



# Blue Line Bus Rapid Transit Project

## Documented Categorical Exclusion



April 2024

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## A. Project Description

The Blue Line Bus Rapid Transit (BRT) Project (“the Blue Line”) is an approximately 24-mile east-west route with vehicles operating in both mixed traffic and dedicated lanes, and is part of a system-wide expansion as discussed below. The Blue Line would primarily be a replacement of the existing IndyGo Local Route 8 east of Holt Road. The local service west of Holt Road would continue.

The Blue Line route would operate within the existing right-of-way along Washington Street between Holt Road on the west and the Town of Cumberland on the east, passing through the Julia M. Carson Transit Center in downtown Indianapolis (Figure 1 and Appendix A). Between the Indianapolis International Airport (Airport) and Holt Road, the Blue Line would operate on Interstate 70 (I-70). At the Airport, the Blue Line would exit the Airport Terminal on Colonel H. Weir Cook Memorial Drive and follow I-70 to the Holt Road interchange and proceed northward to Washington Street. From the Holt Road Interchange with I-70, the Blue Line would follow Washington Street eastward to Schumacher Way, where it would utilize the one-way pair of Maryland Street (eastbound) and Washington Street (westbound) through downtown Indianapolis. Between New Jersey Street and Southeastern Avenue, the Blue Line would return to two-way operation along Washington Street to its eastern terminus in the Town of Cumberland.

Figure 1. Blue Line Corridor



Source: IndyGo, 2023

### I. Blue Line Operations and Lane Configurations

Blue Line service will operate seven days per week for 20 hours per day Monday through Friday, 19 hours per day on Saturdays, and 15 hours per day on Sundays. Service frequency will be 15 minutes every day of the week during operating hours.

The Blue Line vehicles would be low-floor, multiple-door, 60-foot articulated diesel-hybrid buses to minimize dwell time and to be cost-effective and energy-efficient. The vehicles would operate in a dedicated lane or semi-dedicated lane configuration for the majority of the corridor with some variety of lane configurations throughout the corridor, depending on the existing roadway cross sections, traffic capacity, transit reliability, and available right-of-way. Along Washington Street (and Maryland Street for the one-way pair), 13 percent (1.9 miles) of the transit lanes would be left-lane or right-lane Business Access and Transit (BAT) lanes, designated for shared use by the Blue Line and other vehicles entering existing businesses or needing to complete turns from the bus lanes. For just over 50 percent of the entire corridor (Figure 1), the Blue Line would be in either center-dedicated or BAT lanes. The remaining portion of the Blue Line corridor would be in mixed traffic.

The mixed traffic portions of the Blue Line corridor include from the Airport to North Tibbs Avenue (except at the Holt Road station), Ridgeview Drive to Shadeland Avenue, and from the signal west of German Church Road to the eastern terminus in the Town of Cumberland. It should be noted that emergency vehicles are also permitted to utilize the dedicated bus lanes.

## II. Blue Line Stations

The Blue Line stations would be spaced approximately every half mile, with some larger distances between stops in the more suburban-oriented east end of the route. There are 30 total Blue Line stations, including a stop at the existing Julia M. Carson Transit Center in downtown, the western terminus at the Airport and the eastern terminus in the Town of Cumberland. It should be noted that the eastern terminus would also be used for other local routes within IndyGo's system. The Airport terminus would be constructed separately from the Blue Line by the Airport itself, but the system would utilize the stop once operational. Twenty-six of the stations would be center stations with raised platforms for level boarding, Americans with Disabilities Act (ADA) accessibility, off-board fare collection, and canopy roofs. There are two planned curbside station pairs (West Street and Capitol Avenue) in downtown Indianapolis. The station pairs are counted as one station each. The eastern terminus station in the Town of Cumberland is planned to be off-street. Center stations would consist of a single platform with loading areas on both sides that serve both directions of travel in the center of the roadway. Curbside stations would consist of two distinct station platforms, one on each side of the street along the curb and serving a different direction of travel. The Blue Line station design would be consistent with that of the existing Red and Purple BRT stations. Blue Line branding would be applied to each of its stations. An artistic rendering of a station is shown in Figure 2.

Figure 2. Artistic Rendering of the Blue Line Station at Southeastern Avenue.



From west to east, the Blue Line stations include the following locations:

1. Western Terminus at Indianapolis International Airport (to be constructed by others)
2. Washington Street and Holt Road
3. Washington Street and Central Green Boulevard
4. Washington Street and Belleview Place
5. Washington Street and Belmont Avenue
6. Washington Street and Harding Street

7. Washington Street and South White River Parkway (Indianapolis Zoo)
- 8a. Maryland Street and West Street (eastbound)
- 8b. Washington Street and West Street (westbound)
- 9a. Maryland Street and Capitol Avenue (eastbound)
- 9b. Washington Street and Capitol Avenue (westbound)
10. Julia M. Carson Transit Center (would use existing infrastructure and bus bays)
11. Washington Street and Park Avenue
12. Washington Street and Southeastern Avenue
13. Washington Street and Arsenal Avenue
14. Washington Street and Hamilton Avenue
15. Washington Street and Rural Street
16. Washington Street and LaSalle Street
17. Washington Street and Sherman Drive
18. Washington Street and Linwood Avenue
19. Washington Street and Emerson Avenue
20. Washington Street and Ritter Avenue
21. Washington Street and Arlington Avenue
22. Washington Street and Ridgeview Drive
23. Washington Street and Sadlier Drive
24. Washington Street/US 40 and Franklin Road
25. Washington Street/US 40 and Fenton Avenue
26. Washington Street/US 40 and Post Road
27. Washington Street/US 40 and Cherry Tree Plaza
28. Washington Street/US 40 and Washington Square Mall
29. Washington Street/US 40 and Centre East
30. Eastern Terminus in the Town of Cumberland

### **III. Infrastructure Improvements**

As part of the Blue Line, infrastructure improvements would be made to roadway pavement, drainage, sidewalks, and traffic signals.

#### **a. Pavement**

A conditions assessment of the existing pavement structure along the Blue Line corridor has been completed, as well as identification and construction of pavement restoration treatments for Blue Line and general-purpose travel lanes. These pavement improvements will include primarily pavement rehabilitation with a small section of pavement reconstruction along Washington Street between Holt Road and Mitchner Avenue within the existing curb-lines of the road right-of-way. The pavement rehabilitation treatments would include pavement milling and hot asphalt mix (HMA) overlay treatment along the corridor at the following defined locations:

- Washington Street between Holt Road and Schumacher Way
- One-way pair of Washington and Maryland streets between Schumacher Way and New Jersey Street; and
- Washington Street between New Jersey Street and Mitchner Avenue.

No pavement rehabilitation or reconstruction is anticipated west of Holt Road (along I-70 or on Airport property) east of the Interstate (I-465) interchange on the east side of downtown Indianapolis. The Indiana Department of Transportation (INDOT) owns and maintains Washington Street/US 40 east of the I-465 interchange to the eastern terminus of the Blue Line.

Any work on cross streets would extend only to the stop bar. These pavement improvements would occur only on Washington Street, and on a small portion of Maryland Street.

#### ***b. Stormwater Drainage***

Stormwater drainage improvements would be implemented to maintain the capacity of the existing combined sewer network and to meet requirements for storm sewer spread for roadways in accordance with the City of Indianapolis Stormwater Design and Construction Specifications Manual<sup>1</sup>. Along the Blue Line, the reduction in the number of general-purpose travel lanes, combined with the general-purpose lane being the curb lane in a center-running BRT configuration, contributes to the need for additional curb inlets to meet design criteria on certain portions of the corridor. This is due to the need to maintain a viable travel lane during the design storm event, per City of Indianapolis design requirements. With fewer general-purpose lanes available, the space allowed for storm sewer spread would be reduced.

Additionally, new stormwater outfalls would be needed along the corridor to discharge stormwater to their respective receiving waterbodies. One of these outfalls would route stormwater infrastructure through properties owned by Indianapolis Public Schools at 4900 Julian Avenue and a commercial property at 5061 East (E.) Washington Street before discharging to Pleasant Run Creek. As drainage design advances, coordination and discussion will continue with the City of Indianapolis. Stormwater detention would be required in some locations per local requirements. Collaboration with the City of Indianapolis (City) is occurring to place necessary underground detention facilities in City owned properties where practical. Approval of underground stormwater detention would be coordinated through the Federal Transit Administration (FTA).

#### ***c. Pedestrian Infrastructure***

The Blue Line would improve pedestrian access by providing continuous sidewalks on both sides of Washington Street for the entire length of the corridor, excluding the sections within the Airport property, along I-70, and along Holt Road. New sidewalks would be constructed along the corridor where none currently exist. Existing sidewalks in poor condition would be repaired or replaced. Existing sidewalks that meet ADA requirements and are in good condition would not be widened or replaced. There would be sidewalk construction and improvements to help fill linear gaps in sidewalk along Washington Street. Approximately 1,500 feet of an 8 – 10 feet sidewalk path occurs on the south side of Washington Street between Holt Road and South Tibbs Avenue. The path would connect to, but not preclude, a future greenway project planned west of Holt Road that is separate from the Blue Line (Appendix A). A five-foot grass buffer between the curb and sidewalk would be provided, where possible, within the existing right-of-way.

Additionally, new crosswalk pavement markings, consisting of continental-type crosswalk pavement markings, would be installed at station locations and signalized intersections within the project limits. Where practical, median pedestrian refuges that are a minimum of eight-feet wide and curb extensions would be added to reduce pedestrian crossing distance. Pedestrian refuges would occur through either Rectangular Rapid Flashing Beacons (RRFB) or High-Intensity Activated Crosswalk Beacons (HAWK). Existing refuges near Randolph Street, Oxford Street, Layman Street, Audubon Road, Bolton Avenue and Woodlark Drive would become either HAWKs or RRFB. New pedestrian refuges would occur between Traub and Elder (RRFB), Keystone (HAWK), near the Fenton Station and at the Mitthoeffer traffic signal.

All corners of intersections, with or without stations, would include new ADA curb ramps, unless the existing curb ramps are in good condition and within ADA standards.

#### ***d. Traffic Signals and Turning Movements***

Existing signals would be assessed for current conditions and upgraded as needed. New traffic signals where none currently exist are at seven locations to improve access for vehicles and pedestrians. Generally, these signal additions would occur in areas where mid-block left turns are being restricted by implementation of the Blue Line as a mitigation measure for motorist access. In some areas, left-turn/U-

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<sup>1</sup> <https://www.indy.gov/activity/public-works-specifications-and-manuals>



turn and right-turn lanes may need to be added to maintain an agreed upon level of service and to access businesses along the Blue Line corridor.

Traffic signal priority (TSP) is planned along the route at to-be-determined signalized intersections; which may require new signal controllers.

## **B. Project Purpose and Need**

The Marion County Transit Plan calls for a system-wide expansion of both fixed-route and fixed-guideway services. It consists of three key components: an increase in existing fixed-route service; construction of three new BRT routes, including the Blue Line; and a switch from a hub-and-spoke network to a connected-grid network.

The Washington Street corridor is one of the main east-west travel routes across Marion County. The corridor encompasses some of the region's largest trip generators, including the Indianapolis International Airport, the Indianapolis Zoo, downtown Indianapolis, and regional shopping centers, as well as several planned redevelopment areas and a population with a higher poverty rate than Indianapolis as a whole. IndyGo's busiest bus route currently serves the corridor with 15-minute daily service over most of the route. The Blue Line would provide this east-west travel route across Indianapolis and Marion County, Indiana.

The Blue Line would reduce transit travel times in the corridor by up to 40 percent, support redevelopment efforts, and provide improved service levels to the high concentrations of underserved populations; thereby providing increased access to the community, improving urban mobility, and connecting neighborhoods to economic opportunities and cultural amenities within Marion County.

## **C. Location**

The Blue Line route would operate between the Airport on the west and the Town of Cumberland on the east, passing through the Julia M. Carson Transit Center in downtown Indianapolis as shown in Figure 1. As stated previously, between the Airport and Holt Road, the Blue Line would operate on I-70. From the airport, the Blue Line would exit the Airport Terminal on Colonel H. Weir Cook Memorial Drive and follow I-70 to the Holt Road interchange and proceed northward to Washington Street. The Blue Line would follow Washington Street eastward to Schumacher Way, where it would utilize the one-way pair of Maryland Street (eastbound) and Washington Street (westbound) through downtown Indianapolis. Between New Jersey Street and Southeastern Avenue, the Blue Line route would return to two-way operation along Washington Street to its eastern terminus in the Town of Cumberland.

## **D. Metropolitan Planning and Air Quality Conformity**

The Blue Line is currently included as part of the 2050 Long Range Transportation Plan<sup>2</sup> (December 15, 2021). It is referenced as LRTP #9006 for 'Transit Enhancement Capital Project.' It is also included in the 2024-2027 Regional Transportation Improvement Program<sup>3</sup>. This documentation indicates that emissions projected to occur from the Blue Line would conform with the Indianapolis Metropolitan Planning Organization's (MPO) applicable air quality requirements for the greater Indianapolis region.

## **E. Land Use and Zoning**

Land use and zoning conditions were reviewed to determine if the Blue Line would have any impacts or benefits on the area as well as to examine its compatibility with the land use vision along the corridor. To serve as a feeder route from the Airport to the downtown and other corridors, the Blue Line would receive support from a relatively high-density residential land use over the corridor. Along the designed route, commercial uses distribute in clusters near the Airport, at downtown, and along Washington Street, serving

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<sup>2</sup>2050 Metropolitan Transportation Plan. <https://www.indympo.org/planning/mtp>

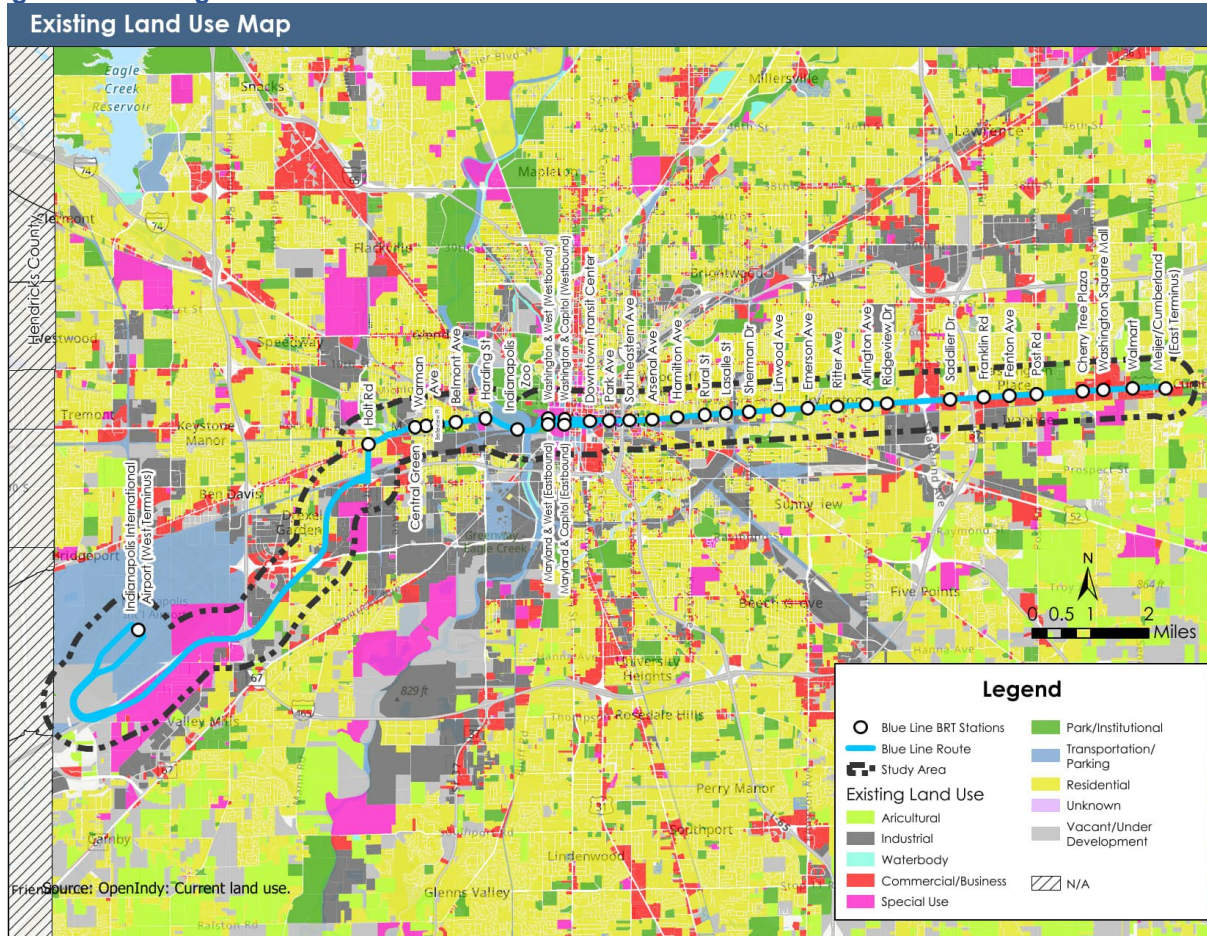
<sup>3</sup> Indianapolis Metropolitan Planning Organization. 2024-2027 Transportation Improvement Program. <https://www.indympo.org/funding/irtip>



as the employment hubs or retail centers. There are also industrial uses on the west bank of the White River, as well as along the railroads.

Figure 3 shows existing land uses along the Blue Line corridor.

**Figure 3. Existing Land Use**



Source: IndyGIS. "Current Land Use." OpenIndy Data Portal, 2023.

### **I. Existing Land Uses**

The Blue Line corridor starts at the Indianapolis International Airport at the western terminus, then continues along I-70 through mixed and industrial uses then pivots north on Holt Road before accessing Washington Street. The majority of the western portion of the Blue Line corridor is planned along a primary arterial roadway (Washington Street) with typical urban commercial uses adjacent to the road. Low-to-moderate-density single-family residential uses are adjacent to commercial uses. There are scattered institutional and park and open space uses throughout.

The Blue Line corridor continues east through downtown Indianapolis in typical central business district and mixed land uses. Portions of the corridor are adjacent to major destination locations including the Indianapolis Zoo, White River State Park, Monument Circle, and the Julia M. Carson Transit Center.

The eastern portion of the Blue Line corridor consists of mixed uses and moderate-density residential uses adjacent to Washington Street. There are also some industrial and neighborhood commercial uses in this



area of the corridor. The corridor changes to primarily commercial land uses further east in the vicinity of I-465. The corridor is also adjacent to a few city parks and it crosses a greenway.

The most eastern portion of the corridor along Washington Street (from the I-465 vicinity to the eastern terminus) consists of heavy commercial uses adjacent to the road. Additional adjacent land uses include special uses and mixed uses.

## **II. Future Land Uses**

As a part of the Comprehensive Plan for Indianapolis and Marion County, Plan 2020<sup>4</sup> updated the land use and zoning policies in 2018. Plan 2020 creates a unified, countywide land use plan that updates, incorporates, or replaces the dozens of existing planning documents. This unified land use plan focuses on specific dynamics that impact land use, including transportation, which serves as performance indicators for each land use typology.

The Marion County Land Use Plan Pattern Book<sup>5</sup>, amended in 2019, identifies new land use typologies that are applied throughout the county. A Transit Oriented Development (TOD) overlay exists on parts of the Blue Line route. Overlays allow additional or modified land uses that would otherwise not be present in the underlying typology. The purpose of the TOD overlay is to create dense, mixed-use communities near transit for access to jobs and services.

In addition to the TOD overlay, the Blue Line Transit Oriented Development Strategic Plan<sup>6</sup> (Strategic Plan), adopted in 2018, provides policy guidelines that support land use and development patterns to complete implementation of Blue Line. The Strategic Plan studies the TOD potential of Blue Line and shows heat spots along the route in downtown and the Irvington neighborhood area. The Strategic Plan also sets up goals for affordable housing, better walkability, and infrastructure investment along the corridor.

The Strategic Plan provides aspirational insights on typologies within TOD areas. Based on the desired future land use, design standards are provided in the following categories: central business district (CBD), district center, community center, and walkable neighborhood. For Blue Line, the segment between Indianapolis Zoo and Southeastern Avenue belongs to the CBD category. CBD aims to provide a mixed use of office, entertainment, retail, public space, and residential without off-street parking. The residential development should be high-density mixed-use and multi-family with a Floor Area Ratio (FAR) at 25+ dwelling units (du) /acre. The commercial development should incorporate office spaces, retail, and institutional employment with a FAR at 10+. Buildings are encouraged to be over 10 stories.

Approximately seven stations along the Blue Line corridor are in the district center category, including the Airport, Central Green, Arsenal Avenue, Rural Street, Ritter Street, Cherry Tree Plaza, and Washington Square Mall stations. District centers are walkable areas with mixed use development of office, retail, entertainment, and residential where off-street parking is discouraged. In these areas, residential development should be mixed-use multi-family at the center with single-family housing beyond. The net FAR should be 20+ du/acre. Commercial development should have a FAR of 1 to 6 with offices less than 250,000 square feet and concentrated retail.

Most of the stations besides Belleview Place and Linwood Avenue are community centers. Community centers are walkable commercial centers with mixed-use development of strip commercial, office, and residential. Surface parking should be consolidated and located behind the buildings. Residential development should have a net FAR at 18+ du/acre with clusters of multi-family and single-family residences on the fringe. Commercial FAR should be between 1 to 6. Building heights can vary between 2 to 6 stories near the station. Beyond the station area, buildings can be 1 to 3 stories. For the walkable neighborhood stations (Belleview Place and Linwood Avenue), the area should be walkable and primarily

<sup>4</sup> Plan 2020, <https://indygipc.org/initiatives/plan-2020/>

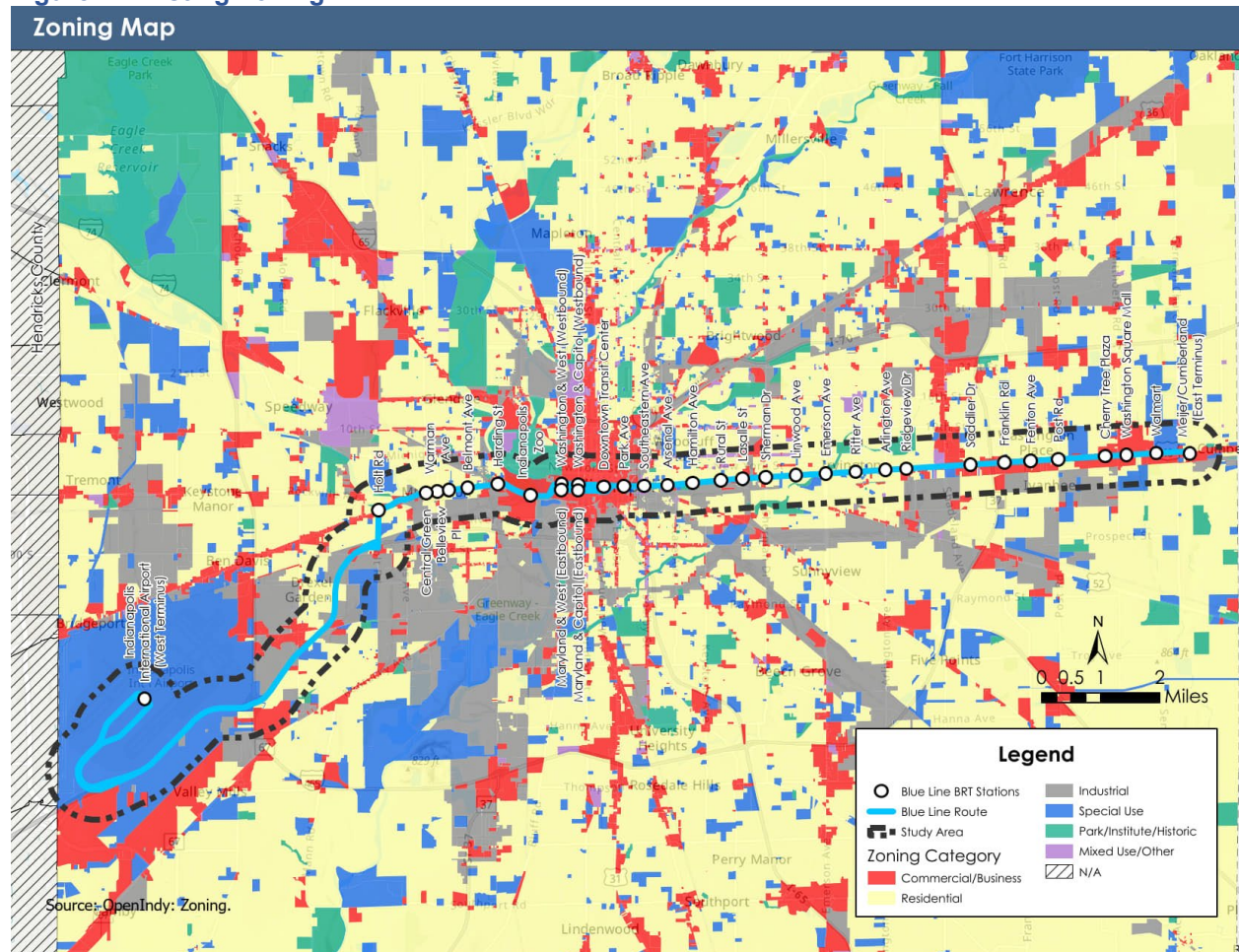
<sup>5</sup> Marion County Land Use Plan Pattern Book, <https://www.indy.gov/activity/comprehensive-plan-for-the-city-county>

<sup>6</sup> Blue Line Transit Oriented Development Strategic Plan, <https://citybase-cms-prod.s3.amazonaws.com/e8cac38e4b57431fbab69fdbdb225e5b.pdf>

residential with a commercial node. Off-street parking should be limited to garages. The residential development should primarily be single-family housing with some mixed-use multi-family at the center. The residential FAR should be 12+ du/acre. Commercial development should mainly be neighborhood retail without suggested FAR. Buildings at the station are recommended to have the height of 2 to 4 stories. Around the entire TOD area, continuous sidewalks and improved connections would need to be provided to enhance pedestrian environment.

Zoning policy was updated as part of the Indy Rezone project, which resulted in the Consolidated Zoning and Subdivision Ordinance<sup>7</sup> that was most recently updated in May 2023. The zoning districts within the Blue Line corridor include residential, commercial, mixed-use, central business, industrial, and special use districts. Figure 4 shows the existing zoning districts along the Blue Line corridor.

**Figure 4. Existing Zoning**



Source: IndyGIS. "Zoning." OpenIndy Data Portal, 2023.

The Blue Line is consistent with existing land use and zoning policy within the corridor and is not anticipated to have any adverse environmental impacts.

<sup>7</sup> <https://www.indy.gov/activity/zoning-and-subdivision-ordinance-indy-rezone>

## F. Traffic Impacts

As the third of three planned BRT lines being built as part of the Marion County Transit Plan<sup>8</sup>, the Blue Line would improve reliability and travel time, relative to existing transit service, by introducing center dedicated and BAT lanes on just over 50 percent of the corridor. The route would traverse 78 signalized intersections, seven of which would be newly signalized intersections as a part of the Blue Line. Additionally, an existing signal at Keystone Avenue and Washington Street would be removed. Some of these signals would be added to mitigate the effects of dedicated transit lanes on general purpose traffic access to properties and approaches along the Blue Line corridor.

Several different lane configurations throughout the Blue Line corridor were chosen to minimize potential impacts to the existing network, while maximizing BRT efficiency through the use of dedicated lanes or BAT lanes.

Blue Line vehicles would operate in mixed traffic from the Airport to North Tibbs Avenue (except at the Holt Road station), Ridgeview Drive to Shadeland Avenue, and from the signal west of German Church Road to the eastern terminus in the Town of Cumberland. In the other portions of the Blue Line corridor, BRT vehicles would be in BAT lanes and center-running dedicated lanes. BAT lanes are semi-dedicated lanes for BRT vehicles that also allow limited use by general purpose traffic turning at driveways or signalized intersections. Short sections of bi-directional lanes would be used where necessary due to existing constraints at the following locations:

- Railroad overpass between South Tibbs Avenue and Rockville Road – approximately 645 feet
- Railroad overpass between Harding Street and White River Parkway – approximately 440 feet
- At the I-65/I-70 overpass between entrance and exit ramps – approximately 240 feet
- Between Southeastern Avenue and Highland Avenue – approximately 400 feet

Table 1 summarizes the lane configurations by location for the Blue Line.

**Table 1. Blue Line Lane Configuration by Location**

Location Along Blue Line	BRT Lane Configuration	Approximate Segment (miles)
Airport to North Tibbs Avenue	Mixed Traffic	10.5
North Tibbs Avenue to Schumacher Way	BAT Lanes and Center-Running Dedicated Lanes	2.4
Washington Street and Maryland Street from Schumacher Way to New Jersey Street	BAT Lanes	1.1
New Jersey Street to Ridgeview Drive	Center-Running Dedicated Lanes	5.0
Ridgeview Drive to Shadeland Avenue	Mixed Traffic	0.7
Shadeland Avenue to Walmart (Signal West of German Church Road)	BAT Lanes and Center-Running Dedicated Lanes	3.7
Washington Street from Walmart (Signal West of German Church Road) to the eastern terminus	Mixed-Traffic	0.6

<sup>8</sup> <https://www.transitdrivesindy.com/marion-county-transit-plan>



The Blue Line would include curb modifications at several intersection corners but would have minimal impact to existing pavement width. TSP would be installed at each signalized intersection along the corridor to improve transit performance at traffic signals. The TSP would monitor on-coming buses and provide extra green time to allow for travel through the intersection on a particular green cycle. Currently, IndyGo and the Indianapolis Department of Public Works (DPW) are developing a policy guide to operate TSP for the various BRT lines within the city limits. The TSP system for the Blue Line would be consistent with those guidelines once developed.

### ***I. Traffic***

Where center-running dedicated lanes would be introduced, left turns into and out of unsignalized driveways and cross streets would be restricted. At these locations, 14-inch wide and 2-inch tall mountable concrete center curb medians would separate buses traveling in opposite directions and deter general purpose traffic from crossing the bus-only lanes to make left turns into and out of unsignalized driveways or cross streets. To mitigate the impacts of restricted left-turn access, left-turns and U-turns would be accommodated at signalized intersections in areas with the turn restrictions. Seven traffic signals would be added along the Blue Line corridor that would reduce the distance between signalized U-turn access points, thereby lessening the potential impact to motorists. The seven traffic signals would be added at the following intersections:

- Washington Street & Central Greens Boulevard
- Washington Street & Park Avenue
- Washington Street & Arsenal Avenue
- Washington Street & Hamilton Avenue
- Washington Street & Grant Avenue
- Washington Street & Sheridan Avenue
- Washington Street & Fenton Avenue

Through the restriction of left-turn movements at unsignalized driveways and cross streets, general purpose access is consolidated to signalized intersections; this access management strategy would improve travel flow between signalized intersections and reduce the frequency of mid-block crashes. The center-running configuration would likely mitigate several types of crashes between signalized intersections, specifically: left-turn, rear end, right angle, opposite direction sideswipe and same direction sideswipe crashes. The center-running configuration prohibits certain movements that sometimes lead to these crash types; and therefore, the frequency of these crash types should be reduced with implementation (Appendix B). Additionally, it is anticipated that many left-turn crashes at signalized intersections would be mitigated due to the implementation of protected signal phasing for left-turning traffic. Crash data associated with Washington Street inside I-465, excluding Schumacher Way to New Jersey (the section where center-running dedicated lanes will be implemented), was evaluated for a three-year period (2015-2017). This assessment indicated that 30 percent of the crashes that occurred from 2015 to 2017 were of the types summarized above and could potentially be mitigated with implementation of the center-running configuration. The crash evaluation memorandum can be found in Appendix B.

Traffic operations for the Blue Line were evaluated using a rating system called Level of Service (LOS). LOS ratings are measured in terms of average delay per motorist, where delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. LOS A is free-flowing operating condition, and LOS F has the longest delays. LOS D or better is considered acceptable in most urban settings, though LOS E is sometimes considered acceptable at high-volume locations.

Current traffic volumes and vehicle mix on I-70 yield a passenger car equivalent count of 5,000 vehicles in one direction during the peak hour. With three lanes available, this results in an hourly volume of 1,665 vehicles per lane. Based on the Highway Capacity Manual<sup>9</sup> Exhibit 12-37, at 55 miles per hour (mph), this equates to operations of LOS D. LOS D on a freeway is described as drivers beginning to reduce speeds but operating below capacity and not experiencing added delay. Overall travel times would improve for the

<sup>9</sup> Highway Capacity Manual, 7<sup>th</sup> Edition, 2022. Transportation Research Board.



Blue Line along I-70, and the travel time reliability of not traveling through traffic signals west of Holt Road would also benefit the Blue Line.

Additionally, traffic analysis was conducted for the AM and PM peak hours using Synchro software to assess impacts to general purpose traffic associated with implementation of the Blue Line. The construction of the Blue Line is anticipated to start in 2025 and be completed in 2027. Seventy-eight (78) signalized intersections that the Blue Line will traverse were included in the Synchro model, including the seven new signals. Overall intersection LOS was considered acceptable for the Blue Line if it was the same or better than existing LOS, or if it was LOS D or better. Results from the Synchro analysis can be found in Appendix B.

Given the lane configuration for the Blue Line, of the 78 signalized intersections evaluated, only four intersections are not projected to meet the overall intersection LOS criteria:

- Washington Street & Rural Street
- Washington Street & Sherman Drive
- Washington Street & Emerson Avenue
- Washington Street & Arlington Avenue

Under existing conditions, the intersection of Washington Street & Rural Street operates at LOS B during the AM peak hour and LOS C during the PM peak hour. With the Blue Line, the intersection is projected to operate at LOS E during both the AM and PM peak hours, even with inclusion of signal timing optimization. LOS D or better could be achieved during the peak hours if north/south left-turns operated with no protected phasing, but the safety impacts of this operation were deemed undesirable by the DPW, the agency having jurisdiction over the intersection.

Under existing conditions, the intersection of Washington Street & Sherman Drive operates at LOS C during the AM peak hour and LOS D during the PM peak hour; under the Blue Line, the intersection is projected to operate at LOS F during both the AM and PM peak hours. Under existing conditions, the intersection of Washington Street & Emerson Avenue operates at LOS C during both the AM and PM peak hours; under the Blue Line, the intersection is projected to operate at LOS F during the AM peak hour and LOS E during the PM peak hour. At both intersections, the addition of a southbound right-turn lane is being considered, to improve LOS during the peak hours.

Under existing conditions, the intersection of Washington Street & Arlington Avenue operates at LOS D during both the AM and PM peak hours. Under the Blue Line, the intersection is projected to operate at LOS F during the AM peak hour and LOS E during the PM peak hour. Achieving overall LOS D or better during the peak hours would require additional widening, which was deemed impractical. As a result, IndyGo and the Indianapolis DPW recognized the limitations of the Blue Line to meet LOS criteria at these four specific locations, and each has determined that the operations associated with the Blue Line is acceptable and not adversely detrimental to the area. See Appendix B for the Blue Line BRT Traffic Analysis Summary memorandum.

## **II. Parking**

There are currently around 500 on-street parking spaces along the Blue Line corridor; about half of these on-street spaces are metered parking spaces, and about half of these on-street spaces are unmetered parking. To accommodate the Blue Line, mostly for bump-outs and stations, there would be removal of approximately 77 spaces (Table 2). Most of the parking losses would be non-metered spaces located sporadically along Washington Street. There are four areas where parking would be eliminated because of stations on the south side of Washington Street: between Addison Street and Belleview Place; Sheffield Avenue and Belmont Avenue; Belmont Avenue and Traub Avenue; and Traub Avenue and Elder Avenue. In each area, parking is available either along the side streets, in unstripped lots on the business property, or within public shopping centers (Table 2 and Appendix C). Additionally, between Traub and Elder Avenues, five unmetered parking spaces would be added on the north side of Washington Street.



This information has been shared at public and stakeholder involvement meetings and will continue to be communicated to the public during the design and construction phases.

An inventory of existing on-street parking was taken to determine the impact of displaced parking spaces due to the Blue Line infrastructure. The survey collected parking occupancy rates for unmetered spaces along each roadway segment on two weekday afternoons in February 2019, one weekday evening in February 2019, and one Saturday in February 2019. Based on the utilization data collected, approximately 20 percent of unmetered spaces along the corridor are occupied, on average. Occupancy of metered spaces was calculated using a separate methodology and averaged 51 percent for the corridor. Based on the data summarized above, only minor parking impacts are expected to nearby community and business uses.

**Table 2. Parking Impacts along the Washington/Maryland for the Blue Line**

Street	Blocks	Existing		SPACES REMOVED	SPACES ADDED	NOTES
		Metered	Non - Metered			
Washington	Hancock - Harris	-	18	4	-	Parking available on side streets and private lots.
Washington	Harris - Wartman	-	11	1	-	Parking removed for bump-outs
Washington	Wartman - Homes	-	10	1	-	Parking removed for bump-outs
Washington	Homes - Addison	-	13	1	-	Parking removed for bump-outs
Washington	Addison - Bellview	-	14	14	-	Available parking is provided on the west sides of both Addison and Bellview and there are approximately 12 spaces in the lot behind businesses
Washington	Bellview - Mount	-	12	2	-	Parking removed for bump-outs
Washington	Mount - Tremont	-	12	1	-	Parking removed for bump-outs
Washington	Tremont - Sheffield	-	25	1	-	Parking removed for bump-outs
Washington	Sheffield - Belmont	-	10	8	-	Available parking is provided along Sheffield and there are approximately 30 spaces available in numerous lots behind the various businesses
Washington	Belmont - Traub	-	13	13	-	Over 70 spaces are available within the shopping center/strip mall adjacent to the station
Washington	Traub - Elder (south)	-	11	11	-	Approximately 80 spaces are available within the shopping center/strip mall adjacent to the station

Street	Blocks	Existing		SPACES REMOVED	SPACES ADDED	NOTES
		Metered	Non - Metered			
Washington	Traub - Elder (north)	-	-	-	5	
Washington	West - Missouri	4	-	-	-	Taxi Zone
Washington	Missouri - N. Senate (south)	7	-	-	-	
Washington	Missouri - N. Senate (north)	33	-	-	-	Taxi Zone
Washington	N. Senate - Capitol	30	6	3	-	20-minute parking
Washington	Capitol - Illinois	13	7	-	-	Theatre loading zone
Washington	Illinois-Meridian	7	12	-	-	Conrad Hotel Valet
Washington	Meridian - Pennsylvania	14	3	-	-	20-minute parking
Washington	Pennsylvania - Delaware (north)	13	2	-	-	20-minute parking
Washington	Pennsylvania - Delaware (south)	-	3	-	-	Valet parking
Washington	Delaware - Alabama (north)	15	-	-	-	5 IndyGo reserved spaces
Washington	Delaware - Alabama (south)	-	3	-	-	Media Parking Only
Washington	Alabama - New Jersey	18	-	-	-	
Washington	New Jersey - East (north)	11	-	-	7	
Washington	New Jersey - East (south)	-	-	-	11	
Washington	Pine - Cruse	-	5	5	-	Over 60 spaces are available in the surrounding parking lots adjacent to Washington
Washington	Cruse -Highland	-	8	8	-	Over 30 spaces are available in the surrounding parking lots adjacent to Washington
Maryland	West - Missouri	-	-	-	-	
Maryland	Missouri - S. Senate	8	-	-	-	Taxi Zone
Maryland	S. Senate - Capitol	12	7	-	-	20-minute parking/taxi zone
Maryland	Capitol - Illinois	17	2	-	-	20-minute parking
Maryland	Illinois-Meridian	24	-	-	-	
Maryland	Meridian - Pennsylvania	14	6	-	-	20-minute parking
Maryland	Pennsylvania - Delaware	11	-	-	-	4 meters "No parking anytime"
Maryland	Pennsylvania - Delaware	-	1	-	-	20-minute parking



Street	Blocks	Existing		SPACES REMOVED	SPACES ADDED	NOTES
		Metered	Non - Metered			
Maryland	Delaware - Alabama	-	16	-	-	Sheriff vehicles only
Washington	N. Layman-Audubon	0	22	11*		
<b>Totals Along Washington/Maryland</b>		<b>251</b>	<b>252</b>	<b>84</b>	<b>23</b>	

\* Within this area, for the private parking lot of Family Dollar, the Blue Line will likely impact 10 existing parking spaces, however, at least four parallel parking spaces within the reconfigured lot could be added resulting in a net loss of approximately six spaces. The adjacent strip mall just west of Family Dollar has 55 spaces. The Blue Line would impact approximately nine parking spaces; however, design could provide approximately four parallel spaces within the reconfigured lot resulting in a net loss of approximately five spaces.

### G. CO Hot Spots

The Indiana Department of Environmental Management (IDEM) (<https://www.in.gov/idem/sips/nonattainment-status-of-counties/>, accessed 9/5/2023) indicates that Marion County is in attainment for Carbon Monoxide (CO). The Blue Line is not anticipated to create a CO hotspot or exacerbate CO air quality standards because the Blue Line would improve transit use along the corridor while improving traffic flow along Washington Street between Holt Road and the eastern terminus.

### H. PM2.5 and PM10 Hot Spots

IDEM (<https://www.in.gov/idem/sips/nonattainment-status-of-counties/>, accessed 9/5/2023) indicates Marion County is currently classified as in attainment for particulate matter. As such, the area already conforms to the applicable Particulate Matter (PM) standards and does not require a PM conformity analysis. The Blue Line is not likely to be considered a project of concern for PM; the Blue Line proposes to use electric-diesel buses. Additionally, the Blue Line is listed within the 2050 Long Range Transportation Plan<sup>10</sup> as a transit enhancement project, which falls under CFR 93.126 Table 2 as being exempt from a hot-spot analysis.

### I. Historic Resources

Since the FTA is providing funding for the Blue Line, it is subject to compliance with the National Historic Preservation Act (NHPA) of 1966, as amended (54 U.S.C. § 300101 et seq.) and its implementing regulations (36 CFR 800). Specifically, Section 106 of the NHPA requires FTA as the lead federal agency to take into account the effects of its undertakings on historic properties.

Per Section 106 requirements, the lead federal agency, in consultation with the State Historic Preservation Office (SHPO), determines the area of potential effect (APE). The APE is defined in Section 106 of the NHPA as “the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties if any such properties exist.” The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

#### I. Area of Potential Effects

Based on the scope and nature of the Blue Line, an archaeological APE boundary and an above-ground APE boundary were defined for the Blue Line.

The archaeological APE boundary is defined by the limits of ground disturbance for the Blue Line in consideration of potential physical impacts to historic properties. This includes the footprint of the Blue Line stations, outfall areas, median pedestrian refuges and curb extensions, as well as the limits of potential right-of-way acquisition, new sidewalks, and curb ramp improvements.

<sup>10</sup> 2050 Metropolitan Transportation Plan. <https://www.indympo.org/planning/mtp>.

The above-ground APE boundary includes the archaeological APE boundary and all roadway right-of-way within which the Blue Line would operate and a minimum 150-foot buffer at the Blue Line stations in consideration of potential visual, indirect, and cumulative impacts to historic properties. The 150-foot buffer was expanded at select Blue Line station locations, primarily on the west end of the route, which have the potential to shift laterally as design progresses.

## II. Historic Architectural Resources

A Historic Property Report was completed in April 2023 for the Blue Line and an Assessment of Effects Report was completed in July 2023 (Appendix D). Ninety-one above-ground resources that were more than 45 years of age were identified in the APE and surveyed. Twelve of the properties were previously listed on the National Register of Historic Places (NRHP). Two resources have been previously determined eligible for the NRHP. Two bridges were determined eligible for the NRHP as part of the Indiana Historic Bridge Inventory.

Table 3 identifies Listed, Determined Eligible, and Recommended Eligible NRHP Resources within the APE. Individual assessments of effects were completed for these NRHP-listed and eligible historic properties based on coordination with the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology (IDNR-DHPA).

**Table 3. Listed, Determined Eligible, and Recommended Eligible NRHP Resources**

Name	Address	Year Built	NRHP Status	NRHP Criteria	NRHP Reference ID
Indianapolis Park & Boulevard System Historic District	3,400 acres roughly bounded by 38 <sup>th</sup> Street and Emerson, Southern, and Tibbs avenues, extending along Fall Creek and Pleasant Run parkways to Shadeland Avenue, Indianapolis	1873–1952	Listed	A and C	03000149
Marion County Bridge No. 2414F	W. Washington Street over Big Eagle Creek	1924	Determined Eligible	C	N/A
Marion County Bridge No. 2415F	W. Washington Street over Little Eagle Creek	1913	Determined Eligible	A	N/A
Washington Street Methodist Church	2801 W. Washington Street	1924	Recommended Eligible	C	N/A
West Park Addition Historic District	N. Warman Avenue, Washington Street, Vermont Street, Turner Avenue, and N. Belleview Place	1900–1908	Determined Eligible	C	N/A
H. Lauter Company Complex	35–101 S. Harding Street	1895–1912	Listed	A and C	15000596
Indiana State Capitol Building	200 W. Washington Street	1878–1888	Listed	A and C	75000043
Washington Street – Monument Circle Historic District	Washington, Delaware, Wabash, Capitol streets	1852–1946	Listed	A and C	97001179
Indiana Theater	140 W. Washington Street	1927	Listed	C	79000035
Indianapolis Union Station Wholesale Historic District	E. Pearl Street, S. Delaware Street, Historic Union Station Concourse, and S. Capitol Avenue	ca. 1863–1930	Listed	A and C	82000067

Name	Address	Year Built	NRHP Status	NRHP Criteria	NRHP Reference ID
Gaseteria, Inc.	1031 E. Washington Street	1941	Listed	B and C	13000089
Ford Motor Company Indianapolis Assembly Plant	1315 E. Washington Street	1914	Listed	A and C	100006204
National Road & Southeastern Avenue Historic District	920–1050 E. Washington Street, 1031 E. Washington Street and adjacent parcel to its west, and 900 block of Daly Street	1860–1914	Determined Eligible	A and C	N/A
Holy Cross/Westminster Historic District	Roughly bounded by I-65, E. Washington Street, Randolph Street, and E. Michigan Street	1860–1914	Determined Eligible	A and C	N/A
Capitol Lodge IOOF Hall	2102 E. Washington Street	ca. 1900	Determined Eligible	A	N/A
Indianapolis Public School No. 3/ Lucretia Mott School	23 N. Rural Street	1905	Recommended Eligible	A	N/A
Indianapolis Public Library, Branch No. 3	2822 E. Washington Street	1909–1911	Listed	A and C	16000077
Linwood Colonial Apartments Historic District	4421 E. Washington Street	1937–1955	Listed	A and C	06000308
Bankers Lane Historic District	Washington Street, Pleasant Run Parkway, and Linwood Avenue	No data	Determined Eligible	A and C	N/A
Brown Bosart Historic District	Washington Street, Michigan Street, Linwood Avenue, and Emerson Avenue	No data	Determined Eligible	A and C	N/A
Katherine and Margaret Koch House	5030 E. Pleasant Run Parkway N. Drive	ca. 1922	Determined Eligible	C	N/A
Irvington Historic District boundary increase	Pleasant Run Parkway from E. Washington Street to N. Emerson Avenue	No data	Determined Eligible	A and C	N/A
Irvington Historic District	Between Emerson and Arlington avenues, both north and south of Washington Street	1870–1936	Listed	A and C	87001031
Irvington Terrace Historic District	Between Arlington Avenue and Elizabeth Street, from Washington Street to Pleasant Run Golf Course	ca. 1895–1959	Listed	A and C	11000913
Tilford and Thrasher's	Arlington Avenue, Washington Street,	ca. 1900–	Determined Eligible	A	N/A

Name	Address	Year Built	NRHP Status	NRHP Criteria	NRHP Reference ID
Irvington Addition Historic District	Sheridan Avenue, and the Pennsy Trail	ca. 1970			
Irvington High School/Thomas Carr Howe High School	4900 Julian Avenue	1938-1974	Recommended Eligible	A and C	N/A
Skyline Motel	6617 E. Washington Street	ca. 1957	Determined Eligible	A	N/A

Individual assessments of effects were completed for the NRHP-listed and eligible historic properties. The assessment of effects was developed based on the criteria of adverse effect and consideration of each property’s historic importance, relevant aspects of integrity, and historic viewsheds. Effects assessments are based on the criteria of adverse effect as defined in 36 CFR 800.5, “Assessment of adverse effects.” To determine if any historic properties would be affected by the Blue Line, the Blue Line plans and available documentation for all NRHP-listed and eligible historic properties in the APE were reviewed. This included a review and determination of each property’s historical significance, its character-defining features, and those aspects of integrity most relevant to conveying its historical significance. None of the historic properties in the APE would be adversely affected by the Blue Line (Table 4).

The IDNR-DHPA concurred with the findings of no adverse effect on January 10, 2024. Additional text regarding the effects determination can be found in Appendix D.

**Table 4. Effect Determinations for Listed, Determined Eligible, and Recommended Eligible NRHP Resources**

Name	NRHP Status	NRHP Reference ID	Determination of Effect
Indianapolis Park & Boulevard System Historic District	Listed	03000149	No Adverse Effect
Marion County Bridge No. 2414F	Determined Eligible	N/A	No Adverse Effect
Marion County Bridge No. 2415F	Determined Eligible	N/A	No Adverse Effect
Washington Street Methodist Church	Recommended Eligible	N/A	No Adverse Effect
H. Lauter Company Complex	Listed	15000596	No Adverse Effect
Indiana State Capitol Building	Listed	75000043	No Adverse Effect
Washington Street – Monument Circle Historic District	Listed	97001179	No Adverse Effect
Indiana Theater	Listed	79000035	No Adverse Effect
Indianapolis Union Station Wholesale Historic District	Listed	82000067	No Adverse Effect
Gaseteria, Inc.	Listed	13000089	No Adverse Effect
Ford Motor Company Indianapolis Assembly Plant	Listed	100006204	No Adverse Effect
Holy Cross/ Westminster H.D.	Determined Eligible	N/A	No Adverse Effect
Indianapolis Public School No. 3/ Lucretia Mott School	Recommended Eligible	N/A	No Adverse Effect

Name	NRHP Status	NRHP Reference ID	Determination of Effect
Indianapolis Public Library, Branch No. 3	Listed	16000077	No Adverse Effect
Linwood Colonial Apartments Historic District	Listed	NR-1842	No Adverse Effect
Irvington Historic District	Listed	87001031	No Adverse Effect
Irvington Historic District boundary increase	Determined Eligible 2023	N/A	No Adverse Effect
Irvington Terrace Historic District	Listed	11000913	No Adverse Effect
Irvington High School/Thomas Carr Howe High School	Recommended Eligible	N/A	No Adverse Effect
West Park Addition Historic District	Determined Eligible 2023	N/A	No Adverse Effect
National Road & Southeastern Avenue Historic District	Determined Eligible 2023	N/A	No Adverse Effect
Capital Lodge IOOF Hall	Determined Eligible 2023	N/A	No Adverse Effect
Bankers Lane Historic District	Determined Eligible 2023	N/A	No Adverse Effect
Brown Bosart Historic District	Determined Eligible 2023	N/A	No Adverse Effect
Katherine and Margaret Koch House	Determined Eligible 2023	N/A	No Adverse Effect
Tilford and Thrasher's Irvington Addition Historic District	Determined Eligible 2023	N/A	No Adverse Effect
Skyline Motel	Determined Eligible 2023	N/A	No Adverse Effect

### III. Archaeological Resources

A Records Check and Phase Ia Archaeological Reconnaissance Survey was completed for the Blue Line (Appendix E).

Three previously recorded archaeological sites were located within the survey area. Sites 12Ma624 and 12Ma979 were within Segment 3 – Downtown of the Blue Line corridor (Figure 1) and 12Ma965 was within Segment 4 – Historic East of the Blue Line corridor (Figure 1). Sites 12Ma624 and 12Ma979 have both been destroyed by infrastructure and construction projects and are no longer extant. Site 12Ma965 is a twentieth century rail line discovered underneath Washington Street within the Irvington Historic District. The site is not eligible for listing in the NRHP or the Indiana Register of Historic Sites and Structures (IRHSS) and is completely under pavement within Washington Street.

The records check and Phase Ia archaeological reconnaissance survey resulted in the documentation of eight new historic archaeological sites (12Ma1092–12Ma1099) all within Segments 2 and 4 of the Blue Line (Figure 1). Sites 12Ma1092–12Ma1094 and 12Ma1097–12Ma1099 are recommended as not eligible for inclusion in the NRHP. Sites 12Ma1095 and 12Ma1096 are recommended for avoidance or further assessment. New construction plans for the Blue Line will avoid both of these sites. The IDNR-DHPA concurred with the findings for the archaeological sites on January 10, 2024. Additional text regarding the sites can be found in Appendix D.

Along the Blue Line corridor, there are two large cemeteries along the northern side of Washington Street: Memorial Park Cemetery and Washington Park East Cemetery. It is anticipated that ground disturbing activities will occur within 100 feet of both of these cemeteries, and that a Cemetery Development Plan (CDP) will be required for each cemetery as per Indiana Cemetery Preservation Law (IC 14-21-1-26.5).

The Indiana Cemetery Preservation Law does not prohibit construction near a cemetery but requires the CDP to identify information about the cemetery and the nature of potential ground disturbances within 100 feet of a cemetery. The Blue Line is not anticipated to result in any adverse effects to either cemetery.

## J. Visual Quality

The Blue Line involves the construction of stations within existing developed road right-of-way and would not result in substantive changes to the landscape or viewshed proximate to these rights-of-way. The surrounding area generally consists of a mix of commercial and residential land uses within a local and regional roadway network, typical of the urban and suburban communities that encompass the Blue Line. Thus, there are no sensitive views in the area.

New stations have been sited in proximity to major activity and employment centers, residential areas, and at intervals consistent with BRT operations for the Blue Line. Figure 1 shows the Blue Line stations. The stations would be similar to those of the Red and Purple BRT station design in appearance, size, materials, and amenities. This includes open station shelters consisting of metal-roof canopies supported by composite wood icons at each end of the station, level-boarding platforms for each direction of travel, lighting, signage, waste receptacles, and ticket vending machines. The BRT routes will be differentiated by the application of the branding and colors to each station; signage for the Blue Line will also be applied to the Red and Purple Line BRT stations, which will be constructed. A rendering of the station at the State Capital is provided as Figure 5.

Views to and from the Blue Line are not anticipated to materially change, as these built elements would be visually consistent in the context of existing corridor conditions. Viewshed concerns for historic resources along the Blue Line corridor were coordinated as part of the Section 106 process. No viewshed concerns have been identified by resource agencies or consulting parties to date.

**Figure 5. Rendering of the Blue Line Station at the State Capital.**



## K. Noise

A noise assessment was determined unnecessary since the Blue Line proposes the use of diesel-electric buses on existing roadway which currently supports vehicular traffic as well as local bus routes (including Local Route 8). Based upon FTA's Transit Noise and Vibration Assessment Manual (2018), the estimated general noise assessment for the Blue Line corridor would range between 65 and 70 decibels because of the existing roadways in the Blue Line corridor. The FTA Noise Impact assessment Spreadsheet for BRT corridors indicates that the Blue Line would generate noise levels below this range. The Blue Line vehicles would not adversely affect or aggravate conditions such that noise impacts would occur along the highly developed corridor or in the vicinity of the stations. Construction of the stations would result in temporary and short-term noise impacts that would cease once construction is completed (see Section X – Impacts Caused by Construction). The stations, once in operation, would not result in noise impacts.

## L. Vibration

Based upon FTA's Transit Noise and Vibration Assessment Manual, Figure 6-3, (2018), a vibration impact from the Blue Line is unlikely and no further analysis is required. The Blue Line vehicles would be comparable to existing buses already in service and, accordingly, would not adversely affect or aggravate conditions such that adverse consequences would occur along the corridor or in the vicinity of the stations. Construction of the stations would result in temporary and short-term vibration impacts that will cease once construction is completed (see Section X – Impacts Caused by Construction). Additionally, the Blue Line does not include new or relocated steel rail or tracks. The stations, once constructed, would not result in vibration impacts.

## M. Acquisitions & Relocations Required

The Blue Line would not displace any businesses or residences. Access to businesses and residences would be maintained during construction. The Blue Line would be constructed and operate within the existing roadway right-of-way except at the eastern terminus. In August 2021, IndyGo identified two undeveloped parcels (11135 E. Washington Street and 11207 E. Washington Street), approximately 6 acres in size combined, offered for sale by their owners adjacent to the Blue Line in the Town of Cumberland. IndyGo proposed to use part of both parcels for the eastern terminus (Appendix A). IndyGo requested permission from FTA for early acquisition of these properties based on Section 20016 of the Moving Ahead for Progress in the 21st Century Act that allows the acquisition of right-of-way before the completion of the NEPA process for any transit project that would eventually use that property. FTA granted the request on September 9, 2021 and the parcels were purchased.

The Blue Line's infrastructure improvements would require permanent right-of-way acquisition and temporary construction easements (Appendix F). Currently, there are 70 partial fee acquisitions identified for the Blue Line and include the following:

- Two public libraries
- Two religious institutions
- Two schools
- Fifty-three commercial properties
- Six Municipal properties
- Eight residential properties

The partial permanent acquisition of these properties is not anticipated to limit the existing or future uses of the parcels. The new right-of-way from these parcels vary from 0.001 acres to approximately 0.43 acre. A total of approximately 2.4 acres of new permanent right-of-way would be required to construct the Blue Line. A combination of leasing rights and a permanent easement is needed from the eastern terminus into the Meijer parking lot to allow for circuitous flow of the Blue Line.

Temporary construction easements would be needed for construction from 131 parcels accounting for approximately 2.7 acres. Following construction, the temporary easements would revert back to their current uses.

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (49 CFR 24) (URA) will apply to the Blue Line and IndyGo will follow the URA. No offers or appraisals will occur until after NEPA documentation has been approved by the FTA.

## N. Hazardous Materials

Analysis of the Blue Line identified potential sources of hazardous material (HazMat) impacts within existing right-of-way and on adjacent property that may be acquired for the Blue Line. These sites of concern, which have previously or currently contained hazardous materials and/or waste, still have the potential to contain HazMat contamination.

An Indiana Department of Environmental Management (IDEM) Virtual File Cabinet (VFC) records review was conducted in January 2022 to obtain records and data associated with these HazMat sites. This



included a review of information about the storage, leakage, disposal, and transportation of contaminated material, both presently and historically.

From the records review, 169 sites were identified and researched along the corridor. Twenty-six of these sites are Brownfields, 55 are Leaking Underground Storage Tank (LUST) sites, 52 are Underground Storage Tanks (UST) sites, two are Voluntary Remediation Program (VRP) sites, and 34 are institutional control sites. A detailed listing of these sites and mapping are documented in Appendix G. Based on the information available, these sites have a low to medium potential for contamination concerns associated with the Blue Line.

Based on potential property impacts associated with the Blue Line, ten of the sites identified above were further reviewed. These ten sites were associated with USTs or LUSTs, and four contained Environmental Restrictive Covenants (ERCs). None of the ERCs would apply to the Blue Line because either excavation is not anticipated to be below the area of concern or there is not an associated residential building construction, or groundwater would not be used for consumption (Table 5). Excavation required for pavement reconstruction and/or addition of sidewalks would be typically limited to only include the top three to five feet below the current ground surface. No adverse impacts are anticipated, however, if during construction, contamination is identified, steps will be taken to assure that proper personal protective equipment (PPE) is used and proper disposal of any contaminated soil or construction debris will occur, in accordance with federal, state, and local regulations.

**Table 5. Properties of Concern along the Blue Line Corridor**

Blue Line Parcel ID #	Address	Impact Area (acres) (Permanent/Temporary)	Identified Concern	Blue Line Construction Activity
139*	1501 W. Washington	0.142/0.025	Historic LUSTs	New sidewalk and driveway
157	2037-2039 E. Washington	0.021/0.031	UST with an ERC to not disturb soil >10 feet below surface	New sidewalk and driveway
175	3732 E. Washington	0.012/0.033	LUST	New sidewalk, curb ramp and driveway
174	3749 E. Washington	0.005/0.026	Historic LUST	New sidewalk and curb ramp
151	5103 E. Washington	0.014/0.026	ERC to not disturb soil >10 feet below surface	New sidewalk and curb ramp
211	5302 E. Washington	0.029/0.018	LUST; UST	New sidewalk and driveway
216	5540 E. Washington	0.011/0/015	USTs; ERC restricts groundwater and residential construction	New sidewalk
223	5933 E. Washington	0.044/0.021	LUST, USTs	New sidewalk and curb ramp
176	6005 E. Washington	0.029/0.016	USTs, ERC associated with vapor intrusions for new buildings and restricts groundwater use	New sidewalk, curb ram and driveway
233	6201 E. Washington	0.003/0.043	LUST, ERC associated with vapor intrusions for new buildings and restricts groundwater use	New curb ramp construction
-	<b>Total</b>	<b>0.310/0.254</b>	-	-

\*IndyGo owned Property



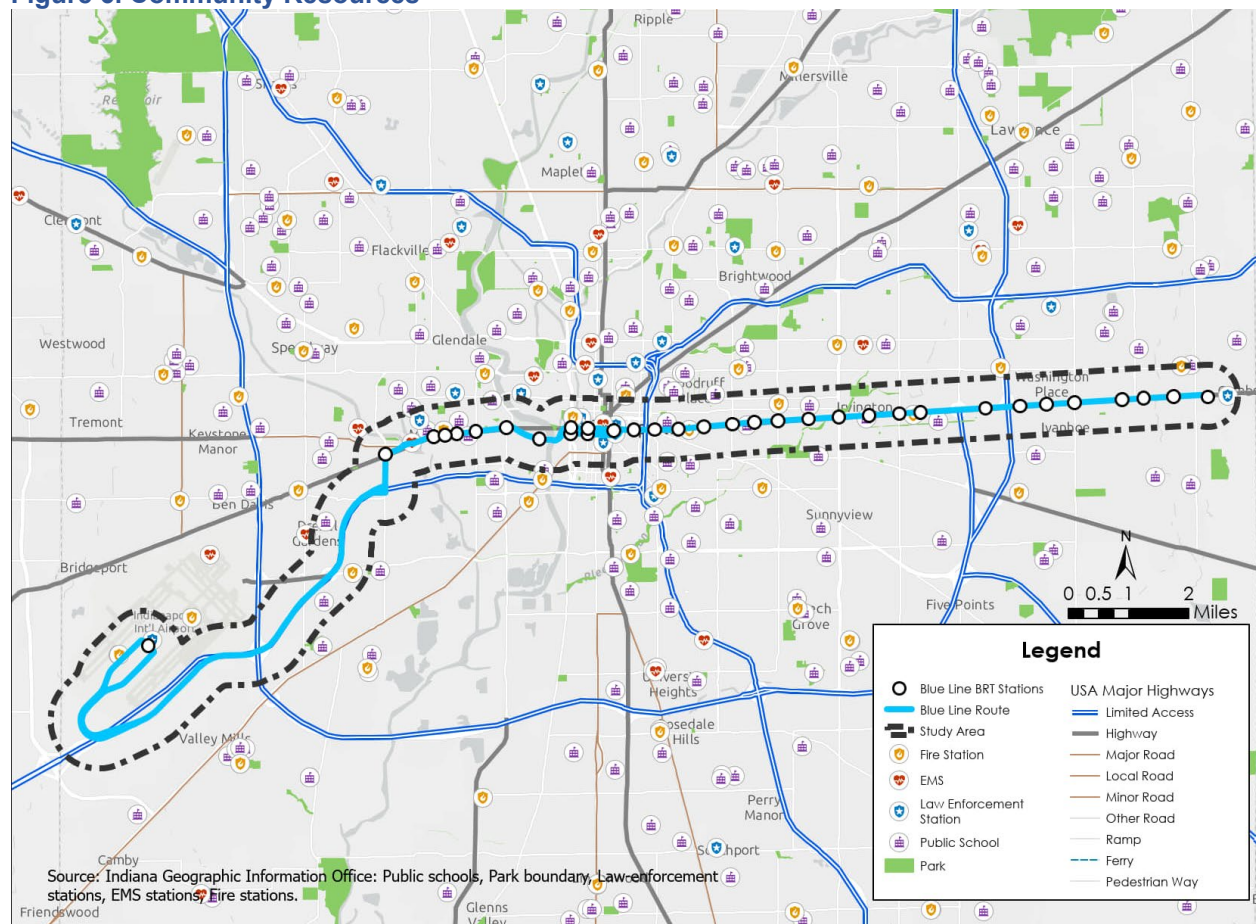
## O. Social Impacts and Community Disruption

The Blue Line will provide enhanced transit services from the Indianapolis International Airport to downtown and the Town of Cumberland/Eastern Marion County via Washington Street. The alignment will run within or adjacent to 15 neighborhood areas in Marion County: Airport, Stout Field, Garden City, Chapel Hill/Ben Davis, Near Westside, Downtown, Fountain Square, Near Eastside, Christian Park, Irvington, East Gate, East Warren, Raymond Park, Southeast Warren, and the Town of Cumberland.

There are several community resources along the Blue Line (Figure 6). Community resources include recreational facilities, schools, libraries, governmental facilities, emergency resources, hospitals and doctor offices, and religious institutions (Table 6). Data were also reviewed for community resources adjacent to the 500-foot buffer of the alignment for indirect effects.

The neighborhoods listed above are within the following census tracts (all within Marion County, Indiana: FIPS 18097): 360501, 360502, 361601, 360601, 360602, 361300, 360700, 361000, 355400, 354400, 356200, 354201, 391002, 391001, 356400, 390700, 342600, 342500, 341701, 342400, 342300, 342200, 370203.

**Figure 6. Community Resources**



Source: MapIndy, 2023

**Table 6: Community Resources within 500 feet of the Blue Line**

Community Resources	Type	Address
Department of Correction Adult Schools	School	302 W. Washington Street
Washington Irving School #14	School	1250 E. Market Street
George W Julian School #57	School	5435 E. Washington Street
Our Lady of Lourdes School	School	30 S. Downey Avenue
George Washington Community School	School	2215 W. Washington Street
Thomas Carr Howe High School	School	4900 Julian Avenue
Christel House Academy West	School	55 N. Tibbs Avenue
Ivy Tech Community College - Automotive Garage	School	1399/1331 E. Washington Street
Indianapolis-Marion County Public Library, East Washington Branch	Library	2822 E. Washington Street
Indianapolis-Marion County Public Library, Irvington Branch Library	Library	5625 E. Washington Street
Indianapolis Crime Lab	Police	40 S. Alabama Street
Indianapolis Fire Department #18	Fire	Warman Avenue
Indianapolis Fire Department #11	Fire	1715 E. Washington Street
Tuxedo Park Baptist Church	Religious/Church	29 N. Grant Avenue
Mount Olive Church Ministries	Religious/Church	1449 S. High School Road
Living Faith Church	Religious/Church	2120 W. Washington Street
Greater Light Church of God in Christ	Religious/Church	2827 E. Washington Street
Washington Street United Methodist Church/Iglesia Metodista Unida	Religious/Church	2801 W. Washington Street
Englewood Christian Church	Religious/Church	57 N. Rural Street
Shepard Community Church of the Nazarene	Religious/Church	4107 E. Washington Street
Saint John Roman Catholic Church	Religious/Church	126 W. Georgia Street
Our Lady of Lourdes Roman Catholic Church	Religious/Church	5333 E. Washington Street
Franklin Road Baptist Church	Religious/Church	51 N. Franklin Road
New Creation Restoration Church	Religious/Church	6915 E. Washington Street
Irvington United Methodist Church	Religious/Church	30 N. Audobon Road
Pentecostal Bread of Life Church	Religious/Church	641 S. Fleming Street
Iglesia Adventista Central de Indianapolis	Religious/Church	821 Denison Street
Apostolic Life Church	Religious/Church	4200 W. Washington Street
Fleming Garden Christian Church	Religious/Church	530 S. Taft Avenue
Word of Life Full Gospel Church	Religious/Church	525 Foltz Street
Westside Iglesia Cristiana	Religious/Church	1802 W. Washington Street
Ritter Avenue Baptist Church	Religious/Church	23 S. Ritter Avenue
Grace and Peace Church	Religious/Church	5809 E. Washington Street
White River State Park and McCormick Memorial Rock	Recreation	801 W. Washington Street
Hawthorne Park	Recreation	75 N. Belleview Place
Willard Park	Recreation	1901 E. Washington Street
Brown's Corner	Recreation	5050 E. Washington Street
Golc Soccer Fields	Recreation	2800 W. Washington Street
Indianola Park	Recreation	1900 W. Washington Street
Greenway - Pleasant Run	Recreation	Parallel to Pleasant Run
Washington Community School Pool (open to public after school hours)	Recreation	2215 W. Washington Street
Englewood Nature Playscape and Garden (Church owned)	Recreation	18 N. Oxford Street
Grace Tuxedo Neighborhood Park (church owned)	Recreation	4028 E. Washington Street

Community Resources	Type	Address
Irvington United Methodist Church Playground (church owned)	Recreation	30 N. Audobon Road
Eagle Creek Trail	Trail	10 <sup>th</sup> Street to CSX Bridge
Downtown Canal Trail	Trail	Parallel to Canal
White River Trail (West and East)	Trail	Paralell to White River on east and west side
White River Wapahani Trail	Trail	Paralell to White River on east and west side
Indianapolis Cultural Trail	Trail	Washington Street (West Street to Alabama Street)
Willard Park Trail	Trail	1901 E. Washington Street
Pleasant Run Trail	Trail	Approximately 500 E. Washington Street
Pennsy Trail	Trail	German Church Road
Community Health Center	Medical Center	1000 E. Washington Street
Fransiscan - Irvington Family Medicine	Medical Center	5839 E. Washington Street
Community Hospital Health Network – MedCheck East Urgent Care	Medical Center	7910 E. Washington Street #110
IU Health Methodist Medical Plaza	Medical Center	9670 E. Washington Street
Wayne Township Government Center	Government	5401 W. Washington Street
Indiana State Government Center South	Government	302 W. Washington Street
Indiana State House	Government	200 W. Washington Street
Marion County Jail	Government	40 S. Alabama Street
Marion County Jail II	Government	730 E. Washington Street
Horizon House Inc	Social Services	1033 E. Washington Street
Salvation Army	Social Services	725 E. Washington Street
Exodus Refugee Immigration Inc.	Social Services	2457 E. Washington Street
Homeless and ReEntry Helpers Inc.	Social Services	2457 E. Washington Street
Good News Ministries	Social Services	2716 E. Washington Street
Daystar Childcare	Social Services	40 N. Rural Street
Shepard Community Center	Social Services	4107 E. Washington Street
Partners in Housing Development – Housing Authority	Social Services	4515 E. Washington Street
Irvington Wellness Center	Social Services	17 N. Layman Avenue
Memorial Park Cemetery	Other	9350 E. Washington Street
Washington Park East Cemetery	Other	10612 E. Washington Street
Eiteljorg Museum of American Indians and Western Art	Other	500 W. Washington Street
Indiana State Museum	Other	650 W. Washington Street
Indianapolis Zoo	Other	1200 W. Washington Street
Victory Field (Indians Baseball)	Other	501 W. Washington Street
Julia M. Carson Transit Center	Transit Center	201 E. Washington Street
Indiana Convention Center	Other	100 S. Capitol Avenue



The demographic profile within these census tracts shows a total population of 105,782 within the Blue Line corridor is based on 2021 5-year American Community Survey (ACS) estimates. Population characteristics by census tract are provided in Appendix H. The female population is 48.1% and the male populations is 51.8% of the total population within these census tracts in Blue Line corridor.<sup>11</sup> In comparison, the State of Indiana has a female and male population of 50%, respectively, while Marion County's female and male population is 51.6% and 48.4%, respectively. Data from the EJScreen tool<sup>12</sup> estimates the total population within the Blue Line corridor (500-foot buffer) is 11,451.

Within the Blue Line census tracts, the median age is 34.8 years, compared to Marion County at 34.4. The Blue Line corridor has a minority population of 35%, low-income population of 23.2%, and limited English population of 2%. In comparison, Marion County has a minority population of 42%, low-income population of 15.9% and limited English population of 8.1%. The Blue Line corridor's Hispanic population (of any race) is 15.1% which is higher than both Marion County (10.84%) and Indiana (8%).

Within the Blue Line corridor, 57.9% of persons in the workforce are employed, compared to 63.2% in Marion County. Within the Blue Line corridor, 72% of people drive alone to work. Of those who do not use a personal vehicle to commute, 10.1% carpool, 5.5% walk, 3.1% use public transportation, 2.3% use another method and 6.8% work from home. For Marion County, 77.9% of people drive alone to work, 9.3% carpool, 1.8% walk, 1.5% use public transportation, 1.3% use another method, and 8.3% work from home. This data indicates that people within and near the Blue Line corridor utilize different methods of commuting when compared to the county.

Public transportation represents an affordable alternative to car ownership for the many low- and moderate-income households within the Blue Line corridor. Further, improved transit speed and frequency would increase the number of employment and educational opportunities available to residents within the Blue Line corridor.

No residences or community resources will be displaced as a result of the Blue Line. Some on-street parking spots will be removed as a result of the project (Table 2). Parking will continue to be available in parking lots or on side streets in commercial and business areas where parking will be removed. No designated residential spaces will be removed for the Blue Line.

Potential negative impacts related to the noise, dust, and travel disruptions would be temporary in nature, occurring during construction (discussed in Section X – Impacts Caused by Construction); these impacts will discontinue when the Blue Line is complete. The Blue Line would not adversely affect community cohesion as it does not change access or travel patterns. The Blue Line is not expected to have adverse impacts on the social or community environment.

## **P. Environmental Justice**

According to the US Environmental Protection Agency (EPA), Environmental Justice (EJ) is the “fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”<sup>13</sup> An EJ analysis was performed in accordance with related federal and state laws and guidance including Title VI of the 1964 Civil Rights Act, Executive Order (EO) 12898, EO 13166, and FTA Circulars

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<sup>11</sup> U.S. Census Bureau, My Community Explorer. American Community Survey 2017 – 2021. Retrieved from <http://www.experience.arcgis.com/experience> (September 1, 2023).

<sup>12</sup> U.S. EPA EJScreen Community Report. Retrieved from <http://ejscreen.epa.gov/mapper> (September 4, 2023).

<sup>13</sup> United States Environmental Protection Agency. Environmental Justice. Retrieved from <https://www.epa.gov/environmentaljustice>

4703.1 and 4702.1B.<sup>14, 15, 16, 17</sup> This section provides information on the EJ analysis conducted for the Blue Line.

FTA Circulars 4703.1 Environmental Justice Policy Guidance for Federal Transit Administration Recipients and 4702.1B Title VI Requirements and Guidelines for Federal Transit Administration Recipients provide the following goals of all projects receiving FTA funds:<sup>2, 5</sup>

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.<sup>18</sup>

To establish the presence or absence of low-income and minority populations and Limited English Proficiency (LEP) populations within the Blue Line, American Community Survey 2017 – 2021 5-Year estimates was analyzed for all census tracts along the Blue Line (Appendix H).

### ***I. Minority Populations***

Figure 7 provides a map of the minority populations within block groups along the Blue Line. The map shows that higher concentrations of minority populations are present along the Blue Line alignment in areas near east of the Indianapolis Zoo; downtown Indianapolis; Rural Street; Linwood to Emerson; and Washington Square Mall.

### ***II. Low-Income Populations***

Figure 8 provides a map of the low-income populations of the block groups along the Blue Line. The map shows that higher concentrations of low-income populations are present along sections of the Blue Line alignment between Holt Road and downtown, near Rural Street, and Linwood to Ritter Avenue.

### ***III. Limited English Proficiency Populations***

Concentrations or higher percentages of LEP populations (greater than 5%) are present along areas west of the Indianapolis Zoo and east of downtown (Figure 9). Concentrations of LEP populations were noted in the Mt. Jackson neighborhood between Rockville Road and the Zoo. This area was identified with a higher number of Spanish speaking population based on US Census data and through field reviews. Several signs were noted in Spanish at businesses and churches in this community. Additionally, concentrations of LEP populations were noted in the Lynhurst neighborhood and the vicinity of I-465 along the Blue Line corridor. 'Other Indo-European' languages were noted at higher percentages in these locations based on Census data.

Concentrations of LEP populations were also noted between Hamilton Avenue to Gladstone Avenue, generally in the area between Willard Park to about Washington-Irvington neighborhood. Potential languages spoken in the noted areas included Spanish; Asian (not specified) near Arsenal Avenue, and Other Indo-European (not specified).

<sup>14</sup> U.S. Department of Transportation, Federal Transit Administration. October 1, 2012. Circular FTA C 4702.1B. Title VI requirements and guidelines for federal transit administration recipients. Retrieved from [https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA\\_Title\\_VI\\_FINAL.pdf](https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Title_VI_FINAL.pdf)

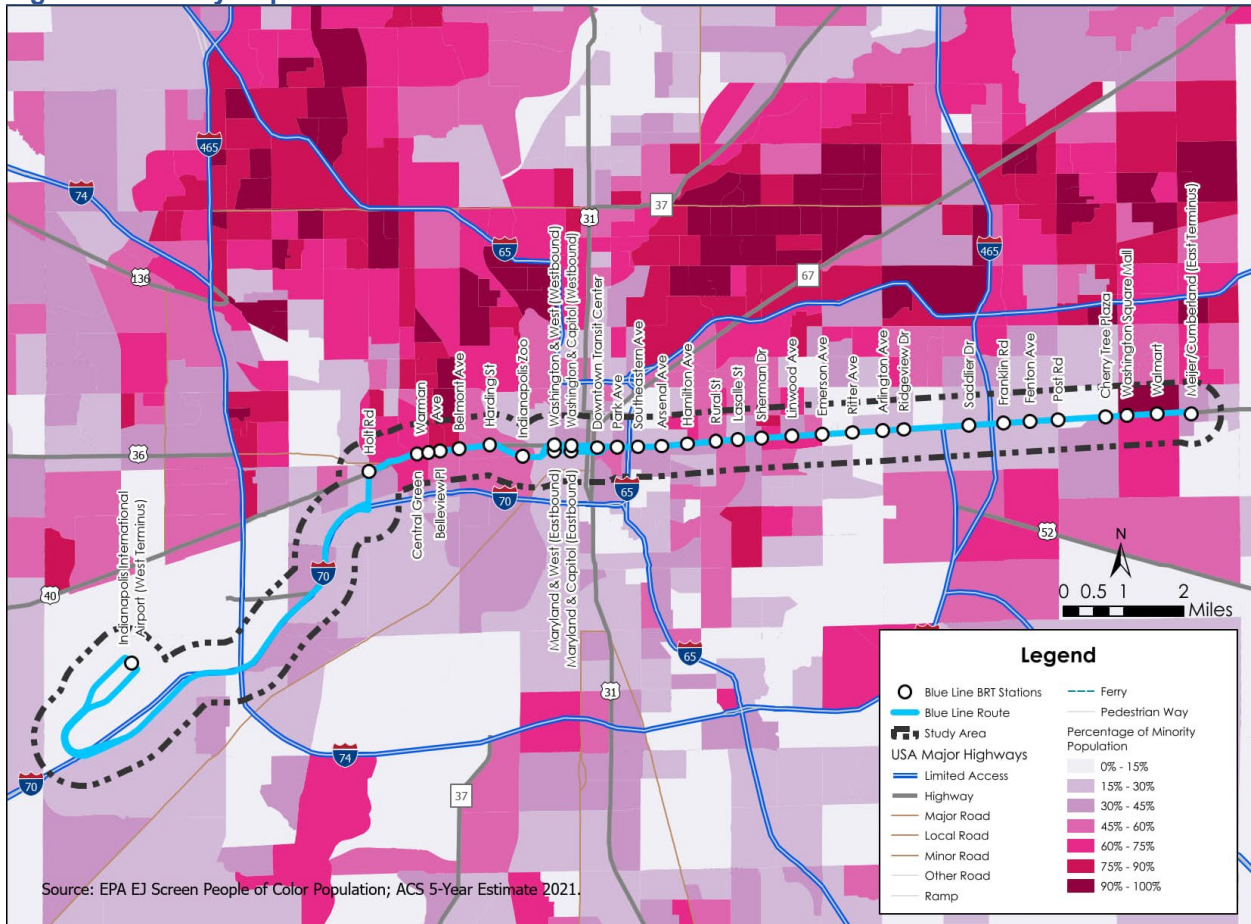
<sup>15</sup> The President. Executive Order 12898 of February 11, 1994. Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. Federal Register. Vol. 59, No. 32. Retrieved from <https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf>

<sup>16</sup> The President. Executive Order 13166 of August 11, 2000. Improving Access to Services for Persons with Limited English Proficiency. Federal Register. Vol. 65, No. 159. Retrieved from <https://www.transportation.gov/sites/dot.gov/files/docs/eo13166.pdf>

<sup>17</sup> U.S. Department of Transportation, Federal Transit Administration. Circular FTA C 4703.1. August 15, 2012. Environmental Justice Policy Guidance for Federal Transit Administration Recipients. Retrieved from [https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA\\_EJ\\_Circular\\_7.14-12\\_FINAL.pdf](https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_EJ_Circular_7.14-12_FINAL.pdf)

<sup>18</sup> Low-income populations are defined as those below the poverty line.

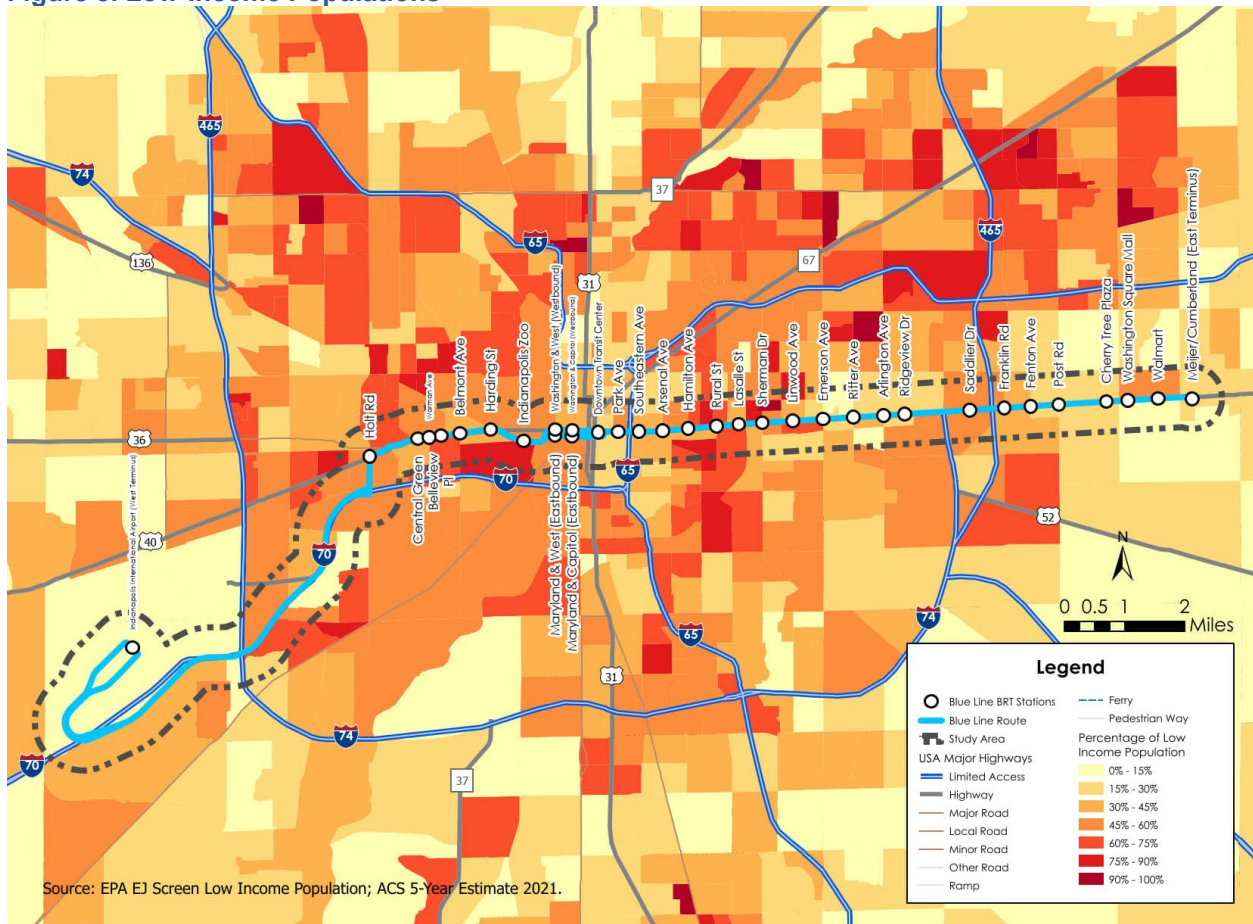
**Figure 7. Minority Populations**



Source: EPA EJ Screen People of Color Population; ACS 5-Year Estimate 2021.

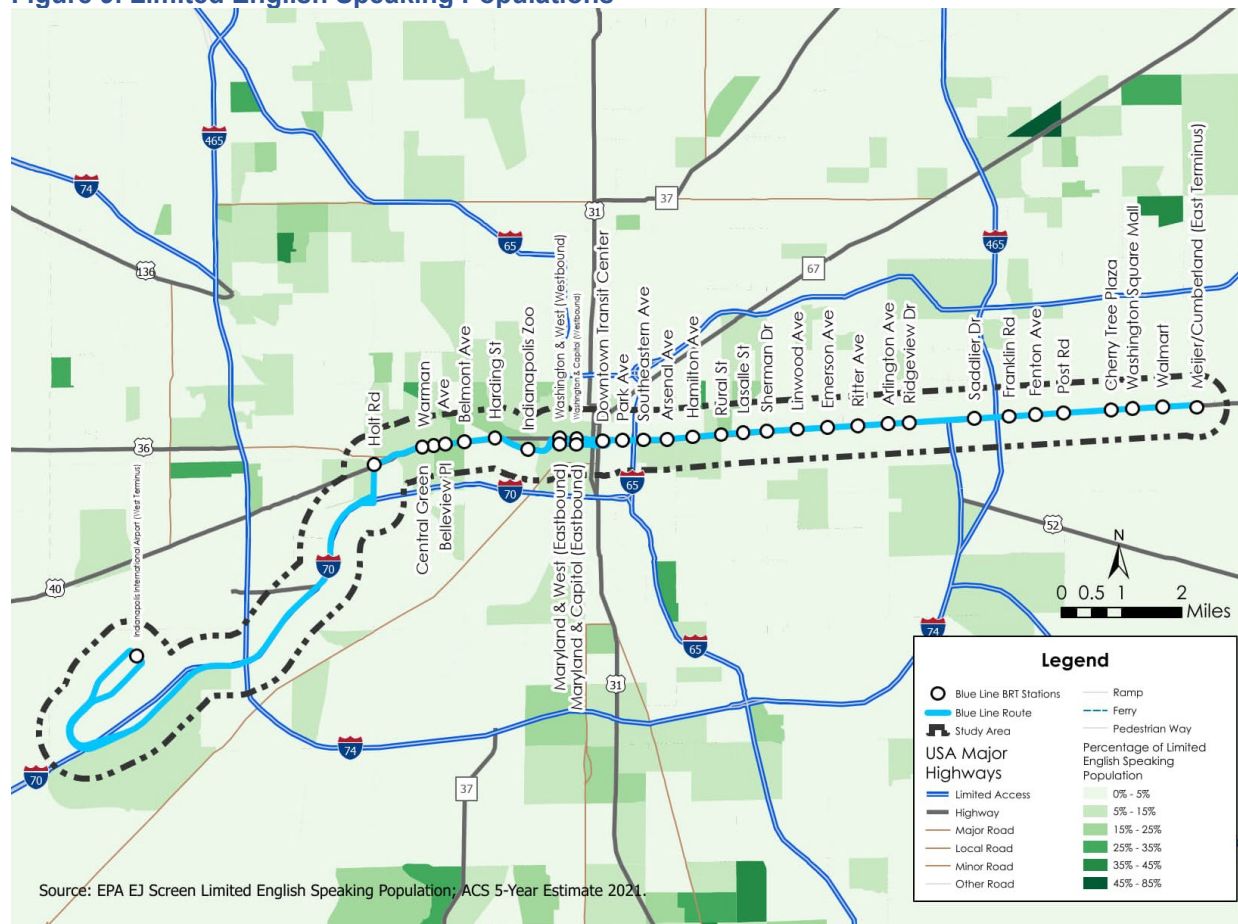
Source: 2017-2021 ACS 5-Year Estimates

Figure 8. Low-Income Populations



Source: 2017-2021 ACS 5-Year Estimates

Figure 9. Limited English Speaking Populations



Source: EPA EJ Screen Limited English Speaking Population; ACS 5-Year Estimate 2021.

Source: 2017-2021 ACS 5-Year Estimates

#### IV. Environmental Justice Impacts

Areas with concentrations of low-income and minority populations and LEP populations were analyzed to determine whether impacts would occur disproportionately in the areas with EJ populations. The potentially negative impact anticipated by the Blue Line will be removal of parking and temporary traffic impacts during construction, which will affect all populations along the Blue Line corridor, so there will not be a high or disproportionate impact on EJ communities. No displacements are to occur as a result of the Blue Line. No community resources that an EJ population may rely on will be displaced or have a change in access.

Some on-street parking spots will be removed as a result of the Blue Line (Table 2). Parking will be removed in Segment 2 of Blue Line which includes concentration of EJ populations. Within Segment 2, a total of 32 of 34 spaces will be removed in areas of businesses that serve EJ populations. Five new on-street spaces will be added as part of the Blue Line. Parking will continue to be available in parking lots or on side streets in commercial areas where parking will be removed. As noted in the discussion of Parking Impacts in Section F, existing parking is around 20 percent utilized. No designated residential spaces will be removed for the Blue Line.

No disproportionate or adverse impacts are anticipated to EJ populations.

The Blue Line will provide a variety of benefits to all populations within the corridor, including EJ communities. Benefits include faster, more frequent bus service, improved bus stations, sidewalk enhancements, and associated quality of life and safety improvements. These construction improvements





may also contribute to potential economic development and livability improvements for populations along the Blue Line corridor.

#### **V. Community Outreach**

IndyGo's community outreach efforts for the Blue Line have included outreach to minority and low-income communities. Since concentrations of LEP populations were identified along the Blue Line corridor, as a best practice, community outreach should continue to occur. These populations should be engaged throughout the project development process and through construction to inform and to gather information and concerns about project implementation.

Several public meetings were held by IndyGo for the Blue Line. Public meetings, notifications, and outreach was consistent with IndyGo's policy for language translations and special accommodations as outlined in the agency's Public Involvement Plan<sup>19</sup> which was developed in accordance with applicable federal law and the following federal circulars:

- FTA C 4702.1B – Title VI Requirements and Guidelines for Federal Transit Administration Recipients
- FTA C 4703.1 – Environmental Justice Policy Guidance for Federal Transit Administration Recipients

A list of these meetings is included in Appendix H. Community outreach will continue through project development, with an emphasis on EJ populations.

The first round of Blue Line public meetings was held in May 2018 at key locations along the Blue Line corridor. Separate stakeholder meetings were held with large community institutions and government organizations along the Blue Line corridor. Both stakeholder and public meetings at this stage gathered input on critical design decisions to advance the Blue Line; this input included community feedback concerning station locations, lane configurations, and design aspects related to traffic flow. Meetings featured a variety of methods used to gather feedback: short presentations, alternatives analysis, roll plot plans, one-on-one discussions with IndyGo staff, and comment cards.

A second round of public meetings was held in July and August 2018 as the Blue Line reached the 30 percent design milestone. A third round was held in May of 2019 closer to 60 percent design completion. These meetings updated the public on design choices gained from previous outreach and provided status updates on the anticipated timeline.

In January 2020, Blue Line design and outreach was halted due to uncertainty around funding and the Blue Line configuration. In December 2021, the State Legislature asked IndyGo to consider alternative designs for Segment 1 which immediately halted property acquisition for the current design. IndyGo presented those alternatives in a public on meeting on December 28, 2021. In August 2022, IndyGo staff announced they needed more time to evaluate the design due to increased pricing, inflation and stormwater requirements.

IndyGo conducted a round of public outreach during the week of August 28 – September 1, 2023. IndyGo shared a status update on whether the Blue Line could be built in a way that preserves the preferred design. The meetings included one virtual public outreach meeting with a presentation and Question and Answer Session as well as two in-person meeting opportunities. One in-person meeting, each, were held on the west side and east side of the Blue Line. At both the virtual public meeting and the in-person meetings, attendees were made aware of the opportunity to schedule individual sit-down meetings with IndyGo. Comment cards were, and continue to be, distributed at all neighborhood meetings and all public meetings. The IndyGo team also records notes of individual comments, questions, and concerns. Comment cards are entered into a comment database for permanent record keeping. No concerns regarding environmental

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<sup>19</sup> <https://www.indygo.net/wp-content/uploads/2020/05/publicinvolvementprogram2020.pdf>



justice communities were noted during the public meetings. IndyGo will continue to provide outreach to the community as the Blue Line progresses and nears construction.

Another round of public meetings were held on December 5 through December 7, 2023 to review the progressing design and begin to share information about construction.

#### **Q. Use of Public Parkland and Recreation Areas**

Section 4(f) of the Department of Transportation Act of 1966 prohibits the use of park and recreational lands and wildlife and waterfowl refuges for transportation projects unless there is no feasible and prudent alternative to the use and the project includes all possible planning to minimize harm to the property. The corridor was examined to determine the location of such lands along the Blue Line corridor.<sup>20</sup> The Blue Line is located within 500 feet of 13 existing and planned parks, greenways, and trails, as shown in and by the labeled features in Section W of this document:

- White River State Park and McCormick Memorial Rock
- Hawthorne Park
- Willard Park
- Brown's Corner
- Golc Soccer Fields
- Indianola Park
- Eagle Creek Trail (10<sup>th</sup> Street to CSX Bridge Segment)
- Downtown Canal Trail
- White River Trail
- Indianapolis Cultural Trail
- Pleasant Run Trail
- Penny Trail (Phase II Arlington to Pleasant Run Trail)
- Future Greenway (south side of Washington Street; west of Holt Road)

Most parks within 500 feet of the corridor would not be directly affected, or result in a use, by the Blue Line with the exception of Brown's Corner Park, located on E. Washington Street along Pleasant Run Parkway. Acquisition from Brown's Corner is needed to widen southbound Emerson Avenue adjacent to the park to accommodate a new turn lane. The impact for the turn lane would be less than 0.1 acre, the existing sidewalk would be rebuilt, and no other resources at the park are affected. Additionally, two parks (Indianola Park and Willard Park) and one trail (Pleasant Run Trail) will be impacted for construction of stormwater detention areas as described in detail in Section W. Section 4(f) Evaluation. The Blue Line will result in a de minimis impact on the four Section 4(f) properties.

#### **R. Impacts on Wetlands**

The 1977 Executive Order 11990, *Protection of Wetlands*, under the authority of NEPA, and implemented by the U.S. Department of Transportation (USDOT, Order 5600.1A), requires that transportation facilities plan and construct projects to avoid and minimize impacts to wetlands to the fullest extent practicable.<sup>21,22,23</sup> USDOT Order 5660.1A further requires an analysis of potential project impacts to wetlands. In addition, per Section 404 of the Clean Water Act, infrastructure development that discharges dredge or fill material into

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<sup>20</sup> US Department of Transportation Federal Highway Administration: Office of Planning, Environment, and Realty Project Development and Environmental Review. July 20, 2012. Section 4(f) Policy Paper. Washington, DC 20590. Retrieved from <https://www.environment.fhwa.dot.gov/legislation/section4f/4fpolicy.pdf>.

<sup>21</sup> The President. Executive Order 11990 of May 24, 1977. Protection of Wetlands. Federal Register. Vol. 42, No. 26961. Retrieved from <https://www.epa.gov/cwa-404/protection-wetlands>

<sup>22</sup> National Environmental Policy Act of 1969, as amended (Pub. L. 91 190, 42 U.S.C. 4321-4347, January 1, 1970, as amended by Pub. L. 94 52, July 3, 1975, Pub. L. 94 83, August 9, 1975, and Pub. L. 97 258, § 4(b), Sept. 13, 1982). Retrieved from [https://energy.gov/sites/prod/files/nepapub/nepa\\_documents/RedDont/Req-NEPA.pdf](https://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/Req-NEPA.pdf)

<sup>23</sup> U.S. Department of Transportation (USDOT). August 24, 1978. Order 5660.1A. Preservation of the Nation's Wetlands. Retrieved from <http://www.dot.ca.gov/ser/vol1/sec1/ch1fedlaw/USDOTOrder56601A.pdf>



wetlands or Waters of the U.S. is regulated by the U.S. Army Corps of Engineers (USACE) and requires permit applications.<sup>24</sup>

An environmental survey was completed to determine whether wetlands or streams are present within the environmental survey corridor (ESC) for the Blue Line (Appendix I). A desktop review was completed of Natural Resources Conservation Service (NRCS) soil survey data, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps of Indiana, United States Geological Survey (USGS) 7.5-minute topographic maps, and USGS National Hydrography Dataset (NHD) stream and river data. Two NWI emergent wetlands are mapped to the floodplain associated with Grassy Creek and are over 200 feet away from the Washington Street right-of-way.

A field investigation was conducted on September 7 and September 21, 2021 to identify wetlands and waters delineation. One wetland and 8 streams were delineated for the ESC. The streams included Eagle Creek, Little Eagle Creek, White River, Pleasant Run, Lick Creek, Morris Ditch, Grassy Creek, and Young Ditch. One wetland was delineated within the eastern terminus parcel, measuring 0.55 acres in size. This wetland (Wetland BLE-1), was identified as a Palustrine Forested Wetland (PFO) resource that will likely be considered jurisdictional due to its proximity to Young Ditch, an intermittent resource. No impact is anticipated at this time to the PFO wetland within the eastern terminus parcel. Prior to construction all federal permits for stream impacts would be obtained by IndyGo in accordance with the Clean Water Act.

The Blue Line corridor is located in an urbanized area and would be constructed primarily within the transportation right-of-way. These resources are located outside of the Blue Line construction limits and extent of right-of-way acquisition. The Blue Line is not expected to impact any wetlands. No work is expected outside of the right-of-way on existing bridges, and no bridge modifications are anticipated. Therefore, no direct impacts to wetlands are expected. Additionally, based on the locations of these wetlands, no indirect impacts are anticipated to result from the Blue Line.

### **S. Floodplain Impacts**

The 1979 USDOT Order 5650.2, *Floodplain Management and Protection*, requires agencies to include detailed floodplain analyses if a project is located within a floodplain.<sup>25</sup> The Federal Emergency Management Agency's (FEMA) Flood Insurance Rate map (FIRM) was reviewed to assess the locations and impact of the Blue Line on floodplains.<sup>26</sup> In addition, Executive Order 11988, *Floodplain Management*, directs all federal agencies to avoid the long- and short-term adverse impacts associated with modifying floodplains by evaluating the potential effects of any actions they may take in a floodplain to reduce the risk of flood loss; to minimize the impact of floods on human safety, health and welfare; and to restore and preserve the natural and beneficial values served by floodplains.

The Blue Line crosses the floodways of Eagle Creek, Neeld Ditch, White River, Pogues Run, Pleasant Run, Lick Creek, Grassy Creek, and Morris Ditch. The Emerson Avenue station lies within the floodway of Pleasant Run. All work for the Blue Line alignment and station would occur within the existing right-of-way in the mapped floodway, and there would be no increase of impervious area in the floodway. Existing bridges would not be modified. The Blue Line would have no adverse impacts on floodways or base flood elevations.

No substantial increase of impervious area is expected from construction in the 100-year and 500-year floodplains, and no adverse impact to the floodplains is anticipated. Roadway construction is expected to be minimal and not impact base flood elevations.

<sup>24</sup> Clean Water Act. 1972. Section 404 (33 U.S.C. 1344). Retrieved from <https://www.epa.gov/cwa-404/clean-water-act-section-404>

<sup>25</sup> USDOT. April 23, 1979. Order 5650.2. Floodplain Management and Protection. Retrieved from <https://www.fhwa.dot.gov/engineering/hydraulics/policymemo/order56502.pdf>

<sup>26</sup> Department of Homeland Security, FEMA Flood Map Service Center. Retrieved from <https://msc.fema.gov/portal>

No substantial impacts on floodplains are anticipated. The Blue Line is located primarily within current right-of-way on existing roadways and would not affect surface contours. The addition of impervious surfaces due to sidewalk construction and minor widening at select locations would be minimal and not impact base flood elevations. Coordination with the local floodplain administrator for the City of Indianapolis will occur to ensure impacts to the floodplain remain minimal.

## **T. Water Quality, Navigable Waterways, & Coastal Zones**

The Clean Water Act of 1977, as amended, regulates waters of the U.S. and water quality, while Section 10 of the Rivers and Harbors Act of 1899, as amended (33 USC § 403), regulates navigable waterways.<sup>27,28</sup> The Navigable Waterways Roster and the Outstanding Rivers List for Indiana were reviewed to determine possible presence of protected waterways in the Blue Line corridor.<sup>29</sup> No protected waterways were identified within, or adjacent to, the Blue Line corridor. Indiana is a landlocked state and does not have any protected coastal zones.

A field investigation was conducted on September 7 and September 21, 2021 along with review of NRCS soil survey data, USFWS NWI maps, USGS 7.5-minute topographic maps, and USGS NHD stream and river data.

The Blue Line crosses eight streams: Eagle Creek, Little Eagle Creek, White River, Pleasant Run, Lick Creek, Morris Ditch, Grassy Creek, and Young Ditch. The eight streams total 2,047 linear feet within the ESC. Two of the eight streams (totaling 1,222 linear feet) were identified as intermittent and six (totaling 2,047 linear feet) were identified as perennial. Four of the streams (totaling 971 linear feet) lie within the impact area, as displayed in figures in the Wetland Delineation Report (Appendix I). This includes one intermittent stream (251 linear feet) and three perennial streams (720 linear feet). No ephemeral streams were identified within the ESC. All streams appear to drain into the White River or its tributaries. Therefore, it is expected that all delineated streams will be considered jurisdictional by the USACE. Figure 10 shows waterways in the vicinity of the Blue Line.

Water quality within urban settings is often impaired by runoff from transportation uses. Construction of transit projects can cause erosion and/or pollutant spills that decrease water quality in receiving streams as storm water runoff leaves construction sites and enters adjacent waters. There is potential for pollutants associated with construction machinery and transit vehicles to contaminate soil in and near the Blue Line area if not properly contained. As the Blue Line would disturb more than one acre of land, a Construction Stormwater General Permit (CSGP) approval from the Marion County Soil and Water Conservation District (SWCD) and IDEM is required. A component of the CSGP application is the preparation of a Storm Water Pollution Prevention Plan (SWPPP), which implements erosion control measures before, during, and after construction to minimize impacts from storm water runoff to waterways. The CSGP approval process would ensure Best Management Practices (BMPs) are utilized in the Blue Line's erosion control plan. It is the responsibility of the Blue Line contractor to prepare the CSGP, Notice of Intent (NOI) and SWPPP prior to construction. The incorporation of BMPs and erosion control features required for CSGP approval would minimize and reduce runoff that could lead to decreased water quality or further degradation of waterways.

The Blue Line proposes the installation of two underground detention basins to minimize stormwater peak release rates in accordance with City of Indianapolis requirements. The underground detention basins are located within Indianola Park and Willard Park. Construction of the facilities would include excavation, fill, and installation of pipes and control structures, such as manholes, to connect to the existing roadway stormwater system. These facilities, as well as all new stormwater outfalls will include a City approved Stormwater Quality Unit (SQU) to meet City water quality requirements for 80% Total Suspended Solids (TSS) removal.

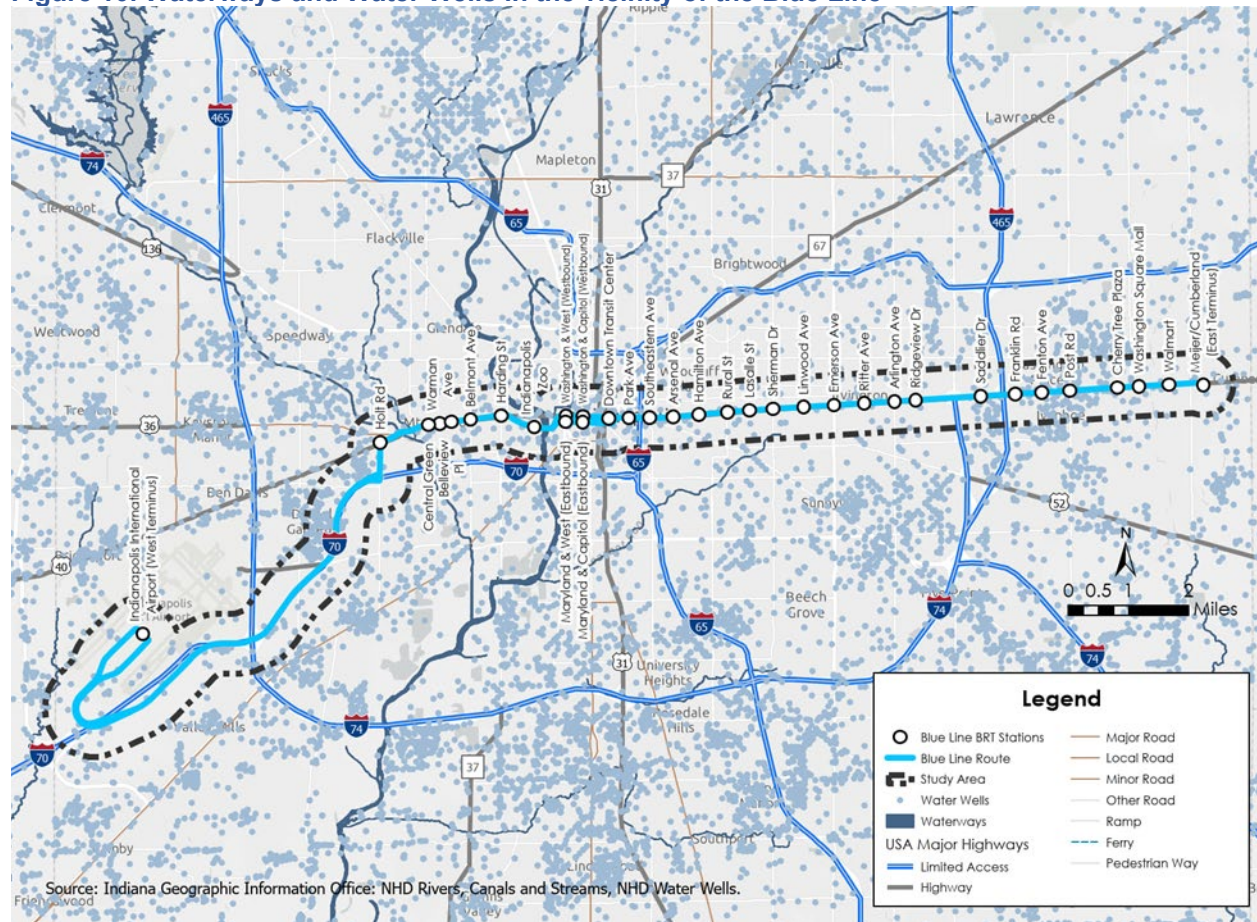
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<sup>27</sup> Clean Water Act. 1972. Section 404 (33 U.S.C. 1344). Retrieved from <https://www.epa.gov/cwa-404/clean-water-act-section-404>

<sup>28</sup> River and Harbor Act of 1899. 33 USC § 401 et seq.

<sup>29</sup> Indiana Natural Resources Commission. Navigable Waterways Roster. Retrieved from <https://www.in.gov/nrc/2393.htm>

Figure 10. Waterways and Water Wells in the vicinity of the Blue Line



The Blue Line is not anticipated to substantially increase the impervious surface area or cause adverse impacts to the floodplain. The placement of outfalls in the floodplain will be coordinated with and approved by the Indiana Department of Natural Resources prior to construction. Construction of the detention basins and outfalls would be incorporated in the SWPPP and will be subject to approval from the SWCD and IDEM. The approval process would ensure BMPs are utilized in the design and construction of the ponds.

National Pollutant Discharge Elimination System (NPDES) permits may also be required for the Blue Line as new stormwater outfalls are part of the Blue Line and will be obtained by IndyGo. The NPDES permits would contain discharge limits, monitoring and reporting requirements, and other provisions to ensure water quality is not degraded to a point that adversely affects public health.<sup>30</sup>

Impacts on water quality from the Blue Line are expected to be limited to surface runoff discharged through storm waters and sheet flow into receiving waterways. The implementation of erosion control measures outlined in the SWPPP would minimize these impacts during construction phases as discussed in Section W, while the NPDES permits and installation of SQUs in accordance with City of Indianapolis requirements would provide long term measures to control pollution discharged into the affected waterways. Prior to construction all federal permits, would be obtained by IndyGo in accordance with the Clean Water Act.

<sup>30</sup> Section 402 of the Clean Water Act. National Pollutant Discharge Elimination System. 33 USC § 1342. Retrieved from <https://www.epa.gov/cwa-404/clean-water-act-section-402-national-pollutant-discharge-elimination-system>

Therefore, the Blue Line is not expected to adversely impact water quality along the corridor.

IDEM's Wellhead Proximity Locator was accessed on June 14, 2023.<sup>31</sup> The Blue Line area was reviewed, and it was determined that the Blue Line is located within at least one Wellhead Protection Area (WHPA). Due to security concerns related to WHPAs, detailed location information about the WHPA is not provided. Any potential for impacts related to the WHPAs would be associated with areas where construction would occur at station locations or areas of pavement widening. These impacts would be temporary and addressed through the sediment and erosion control plan approved through the CSGP process. Strict compliance with existing regulations such as Spill Prevention Control and Countermeasures (Oil Spill Prevention), Storm Water Pollution Prevention, and Emergency Response Planning is necessary to protect the groundwater by preventing spills of fuel and chemicals during construction.

The St. Joseph Sole Source Aquifer System is the only designated sole source aquifer in the state. It is located within St. Joseph, Elkhart, Lagrange, Kosciusko, and Noble Counties in the northern portion of Indiana, whereas the Blue Line is in Marion County. Due to the geographic distance between the Blue Line and the St. Joseph Sole Source Aquifer, no impacts are anticipated.

### Impacts on Ecologically-Sensitive Areas and Endangered Species

Species that are in danger of becoming extinct or are in danger of becoming extinct within the foreseeable future, along with their designated habitat, are protected under the Endangered Species Act (ESA) of 1973 (16 USC § 1531). Section 7 of the ESA requires consultation with the USFWS if a project receiving federal funding may affect listed endangered or threatened species or their designated habitat<sup>32</sup>.

In accordance with the NEPA environmental process, the USFWS's Information for Planning and Consultation (IPaC) database was used to identify endangered and threatened species and their habitat in or adjacent to the Blue Line corridor. An Official Species List of federally threatened and endangered species that may occur in or adjacent to the Blue Line corridor and/or may be affected by the Blue Line was generated on October 1, 2023, and is included in Appendix J.

IPaC indicated that the ESC lies within the range of three federally-listed species, the Indiana bat (*Myotis sodalis*, endangered), the northern long-eared bat (*Myotis septentrionalis*, threatened), and Tricolored Bat (*Perimyotis subflavus*). The Tricolored Bat is listed as proposed endangered. No critical habitats were identified within or adjacent to the Blue Line corridor (Appendix J). Winter hibernacula for all bat species are provided by caves and mines. Evidence of winter hibernacula was not identified during the environmental surveys. Summer roost habitat typically includes live or dead trees with exfoliating bark, crevices, or cavities that can be used for roosting. Summer roost within the ESC may be provided by the 8.0 acres of successional hardwood forest (1.0 acres within the limits of disturbance). Typically, trees found in highly-developed urban areas such as street trees and downtown areas are unsuitable habitat for these bats. The Blue line is located within a heavily urbanized area and provided limited wildlife habitat. A FHWA, FRA, FTA Programmatic Consultation for the Transportation Projects affecting the northern long-eared or Indiana bat was completed in IPaC and a consistency letter was issued on October 1, 2023 (Appendix J). The consistency letter stated the Blue Line will have no effect on these bat species.

IPaC also indicated that the ESC lies within the range of the monarch butterfly (*Danaus plexippus*), a candidate species. This species is reliant on milkweeds (*Asclepias sp.*) for all stages of its life-cycle, which are commonly found in a variety of herbaceous habitat types, including fallow areas and old fields. The ESC is located within an urban area predominantly within maintained roadside rights-of-way. Therefore, impacts to potentially suitable habitat are not anticipated.

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<sup>31</sup> IDEM Wellhead Proximity Determinator. Retrieved from <http://www.in.gov/idem/cleanwater/pages/wellhead>

<sup>32</sup> Department of the Interior. U.S. Fish and Wildlife Service. 1973. Endangered Species Act of 1973 as Amended through the 108<sup>th</sup> Congress. Washington, D.C. 20240



## U. Impacts on Safety and Security

To ensure the safety of all riders, IndyGo partners with the Indianapolis Metropolitan Police Department (IMPD), public safety agencies, and hires its own security force to monitor buses, bus stops, and areas in and around the downtown transit center. All IndyGo buses and the Julia M. Carson Transit Center are equipped with audio and video surveillance equipment.

These same safety and security measures would be implemented for the Blue Line, both during construction and following the commencement of operations. No adverse impacts to safety or security are anticipated as a result of the Blue Line.

The Blue Line has the potential to enhance the safety and security of the corridor for all users due to the infrastructure and pedestrian improvements. The Blue Line stations would include new or restriped crosswalks, enhanced accessibility through sidewalks and ramps, pedestrian signals, and transit signals, where appropriate.

## V. Section 4(f) Evaluation

This section provides documentation necessary to support determinations required to comply with the provisions of Section 4(f) of the Department of Transportation Act of 1966, as amended.

### I. Introduction

Section 4(f) of the US Department of Transportation (USDOT) Act of 1966, as amended in 1983 (49 U.S.C. Section 303 and 23 U.S.C 138), was enacted to preserve publicly owned land used for recreation, wildlife, and waterfowl refuges. Section 4(f) properties also include public and private historic resources that are listed in or eligible for inclusion in the NRHP as well as archaeological sites that are listed in or eligible for inclusion in the NRHP and warrant preservation in place.

Section 4(f) stipulated that FTA and other USDOT agencies cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites unless the following conditions apply:

- There is no feasible and prudent alternative to the use of the land.
- The action includes all possible planning to minimize harm to the property resulting from use.

If no prudent and feasible avoidance alternative exists, only the alternative that causes the least overall harm and includes all possible planning to minimize harm to Section 4(f) properties may be selected (23 CFR 774.3(c)(1)). The following factors are to be considered when conducting the least harm analysis:

- Ability to mitigate adverse impacts to each Section 4(f) property.
- Relative severity of remaining harm, after mitigation, to the protected activities that qualify each property for Section 4(f) protection.
- Relative significance of each Section 4(f) property.
- Views of the officials with jurisdiction over each Section 4(f) property.
- Degree to which each alternative meets the Purpose and Need.
- After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f).
- Substantial differences in costs between the alternatives.

### II. Section 4(f) Use Definitions

As defined in 23 CFR 774.17, the “use” of a protected Section 4(f) property occurs when any of the following conditions are met:

**Direct Use** – A direct use of a Section 4(f) property occurs when property is permanently incorporated into a transportation project. This may occur as a result of partial or full acquisition of a fee simple interest, permanent easement, or temporary easement that exceeds regulatory limits.

Temporary Use – A temporary use of a Section 4(f) property occurs when there is a temporary occupancy of property that is considered adverse in terms of the preservation purposes of the Section 4(f) statute. A temporary occupancy of property does not constitute a use of a Section 4(f) resource when all of the following conditions are satisfied:

- Duration is less than the time needed for construction of the project and there is no change in ownership of the land;
- The nature and magnitude of the changes to the Section 4(f) property are minimal;
- There are no anticipated permanent adverse physical impacts, nor is there interference with the protected activities, features, or attributes of the property on either a temporary or permanent basis;
- The land being used will be fully returned to a condition at least as good as that which existed prior to the project; and
- There is a documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

Constructive Use – A constructive use of a Section 4(f) property occurs when a transportation project does not incorporate land from the resource, but the proximity of the project results in impacts so severe that the protected activities, features, or attributes that qualify the resource for protection under Section 4(f) are substantially impaired (23 CFR 774.15).

### **III. De Minimis Impacts**

The requirements of Section 4(f) are satisfied with respect to a Section 4(f) resource if it is determined by the FTA that a transportation project would have only a “de minimis impact” on the Section 4(f) resource. The provision allows avoidance, minimization, mitigation, and enhancement measures to be considered in making the de minimis determination. The official(s) with jurisdiction (OWJ) over the resource must be notified of the agency’s determination. De minimis impacts are defined in 23 CFR 774.17 as follows:

For parks, recreation areas, and wildlife/waterfowl refuges, a de minimis impact is one that would not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f), and the OWJ has concurred with this determination after there has been a chance for public review and comment.

For historic sites, de minimis impact means that the FTA has determined, in accordance with 36 CFR part 800, that either no historic property is affected by the project, or the project would have “no adverse effect” on the property in question. On December 11, 2023, FTA notified the IDNR-DHPA that the Blue Line would have no adverse to historic sites. The IDNR-DHPA concurred with the findings on January 10, 2024.

### **IV. Description of the Project**

The Blue Line is an approximately 24-mile west-east route with vehicles operating in both mixed traffic and dedicated lanes, and as part of a system-wide expansion. The Blue Line would primarily be a replacement of the existing IndyGo Local Route 8, however, there would need to be local service on Washington Street west of Holt Road that is not planned to be served by Blue Line and is currently served by Route 8.

Between the Airport and Holt Road, the Blue Line would operate on I-70. At the Holt Road interchange, the Blue Line would proceed northward to Washington Street. The Blue Line route would continue to operate within the existing road right-of-way between Holt Road on the west and the Town of Cumberland on the east.



**V. Description of Section 4(f) Properties**

No NRHP listed or eligible historic resources within the APE are adversely effected by the Blue Line (See Historic Resources, Section I, above). The Blue Line is located within 500 feet of 13 existing and planned parks, greenways, and trails, as shown in Table 7 and by the labeled features in Appendix A<sup>33</sup>.

**Table 7. Parks and Trails within 500 feet of the Blue Line**

Park Name	Managing Entity	Total Area / Length	Area within 500 feet of the Blue Line	Recreational Use
White River State Park and McCormick Memorial Rock	White River State Park Development Commission	186 acres	7.9 acres	IMAX Theater, Indiana State Museum, Lawn at White River State Park, Zoo, Eiteljorg Museum, Indianapolis Indians, NCAA Hall of Champions, Visitors Center, trails, Plaza Amphitheater, Children's Maze, Concert Lawn, Boat Rental, Gardens
Hawthorne Park	Indy Parks	3.6 acres	2.8 acres	Trail, basketball court, playground picnic
Willard Park	Indy Parks (Indianapolis Parks and Recreation Board)	10.9 acres	10.9 acres	Pavilion, playground, pool, basketball court, walking trail, picnic shelter, soccer field
Brown's Corner	Indy Parks	3.3 acres	3.2 acres	Open space; Memorial; shared use path
Golc Soccer Fields	Indy Parks	8.5 acres	8.5 acres	Soccer fields
Indianola Park	Indy Parks	2 acres	2 acres	Open Field, Basketball court, playground and swing set, walking trail
Eagle Creek Trail (10 <sup>th</sup> Street to CSX Bridge Segment)	Indianapolis Parks and Recreations Department	16 miles	0.3 mile	Multiuse paved trail
Downtown Canal Trail	White River State Park Development Commission	3.1 miles	0.15 mile	Paved urban, pedestrian trail

<sup>33</sup> OpenIndy Data Portal. Retrieved from <http://data.indy.gov/datasets/indianapolis-parks> and <http://data.indy.gov/datasets?q=trails>

Park Name	Managing Entity	Total Area / Length	Area within 500 feet of the Blue Line	Recreational Use
White River Trail	White River State Park Development Commission	4.7 miles	0.98 mile	Shared used path
Indianapolis Cultural Trail	City of Indianapolis	8 miles	0.9 mile	Urban bicycle and pedestrian path
Pleasant Run Trail	Indy Parks Greenways	6.9 miles	0.4 mile	Shared use path
Pennsy Trail (Phase II Arlington to Pleasant Run Trail)	Indy Parks Greenways	1.3 miles	0.18 mile	Shared use path
Future Greenway Trail (Washington Street)	City of Indianapolis	2 miles	500 feet	Future shared use path

**VI. Use of Section 4(f) Properties**

The following sections describe use of Section 4(f) properties. An assessment has been made as to whether any permanent or temporary occupancy of a property would occur and whether the proximity of the Blue Line would cause any effects (such as access disruption, noise, vibration, or aesthetic) that would substantially impair the features or attributes that qualify the resource for protection under Section 4(f) and, therefore, constitute a use (Table 8).

**Table 8. Section 4(f) Uses**

Section 4(f) Resource	Acreage of Use	Impact	Section 4(f) Use
Indianola Park 1900 W. Washington Street	0.27 acres	<ul style="list-style-type: none"> <li>The park would have limited use or be closed during construction.</li> <li>Trail accessing the sidewalk and basketball court and playground equipment would be impacted during construction.</li> <li>Majority of area impacted is open space with trees for the underground detention basin.</li> <li>Recreational uses would be returned to previous conditions or better post-construction.</li> <li>Impact to the trail would likely only occur during construction and the trail would be returned to existing or better condition post-construction.</li> <li>Tree removal would occur during construction. Impacted trees would be mitigated according to local jurisdiction requirements within the area disturbed by the Blue Line.</li> <li>Potential for basketball court disturbance or adverse impacts during construction but would</li> </ul>	De minimis

Section 4(f) Resource	Acreage of Use	Impact	Section 4(f) Use
		<p>be returned to regular use after construction. This is a worst-case scenario and would be the maximum area be impacted.</p>	
<p>Willard Park 1901 E. Washington Street</p>	<p>Up to 5.50 acres</p>	<ul style="list-style-type: none"> <li>Existing park amenities including the pool, skate park, playground, and any structures are not anticipated to be disturbed.</li> <li>Underground detention chambers would be constructed under open space and turf sports fields, and some trees would be impacted.</li> <li>Area surrounding the detention footprint would be temporarily impacted during construction for laydown area and working space.</li> <li>Impacted areas would be returned to recreational uses post construction.</li> <li>Existing turf soccer/baseball field would be restored to a natural turf, multipurpose high school sports field with soccer goals at both ends.</li> <li>Disturbance to the existing basketball court would result in replacement of a new basketball court and goals.</li> <li>For the trail, impacted areas would be graded and constructed with material that conforms to the rest of the trail on site (currently gravel).</li> <li>Trees would be mitigated per city standard based on size of trees impacted within the area disturbed by the Blue Line.</li> <li>If the existing paved parking lot at Willard Park is used for a laydown site during the detention construction, the impacted area of parking lot would be resurfaced. No additional ground disturbance within the park is anticipated.</li> </ul>	<p>De minimis</p>
<p>Pleasant Run Trail 5050 E. Washington Street</p>	<p>Approximately 0.1 mile</p>	<ul style="list-style-type: none"> <li>For drainage, the outlet pipe for the system on the east side of Pleasant Run Creek would need to run under Pleasant Run Parkway and the trail somewhere between Dequincy Street and the creek. Construction methods assume open cut techniques on the road and trail.</li> <li>Impacts would occur during construction and the trail would be repaired to existing conditions following construction.</li> </ul>	<p>De minimis</p>
<p>Brown's Corner Park 5050 E. Washington Street</p>	<p>Approximately 0.1 acre</p>	<ul style="list-style-type: none"> <li>Permanent easement from Brown's Corner is needed to widen southbound Emerson Avenue adjacent to the park to accommodate a new turn lane. The existing sidewalk would be rebuilt, and no recreational uses within the park are affected.</li> </ul>	<p>De minimis</p>



### **VII. Measures to Minimize Harm**

While care was taken to keep construction limits within the existing right-of-way, some right-of-way will be required for the Blue Line. In areas of underground detention facilities, the Section 4(f) properties will be impacted during construction and returned to their current use following construction. Construction areas will be kept to a minimum to allow for continued use of remaining areas of parks during construction.

At Brown's Corner Park, a sliver take is needed at the property for construction of a right-turn lane. No recreational uses within the property would be impacted. Therefore, there will only be de minimis impact to the Brown's Corner Park as defined under 23 CFR 774.17

### **VIII. Coordination**

The public was provided an opportunity to review and comment on the potential Section 4(f) uses. Coordination with the Indy Parks, as the OWJ of each Section 4(f) property, has occurred and is provided in letters in Appendix K. Concurrence with the OWJ was provided on January 12, 2024 for each of the Section 4(f) properties.

### **IX. Determination of Section 4(f) Use**

A de minimis impact is recommended for the four Section 4(f) properties that will have a use as a result of the Blue Line. Indianola Park, Willard Park, and Pleasant Run Trail would be impacted during construction. All public recreational resources would be returned to their existing conditions following construction. Brown's Corner would have a sliver take where 0.01 acre of the total 3-acre park would be impacted and no recreational uses within the park would be impacted.

FTA made the final determination of de minimis impact on all four Section 4(f) properties on January 8, 2024. For each Section 4(f) properties, plans were shared as part of public open house meetings on December 5-7, 2023 and notice on these impacts were posted on the IndyGo website on December 1, 2023. The public was provided a 30 day-comment period to submit comments. No comments regarding the properties have been received to date. The OWJ provided their concurrence on January 12, 2024, for each of the four Section 4(f) properties (Appendix K).

## **W. Impacts Caused by Construction**

Construction would primarily consist of earth removal and hauling, grading, repaving and restriping of lanes, sidewalk improvements, other infrastructure improvements, and placement of shelters and other station features. Construction would primarily occur during daylight hours, accounting for peak travel hours to minimize traffic delays wherever possible.

Construction activities are expected to result in minor temporary effects, which would be mitigated as described in the following sections:

### **I. Parks and Recreation**

Temporary impacts to parks and recreation would occur due to construction for stormwater outfall locations and detention basins. The impacts are anticipated to only be during construction and facilities will be returned to their existing condition. Impacts associated with detention basins will be coordinated with the OWJ prior to construction.

### **II. Noise and Vibration**

Noise and vibration resulting from construction activities would be temporary, short-term, and vary throughout the construction period. In some areas, construction noise impacts can be expected to be greater due to the close proximity of existing housing. However, these impacts are not expected to be substantial given the relatively short-term nature of construction noise at any one location and daytime scheduling of construction activities., Indiana, Chapter 391 Nuisances, Article III. Noise, Section 391-302 Unlawful Noises. Indianapolis Additionally, construction noise will be minimized through maintenance of equipment and exhaust mufflers in accordance with Indianapolis-Marion County -Marion County, Indiana,



Chapter 611 Motor Vehicles, Article I, and Section 611-102 Mufflers Required; Standards. Construction noise and vibration would cease when construction is complete.

### **III. Safety and Security**

To ensure the safety of contractors and the general public, IndyGo will implement lessons learned from the Red and Purple lines. This includes limiting access to active construction areas to only required personnel. This would be established through secured fencing and monitoring by construction personnel. IndyGo would also require an on-site safety plan to be developed, maintained, and implemented by the contractor during construction. This would be critical during areas where deep excavation may occur.

### **IV. Disruption of Utilities**

Throughout the Blue Line, existing utilities are present, including underground gas, fiber optic, cable, telephone, electric, water, sanitary sewers, storm sewers, and thermal. In addition, above-ground, electric, telephone, and cable is within the Blue Line limits. Utility relocation at station areas is likely to consist of valves, fire hydrants, utility poles, utility boxes, and vaults. Where utility access is required underneath station areas, utility relocations may be required; however, this work would be short-term in duration. In general, the utility company would install new features prior to tying into the existing service. Prior to the tie-in period, utilities notify impacted customers of the potential short-term disruption of service. Additionally, prior to any utility relocations, utility companies will obtain permits through the City of Indianapolis. The utility relocation permit would specify any restrictions for outages and timing of utility relocation. The City of Indianapolis provides monthly updates of utility restrictions within Marion County.

For potential utility relocation, all utility companies within the Blue Line limits have been contacted, responses have been received, and their plans are being incorporated into the survey files. In addition, monthly utility coordination meetings have occurred to address relocations.

### **V. Disposal of Debris and Spoil**

Any material to be disposed of is likely to be the result of site preparation activities, such as demolition materials, vegetation clearance, and general construction debris. There may also be the removal of any soil unsuitable for construction or soil volumes in excess of that needed for facility construction. Responsibility for disposal will be that of the contractor, subject to all applicable regulations and requirements. IndyGo's contractors will follow all applicable laws and regulations concerning the proper disposal of construction debris and spoil.

### **VI. Access and Distribution of Traffic**

During construction, small areas of adjoining parcels at stations may be temporarily impacted by minor ground surface disturbance to accommodate concrete work. Partial road and sidewalk closures may be needed to accommodate construction, although these closures will be temporary and short-term. Detailed maintenance of traffic plans would be developed during final design in coordination with DPW to ensure safety of all workers and users during construction and to ensure emergency vehicle access is not impeded. Additionally, any parking spaces temporarily removed during construction would be coordinated with DPW and the adjoining businesses/residences to minimize the temporary impacts.

### **VII. Water Quality and Runoff**

Construction activities may adversely affect water quality through erosion and sedimentation. Erosion is usually greater during construction due to the exposed soil during grading and earth-moving operations, although such is expected to be minimal given the developed condition of the Blue Line corridor and the small size of the platforms to be constructed. Temporary soil disturbance during construction will be addressed by compliance with soil erosion and sedimentation control laws and implementing best management practices like hydrodynamic separators.<sup>34</sup>

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<sup>34</sup> Indiana Storm Water Quality Manual. October 2007. <http://www.in.gov/idem/stormwater/2363.htm>



#### **VIII. Air Quality and Dust Control**

Construction activities can result in short-term increases in fugitive dust and equipment-related particulate emissions in and around the Blue Line corridor. These potential air quality impacts will be short-term, occurring while demolition and construction work is in progress. The potential for fugitive dust emissions typically is associated with ground clearing, site preparation, grading, stockpiling of materials, on-site movement of equipment, transportation of construction equipment, and during high wind conditions. Dust control techniques that warrant consideration include minimizing track-out of soils onto nearby publicly-traveled roads, reducing speed on unpaved roads, covering haul vehicles, and applying dust suppressants or water to exposed surfaces, particularly those on which construction vehicles travel. Construction specifications will indicate when dust control is needed and the method of control to be used. Vegetation and mulching specifications will be provided in the design plans to minimize impacts during construction. A reference to these provisions will be a part of the Blue Line's contract documents.