

# CHAPTER 7

# TRANSPORTATION PLAN



Brentwood’s transportation system is comprised of an integrated network of roadways, regional public transit services, and a growing network of pedestrian and bicycle infrastructure. To ensure that residents and visitors can adequately access goods, services, and community resources, the City must establish a balanced, efficient, well-maintained, and connected transportation system that supports land use development through a variety of modes.

The Transportation Plan provides an overview of the City’s roadway network, public transportation, non-motorized transportation options, the Union Pacific Railroad, and necessary interjurisdictional cooperation. In addition, the Plan sets forth recommendations that capitalize on the City’s public transit assets, reduces system inefficiencies, and expands bicycle and pedestrian infrastructure to reach community and recreational facilities.

## ROADWAYS

### INTERJURISDICTIONAL COOPERATION

The roadway network serving the City of Brentwood is under the jurisdiction of several entities, include Missouri Department of Transportation (MoDOT), the St. Louis County Department of Transportation, and the City of Brentwood. The jurisdiction of local roads fall under the City of Brentwood; Brentwood Boulevard, and segments of Eager Road and Litzsinger Road fall under the jurisdiction of St. Louis County and the City; and MoDOT maintains jurisdiction over Manchester Road and the interstates. The City will need to maintain close coordination with MoDOT and the St. Louis County Department of Transportation to accomplish the goals and objectives of the Comprehensive Plan and establish a well-balanced transportation system.

# TRANSPORTATION PLAN





## FUNCTIONAL CLASSIFICATION

Brentwood's roadway network is comprised of interstates, principal arterials, minor arterials, major and minor collectors, and local roads. These classifications are aligned with the St. Louis County Department of Transportation's Functional Classification System, and help to inform decision-makers. The following information summarizes the roadway functional classification system serving the City of Brentwood. The City should maintain the classifications of its roadway system and work with MoDOT and St. Louis County to improve their operation and multimodal function.

### Interstates

Interstates provide for high traffic volumes and high travel speeds to allow for the highest degree of mobility. Access to freeways is typically limited to grade-separated interchanges to ensure safe and efficient travel at high speeds. Interstates include I-64 and I-170, which are under the jurisdiction of MoDOT.

### Principal Arterials

Principal arterials connect the freeway system with minor arterials and collector roads. Principal arterials provide a high degree of mobility by carrying high volumes of traffic and require more precise traffic signal spacing and access controls. In Brentwood, the principal arterials include Manchester Road, the segment of Brentwood Boulevard north of Manchester Road, and Hanley Road. Because Brentwood Boulevard and Hanley Road fall under the jurisdiction of St. Louis County, the City must maintain close communication with the St. Louis County Department of Transportation to ensure the efficient coordination and implementation of the improvements outlined in this plan. In addition, because Manchester Road falls under the jurisdiction of MoDOT, the City must also maintain close communication with MoDOT to ensure the efficient coordination and implementation of the improvements outlined in this plan.

## IMAGE & IDENTITY

*The City can strengthen its image and identity through attractive corridors, parking areas, and well-maintained streets and sidewalks. The following recommendations will assist the City in creating an attractive and positive image for the community through transportation improvements:*

- *Work with the St. Louis County to develop pedestrian facilities along Brentwood Boulevard to strengthen the community's identity and create a unique and memorable entry into the Brentwood Town Center.*
- *Continue to budget for the ongoing maintenance and improvement of streets and sidewalks.*
- *Work with MoDOT and St. Louis County to bury overhead utility lines and improve the right-of-way and appearance along arterial corridors.*
- *Work with property owners to remove broken or empty business signs.*
- *Improve the appearance of off-street parking areas to include landscaped islands and pedestrian crosswalks.*
- *Implement a streetscape plan along key corridors throughout the community and include street trees, pedestrian crossings, decorative light standards, banners, and pedestrian amenities such as benches and wayfinding signage.*
- *Install gateway features at the intersection of Brentwood Boulevard with Strassner Drive and Manchester Road.*
- *Continue to create an interconnected trail system and market the City as a bicycle and pedestrian friendly community.*



At present, MoDOT is planning for improvements to Manchester Road from Big Bend Boulevard to Lindbergh Boulevard, which will include sidewalk improvements, curb cuts, vertical concrete curbs, pedestrian lights, and traffic signals. The City should continue coordinating with MoDOT to implement these improvements and install wayfinding signage as outlined in this plan.

### Minor Arterials

Minor arterials accommodate shorter trips to and from commercial areas, employment centers, and residential neighborhoods. Minor arterials support principal arterials and include McKnight Road and the section of Brentwood Boulevard south of Manchester Road. Because Brentwood Boulevard and McKnight Road fall under the jurisdiction of St. Louis County, the City must maintain close communication with the St. Louis Department of Transportation to ensure the efficient coordination and implementation of all planned improvements.

### Collectors

Collector roads are designed to support the arterial network by distributing traffic between the arterials and local roads. Collectors are typically comprised of medium-capacity, medium volume roads with limited continuity. Major collectors include Eager Road, Litzsinger Road, and Strassner Drive, and minor collectors include High School Drive and Wrenwood Lane. Because segments of Eager Road fall under the jurisdiction of St. Louis County, the City must maintain close communication with the St. Louis Department of Transportation to ensure the efficient coordination and implementation of all planned improvements.

### Local Roads

Local roads, which are accessed from arterial and collector roads, provide direct access to private property. They are maintained by the City and generally accommodate low traffic volumes, low speeds, and short trips.

## UNION PACIFIC RAILROAD (UPRR)

The Union Pacific Railroad (UPRR) runs along the south side of Manchester Road adjacent to Deer Creek. The railroad provides freight service to Forest Products Supply Co. and Millman Lumber Co. In its present state, the UPRR conflicts with the completion of the Deer Creek Greenway. For short term, the City should continue coordinating with the UPRR to safely and efficiently complete the Deer Creek Greenway through the construction of a railroad overpass bridge. For long-term, the City should support converting the UPRR spur to a greenway.

## MASS TRANSIT & PUBLIC TRANSPORTATION

The City of Brentwood is served by the MetroBus public bus and the MetroLink light rail system, both of which are connected through a shared fare system. The City is served by five bus lines (2, 57, 57X, 59, and 68) and two MetroLink stations (the Maplewood Manchester Station and the Brentwood I-64 Station) that connect residents and visitors with the region.

The City should coordinate with the St. Louis County Department of Transportation to establish bus lanes on Brentwood Boulevard during peak hours to help reduce traffic congestion and improve traffic flow along the corridor. Dedicated bus lanes during peak hours will allow the remaining lanes to be prioritized for automobiles, which should help to minimize conflicts between automobiles and buses as they frequent their stops. In addition, the City should increase wayfinding signage around MetroLink stations to improve the navigability of the area.

## NON-MOTORIZED CONNECTIVITY

Throughout Brentwood, the pedestrian and bikeway connections to the community are either fragmented or unsafe. There are several gaps in the overall sidewalk and bicycle network, which prevent residents from fully utilizing some of the existing trail network within the City. The City is aware of the existing conditions, and has been proactively organizing or participating in several planning activities.

### SIDEWALKS

The City has also conducted a pedestrian network planning effort in conjunction with the City Hall site improvement project. As part of this project, the City is considering a safe and attractive pedestrian connection from Litzinger Road that runs west from Brentwood Boulevard, linking with another pedestrian connection along Rosalie Avenue. This coordinated effort will provide improved pedestrian access to Broughton Park, which will bring the City closer to achieving its goal of establishing an interconnected parks system.

In addition to these efforts, the City should prioritize the construction of a complete sidewalk network along all arterial and collector roads, particularly surrounding commercial and community facilities. Sidewalks along arterial roads should be wider than sidewalks along collector roads to accommodate higher volumes of pedestrian traffic. Where possible, the City should coordinate the construction of new sidewalks and bicycle infrastructure with road improvements and ensure that all new sidewalks, trails, and bicycle lanes are linked with existing or planned projects, thereby following the policies of a “complete street” initiative.

## SUSTAINABILITY

*The City should implement the following transportation and circulation recommendations to support sustainability:*

- Support the enhancement, accessibility and use of public transit.
- Implement the recommendations of the City's Trail Plan as shown in Brentwood Parks System Master Plan to promote bicycling and walking.
- Encourage mixed-use development in the town center to create activity and support residents working, shopping, and recreating within walking distance of their home.
- Include “best management practices” and green building techniques such as parking lots using permeable pavers and porous asphalt, as well as the use of raingardens and landscaped bioswales to reduce flooding and erosion from heavy rainfall.

## BICYCLE CONNECTIONS & TRAILS

The City has partnered with the Great Rivers Greenway to evaluate the feasibility of connecting the Deer Creek Greenway to Rogers Parkway. In addition to the existing condition analysis and alternatives, the study included a recommended alternative that serves as a guide for the ultimate development of the greenway connector. This alignment could serve as a catalyst for dramatic improvements for the portion of Brentwood Boulevard. Additional information on the Deer Creek Greenway and Brentwood's trail system can be found in **Chapter 9: Open Space, Recreation, and Environmental Features**.

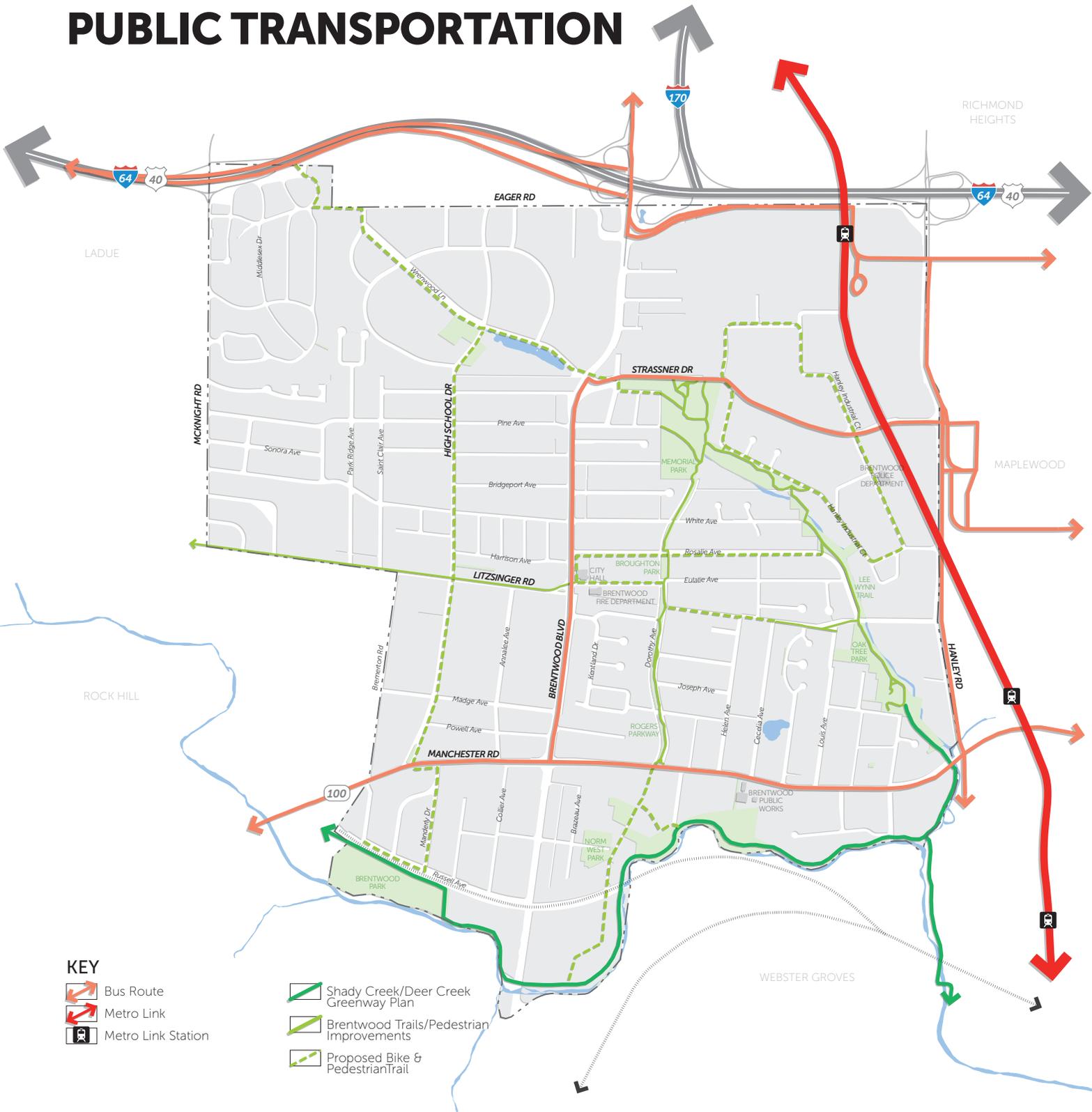
### PEDESTRIAN BRIDGES

It is crucial that the City provides opportunities for pedestrians to safely and efficiently access commercial areas. However, high traffic speeds and volumes can be a deterrent and danger to pedestrians attempting to access business, such as along Brentwood Boulevard. The City should continue its efforts in coordinating with the St. Louis County Department of Transportation to establish a pedestrian bridge crossing over Brentwood Boulevard to provide pedestrians with safe access to nearby community services and commercial areas. The bridge is intended to be aesthetically pleasing, unique, and contain a consistent superstructure type throughout its length. The City should also ensure that the pedestrian bridge is ADA compliant so that the bridge can be safely utilized by all of Brentwood's residents, regardless of age or ability. In addition, this bridge can serve as a community gateway and landmark directing people to the Town Center.



\* Final design to be determined  
Source: City of Brentwood

# PUBLIC TRANSPORTATION



## KEY

-  Bus Route
-  Metro Link
-  Metro Link Station

-  Shady Creek/Deer Creek Greenway Plan
-  Brentwood Trails/Pedestrian Improvements
-  Proposed Bike & Pedestrian Trail

## INTERSECTIONS

Intersections are the most dangerous areas of the circulation system. They should be planned or improved to provide safe and efficient traffic flow for both pedestrian and vehicular traffic. Intersections on Brentwood Blvd, Manchester Road, McKnight Road, and Hanley Road are the most noticeable intersections in the City. Brentwood Blvd and Strassner Drive intersection has been recently improved; however, any future alteration and modification to accommodate potential trails through the intersections should be carefully planned.

The City is currently planning for several trails that would require coordination with St. Louis County and MODOT.

Although roadway intersections in Brentwood seems to be generally safe and working efficiently, following recommendations should help in making the intersection safer for both pedestrian and vehicular traffic.

- All roads should intersect at right angles (90 degrees), although 85 to 95 degrees is acceptable. There are some roads that meet at acute angles occur in Brentwood. Plans to systematically improve these situations should be developed.
- When possible, minimize intersections on Brentwood Blvd and Manchester Road that are close to one another. Existing intersections can be eliminated by using cul-de-sacs with traffic routed along parallel streets to Principal and Minor Arterial Roads.
- Adequate sight distances should be maintained to meet minimum standard requirements at all intersections.
- T-intersections should be used when Local Road intersects with Principal and Minor Arterial roads to reduce conflict and promote safety.
- Provide crosswalks at all intersections where necessary, marked with paint or vinyl strips or identified with a different paving surface.

## TRANSPORTATION OBJECTIVES

*Create a multi-modal transportation system that links pedestrians, cyclists, and motorists to employment, shopping, and recreation areas.*

- Work with Bi-State Development Agency to extend the Metro transit network to more corridors and increase the frequency of service on the existing corridors.
- Emphasize maximum access from Regional Commercial and Mixed-use district to Brentwood and Maplewood Metrolink stations from residential neighborhoods and commercial districts. Sidewalks/pedestrian corridors should be developed from Hanley Road to both mass transit stations.
- Construct a pedestrian bridge across Brentwood Boulevard to improve the east-west pedestrian connectivity of Brentwood neighborhoods.
- Bike routes or lanes and sidewalks should be established on Strassner Road and all other roads in the Regional Commercial and linked to onstreet bike routes and dedicated trails that extend throughout the City of Brentwood.
- Coordinate with Metro to ensure that secure bike racks or storage bins are available at Metrolink stations.
- Construct a pedestrian underpass beneath Manchester Road to connect Rogers Parkway with the future Deer Creek Greenway Connector.
- Coordinate with St. Louis County and the City of Maplewood to develop pedestrian connections from the southern portion of the regional commercial district to the Maplewood Metrolink station.
- Provide a sidewalk connection from Mary Avenue to Norm West Park.
- The City should coordinate with the St. Louis County Department of Transportation to establish bus lanes on Brentwood Boulevard during peak hours to help reduce traffic congestion and improve traffic flow along the corridor.

***Improve the function and safety of the street network through controlled access, land use decisions, and street and intersection design improvements.***

- Continue to pursue new intersection improvement projects at Hanley and Manchester Roads which will aid traffic flow.
- Evaluate options to eliminate hindrances to free-flowing traffic on Manchester Road. Potential strategies could be construction of a median to limit left turns, expanding the turning capacity at intersections, permitting u-turns at signalized intersections, and limiting the number of entrances to mixed-use areas along the corridor.
- Reconfigure selected existing roads, such as Strassner Road round about, to provide more continuous and safer traffic flow.
- Work with MoDOT and the St. Louis County Department of Transportation to improve the pedestrian safety of intersection on Brentwood Blvd. at Litszinger, Manchester, and Strassner Drive.
- Enhance crosswalks along Brentwood Boulevard and Manchester Road with signage, lighting, striping, and colored pavers to improve their safety.
- Provide vertical curbs and minimize curb cuts and consolidate access drives along the primary transportation corridors to provide safer pedestrian movement on the sidewalk along these corridors.
- Continue coordinating with the Union Pacific Railroad to safely and efficiently complete the Deer Creek Greenway Connector from Rogers Parkway to the Shady Creek/Deer Creek Greenway through the construction of a railroad overpass bridge.
- Minimize cut-through traffic issues by providing ways to reduce driving speed of vehicular traffic.
- Program for trails as recommended in Brentwood Park Systems Master Plan.
- Advocate elimination of UPRR spur to convert the right-of-way to a greenway.

***Enhance the aesthetics of the transportation corridors in Brentwood to create more inviting travel experience.***

- Provide for a hierarchy of landscape/streetscape treatments along public roads in Brentwood to encourage appropriate improvements as need and funding allow. Improvements to the streetscape should be in context with the type of roadway and the density of the development.
- Install landscaped gateway signage at key entrances and wayfinding signage throughout the community to welcome people into Brentwood, improve the City's navigability, and create a unique sense of place.
- Continue to coordinate road improvements with MoDOT and St. Louis County Department of Transportation to ensure that desired streetscape design elements will be evaluated and potentially incorporated in improvements to the major arterials in Brentwood.
- Provide street trees, planters, lighting, and signage along sections of roadways with increased pedestrian traffic, to provide a more comfortable walking experience.
- Work closely with existing business owners to consolidate or remove unnecessary, redundant, obsolete, or unsafe curb cuts and pavement, provide cross access between parking lots and promote shared parking spaces between multiple business.
- Install adequate and attractive street lighting along local streets.