

6.0 INTERMODAL ELEMENT POLICIES, STRATEGIES, AND PROJECT CONCEPTS

This chapter identifies policies, strategies, and project concepts that can enhance the intermodal transportation system in Oklahoma, that take advantage of Oklahoma's comparative logistics advantages, and that are supportive of the state economy and opportunities for economic development.

The capital improvements, planning and operational strategies and regulatory strategies herein are described in the context of a Policy Framework, in which short term and long term actions follow from a specific policy, and each is tied to an economic development objective and an implementation strategy. A matrix of all policies and actions, economic development objectives, and implementation strategies is included at the end of this chapter. The Task 5 Report, part of the Intermodal Element Study, presents these ideas in much greater detail, including description of economic benefits associated with the various proposed measures, as well as implementation strategies.

Policies have been developed for each mode:

- highway-commercial vehicle operations
- freight rail
- waterways
- air cargo
- public transportation

The strategies, policies and projects described are intended to maximize the potential for short and long term economic growth, result in measurable results, and demonstrate to the private sector the state's commitment to partnering with the private sector in promoting economic development through strong transportation planning.

The policies, which are listed by mode in Table 6.1, are intended to be consistent with the overall ODOT policy framework, as specified in its most recent long term plan. Appendix E contains the complete policy framework in matrix format.

Table 6.1 Policies by Mode

Highway-Commercial Vehicle Operations
<ol style="list-style-type: none"> 1. Restore Bridge Conditions to Levels that Sustain the Flow of Goods in Critical Truck Corridors 2. Upgrade Intermodal Connectors and Maximize the Efficiency of Operations on the Existing Highway System 3. Enhance Highway Access and Connectivity to Serve Key Economic Sectors/Clusters 4. Enhance Highway Access and Connectivity to Serve Existing and to Promote Development of New Intermodal and Logistics Centers
Freight Rail
<ol style="list-style-type: none"> 1. Support the Improved Efficiency of the Freight Rail System 2. Enhance Freight Rail Service Connectivity to Serve Selected Economic Sectors/Clusters 3. Improve Connectivity to Serve Existing and to Support Development of New Multi-Modal Freight and Logistics Centers 4. Continue Cooperation and Coordination with Operating Railroads Regarding Safety at Rail-Highway Crossings 5. Evaluate the Rail Network for Potential State Acquisition of Lines Subject to Abandonment
Waterways
<ol style="list-style-type: none"> 1. Encourage Increased Federal Funding for Waterway Facility Maintenance and Improvement to Maintain Reliability and Increase Efficiency 2. Enhance Highway and Rail Connections to Ports to Support Current and Future Demand 3. Through Selected Transportation Investments, Support Location of Industries that Can Maximize the Transportation Efficiencies of the Waterway System
Air Cargo
<ol style="list-style-type: none"> 1. Support Potential Market Driven Expansion of Air Cargo Operations at Will Rogers World and/or Tulsa International Airport 2. Support Development of Potential New Air Cargo Hub Facilities through Selected Highway Access Improvements
Public Transportation
<ol style="list-style-type: none"> 1. Continue to support Statewide Marketing to Maintain Heartland Flyer Ridership Increases 2. Support Selected Expansions of Amtrak Service to Support Economic Activity in Oklahoma 3. Enhance the Connectivity of Public Transportation Modes and Services 4. Support Multiple Modes of Transportation to Employment Opportunities, particularly for Transit Dependent and Zero Car Households 5. Continue to Aggressively Pursue FTA and Other Discretionary Funds for Public Transportation 6. Safeguard Existing Rural Transportation Services and Support New Services through Creative Partnerships 7. Support Improved and Additional Transit Connections among the Major Downtown Areas and to/from Important Modal Centers

6.1 Highway-Commercial Vehicle Operations

Oklahoma is considerably more truck dependent than the nation as a whole. Some 87 percent of freight tonnage carried to/from/within Oklahoma is carried by truck compared with about 70 percent nationally.

The four policies under this mode give rise to short and long term actions appropriate to: 1) restoring the bridge system in critical truck corridors to a state of adequate repair that will eliminate current impedances to goods flows, 2) making the most efficient use of the existing highway system for the movement of freight, 3) enhancing the highway system to provide access to and connectivity among important economic activity centers, and 4) enhancing highway access and connectivity to existing and potential new intermodal and logistics hubs.

<p>HIGHWAY/COMMERCIAL VEHICLE OPERATIONS POLICY #1. RESTORE BRIDGE CONDITIONS TO LEVELS THAT SUSTAIN THE FLOW OF GOODS IN CRITICAL TRUCK CORRIDORS</p>

Structurally deficient and functionally obsolete bridges are located throughout the state, including Interstate and other major highway corridors. Bridge deficiencies affect mobility, safety and economic development. As reported by ODOT in October 2004, there are 1,082 structurally deficient and 547 functionally obsolete bridges on the state system. There are also 151 load posted bridges on the state's US and state highways.

Where they must be closed to trucks or load posted, substandard bridges impede the flow of goods and cause circuitous truck routing with resulting economic costs. Using Oklahoma Highway Performance Monitoring System (HPMS) data, an estimate of current costs to the Oklahoma economy from detours caused by substandard bridge conditions is approximately \$41 million per year – not including costs to through truck travel or safety costs. At current rates of bridge maintenance and repair, costs will continue to increase in proportion to the growth in truck traffic and further deterioration of bridge conditions – resulting in a 220 percent increase in economic costs by 2015. By 2020, the statewide economic cost of deficient and aged bridges in Oklahoma is projected to increase to \$98 million per year.

The actions under this policy acknowledge that substandard conditions stem from a lack of funding and will not be ameliorated overnight, and that even with the Oklahoma Department of Transportation (ODOT) accelerated bridge replacement program, the growth in the number of aging bridges – and truck traffic – will continue to exceed financial resources. Graduated steps – focusing on the importance of goods movement to the state economy – are proposed. Dedicated funding to accelerate the bridge repair and rehabilitation program can yield substantial economic benefits to the state over time.

Capital Improvements Related to Highway/CVO Policy #1

- **Short Term Action #H1-CS-1:** Repair and upgrade obsolete and deficient bridges on critical truck corridors and connections to major multimodal freight facilities.²⁴

²⁴ Actions and strategies have been numerically coded, and are keyed to the matrix in Appendix A. The first alphanumeric combination refers to the policy (e.g., H1 refers to Policy 1 for the Highway Sector); the second group of letters refers to type of action (Capital, Operational/Planning, Regulatory) and Long or Short Term time frame (L or S); the last number is the sequence of measures for the previous two. Thus, H1-CS-1 refers to the Highway Policy # 1, Short Term Capital Improvement # 1.

- **Long Term Action #H1-CL-1:** Repair and upgrade load posted bridges in Truck Priority Corridors and connections to major multimodal freight facilities, as part of a larger Bridge Capital Improvement Program (BCIP).
- **Long Term Action #H1-CL-2:** Implement a comprehensive Bridge Capital Improvement Program (BCIP) for Truck Priority Corridors and connections to major multimodal freight facilities.

Planning and Operational Strategies Related to Highway/CVO Policy #1

- **Short Term Strategy #H1-POS-1:** Identify Truck Priority Corridors for bridge improvements as part of a larger Bridge Capital Improvement Program (BCIP) – based on Return on Investment Criteria and jobs-based criteria.
- **Short Term Strategy #H1-POS-2:** Enhance trucker information systems for bridge conditions.

Regulatory Strategies Related to Highway/CVO Policy #1

- **Short Term Strategy #H1-RS-1:** Enhance enforcement of load posted bridges to minimize structural degradation and minimize safety concerns.

HIGHWAY/COMMERCIAL VEHICLE OPERATIONS POLICY #2. UPGRADE INTERMODAL CONNECTORS AND MAXIMIZE THE EFFICIENCY OF OPERATIONS ON THE EXISTING HIGHWAY SYSTEM

Beyond restoration of the existing bridge and highway system to a state of acceptable repair, the next priority for investments in transportation infrastructure to facilitate goods movement and economic development is to assure that the state is getting the most possible out of its existing assets. The actions under this policy urge the use of relatively lower-capital cost improvements to the existing system to maximize efficiency in system operations.

In the long term, such actions could include the widening and dedication of one or more highway lanes specifically for trucks. In its version of the pending multi-year transportation authorization bill, the US House of Representatives makes available \$960 million over a six-year period for truck corridor dedicated lane construction.

Intermodal connectors are roads that provide access between major intermodal facilities and the highway system, allowing for transfer of passengers and goods between modes. Examples of intermodal connectors that are part of the designated National Highway System include the connectors to Will Rogers World Airport and Tulsa International Airport, the connector road to the Williams Pipeline truck terminal, the connector road to the Burlington Northern truck/rail facility in Oklahoma City, and the road between US 169 and the Port of Catoosa.

Capital Improvements Related to Highway/CVO Policy #2

- **Short Term Action #H2-CS-1:** Upgrade critical intermodal connectors as part of the larger highway program.
- **Long Term Action #H2-CL-1:** Continue to upgrade intermodal connectors to ports, rail intermodal facilities, air cargo facilities, and major warehousing and distribution centers.
- **Short Term Action #H2-CS-2:** Improve and develop ITS systems (including on-highway variable message signs/special radio frequencies).

- **Long Term Action #H2-CL-2:** Further improve and develop ITS systems (including on-highway VMS/special radio frequency and on-line web sites with real time information).
- **Long Term Action #H2-CL-3:** Increase selected lane widths on Truck Priority Corridors, as identified in the Statewide Freight Plan.

Planning and Operational Strategies Related to Highway/CVO Policy #2

- **Short Term Strategy #H2-POS-1:** Conduct studies of important highway freight corridors, such as I-35, US 69, I-44, US 54 and US 75, to identify improvements to facilitate goods movement.
- **Short Term Strategy #H2-POS-2:** Prepare Commercial Vehicle Operations (CVO) element within the context of a Statewide Freight Plan – plan to include identification of Truck Priority Corridors of significant value.
- **Long Term Strategy #H2-POL-1:** Implement ongoing freight planning process, including CVO element.
- **Short Term Strategy #H2-POS-3:** Identify trucking industry representatives to serve on a temporary freight advisory committee in connection with a Statewide Freight Plan.
- **Long Term Strategy #H2-POL-2:** Create on-going Oklahoma Freight Advisory Council, including trucking industry representatives.

Regulatory Strategies Related to Highway/CVO Policy #2

- **Short Term Strategy #H2-RS-1:** Continue to support the Oklahoma Corporation Commission (OCC) in implementing the “One Stop Trucking Shop” to expedite regulatory processing (e.g., licensing, registration, International Fuel Tax Agreement). As described in the Task 4 Report, a One Stop Trucking Shop is being implemented by a phased consolidation within OCC of functions formerly handled by three separate state agencies. The first phase of the consolidation was completed in July 2004, and the second phase is scheduled for July 2005.

HIGHWAY-COMMERCIAL VEHICLE OPERATIONS POLICY #3. ENHANCE HIGHWAY ACCESS AND CONNECTIVITY TO SERVE KEY ECONOMIC SECTORS/CLUSTERS

Capital Improvements Related to Highway/CVO Policy #3

- **Long Term Action #H3-CL-1:** Enhance east-west connectivity to the major I-35 corridor for areas such as Durant (e.g., I-70). Non-metallic minerals, including aggregates, crushed/broken stone, cement, sand and gravel among others, constitute the largest commodity group shipped to/from/within Oklahoma by weight – projected to grow to 83 million tons by 2020 – and the largest commodity group shipped by rail. Mining of these materials is an important economic sector in parts of south Oklahoma, in and around Ardmore and Durant.
- **Long Term Action #H3-CL-2:** Enhance highway connectivity serving major agricultural production areas, such as the Panhandle and Northeastern Oklahoma, on the basis of special regional studies. Agriculture has long been a pillar of the Oklahoma economy. Farm products and food/kindred products are projected to remain among the top five commodities shipped to/from/within Oklahoma during the next 15 years.

Planning and Operational Strategies Related to Highway/CVO Policy #3

- **Short Term Strategy #H3-POS-1:** Initiate special transportation-economic development studies for the Northwest and Southeast Oklahoma regions. As noted above, the Panhandle is a major center of “high tech” hog production, wheat and other grain production. Southeast Oklahoma is a center of natural gas and timber and wood products, as well as mined minerals, aggregates, cement products, etc.
- **Short Term Strategy #H3-POS-2:** Initiate special transportation-economic development studies for expanded development of the “southern tier” region as support/distribution component of bi-state economy. As of 2003, warehousing and distribution – the principal “logistics” enterprises – comprise 3 percent of the total employment base of the state.

Regulatory Strategies Related to Highway/CVO Policy #3

- **Short Term Strategy #H3-RS-1:** Streamline permitting process for transport of oversized and overweight loads. Transport of drilling equipment to the fields of western and eastern Oklahoma frequently involves oversized loads.

HIGHWAY-COMMERCIAL VEHICLE OPERATIONS POLICY # 4. ENHANCE HIGHWAY ACCESS AND CONNECTIVITY TO SERVE EXISTING AND TO PROMOTE DEVELOPMENT OF NEW INTERMODAL AND LOGISTICS CENTERS**Capital Improvements Related to Highway/CVO Policy #4**

- **Long Term Action #H4-CL-1:** Improve highway capacity and connectivity to existing rail, water, and air multimodal freight facilities of significant economic value.
- **Long Term Action #H4-CL-2:** Support development of new multimodal freight rail or air cargo facilities of significant economic value with improved or new highway connections.

Planning and Operational Strategies Related to Highway/CVO Policy #4

- **Short Term Strategy #H4-POS-1:** Evaluate highway capacity and connectivity requirements for intermodal connectors of significant economic value, including geometry improvements for efficient truck operations.

6.2 Freight Rail

The freight rail policies encourage the improved efficiency of the existing freight rail system through actions over which the State of Oklahoma has jurisdiction, primarily state-owned rights-of-way and infrastructure, as well as actions that the state might take to encourage or support improvements throughout the state's rail network to serve selected economic sectors/clusters and improve connectivity to existing and potential new multimodal freight and logistics centers. In addition, the policies and proposed capital improvements and operational, planning and regulatory strategies encourage continued cooperation and coordination with the operating railroads regarding safety and rail-highway crossings, as well as a forward-thinking evaluation of the potential for state acquisition of rail lines subject to abandonment.

Rail transports major portions of several of Oklahoma's most significant commodity exports, including nearly 100 percent of broken stone, 90 percent of grain, 36 percent of petroleum refining products and 24 percent of Portland cement. Rail is also the transportation mode for nearly all of the 16 million tons of coal imported to Oklahoma to serve the state's industries. Rail freight, projected to grow by 45 percent between 1998 and 2020, had already grown by 26 percent as of 2001. Rail freight is projected to increase in value by 136 percent between 1998 and 2020.

FREIGHT RAIL POLICY #1. SUPPORT THE IMPROVED EFFICIENCY OF THE FREIGHT RAIL SYSTEM

Capital Improvements Related to Freight Rail Policy #1

- **Short Term Action #F1-CS-1:** Maintain existing State-owned railroad properties in order to maintain/increase current service levels. Oklahoma has done a good job of maintaining its rural freight rail systems, having acquired some 900 miles of track and right-of-way, mainly for short line rail services. Retention of those services has supported the continuing economic well-being of the mining, agricultural and other businesses that depend on rail service.
- **Long Term Action #F1-CL-1:** Fund upgrades to state-owned rail track and structures to allow 286,000 pound rail cars, to support mainline train traffic loads.
- **Long Term Action #F1-CL-2:** Conduct other infrastructure improvements to state-owned rail properties to increase efficiency.

Planning and Operational Strategies Related to Freight Rail Policy #1

- **Short Term Strategy #F1-POS-1:** Identify and prioritize state-owned rail track and structures most in need of upgrade to 286,000 pound rail car standard.
- **Short Term Strategy #F1-POS-2:** Update Oklahoma State Rail Plan (last updated in 1992).
- **Short Term Strategy #F1-POS-3:** Prepare rail freight element within the context of a Statewide Freight Plan (updated Oklahoma State Rail Plan placed on the same planning cycle as Statewide Freight Plan).
- **Short Term Strategy #F1-POS-4:** Identify freight rail industry and user group representatives to serve on a temporary freight advisory committee in connection with Statewide Freight Plan (*see Highway-Commercial Vehicle Operations Policy #2, Planning/Operational Long Term Strategy #2*).

- **Long Term Strategy #F1-POL-1:** Implement ongoing freight planning process, including rail freight element.
- **Long Term Strategy #F1-POL-2:** Create on-going Oklahoma Freight Advisory Council, including freight rail industry representatives and major user groups.

FREIGHT RAIL POLICY #2. ENHANCE FREIGHT RAIL SERVICE CONNECTIVITY TO SERVE SELECTED ECONOMIC SECTORS/CLUSTERS

Capital Improvements Related to Freight Rail Policy #2

- **Long Term Action #F2-CL-1:** Encourage and promote development of Transload and/or major intermodal freight rail facilities. The potential for “transload” facilities in Oklahoma should be explored with the railroads. On the basis of the kinds of products and commodities produced or consumed in the state, Oklahoma is a candidate for both bulk and dimensional transload facilities.
- **Long Term Action #F2-CL-2:** Support short line railroad improvements, rehabilitations and upgrades, including selective upgrades to 286,000 pound railcar standard (*See Freight Rail Policy #1, Long Term Action #1.*).

Planning and Operational Strategies Related to Freight Rail Policy #2

- **Short Term Strategy #F2-POS-1:** Identify manufacturers, warehousing and distribution firms, and/or commercial facilities developers with potential interest in developing Transload or multimodal freight facilities – e.g., auto industry.

FREIGHT RAIL POLICY #3. IMPROVE CONNECTIVITY TO SERVE EXISTING AND TO SUPPORT DEVELOPMENT OF NEW MULTI-MODAL FREIGHT AND LOGISTICS CENTERS

Capital Improvements Related to Freight Rail Policy #3

- **Short Term Action #F3-CS-1:** Identify key rail intermodal connectors and facilitate rehabilitation and improvements as needed.
- **Long Term Action #F3-CL-1:** Encourage and promote development of Transload and/or major intermodal facilities (*See Freight Rail Policy #2, Long Term Action #1.*).
- **Long Term Action #F3-CL-2:** Preserve right-of-way for construction of sidings, yards, and connectors to multimodal freight facilities and logistics centers within the state.
- **Long Term Action #F3-CL-3:** Support short line railroad improvements, rehabilitations and upgrades, including selective upgrades to 286,000 pound railcar standard (*See Freight Rail Policy #1, Long Term Action #1.*).

Planning and Operational Strategies Related to Freight Rail Policy #3

- **Short Term Strategy #F3-POS-1:** Facilitate the development of Public/Private and Private/Private (Railroad/Shipper) Partnerships.

FREIGHT RAIL POLICY #4. CONTINUE COOPERATION AND COORDINATION WITH OPERATING RAILROADS REGARDING SAFETY AT RAIL/HIGHWAY CROSSINGS**Capital Improvements Related to Freight Rail Policy #4**

- **Short Term Action #F4-CS-1:** Expend all Federal and State Highway/Railroad Grade Crossing and Protection Program funds on priority crossings.
- **Long Term Action #F4-CL-1:** Implement Railroad Grade Separation Plan/Railroad Grade Crossings Closure Plan.

Planning and Operational Strategies Related to Freight Rail Policy #4

- **Short Term Strategy #F4-POS-1:** Prioritize crossings for elimination, consolidation.
- **Long Term Strategy #F4-POL-1:** Participate with governmental and private partners on programs such as Operation Lifesaver. Operation Lifesaver is a national, non-profit education and awareness program dedicated to ending collisions, fatalities and injuries at highway-rail grade crossings and on railroad rights-of-way. To accomplish its mission, Operation Lifesaver promotes education, enforcement and engineering.
- **Short Term Strategy #F4-POS-2:** Prioritize list of grade crossings meeting warrants for grade separation.
- **Short Term Strategy #F4-POS-3:** Promote Highway/Railroad Crossing safety through ODOT educational/promotional programs.

FREIGHT RAIL POLICY #5. EVALUATE THE RAIL NETWORK FOR POTENTIAL STATE ACQUISITION OF LINES SUBJECT TO ABANDONMENT**Capital Improvements Related to Freight Rail Policy #5**

- **Long Term Action #F5-CL-1:** Fund State acquisition of railroad properties to continue justifiable railroad operations.

Planning and Operational Strategies Related to Freight Rail Policy #5

- **Short Term Strategy #F5-POS-1:** Update Oklahoma State Rail Plan (last updated in 1992)
- **Short Term Strategy #F5-POS-2:** Monitor Class I Railroads' ongoing rationalization of their networks and establish criteria for possible future State acquisitions.

6.3 Waterways

Waterways policies are all focused on maximizing use of the existing McClellan-Kerr Arkansas River Navigation System (MKARNS) and its ports. The 445-mile system includes 17 locks and dams in Oklahoma and Arkansas that provide a variety of benefits including water supply, navigation, fish and wildlife conservation, recreation, and hydropower generation. Federal cost of the system was \$1.2 billion, and the Corps of Engineers reports a 99 percent return on its investment.²⁵ Over \$3.5 billion in public and private investment has occurred along the MKARNS in the two states. According to information provided by ODOT for the Arkansas River Historical Society's Tulsa port website, there are over 65 industries on the Oklahoma segment of the MKARNS, with the segment between Catoosa and Muskogee providing direct employment for over 4,000 people and indirect employment of another 6,000 jobs. The 2,000 acre Tulsa Port of Catoosa is the largest port on the MKARNS and the largest and most inland ice-free port on the entire 25,000 miles of the US inland waterway system. Major commodities shipped include chemical fertilizer, farm products, sand/gravel and rock, iron and steel, petroleum products, wheat and soybeans.

Waterways Policy #1. Encourage Increased Federal Funding for Waterway Facility Maintenance & Improvement to Maintain Reliability and Increase Efficiency

Adding "tow haulage" equipment to the locks on the system in Oklahoma would reduce locking times, provide higher throughput capacity, and lower towing costs. This involves installation of large winches and rigging to allow barge strings to be moved through the locks without the tow boat. Tow haulage equipment already has been installed on all locks in Arkansas.

Planning and Operational Strategies Related to Waterways Policy #1

- **Short Term Strategy #W1-POS-1:** Work with the Oklahoma Congressional delegation to pursue increased Federal funding.
- **Long Term Strategy #W1-POL-1:** Seek long term, multi-state agreements to pursue federal and other funding sources for facility maintenance and improvement.
- **Short Term Strategy #W1-POS-2:** Encourage multi-state planning studies to identify benefits of enhanced waterway facility maintenance and improvement, including increasing channel depths to at least 10 feet. Increasing the available draft in the waterway would allow heavier loads in each barge. The principal benefit would be to enhance the potential for container-on-barge service (*see Waterways Policy #3, Long Term Action Item #2*).

Waterways Policy #2. Enhance Highway and Rail Connections to Ports to Support Current and Future Demand

Inland waterway transportation provides competitive shipping rates, and intermodal connections for shipments help keep overall truck and rail transportation costs low, while consuming less

²⁵ Arkansas River Historical Society at tulsaweb.com/port

energy and producing lower pollutant emissions. One jumbo barge has the same capacity as 15 railroad cars or 58 semi-trucks.²⁶

Capital Improvements Related to Waterways Policy #2

- **Long Term Action #W2-CL-1:** Implement Port/Waterway element of the Statewide Freight Plan, including highway connections to ports.
- **Long Term Action #W2-CL-2:** Implement Capital Improvement Program for highway connectors for oversized loads (*See Highway-Commercial Vehicle Operations Policy #3, Regulatory Short Term Strategy #1.*).

Planning and Operational Strategies Related to Waterways Policy #2

- **Short Term Strategy #W2-POS-1:** Prepare Port/Waterway element within the context of a Statewide Freight Plan, focusing on highway to port connectivity.
- **Long Term Strategy #W2-POL-1:** Implement ongoing freight planning process, including Port/Waterway element.
- **Short Term Strategy #W2-POS-2:** Identify private port and port user representatives to serve on a temporary freight advisory committee in connection with Statewide Freight Plan (*see Highway-Commercial Vehicle Operations Policy #2, Planning/Operational Long Term Strategy #2.*).
- **Long Term Strategy #W2-POL-2:** Create on-going Oklahoma Freight Advisory Council, including port and port user representatives.
- **Short Term Strategy #W2-POS-3:** Develop Capital Improvement Program for highway connectors for oversized loads (*See Highway-Commercial Vehicle Operations Policy #3, Regulatory Short Term Strategy #1.*).

Waterways Policy #3. Through Selected Transportation Investments, Support Location of Industries that Can Maximize the Transportation Efficiencies of the Waterway System

With good intermodal connections and because of its cost, energy and air quality advantages, the waterway system offers an attractive transportation environment for new or expanding industries. The Port of Catoosa has 2,000 acres of contiguous land area, more than any other inland port.²⁷ Intermodal investments serving the two major public ports at Catoosa and at Muskogee, as well as improved access to the numerous private sector ports (e.g., Port 33) along the waterway system, as well as some specialized facilities (e.g., for handling scrap metal) can help to support potential growth in waterway transportation by such commodities as scrap steel, the concrete pre-casting industry (which currently has a significant presence in Tulsa), coal, steel coils, wood pulp/paper products (two paper mills are already located near the waterway), and clay and related raw minerals (a major porcelain tile manufacturing facility is under construction in Tulsa).

Capital Improvements Related to Waterways Policy #3

- **Short Term Action #W3-CS-1:** ODOT to consider transport of highway construction materials and components (e.g., cement, guard rail) via waterway, for highway work proximate to the waterway system.

²⁶ Arkansas River Historical Society at tulsaweb.com/port

²⁷ Arkansas River Historical Society at tulsaweb.com/port

- **Long Term Action #W3-CL-1:** Program and make transportation improvements in and around ports/waterway system that would encourage location of industrial or warehousing and distribution concerns.
- **Long Term Action #W3-CL-2:** Improve port roadway connections to encourage existing industries to consider shifting freight off roadways and onto waterways through facilitation of container-on-barge services.
- **Long Term Action #W3-L-3:** Assist short line railroads to maintain and improve existing connections to the Ports of Catoosa and Muskogee, to facilitate future container-on- barge service. While low valued bulk commodities will inevitably dominate the waterway system, container-on-barge (COB) service has emerged in parts of the Gulf of Mexico and within the Mississippi River system.

Planning and Operational Strategies Related to Waterways Policy #3

- **Short Term Strategy #W3-POS-1:** Identify transportation improvements in and around ports/waterway system that would encourage location of industrial or warehousing and distribution concerns.

6.4 Air Cargo

According to the FAA and large aircraft manufacturers' forecasts, the air cargo market nationally is expected to grow at approximately six percent annually for the next twenty years. Projections of freight flows to, from and within Oklahoma show that air cargo will represent an increasing share (from 5 to 7 percent) of the total value of commodities transported – an increase of 328 percent in value between 1998 and 2020. The trend toward the combined use of air and truck package delivery is expected to continue with major emphasis on deferred second-day delivery segments of the market. These trends emphasize the importance of the processing hubs being located within 400 to 500 miles from major population centers.

Major new users of air freight services include Internet-based businesses; in 2003, approximately 1.2 billion packages were shipped by “e-tailers” with overall global e-commerce approaching \$7 trillion. Airport-located facilities to serve e-commerce can include special transfer facilities or warehouses to serve just-in-time supply chain products (such as refrigerated warehouses for perishable flowers), and at least one South American supplier of fresh flowers to the US market already has made Oklahoma City its US home base. Other airport-located facilities for this market might include emergency parts provision centers and reverse logistics facilities for repair and upgrade of high tech products such as computers and cell phones.

Other trends influencing the air cargo market include: a) the technology of new aircraft engines that put Oklahoma within non-stop flying distances to any place in the world and allow air cargo operators as well as the major international and domestic manufacturers of goods to by-pass the traditional east and west coast distribution centers and fly directly to regional end-user destinations, b) the capacity and land expansion limits of east and west coast cargo airports, c) new Transportation Security Agency guidelines for the 100 percent inspection of all goods shipped by air cargo aircraft that may necessitate the availability of sufficient land area to accommodate processing facilities, as well as the highway infrastructure required to maintain next-day and second-day delivery schedules, and d) noise impacts from evening and night time air cargo flights on populations within 10 miles of air cargo airports that may cause restrictions on existing airports and pursuit of new hubs with available land and mild weather removed from population centers.

Air Cargo Policy #1. Support Potential Market Driven Expansion of Air Cargo Operations at Will Rogers World and/or Tulsa International Airports
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Capital Improvements Related to Air Cargo Policy #1

- **Long Term Action #A1-CL-1:** Program and implement selected highway access improvements to support development of market driven expansions of air cargo operations at Will Rogers World or Tulsa International.

Air Cargo Policy #2. Support Development of Potential New Air Cargo Hub Facilities through Selected Highway Access Improvements

Oklahoma enjoys some potential advantages for air cargo hub facilities, including its central mid-continent location; north-south and east-west Interstate Highway network; availability of land in several locations; its one-day drive time to major Midwestern, Southeastern, Southwestern and Plains states' population centers, and its mild weather. Other positive aspects for Oklahoma include low labor and other business costs, its proximity to the Dallas industrial and population base, the major Defense Department Logistics Center location, and its importance in the aircraft systems manufacturing and oil field support industries.

Potential air cargo hub initiatives to be explored could include the feasibility of a prototype air cargo security test facility, a major industrial park-air cargo facility focused on high value oil field support and/or aerospace equipment, expansion and development of Ardmore Airpark as a regional air cargo facility, potential partnerships with Mexican or Central American air cargo airlines to expand existing commercial links with the Free Trade Zones at Tulsa International or Will Rogers World airports, and a centralized defense materiel and personnel logistics center, among others.

Capital Improvements Related to Air Cargo Policy #2

- **Long Term Action #A2-CL-1:** Program and implement selected highway access improvements to support development of potential new or expanded air cargo hub facilities.

Planning and Operational Strategies Related to Air Cargo Policy #2

- **Short Term Strategy #A2-POS-1:** Prepare Air Cargo element within the context of development of Statewide Freight Plan, focusing on highway to air terminal connectivity and identification of potential new air cargo hub facility locations.
- **Short Term Strategy #A2-POS-2:** Identify air cargo suppliers and users to serve on a temporary freight advisory committee in connection with the Statewide Freight Plan (*see Highway-Commercial Vehicle Operations Policy #2, Planning/Operational Long Term Strategy #2*) Include military representatives (e.g., from Tinker, Altus, Ft. Stills).
- **Long Term Strategy #A2-POL-1:** Implement ongoing freight planning process, including air cargo access element.
- **Long Term Strategy #A2-POL-2:** Create an on-going Oklahoma Freight Advisory Council, including air cargo suppliers and users' representatives, and military representatives.

6.5 Public Transportation

Public Transportation Policy #1. Continue to Support Statewide Marketing to Maintain Heartland Flyer Ridership Increases

Planning and Operational Strategies Related to Public Transportation Policy #1

- **Short Term Strategy #P1-S-1:** Expand ongoing marketing/awareness campaign working with Amtrak and state tourism officials.
- **Long Term Strategy #P1-L-1:** Continue to expand ongoing marketing/awareness campaign working with Amtrak and state tourism officials.
- **Short Term Strategy #P1-S-2:** Survey current ridership every 2-3 years to create demographic and trip purpose profiles. A ridership profile and understanding of why people currently use the service establishes a base for targeted marketing efforts that can increase the existing ridership pool.
- **Long Term Strategy #P1-L-2:** Continue to survey current ridership every 2-3 years to create demographic and trip purpose profiles.
- **Short Term Strategy #P1-S-3:** Coordinate and fund marketing/survey efforts with Amtrak and the State of Texas.
- **Short Term Strategy #P1-S-4:** Obtain an agreement with BNSF for increased priority operation for Amtrak.

Public Transportation Policy #2. Encourage Selected Expansions of Amtrak Service to Support Economic Activity in Oklahoma

Capital Improvements Related to Public Transportation Policy #2

- **Short Term Action #P2-CS-1:** Add an additional north-south train per day.
- **Short Term Action #P2-CS-2:** Add a stop serving the Winstar Casino south of Marietta..
- **Long Term Action #P2-CL-1:** Extend Heartland Flyer service north to Newton, Kansas.
- **Long Term Action #P2-CL-2:** Add a Heartland Flyer branch to Tulsa.
- **Long Term Action #P2-CL-3:** Provide a separate single track for the Heartland Flyer through Oklahoma.

Planning and Operational Strategies Related to Public Transportation Policy #2

Short Term Strategy #P2-POS-1: Update the needs assessment for intercity rail for Oklahoma.

Public Transportation Policy #3. Enhance the Connectivity of Public Transportation Modes and Services

Capital Improvements Related to Public Transportation Policy #3

- **Short Term Action #P3-CS-1:** Interconnect rural transit systems with intercity bus stops/terminals and Heartland Flyer stops.
- **Long Term Action #P3-CL-1:** Continue to interconnect rural transit systems with intercity bus stops/terminals and Heartland Flyer stops.

- **Short Term Action #P3-CS-2:** Coordinate with urban public transit systems to define and implement formal park and ride lot locations adjacent to ODOT right-of-way where ridership warrants.
- **Long Term Action #P3-CL-2:** Continue to coordinate with urban public transit systems to define and implement formal park and ride lot locations adjacent to ODOT right-of-way where ridership warrants.

Public Transportation Policy #4. Support Multiple Modes of Transportation to Employment Opportunities, particularly for Transit Dependent and Zero Car Households

Capital Improvements Related to Public Transportation Policy #4

- **Long Term Action #P4-CL-1:** Coordinate with ODOC, transit providers and the private sector to provide new transit service or enhancement of existing service to employers of 1,000 or more where warranted.

Planning and Operational Strategies Related to Public Transportation Policy #4

- **Short Term Strategy #P4-POS-1:** Support Access to Job initiatives proposed by urban transit providers.
- **Planning/Operational Short Term Strategy #P4-POS-2:** Coordinate with ODOC and transit providers to identify transportation needs for employers of 1,000 or more (at a single location).

Public Transportation Policy #5. Continue to Aggressively Pursue FTA and Other Discretionary Funds for Public Transportation

Capital Improvements Related to Public Transportation Policy #5

- **Short Term Action #P5-CS-1:** Prepare a statewide program of FTA-eligible capital projects and operational needs every 3-5 years.
- **Long Term Action #P5-CL-1:** Continue to prepare a statewide program of FTA-eligible capital projects and operational needs every 3-5 years.
- **Short Term Action #P5-CS-2:** Identify non-federal match for FTA eligible projects.
- **Long Term Action #P5-CL-2:** Continue to identify non-federal match for FTA eligible projects.
- **Short Term Action #P5-CS-3:** Identify other federal agency transportation funding sources, and program projects accordingly.
- **Long Term Action #P5-L-3:** Continue to identify other federal agency transportation funding sources, and program projects accordingly.

Planning and Operational Strategies Related to Public Transportation Policy #5

- **Short Term Strategy #P5-POS-1:** Encourage continued cooperation among ODOT and the urban transit systems and appear as one voice to the Oklahoma legislative delegation on all FTA funding requests.

Public Transportation Policy #6. Safeguard Existing Rural Transportation Services and Support New Services through Creative Partnerships

Oklahoma's rural transit program has been well conceived, but services are constrained by lack of funds.

Capital Improvements Related to Public Transportation Policy #6

- **Long Term Action #P6-CL-1:** Implement additional services as funds become available.

Planning and Operational Strategies Related to Public Transportation Policy #6

- **Short Term Strategy #P6-POS-1:** With the existing rural systems as a benchmark, establish other opportunities statewide for future consideration.
- **Short Term Strategy #P6-POS-2:** Investigate potential for agreements between ODOT and other social service providers plus large employers.

Public Transportation Policy #7. Support Improved and Additional Transit Connections Among the Major Downtown Areas And to/from Important Modal Centers

The Oklahoma City and Tulsa metropolitan areas are the major economic engines of the state economy. Together, they comprise about 63 percent of all employment in the state. The vitality of the commercial centers of these cities is intrinsic to the economic health of the metropolitan areas and to their attractiveness as a place to live and conduct business. A component of maintaining the vitality of the downtown areas is the provision of safe and convenient access by a variety of transportation modes to and from all parts of the metropolitan area, and to and from the airports and other modal and activity centers, for residents, employees, visitors and shoppers.

Capital Improvements Related to Public Transportation Policy #7

- **Short Term Action #P7-CS-1:** Support COTPA efforts to provide direct bus service from downtown to Will Rogers World Airport.
- **Short Term Action #P7-CS-2:** Support increasing schedule coordination between the Oklahoma CBD transit center, the Amtrak station and intercity bus service.
- **Short Term Action #P7-CS-3:** Continue examination of intercity rail between Oklahoma City and Tulsa.
- **Short Term Action #P7-CS-4:** Continue to support development of the Oklahoma portion of the designated high speed rail corridor. The South Central High Speed Rail Corridor would extend from Tulsa south to Oklahoma City, Dallas-Fort Worth, Austin and San Antonio, with a branch from Little Rock through Texarkana to Dallas.