

# **Final Report Executive Summary**

BlueOval City Transit Study

prepared for

**Tennessee Department of Transportation** 

prepared by

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## BlueOval Transit

The Tennessee Department of Transportation (TDOT) initiated this study to identify and evaluate the feasibility of various transit options to provide employee access to the future BlueOval City in Haywood County, Tennessee. The new facility will host a variety of manufacturing plants, including the manufacturing of SK Batteries. Operations are expected to start ramping up in 2024 and become fully operational in 2025, with over 10,000 employees. Transit options to the site will greatly benefit the region, expanding access to jobs and reducing traffic congestion impacts on the adjacent road system.

This study focused on 11 counties in Western Tennessee: Shelby, Fayette, Hardeman, Tipton, Haywood, Madison, Chester, Lauderdale, Crockett, Dyer, and Gibson. BlueOval City is located near the center of this area. The full extent of the study included engaging with local stakeholders, assessing current conditions, defining and evaluating a set of alternatives, calculating preliminary costs, and developing implementation options. The transit service should be a feasible travel option while supporting existing communities and other economic development goals, while addressing the future transit needs of BlueOval City. Four goals focus on this purpose and aim to ensure the success of the transit service:

- Connect: Provide feasible commute alternatives to driving for employees
- Thrive: Support existing communities
- Develop: Support local and regional economic development goals
- Sustain: Develop services sustainable over the long term

To make transit a viable option for shift-based workers, shift-oriented level of service, safety, attractiveness, and reliability were considered, especially for the onboard experience. Additionally, preserving reasonable travel times and remaining competitive against driving alone was considered. Planned shift durations were closely monitored to design the level of service and capacity on a daily basis, considering weekly schedules that take place throughout the year.

# **Existing Conditions and Outreach**

As a beginning stage of this project, the study team gathered information on the existing transportation conditions, insights on anticipated impacts, and concerns about the facility. This information provided an understanding of how commuters currently travel in the study area, existing socioeconomic characteristics, and viewpoints of providing transit service to the site.

A handful of organizations were interviewed, including transit agencies, metropolitan and rural planning organizations, economic development agencies, and local stakeholders. Outreach also received information and feedback at stakeholder outreach meetings, which included additional government representatives, mayors, and other key regional voices. The common themes heard among interviews included:

- The willingness to work with all the stakeholders in the region to develop a transit solution
- The need to balance existing transit service and new service to BlueOval City
- The desire to understand the parameters of service to BlueOval City

The current socioeconomic and travel characteristics also provided insight on how and where future BlueOval employees may live. With Shelby County as the most populous county in the region, the majority of workers are anticipated to travel from this area, followed by Madison County. The transit service will also have to compete against driving, with the vast majority of workers driving alone to work. Public transportation is not widely used, with the highest concentration in Shelby County, but is a vital travel option for rural residents without a vehicle.

### **Transit Service Alternatives**

Three different project alternatives were developed to respond to the identified public transportation needs, opportunities, and project goals and objectives. These were designed to provide a mix of solutions and reflect anticipated shift patterns. These alternatives included a combination of modes and technologies, such as passenger rail, express bus, transit bus, community bus, and vanpool.

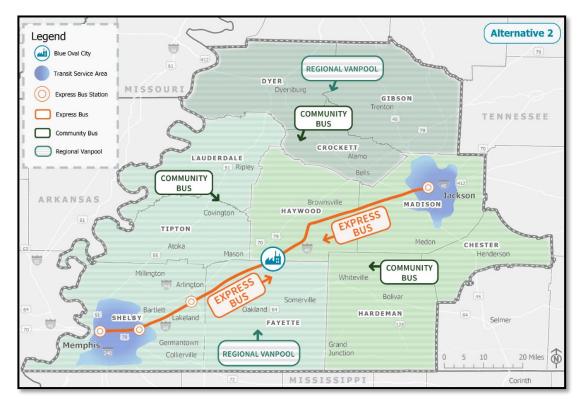
Each of the three alternatives is comprised of a combination of transportation options based on the anticipated number of employees at the site, existing transit services, and predicted capacity needs. Additionally, ridership, anticipated cost, and impacts to the economy were estimated for all alternatives.

- Alternative 1: Passenger Rail provides the highest level of comfort but requires the greatest investment. Its primary mode is passenger rail from Memphis to BlueOval City. Express bus from Jackson is also provided, supporting travel from the second-largest city in the region. The rest of the region is supported by community buses and regional vanpools from the 11-county area.
- Alternative 2: Express Bus relies primarily on express bus services, requiring a lower level of
  investment than Alternative 1. Its primary mode is express bus from both Memphis and Jackson to
  BlueOval City. The rest of the region is supported by community buses and regional vanpools from the
  11-county area.
- Alternative 3: Local Bus attempts to provide similar levels of access to BlueOval City at a lower level of
  investment. Its primary mode is transit bus service from Memphis and Jackson to BlueOval City. The rest
  of the region is supported by community buses and regional vanpools from the 11-county area.

Metric	Alternative 1 Passenger Rail	Alternative 2 Express Bus	Alternative 3 Local Bus
Weekly Ridership Estimate	6,916	6,916	6,916
Capital Cost	\$468.6 M	\$7.0 M	\$8.1 M
Annual Operating & Maintenance Cost	\$5.0 M	\$2.6 M	\$2.4 M
30-Year Cashflow Benefit-Cost Ratio	0.2	3.8	3.9

#### **Alternatives Summary**

Based on the discussed estimates, analyses, and evaluations, Alternatives 2 and 3 are both viable options for providing transit service to BlueOval City. They both offer nearly \$4.00 in benefits for every \$1.00 in costs and address the identified goal areas. Between the two options, Alternative 2: Express Bus would have a slight edge, with coach buses offering comfort and amenities ideal for long-distance commuting.



#### **Alternative 2: Express Bus**

### **Funding and Implementation**

Various Federal grants and formula funds as well as state and local funds were considered for funding BlueOval City transit service, focusing on the selected Alternative 2: Express Bus. Some of the most promising funding sources includes the Congestion mitigation and Air Quality (CMAQ) Improvement Program, Tennessee's IMPROVE Grant, FTA formula funds, and revenue from fare collection.

Implementing the service depends on various considerations, such as legislative requirements and limitations, timeline for execution, and available funding. The most promising and viable options includes:

- Regional Transportation Authority (RTA): Develop a regional transit system, similar to the RTA of Middle Tennessee. While it would require state legislative action, it would streamline distribution of service, simplify funding, have uniform target setting, and require less coordination.
- Existing Service Operators: Coordinate BlueOval City service through existing operators: MATA, Jackson Transit Authority, and the three Human Resource Agencies. This would add onto existing service to utilize the established administration, funding opportunities, and resources. Local agreements, such as JPAs, can address responsibilities and coordination.

Another consideration when starting up service relates to obtaining and operating vehicles. There are two general avenues. *Purchased Transportation*, which is an arrangement through a broker service through a private operator. This is ideal in absence of immediate funding, especially capital. An alternative option is *Direct Operation*, which is where the operators own and operate the service. This is how many public transit operators implement service, including MATA and Jackson Transit Authority.