Report
- G:** FEMA Floodplain Map for Burnt Mills Station Stop
- H:** Hazardous Materials Environmental Screening Assessment Memorandum
- I:** Noise Analysis Summary Memorandum
- J:** Section 106 Process Consultation and Effects Determination
- K:** Natural Resources Inventory Memorandum
- L:** US 29 Public Involvement Plan (PIP): Preliminary Design Phase

Submitted By:

 Al R. Rashid	Date: 8-2-17
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Submit two copies of this form, attachments, and a transmittal letter recommending a NEPA finding to the address below, or submit an electronic version to your representative on the Region 3 Planning and Program Development Team. Contact your Region 3 representative at the number below if you are unsure of these procedures. Modifications and additional information and often necessary and may be requested.

*Federal Transit Administration, Region 3
1760 Market Street
Suite 500
Philadelphia, PA 19103-4124
Phone: 215-656-7100*