



Date: December 05, 2016
To: Freight Advisory Committee
From: Linda Koenig, AICP, ODOT Freight Transportation Plan, Project Manager
Subject: Freight Advisory Committee (FAC) Meeting #1: November 14, 2016
Oklahoma Freight Transportation Plan Overview and Market Trends
MEETING SUMMARY

Attendees

MEETING CHAIR

Tim Tegeler
Alan Meyers
Linda Koenig

ENTITY/AGENCY

ODOT Director of Engineering
WSP | Parsons Brinckerhoff
ODOT Planning & Policy Analyst (ODOT Project Mgr)

FAC Members or Alternates Present

John Johnson
Paul Cristina
Jake Kimery
Brad Williams
Ethan Nall
Matt Shoush
Kermit Frank
Troy Rigel
Judy Petry
Winford Navrath
Richard Jurey
Isaac Nguyen
Viplav Putta
Andrew Scherman
David McCorkle
Mitch Surret
Craig Moody
Matt Swift
DeDe Smith
Derek Sparks
Jim Rodriguez
Lynne Jones
Betty Thompson
Jon Chiappe

ENTITY/AGENCY

Assn of Central Oklahoma Govts
BNSF
Chesapeake Energy
Chickasaw
Devon Energy
Ditch Witch
Dolese Bros. Inc.
Equity Marketing Alliance
Farmrail
Fed Ex
FHWA - OK - Commercial Vehicle Safety
FHWA - OK – Planning
Indian Nations Council of Govts
McAlester Army Ammunition Plant
McCorkle Trucking
ODOT Legal Counsel
ODOT Rail
ODOT Strategic A&P Management
ODOT Waterways
OKC Chamber of Commerce
Oklahoma Aggregates Assn
Oklahoma Corporation Commission
Oklahoma Dept of Agriculture
Oklahoma Dept of Commerce

FAC Members or Alternates Present

Lt. Kirby Logan
Lori Peterson
Jim Newport
David Murdock
David Yarbrough
Chris Williams
Brad Beam
Rich Kincade
Shane Charlson

ENTITY/AGENCY

Oklahoma Highway Patrol, CMV
Oklahoma RR Assn
Oklahoma Trucking Assn
Oklahoma Turnpike Authority
Port of Catoosa
Port of Muskogee
Tinker AFB
UPS
US Army Corps of Engr, Tulsa Div.

Guests

Jennifer Sebesta
Brad Banks

Assn of Central Oklahoma Govts
Port of Catoosa

Freight Plan Consultant Team

Susan Atherton
Keith Angier
Joe Gurskis

Freight Insights
MacArthur Associated Consultants
WSP | Parsons Brinckerhoff

ODOT Staff

Sam Coldiron
Jeremy Planteen
Norman Hill
Justin Garrison
John Rosacker
David Glabas
Frank Roesler

ODOT GIS
ODOT GIS
ODOT Legal Counsel
ODOT Rail
ODOT Rail
ODOT Traffic Engineering/Safety
ODOT Public Involvement

Invited Organizations Not Attending

Choctaw Nation
Consolidated Grain & Barge
Federal Motor Carriers
Oklahoma Grain & Feed Assn
Oklahoma Ofc. of Energy & Env.
Oklahoma Tank Lines
One Gas
Pelco
Seaboard
Spirit Aero
Sunoco Logistics
Tulsa Airport
Tulsa Chamber of Commerce
Union Pacific

Welcome and Introductions

Tim Tegeler, ODOT Director of Engineering, convened the meeting, welcomed the attendees, and said ODOT was pleased to host this Committee. Mr. Tegeler said recent legislation had underscored the importance of freight planning, even though State DOTs have been involved in this effort for many years.

Linda Koenig, ODOT Planning & Policy Analyst and Project Manager for Oklahoma Freight Transportation Plan, led a round of introductions. Each attendee conferred with an adjacent attendee, determined that person's role in Oklahoma's freight system, and reported – in brief -- that attendee's critical issues for consideration in the Freight Transportation Plan. Issues suggested for investigation in the Freight Transportation Plan can be generally grouped and summarized as follows:

Oklahoma's Multimodal Freight System

- Multimodal transportation to/from markets
- Balance of multimodal mobility options
- Accommodation of intrastate goods movement
- Facilitation of commerce
- Adequate infrastructure for growth

System Performance

- Safety and efficiency
- On time travel
- Bridge and road conditions for regular and heavy loads
- Peak hour congestion and delay
- Freight data to understand performance and congestion, particularly in metro areas

Highway

- Adequate truck infrastructure
- Oversized loads and damage on highways
- Legal commercial vehicle loads
- Increased axle loads
- Super corridors for oversized loads
- Freight on two-lane roads
- Protection of highway infrastructure
- Construction in medians
- Truck driver shortage
- Adequate Signage
- Highway footprint along waterways and wetlands
- Highway funding

Rail

- Adequate rail infrastructure
- Modernization of rail infrastructure
- Rail corridor preservation
- Rail crossing safety
- Rail crossings near schools
- Rail connectivity within multimodal system

Waterways

- Greater use of waterways
- Backlog of critical maintenance on waterways

Facility-Specific Issues

- Freight access to Tinker AFB on SE 59th, Oklahoma City
- Freight on US 69

Presentations and Discussion

Next, Linda Koenig introduced the Fixing America's Surface Transportation (FAST) Act and its key freight provisions. The FAST Act imposes new requirements and procedures to access federal freight program funding, which are met through the preparation of a federally-approved Freight Transportation Plan. Linda emphasized that Oklahoma has funded freight projects before the FAST Act; Oklahoma will continue to fund freight projects from other appropriate sources. Linda noted that to some extent, the new federal freight program is a rearrangement of funding sources.

Linda then addressed two topics -- the primary components of the Statewide Freight Plan; and the role of the Freight Advisory Committee -- and presented the following material, which was distributed in a handout to the FAC.

- Required Components of State Freight Plan
 1. Identify significant freight system trends need and issues in the State.
 2. Describe freight policies that will guide the freight related transportation investment decisions of the State.
 3. When applicable, list multimodal critical rural freight facilities and corridors designated within the State, and critical rural and urban freight corridors designated within the State.
 4. Describe how the Plan will improve the ability of the State to meet national freight policy goals.
 5. Consider and describe how innovative technologies and strategies, including freight intelligent transportation systems, to improve safety and efficiency for freight movement.
 6. In the case of roadways travelled by heavy vehicles (including mining, agricultural, energy cargo or equipment, and timber vehicles), where traffic is projected to substantially deteriorate the condition of the roadways, describe improvements that may be required to reduce or impede deterioration.
 7. Inventory facilities with freight mobility issues, such as bottlenecks -- and for those facilities that are State-owned or operated, a description of the strategies the State is employing to address freight mobility issues.
 8. Consider any significant congestion or delay caused by freight movements and strategies to mitigate that congestion or delay.
 9. Develop a freight investment element that include a list of priority projects, and describes how freight formula funds would be invested and matched.
 10. Consult with the State Freight Advisory Committee, if applicable.
- State Freight Advisory Committees role
 - Advise the State on freight-related priorities, issues, projects, and funding needs;
 - Serve as a forum for discussion of State transportation decisions affecting freight mobility;
 - Communicate and coordinate regional priorities with other organizations;
 - Promote the sharing of information between the private and public sectors on freight issues; and
 - Participate in the development of the State Freight Plan.

Linda also described the National Highway Freight Program (NHFP) funding program and the process for designating urban and rural corridor mileage that will be part of the NHFP; the Metropolitan Planning Organizations (MPOs) will be key participants in recommending the urban corridors. Linda also noted that the Freight Transportation Plan has a five-year planning horizon (2018-2023) and, as allowed for in the FAST Act, Oklahoma has elected to form a Freight Advisory Committee to guide the creation of its Freight Transportation Plan.

Linda then introduced Alan Meyers of WSP|Parsons Brinckerhoff, who led a slide presentation overview of the Freight Transportation Plan effort and key market trends it will respond to. Key points are summarized below.

- Agenda. The presentation addressed FAST Act guidance for State Freight Transportation Plans; the Oklahoma Freight Transportation Plan (OFTP) elements and schedule; an initial statewide freight traffic summary and forecast; and an overview of current and emerging freight market trends impacting the plan.
- FAST Act State Freight Plan Requirements. State freight plans must be reviewed and approved by the US Department of Transportation by 12/4/17, and must address a set of required elements.
- National Highway and Multimodal Freight Goals. State freight plans must demonstrate how they address a set of National Freight Goals, summarized in the following table.

| National Freight Goals |
|---|
| Policies, operational improvements & investments for: |
| <ul style="list-style-type: none"> • Economic competitiveness • Congestion & bottleneck reduction • Reduced costs and improved year-round reliability • Productivity gain - especially by high value job generators |
| Safety, security, efficiency, resilience: urban & rural |
| Network state of good repair |
| Advanced technology for safety, efficiency, reliability |
| Economic efficiency & productivity of networks |
| Improve short & long distance freight movement: across rural, rural-urban, port/airport/gateway connection |
| Flexibility for multistate corridor planning & organization |
| Reduce environmental impacts |
| Avoid burdens to states & local governments |

- Oklahoma Freight Transportation Plan Work Elements. The OFTP work plan includes eleven defined tasks.
 - **Task 1: Project Management.** Purpose: Coordination with ODOT and assurance of successful, timely outcomes.
 - **Task 2: Data Assembly.** Purpose: Organize and prepare data resources utilized in subsequent tasks.
 - **Task 3: Outreach and Plan Coordination.** Purpose: Engage public and private stakeholders and state agencies for sharing of information, guidance of plan development, and appropriate coordination of effort.
 - **Task 4: Facility Profiles, Trends, Opportunities & Needs.** Purpose: Characterize modal system, usage, and forecast growth; Discuss market outlook on trends, challenges, and opportunities; incorporate stakeholder views.

- **Task 5: Goals and Performance Measures, Policies and Strategies.** Purpose: Establish direction and measurements of achievement.
 - **Task 6: Network Designation.** Purpose: Meet FAST Act requirements for National Highway Freight Network and National Multimodal Freight Network designations; Identify heavy haul routes.
 - **Task 7: Bottleneck Analysis and Facility Conditions.** Purpose: Analyze performance, conditions and risks related to growth; Meet FAST Act requirements, and provide focus for investment recommendations.
 - **Task 8: Improvement Options.** Purpose: Establish economic context for conditions and performance; Consider facility improvement options and operational and ITS alternatives; Develop project prioritization criteria for use in Investment Element.
 - **Task 9: Freight Investment Element Cost and Revenue Estimates.** Purpose: Document cost estimates and available resources to guide investment plan.
 - **Task 10: Five-Year Fiscally Constrained Investment Element.** Purpose: Identify freight projects, including prioritized projects for use of freight formula funds, for 2018-2023 within context of statewide direction for freight.
 - **Task 11: OFTP Plan Document.** Purpose: Compile task outputs into the final OFTP Plan Document.
- OFTP Work Plan Schedule. Technical work on the OFTP is scheduled to conclude in September of 2017, allowing for submittal and Federal approval by the December 2017 deadline. Milestones are scheduled for every month or every other month. Four FAC/ODOT meetings are scheduled; the next three are planned for January, June, and September. A public meeting is also planned for March.
 - Summary of Oklahoma Freight Volumes.
 - **Tonnage and Value of Oklahoma Freight.** As part of the project, Oklahoma will be acquiring a detailed commercial freight flow dataset known as Transearch. For this FAC meeting, a preliminary overview of commodity flow volumes was created using the USDOT's Freight Analysis Framework (FAF). The FAF data is less detailed than Transearch, but provides some useful initial indicators. This "first look" suggests that in 2015, Oklahoma: 1) handled 301 million tons of freight worth \$299 billion; 2) via air, rail, truck, water, and multiple/combined modes; 3) for movements to, from, and within the state. The FAF data excludes pass through movements, which will be very important in the study – previous studies suggest that two-thirds of the state's freight tonnage is actually associated with pass-through truck and rail traffic.
 - **Modal Shares of Oklahoma Freight.** For inbound, outbound, and within-state freight, trucking is responsible for around 82% of tons and 82% of value. Rail handles 14% of tons and 5% of value. Water handles 2% of tons and 2% of value. Air is a negligible share of tonnage but 2% of value. Finally, "multiple modes" comprised primarily of high-value rail/truck intermodal container traffic represent 2% of tonnage and 10% of value.
 - **Forecasts of Oklahoma Freight.** FAF forecasts suggest that between 2015 and 2045, Oklahoma freight tonnage will increase by 42% and freight value will increase by 62%.
Truck tonnage will grow from 250 million tons to 360 million tons; rail will grow from 43 million tons to 51 million tons.
 - **Freight Growth by Mode.** All freight modes are expected to grow, although the rates of growth differ based on whether the freight is inbound, outbound, or within Oklahoma. Air tonnage is expected to grow at +4.7% to +8.8%; rail at -0.8% to +2.45; truck at +1.3% to +1.9%; water at -1.2% to +3.0%; and multiple modes at -0.1% to +2.2%.

These are national baseline forecasts, and actual results may be very different due to infrastructure investments, policy changes, or other actions impacting Oklahoma's freight transportation system and economy.

- Summary of Key Freight Market Trends

- **Distribution Networks.** According to the Tompkins International Supply Chain Consortium (which collects real-time logistics information from a large sample of national industries), over the last three years, most Consortium members have seen significant increases in their: number of stock-keeping units (SKUs); direct to consumer sales; international exports as a percentage of outbound shipments; and degree of automation in their warehouses and other facilities. They also report declines in international imports as a percentage of inbound shipments. Over the next three years, the Consortium members expect these trends to continue. Compared to four years ago, Consortium members are using three times as many Distribution Centers (DCs); more DCs positioned closer to customers allows them to reduce their time to market. New DCs tend to be highly automated and smaller than in previous years, although there is still a role for very large "master" Distribution Centers.
- **Retail Home Delivery.** Since 2000, e-commerce has grown at a compound annual growth rate of 17% per year, versus 3% for storefront retail. In 2015, e-commerce was a \$350 million dollar business. Freight transportation systems will need to accommodate growing volumes of direct-to-consumer home deliveries, and will need to deal with the challenges of trucks in residential communities.
- **Energy Market Shifts.** Energy markets are a key driver of freight movement, and continue to be cyclic and volatile. Recent years have seen: declines in coal; increases in natural gas and wind; and a hiatus in hydraulic fracturing. Oklahoma is one of the nation's leaders in wind generation, which requires the movement of oversize cargo (turbines, blades and nacelles, tower segments, etc.) for equipment installation.
- **Intermodal Rail Developments.** Intermodal rail (containers moved on railcars and transferred to and from trucks) have grown from 10 million units nationally in 2000 to 16.3 million units in 2016; following a recession dip between 2008 and 2010, volumes are now at record highs. Intermodal should be an increasing share of rail traffic, and may or may not compete with energy products for available rail capacity.
- **Waterway Challenges.** The McClellan-Kerr Arkansas River Navigation System (MKARNS) serves Oklahoma's ports, but has a significant maintenance backlog. Key challenges include: condition and reliability of locks (impacting system reliability); delays in deepening from 9' to 12' (impacting the depths to which barges can be loaded); and lock upgrades to allow tow haulage (reducing the time needed for a barge tow to lock through).
- **Connected & Automated/Autonomous Vehicles (CAV).** Looking to these "futuristic" technologies, in many respects they are already mature or rapidly maturing. Key applications include sensors and driver assists, signal prioritization, and truck "platoons" where a lead truck controls multiple trucks traveling as a functional set. CAV technologies offer capacity and efficiency gains for trucking, but safety benefits are probably the leading reason for their near term application. Initially CAV methods are most likely to be deployed in controlled environments and limited corridors.

In response to this material, FAC members offered several comments and questions.

- **Who on the team will actually be doing data collection and analysis?** Linda identified the ODOT staff and consultant team representatives attending the meeting as the core group who would produce the

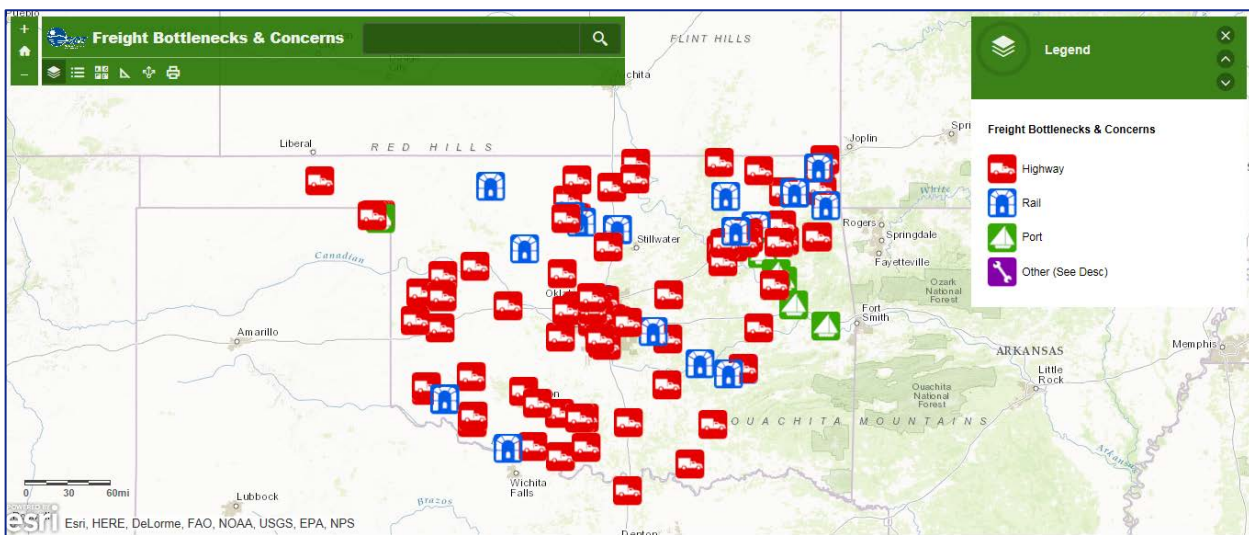
plan data and analysis. Joe Gurskis from WSP | Parsons Brinckerhoff additionally stressed that the project also includes an outreach effort to obtain input from the FAC and other stakeholders, who have an important role in providing inputs and information to the study.

- **Will we see the data, and will we be able to review the trends and other information? Data accuracy is a concern – for example, the Port of Muskogee data is missing from the US Army Corps of Engineers Waterborne Commerce of the US.** Linda replied that study data analyses and products will be shared with the FAC. The consultant team is currently assembling data from ODOT, numerous federal sources, and a commercial data vendor. Alan agreed that many of the datasets being used have known deficiencies; this is the reason for using multiple sources, so they can be compared, aligned, and to the extent practical “validated” with FAC members and other key stakeholders. Joe Gurskis noted that the next FAC meeting will address trends and data, so there will be an opportunity for FAC input and comment at that time.
- **Sidebar comment** recorded by Alan Meyers: a FAC member suggested that truck tonnages shown in the FAF data may be low due to an undercounting of sand, gravel, and other aggregates. This echoed the comment made regarding the missing waterborne data. Alan replied that the consultant team will pay special attention to these data issues and others flagged by FAC members.
- **Sidebar comment** recorded by Alan Meyers: oversize/overweight routings are critically important and FAC members (specifically the Port of Catoosa) can provide current information. Alan noted that the consultant team will be following up with the Ports and other FAC members during the course of the study to ensure the Plan has the best possible information.

Interactive Workshop – Freight Bottlenecks

Linda Koenig led participants through an interactive exercise using a set of modal system maps. Each attendee was provided with a set of numbered marker dots and a summary sheet, and instructed to: 1) place dots at locations with freight issues, bottlenecks, or concerns; and 2) record the specific nature of the issue, bottleneck, or concern on the summary sheet. This information will be processed and reported in subsequent Freight Transportation Plan products.

A summary map showing the specific locations flagged by the FAC participants is shown below. A “live” version of the map, including FAC member comments, can be accessed by using the following web link: <http://okdot.maps.arcgis.com/apps/View/index.html?appid=bdb694ab586f4d93a35d3fd2bfdda240>.



Freight Transportation Goals

Meeting attendees were invited to comment on the goals from the 2015-2040 Oklahoma Long Range Transportation Plan (LRTP) and their applicability to the Freight Plan. Combining results from the FAC with other stakeholder input, the LRTP goals were ranked as follows for suitability for consideration for Freight Plan goals:

- Safe and Secure Travel
- Infrastructure Preservation
- Mobility: Choice, Connectivity and Accessibility
- Economic Vitality
- Environmental Responsibility
- Efficient Intermodal System Management and Operation

This input will be utilized as the study progresses to refine Plan goals, policies and strategies.

Concluding Comments

Linda Koenig and Alan Meyers concluded the meeting with an invitation for each attendee to provide a final comment – either re-emphasizing issues raised previously in the meeting, or identifying new issues – that should be addressed in the Freight Transportation Plan effort. Concluding comments can be generally grouped and summarized as follows:

- Aim to achieve efficient freight movement on a safe, secure, resilient, well-maintained multimodal system; protect, maintain, and improve the system to manage growth
- Address effects of online ordering on urban freight delivery and trucking – more vehicles, larger vehicles on City and neighborhood streets; increased need for on-time delivery to consumers and other end users means greater sensitivity to disruption and unreliability
- Address last mile connections to major freight generators, like Tinker AFB
- Consider the availability and suitability of rural highway infrastructure for freight, regarding safety, geometry, shoulders, etc.
- Consider the need for modernization of weigh stations, axle loading standards, and fuel tax rates
- Achieve best use of available capacity on waterways to relieve pressure on other modes (only 33% of available waterway capacity is being used today); maintain and protect highway OS/OW routes to/from ports, so that ports can best serve OS/OW needs; address lock maintenance; focus on expanded use of existing marine facilities rather than new facilities to speed federal permitting
- Recognize that transportation infrastructure is critical to business attraction and retention; some industries, like grain, rely on a combination of highway, rail, and water, so all modes are critical; the cost of national freight bottlenecks has been estimated at \$49 billion in year 2015 by the American Trucking Research Institute; look to improve Oklahoma’s national attractiveness and competitiveness as a location for freight-dependent industries
- Freight improvements need to be coordinated between the State Transportation Improvement Plan, Metropolitan area Transportation Improvement Plans, and Federal regulations and funding opportunities

Linda Koenig then thanked the attendees and adjourned the meeting.

Submitted by:
Joe Gurskis, WSP | Parsons Brinckerhoff
12/05/2016