

## 3. Goals and Performance Measures

The KFP serves as an independent document that supports the implementation of the commonwealth's LRSTP. The KFP's goals are consistent with the LRSTP's goals and objectives, as well as the National Freight Policy goals. In addition to the goals, the KFP identifies a set of objectives and performance measures that articulate KYTC's freight investment priorities to help define freight system investment needs and identify the desired future performance of the system.

### 3.1. 2045 Long-Range Statewide Transportation Plan Goals

In 2021-22, KYTC undertook a significant effort to engage Kentuckians to develop an overall transportation vision and goals for Kentucky's future. Through input from the public and focus groups, the LRSTP identified the following vision for Kentucky's future transportation system:

*A viable multimodal transportation system providing access and mobility for all users to safely reach their destinations.*

To support this vision, a series of goals were developed.

- Enhance safety
- Deliver a high level of maintenance and resiliency
- Establish a reliable flow of people and freight
- Provide local, regional, and global connectivity for communities
- Deliver and operate a system that protects or enhances the natural and human environment

### 3.2. Alignment with National Freight Policy Goals

The KFP goals were established after reviewing the goals of National Multimodal Freight Policy and the National Highway Freight Program. By focusing on these national goals, the KFP is a required framework for performance measure development.

#### 3.2.1. Goals of the National Multimodal Freight Policy (49 U.S. Code § 70101)

- 1) Identify infrastructure improvements, policies, and operational innovations that:
  - a. strengthen the contribution of the National Multimodal Freight Network to the economic competitiveness of the United States;
  - b. reduce congestion and eliminate bottlenecks on the National Multimodal Freight Network; and
  - c. increase productivity, particularly for domestic industries and businesses that create high-value jobs;
- 2) Improve the safety, security, efficiency, and resiliency of multimodal freight transportation;
- 3) Achieve and maintain a state of good repair on the National Multimodal Freight Network;

- 4) Use innovation and advanced technology to improve the safety, efficiency, and reliability of the National Multimodal Freight Network;
- 5) Improve the economic efficiency and productivity of the National Multimodal Freight Network;
- 6) Improve the reliability of freight transportation;
- 7) Improve the short and long-distance movement of goods that:
  - a. travel across rural areas between population centers;
  - b. travel between rural areas and population centers; and
  - c. travel from the Nation's ports, airports, and gateways to the National Multimodal Freight Network;
- 8) Improve the flexibility of states to support multi-state corridor planning and the creation of multi-state organizations to increase the ability of states to address multimodal freight connectivity;
- 9) Reduce the adverse environmental impacts of freight movement on the National Multimodal Freight Network; and
- 10) Pursue these goals in a manner that is not burdensome to state and local governments.

### 3.2.2. Goals of the National Highway Freight Program (23 U.S. Code § 167)

- 1) Invest in infrastructure improvements and to implement operational improvements on the highways of the United States that:
  - a. strengthen the contribution of the National Highway Freight Network to the economic competitiveness of the United States;
  - b. reduce congestion and bottlenecks on the National Highway Freight Network;
  - c. reduce the cost of freight transportation;
  - d. improve the year-round reliability of freight transportation; and
  - e. increase productivity, particularly for domestic industries and businesses that create high-value jobs;
- 2) Improve the safety, security, efficiency, and resiliency of freight transportation in rural and urban areas;
- 3) Improve the state of good repair of the National Highway Freight Network;
- 4) Use innovation and advanced technology to improve the safety, efficiency, and reliability of the National Highway Freight Network;
- 5) Improve the efficiency and productivity of the National Highway Freight Network;
- 6) Improve the flexibility of states to support multi-state corridor planning and the creation of multi-state organizations to increase the ability of states to address highway freight connectivity; and
- 7) Reduce the environmental impacts of freight movement on the National Highway Freight Network.

### 3.3. Freight Plan Goals & Objectives

The KFP goals align with those of the LRSTP, the national multimodal freight policy, the national highway freight program, and other state freight plans. These goals guide the recommendations, freight investment plan, and performance measures to support the progress of the KFP. The goals fall into five different areas: safety, maintenance and resiliency, reliability, accessibility and mobility, and environmental stewardship. The KFP goals and their associated objective are summarized in **Table 3-1**.

Table 3-1. KFP Goals

KFP Goal	Freight Objectives
<b>Safety</b>	<ul style="list-style-type: none"> <li>• Reduce the number of crashes involving commercial vehicles</li> <li>• Provide adequate truck parking availability</li> <li>• Reduce the amount of disruption to freight movements resulting from crashes</li> <li>• Reduce the amount of conflict between vehicles moving freight, pedestrians, and bicycles</li> </ul>
<b>Maintenance and Resiliency</b>	<ul style="list-style-type: none"> <li>• Improve and preserve pavement and bridge conditions crucial for freight movement</li> <li>• Protect transportation infrastructure crucial for freight movement from extreme weather events, including from flooding and stormwater runoff.</li> <li>• Provide a level of redundancy to the system supporting the freight network</li> </ul>
<b>Reliability</b>	<ul style="list-style-type: none"> <li>• Improve the efficiency of freight transportation and the capacity of freight-related infrastructure throughout Kentucky</li> <li>• Deliver construction and maintenance projects in a manner to reduce freight delays or disruptions</li> <li>• Facilitate the cooperation in the development and operations for all modes which creates seamless trips for goods</li> </ul>
<b>Accessibility and Mobility</b>	<ul style="list-style-type: none"> <li>• Reduce impediments to access multimodal facilities</li> <li>• Address bottlenecks on the freight network</li> <li>• Improve access to freight generators, including energy activity areas and freight-related businesses</li> </ul>
<b>Environmental Stewardship</b>	<ul style="list-style-type: none"> <li>• Reduce the environmental impacts of building, maintaining, and operating Kentucky's transportation system</li> <li>• Reduce greenhouse gas (GHG) emissions and minimize freight impacts to air quality, historically disadvantaged communities, and wildlife habitats</li> <li>• Avoid, minimize, or mitigate environmental impacts related to freight movements</li> </ul>

**Table 3-2** below demonstrates the alignment of KFP goals with the National Multimodal Freight Policy goals and National Highway Freight Program goals. **Table 3-3** contains additional information on the KFP goals, objectives, performance measures, and indicators.

Table 3-2. Alignment of LRSTP/KFP Goals with National Freight Policy Goals

		National Freight Policy Goals									Highway Freight Program Goals							
		Identify Improvements, Policies, and Innovations	Safety, Security, Resiliency	State of Good Repair	Advanced Technology	Economic Efficiency/Productivity	Reliability	Improve Freight Mobility	Multi-State Planning	Environmental	Not burdensome	Infrastructure & Operational Improvements	Safety, Security, Resiliency	State of Good Repair	Advanced Technology	Network Efficiency & Productivity	Multi-State Coordination	Environmental
<b>KFP Goals</b>	Safety		X	X	X	X	X				X	X	X	X			X	
	Maintenance & Resiliency	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X
	Reliability	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Accessibility and Mobility	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X
	Environmental Stewardship		X		X					X					X	X		X

### 3.4. Objectives and Performance Measures

The KFP identifies a set of objectives that articulate KYTC's freight goals, help define freight system investment needs, and identify the desired future performance of the freight network. Specifically, performance measures can be used to quantifiably assess freight infrastructure investment. In addition, performance measures can be used to increase communication with the Freight Advisory Committee, the general public, freight stakeholders, and elected officials. Internal to KYTC, performance measures can serve three specific purposes:

**PLANNING:** Performance measures can be used as a tool to evaluate proposed projects and scenarios to gauge their effectiveness in achieving the KFP's goals. These high-level metrics can create an evaluation of alternatives.

**IMPLEMENTATION:** Performance measures can be used as a tool to emphasize KFP goals within the policy development, budgeting, programming, and project selection processes. For example, the measures might assist decision-makers in the project selection process by providing metrics about their potential effectiveness.

**ACCOUNTABILITY:** Performance measures can be used as a tool to facilitate tracking and reporting KYTC's progress in achieving the KFP's goals to support accountability for plan implementation and results.

Performance measures are a tool to achieve the plan, not a grade. These measures must be applied to something within KYTC's control—otherwise a performance measure has no value and only presents a risk of KYTC being held accountable for results they cannot influence. The potential performance

measures listed below are tied to quantitative information where available. They are intended to guide future investment decisions and can also be used to assess the progress of the KFP's implementation. A prominent guiding principle in the development of a performance measure is the utilization of existing data alongside leveraging current (or planned) data collection efforts.

In addition to the performance measures, indicators are identified. Indicators are important data points to monitor the status of the freight system; however, they are outside of the direct influence of KYTC. The performance measures and indicators will be further defined in forthcoming planning activities by KYTC. Additionally, FHWA continues to develop national management standards for the NHS, which encompasses a large portion of Kentucky's freight transportation system. The KFP goals, objectives, performance measures, and indicators are listed in **Table 3-3**. Each measure is designed to track progress towards a pre-determined target.

Table 3-3. KFP Goals, Objectives, Performance Measures, and Indicators

<b>Goal: Enhance safety</b>	
<b>Objectives</b>	<b>Performance Measures</b>
<ul style="list-style-type: none"> <li>Reduce rates of crashes, injuries, and fatalities involving commercial vehicles</li> <li>Provide adequate truck parking availability</li> <li>Minimize the time the freight network suffers interruption from an incident</li> <li>Reduce the conflict between freight vehicles and pedestrians/ bicycles</li> </ul>	<ul style="list-style-type: none"> <li>Commercial vehicle crash rate</li> <li>Grade crossing crash/incident rate</li> </ul>
	<p><b>Indicators</b></p> <ul style="list-style-type: none"> <li>Number of public truck parking spaces</li> <li>Railroad incidents/near-misses</li> <li>Inland waterway crashes/incidents</li> <li>Aviation crashes/incidents</li> <li>Change in tonnage/value/miles</li> <li>Resiliency – recovery</li> <li>Hours of downtime on freight network resulting from incidents</li> </ul>
<b>Goal: Deliver a high level of maintenance and resiliency</b>	
<b>Objectives</b>	<b>Performance Measures</b>
<ul style="list-style-type: none"> <li>Keep Kentucky’s state highway pavement, bridges, and highway-related assets in good condition</li> <li>Assist modal partners in achieving state-of-good repair for aviation, riverports, rail, and navigable waterway infrastructure</li> <li>Maintain a program of public, highway-rail at-grade crossing evaluations</li> <li>Protect transportation infrastructure crucial for freight movement from extreme weather events, including from flooding and stormwater runoff.</li> <li>Provide a level of redundancy to the system supporting the freight network.</li> </ul>	<ul style="list-style-type: none"> <li>Percent of structurally deficient bridges on freight network</li> <li>Percent of freight network meeting pavement condition targets</li> <li>Number of weight-restricted bridges on the freight network</li> <li>Number of vertical restrictions on the freight network</li> <li>Congestion of the freight network (level of service or volume/capacity)</li> <li>Reliability (buffer index/planning index)</li> <li>Pavement and bridge ratings on intermodal connectors and roads leading to major energy/manufacturing centers</li> </ul>
	<p><b>Indicators</b></p> <ul style="list-style-type: none"> <li>Percent of publicly owned airports meeting the commonwealth’s standards</li> <li>Rate of dredging</li> <li>Condition of locks and dams</li> </ul>

Goal: Ensure a reliable flow of people and freight	
Objectives	Performance Measures
<ul style="list-style-type: none"> <li>• Improve the efficiency of freight transportation and the capacity of freight-related infrastructure throughout Kentucky</li> <li>• Deliver construction and maintenance projects in a manner to reduce freight delays or disruptions</li> <li>• Facilitate the cooperation in the development and operations for all modes which creates seamless trips for goods</li> </ul>	<ul style="list-style-type: none"> <li>• Congestion on intermodal connectors and roads leading to major energy/manufacturing centers</li> <li>• Reliability on intermodal connectors</li> </ul>
Goal: Provide local, regional, and global connectivity for communities	
Objectives	Performance Measures
<ul style="list-style-type: none"> <li>• Reduce impediments to access multimodal facilities</li> <li>• Address bottlenecks on the freight network</li> <li>• Improve access to freight generators, including energy activity areas and freight-related businesses</li> </ul>	<ul style="list-style-type: none"> <li>• Last mile LOS ratings</li> <li>• Bottlenecks (Delay)</li> <li>• Bottlenecks (Reliability)</li> </ul>
	Indicators
	<ul style="list-style-type: none"> <li>• Change in freight ton-miles</li> <li>• Change in freight tonnage movement by mode</li> </ul>
Goal: Reduce environmental impact through improved freight system efficiencies	
Objectives	Performance Measures
<ul style="list-style-type: none"> <li>• Reduce the environmental impacts of building, maintaining, and operating Kentucky’s transportation system</li> <li>• Reduce emissions and minimize freight impacts to historically disadvantaged communities and wildlife habitats</li> <li>• Avoid, minimize, or mitigate environmental impacts related to freight movements</li> </ul>	<ul style="list-style-type: none"> <li>• MPO air quality ratings</li> <li>• Truck CO<sub>2</sub> emissions per mile on interstate highways</li> </ul>
	Indicators
	<ul style="list-style-type: none"> <li>• Number of freight crashes that require environmental cleanup</li> <li>• Change in freight tonnage movement by mode/fuel</li> </ul>