Due to issues with background noise on previous conference calls, participation through phone calls will have limited functionality (no speaking option, only online Q&A and chat).

Note: If you join using your computer audio, you will have speaking opportunities during the meeting.

If you HAVE to call in from a phone line and wish ask a question or have a comment during the meeting, please email Michael Baker (mbaker@parametrix.com).
<table>
<thead>
<tr>
<th>TIME</th>
<th>TOPIC</th>
<th>FACILITATOR(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00-9:10</td>
<td>Welcome and Introductions</td>
<td>Bill Thompson, NDOT</td>
</tr>
<tr>
<td>9:10-9:20</td>
<td>Freight Projects &amp; Funding Updates</td>
<td>Bill Thompson, NDOT</td>
</tr>
<tr>
<td>9:20-10:00</td>
<td>COVID-19 Impacts on Freight</td>
<td>Donald Ludlow, CPCS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Various FAC Member Input</td>
</tr>
<tr>
<td>10:00-10:15</td>
<td>Developing Freight Systems Sustainability</td>
<td>Dike Ahanotu, CPCS</td>
</tr>
<tr>
<td>10:15-10:30</td>
<td>Status Update from FAC on Freight Implementation Strategies/Actions/Projects (Table 1-4)</td>
<td>Bill Thompson, NDOT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Various FAC Member Updates</td>
</tr>
<tr>
<td>10:30-10:45</td>
<td>National Economic Partnership Grant - I-15 Freight Mobility Enhancement Plan Update</td>
<td>Vern Keeslar, Parametrix</td>
</tr>
<tr>
<td>10:45-10:50</td>
<td>Truck Parking Availability System (TPAS) Project Update</td>
<td>Bill Thompson, NDOT</td>
</tr>
<tr>
<td>10:50-11:00</td>
<td>Next Steps/Questions/Open Discussion</td>
<td>Bill Thompson, NDOT</td>
</tr>
</tbody>
</table>
FREIGHT PROGRAM FUNDED PROJECTS

**Obligated Freight Funds ($29.15 M)**

1. $12.9 million – NEPA Study Reno Spaghetti Bowl (2016)
2. $0.75 million – **Statewide** Truck Parking Study (2018)
3. $0.3 million – **Statewide** HazMat Study (2018)
4. $0.7 million – I-80 Freight Corridor Study (2018)
5. $6.9 million – I-80 USA Parkway Interchange Improvements (2018)
6. $7.6 million – I-80 Truck Climbing Lanes @ Pequop Summit (2019)

**Non-Obligated Freight Funds ($35.5M)**

7. $11.0 million – I-80 Truck Climbing Lanes, Bridge Replacement @ Emigrant Pass (2020)
8. $2.7 million – I-80 SR 306 Ramp Improvements (2021)
9. $3.5 million – I-80 Exit 173 Ramp Improvements (2020)
10. $1 million – I-15 Construct Weigh in Motion Station (2020)
11. $7.1 million – Construct Truck Parking **Statewide** (2020)
12. $5.9 million – I-15 MP122 – MP124 Construct Truck Climbing Lanes (2021)
13. $3.5 million – I-15 Exit 100 NB, Exit 111 SB Ramp Geometric Improvements, Additional Truck Parking, and Ramp Gore Lighting (2021)
14. $0.8 million – I-80 Construct Weigh in Motion Station (2020)
<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mustang Check Station – Regular Parking</td>
<td>$1.4 million</td>
</tr>
<tr>
<td>Mustang Check Station – Emergency Parking</td>
<td>$1.5 million</td>
</tr>
<tr>
<td>Wadsworth Rest Area Expansion – Regular Parking</td>
<td>$645,000</td>
</tr>
<tr>
<td>Wadsworth Rest Area Expansion – Emergency Parking</td>
<td>$581,000</td>
</tr>
<tr>
<td>Trinity/Fallon Rest Area Expansion – Regular Parking</td>
<td>$1.8 million</td>
</tr>
<tr>
<td>Trinity/Fallon Rest Area Expansion – Emergency Parking</td>
<td>$765,000</td>
</tr>
<tr>
<td>Golconda Summit Expansion – Regular Parking</td>
<td>$1.6 million</td>
</tr>
<tr>
<td>Beowawe Rest Area Expansion – Regular Parking</td>
<td>$1.2 million</td>
</tr>
<tr>
<td>SR 306 @ I-80 New Parking – Regular Parking</td>
<td>$414,000</td>
</tr>
<tr>
<td>I-15 MP 110 (Mormon Mesa) Expansion – Regular Parking</td>
<td>$1.6 million</td>
</tr>
<tr>
<td>I-15 MP 96 Expansion – Regular Parking</td>
<td>$2.7 million</td>
</tr>
<tr>
<td>I-15 MP 88 Expansion – Regular Parking</td>
<td>$1.1 million</td>
</tr>
<tr>
<td>I-15 MP 84 New Parking – Regular Parking (paved or gravel)</td>
<td>$1.3 million</td>
</tr>
<tr>
<td>I-15 South Check Station – 26 TP spaces</td>
<td>$1.0 million</td>
</tr>
<tr>
<td>SR 360 @ US 6 Expansion – Regular Parking</td>
<td>$226,000</td>
</tr>
<tr>
<td>Luning Rest Area Expansion – Regular Parking</td>
<td>$4.5 million</td>
</tr>
</tbody>
</table>

Done in house: Luning Rest Area Expansion – Regular Parking

Statewide: TPAS Phase I and Phase II
COVID-19
IMPACTS ON FREIGHT

Presented by: Donald Ludlow, CPCS
Presentation Overview

- Impacts on Supply Chains
- Impacts on Transportation Operations
- Discussion
US COVID-19 Mobility Impacts
Mobility in Nevada July 2020
(versus January 2020 baseline)

-20% Retail and Recreation
-4% Grocery & Pharmacy
-18% Parks
-34% Transit Stations
-38% Workplaces
+12% Residential

Source: Google Mobility

Source: NDOT
COVID-19 Impact on Supply Chains

How is COVID-19 impacting freight operations?

- The entire supply chain is experiencing disruptions -- supply (production), demand (consumption), and transportation issues.
- Employee safety is and will remain the top priority.
- Communications and real-time data are critical to supply chain resiliency.
- Shift in sourcing – more variation, more local.

Source: D Ludlow
COVID-19 Impact on E-Commerce

- **Growth in e-commerce** sales across industries
- E-fulfillment challenges
  - Inventory – product availability, determining how long surge will sustain, determining where to position inventory
  - Increased volume demand, but limited labor capacity
  - Reverse logistics without stores
- Maintaining transparency with customers is critical – **customers want predictability**
- **Future reliance on e-commerce is still evolving**
  - Evolution of harmony between shopping modes
  - More people exposed to and using digital
  - If and when people will feel ready to return to store shopping
  - Evolving future of stores – shopping with a digital influence, curbside pickup, repurposed to micro-fulfillment centers.
COVID-19 E-Commerce Trends

January-March Online Order Spikes

- 807% for PPE and sanitizers
- 217% for over-the-counter drugs
- 231% for toilet paper
- 100% for online grocery shopping
- 87% for canned goods and shelf-stable items
- 55% for fitness equipment
- 40% for desktops and laptops

Source: Adobe Analytics
COVID-19 Impact on Trucking

• Demand surges and declines dependent on industry and distance
  ▪ Surge markets (medical supplies, grocery) vs decline markets (e.g. manufacturing business, retail operations, apparels, metal)
  ▪ Long-haul trips down considerably, but local trips under 100 miles have significantly increased

• Closing of ‘non-essential’ operations that support ‘essential’ industries have curtailed ‘essential industries’
  ▪ E.g. truck stops and rest areas, repair facilities, filling empty-miles

• Potential to drive paper out of trucking as shippers are looking for ways to reduce contact.

• Challenge with reopening – patchwork policies across U.S. states
COVID-19 Impact on Rail

- **Sustained national drop in overall rail demand** and expectation decline will continue.
- **E-commerce surge drives rationing** on UP and BNSF networks in the Western US.
- **Short-term equipment shortage** (e.g. idled locomotives)
- Opportunity to **regain modal share**
  - Social distancing
  - Rebuild the network, maintain, and improve service levels.
  - Developing and leveraging data & technology to provide more information and shipment visibility to customers.
- Rail car leasing and management contributes to increased flexibility and supply chain resiliency
- **Precision scheduled railroading** enables better network and cost structure adaptation.
- **Resilient rail operating model** - rail has the financial strength and asset structure to withstand and adapt to crisis over time.

Source: D Ludlow
Changing Trade Patterns: Yesterday?

Source: POLA
Today’s Top International Trade Gateway?

Source: CBP
COVID-19 Impact on Use of Data and Technology

- **COVID-19 highlights supply chain data gaps:**
  - lack of similar historical data
  - Critical need for *detailed, real-time* to make decisions now
  - Investment in *culture of data* needed to use and apply data

- **Acceleration of technologies use and development to enhance resiliency**
  - Data- and technology-enabled collaboration
  - Exploding use of robotics (particularly in warehouses) given current labor safety risks
  - Machine learning: continuous learning capabilities needed to optimize on a continuous basis
  - Block chain: to move paper out of the supply chain, track goods, provide security

- **Some public-private partnerships to share data and inform decision-making**
  - Is data collaboration limited to situations of crisis? Or is there potential for future shift in view of data sharing and collaboration?

---

“Based on the access [companies] have to the detailed data, and not just the data, but the culture of data-driven decision making, [companies] are able to...pivot their business.”

Stephen Brobst, CTO, Teradata Corporation
Overall Impacts

“It’s like a deep inhale of inbound freight with no exhale, right? And at the same time, the outbound production industries in those geographies were absolutely shutting down...It created just huge supply chain dislocation from a trucking perspective.”

Robert Biesterfeld, CEO, CH Robinson (WSJ July 16, 2020)
Presentation Overview

1. Impacts on Supply Chains
2. Impacts on Transportation Operations
3. Discussion
COVID Implications for Transportation Agencies

• COVID-19 has led to unprecedented changes to economic activity and has the potential to result in lasting changes to the U.S. and globally.
  
• The pandemic has required transportation agencies to respond quickly to new challenges.
  
  ▪ Addressing the budgetary implications of massive declines in personal vehicle miles traveled.
  
  ▪ Deciding if rest areas will remain open and how to meet the needs of truck drivers.
  
  ▪ Prioritizing projects and providing guidance to contractors to advance essential maintenance and infrastructure projects.
  
  ▪ Providing extensions to Commercial Drivers Licenses that were scheduled to expire during the pandemic.
  
  ▪ Providing Overweight permits for the movement of COVID-19 supplies.
Presentation Overview

- Impacts on Supply Chains
- Impacts on Transportation Operations
- Discussion
Discussion

• Are there other COVID-related impacts that are specific to Nevada?

• What are the lessons learned from the disruptions of COVID in 2020?

• What are companies and agencies doing to adapt supply chains and operations for continued or future impacts?
Thank You!

Donald Ludlow, MCP, AICP
Vice President
United States Division

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cpcstrans.com
DEVELOPING FREIGHT SYSTEMS SUSTAINABILITY

Presented by: Dike Ahanotu, CPCS
Freight Sustainability and Resiliency

**Sustainability (Mitigation)**

Capacity to endure by creating and maintaining conditions under which humans and nature can exist in productive harmony to support present and future generations.

**Resiliency (Adaptation)**

Capacity to absorb the effects of a disruption and to quickly return to normal operating levels from disruptions due to nature, human error, or human intent.
Presentation Overview

- Sustainability Trajectory in Nevada
- Sustainability Examples in Neighboring States
- Incorporation into Nevada Freight Planning
- Discussion
Sustainable Economy, Environment, and Community Priorities

“Complete Transportation Solutions”

Adopted from ADOT Complete Transportation Solutions Guidebook
## Transportation Agency Sustainability Maturity Levels

<table>
<thead>
<tr>
<th>Period</th>
<th>Maturity Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950-1970</td>
<td>Maturity Level 0: Safe Mobility</td>
<td>Build interstates and reduce fatalities</td>
</tr>
<tr>
<td>1970-2000</td>
<td>Maturity Level 1: Compliant Transportation (NEPA)</td>
<td>Achieve letting goal, reduce fatalities, reduce congestion</td>
</tr>
<tr>
<td>1985-2015</td>
<td>Maturity Level 2: Green Transportation</td>
<td>Reduce congestion, reduce fatalities, achieve letting goal, emphasis on environmental <strong>needs</strong></td>
</tr>
<tr>
<td>2010-2030</td>
<td>Maturity Level 3: Sustainable Transportation</td>
<td>Improve mobility, reduce congestion, reduce fatalities, achieve letting goal, emphasis on environmental and sustainable <strong>solutions</strong></td>
</tr>
<tr>
<td>2025-onwards</td>
<td>Maturity Level 4: Triple Bottom Line Sustainability</td>
<td>Improve mobility, reduce congestion, reduce fatalities, emphasis on environmental and sustainable <strong>programs</strong>, improve society as a responsible steward</td>
</tr>
</tbody>
</table>

Adapted from NCHRP Report 750, Volume 4
## Sustainability Legislation and Rulemaking

<table>
<thead>
<tr>
<th>Nevada Legislation</th>
<th>Federal Rulemaking</th>
<th>Infrastructure Bill Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2019 Senate Bill 254</strong>&lt;br&gt;• Reduce GHG by 28% by 2025, 45% by 2030 and 0% by 2050&lt;br&gt;• Statewide inventory and projection of GHG emissions and statement of policies to address GHG emissions</td>
<td><strong>2020 Final Rule – EPA / National Highway &amp; Safety Administration</strong>&lt;br&gt;• Reduces vehicle fuel efficiency standards to annual 1.5% miles-per-gallon increase for model years 2021-2026</td>
<td><strong>2019 Senate - America’s Transportation Infrastructure Act</strong>&lt;br&gt;• Increases NHFP to $8.5 billion over 5 years&lt;br&gt;• INFRA increases to $5.5 billion&lt;br&gt;• Up to 30% for multimodal projects</td>
</tr>
<tr>
<td><strong>2019 U.S. Climate Alliance</strong>&lt;br&gt;• Nevada joined the bipartisan, 25-state U.S. Climate Alliance committing to the Paris Accord</td>
<td><strong>2020 Proposal – NDEP</strong>&lt;br&gt;• New tailpipe emission standards for light- and medium-duty vehicles starting in 2024&lt;br&gt;• Require dealerships sell a certain percentage of zero-emission vehicles</td>
<td><strong>2020 House - INVEST in America Act</strong>&lt;br&gt;• Prioritizes carbon pollution reduction and measures&lt;br&gt;• Specifies NHFP reduces GHG emissions and local air pollution&lt;br&gt;• Raises cap on amount of freight funding available for non-highway projects&lt;br&gt;• Provides $125 million in FY2022 for freight projects in a gridlock reduction grant</td>
</tr>
<tr>
<td><strong>2019 Senate Bill 358</strong>&lt;br&gt;• Commits to raising Nevada’s renewable portfolio standard to 50% by 2030 and 100% clean energy by 2050</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2020 Executive Order 2019-22</strong>&lt;br&gt;• GHG inventories every 4 years, 20-year GHG emission projections&lt;br&gt;• Climate strategy document</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
State GHG Emissions – Transportation Sector

NDEP Statement of Policies for Transportation GHGs

- New Vehicle Emission Standards
- Reduction of Vehicle Miles Traveled
- Equitable Transportation Funding Solution
- Exemption for Emissions Inspection for Certain Motor Vehicles
- Incentivize Statewide Transition to Low and Zero Emission Vehicles
- Procurement
- Low Carbon Fuels

Transportation Sector GHG Emission Projections in Nevada 2017-2039

In 2015, state GHG emissions from the transportation sector (35%) overtook electricity generation as the largest source of emissions.
One Nevada Transportation Plan

6 Key Goal Areas:

- **Enhance safety** by building, maintaining, and operating the safest transportation system possible.
- **Preserve infrastructure** to support economic vitality, visitor experience, and travel safety.
- **Optimize mobility** to provide convenient and reliable movement of people and goods across all modes.
- **Transform economies** by supporting an innovative transportation framework.
- **Foster sustainability** by lowering long-term maintenance costs, promoting fiscal responsibility, and reducing greenhouse gas emissions from the transportation sector.
- **Connect communities** to local resources and amenities and collaborate with partners to best serve our communities.
Presentation Overview

- Sustainability Trajectory in Nevada
- Sustainability Examples in Neighboring States
- Incorporation into Nevada Freight Planning
- Discussion
California Sustainable Freight Action Plan

Caltrans Updates

- Advanced Technology Corridors at Border Ports of Entry (POE) Pilot Project
- Advanced Technology for Truck Corridors Pilot Project
- Statewide Truck Parking Study
- California Short Line Rail Improvement Plan

Energy Commission Updates

- Recent Integrated Energy Policy Report (IEPR) workshop on heavy-duty ZEV market trends 05/20/20
- Update to the California Vehicle-Grid Integration Roadmap
- New website for the CEC’s biennial charging infrastructure assessment under AB2127
- CEC/CARB Upcoming Grant Funding Opportunity: Zero-Emission Drayage Truck and Infrastructure Pilot Project
- CEC Upcoming MD/HD ZEV Blueprint Funding Opportunity

GO-Biz Updates

- California Sustainable Freight Foundations Certificate For Middle Managers: A Workforce Development Pilot Project for the CSFAP

Source: California Freight Advisory Committee Meeting, July 2020
Utah Inland Port Authority

**Figure 1: UIPA Objectives**

- Position Utah as the Leading Trade and Logistics Hub
- Advance Sustainable and Smart Supply Chains
- Be a Responsible Steward of the Environment and Local Communities
- Effectively Manage UIPA Resources

**Figure 2: UIPA Roles**

- Technical Expert on logistics issues, needs, and opportunities across the state.
- Sustainability and Innovation Leader promoting innovative, equitable, and sustainable development solutions in the logistics sector statewide.
- Facilitator of cross-cutting dialogue among public, private, and NGO stakeholders for logistics solutions.
- Financial Catalyst for policies and programs related to strategic priorities.
- Responsible Custodian of public resources to ensure efficiency and effectiveness in operations.

**The Strategic Business Plan**

The Strategic Business Plan will guide the Utah Inland Port Authority (UIPA)'s approach and strategies for promoting sustainable, equitable, and smart logistics investment through partnerships, policies, and programs for FY2020-2024. This is the UIPA's first strategic document and will be used by UIPA over the next five years to direct its partnerships, policies, and programs. Implementation plans of specific projects statewide will follow from the plan's strategies.

The Strategic Business Plan outlines the following goals, strategies, and target actions:

Source: Utah Inland Port Authority Strategic Business Plan Executive Summary, 2020
Arizona DOT Sustainability Operational Focus Areas

Sustainable Transportation Planning
- MPD/MPO/COG sustainability tools training
- I-11 Intermountain West Corridor INVEST use
- ADOT MPD/MPO/COG Guidebook Update, Complete Transportation Guidebook
- Sustainable Outreach with Arizona Tribes

Sustainable Transportation Project Development
- EASPD Award Program
- Continue INVEST PD Scoring
- Sustainable Earthwork Plan, Sustainable Pavement System Pilot Program
- Upgrade Standard Specifications – waste, LED lighting, HDPE Pipe
- Project scoping documents, FHWA Every Day Counts Technology adoption

Sustainable Transportation Operations
- USDT Office of Operations project partnering
- ADOT incorporation of TSMO activities
- FHWA Arizona Division Office activities
- Upgraded heavy equipment idling policy, High friction surface treatment use
- TSM case studies to advance national conversation

Sustainable Transportation Maintenance
- INVEST OM Scoring Project
- District Sustainability Working sub-group
- PeCoS maintenance performance system upgrades Millings Reuse Policy development, Leverage the idling policy, Leverage equipment services fuel efficiency plan
- Final Report INVEST O&M
- Tie OM to performance measures and TAMP

Sustainable Transportation Agency
- Comprehensive Internal Sustainability Plan, Provide support for alt. fuel vehicles
- Consolidated energy use plan, Consolidated recycling plan, Expand university outreach
- Begin sustainable freight subprogram
- Continue to tie link to key commerce corridors
- Maintain national leadership role, Assist TRB in framing global sustainable transport

Source: adapted from ADOT Sustainable Transportation Program, 2020
Presentation Overview

- Sustainability Trajectory in Nevada
- Sustainability Examples in Neighboring States
- Incorporation into Nevada Freight Planning
- Discussion
Nevada State Freight Plan

Strategic Goals of the Freight Plan

**Economic Competitiveness**
Improve the contribution of the freight transportation system to economic efficiency, productivity, and competitiveness.

**Safety**
Improve the safety of the freight transportation system.

**Advanced Innovative Technology**
Use advanced technology, innovation, competition, and accountability in operating and maintaining the freight transportation system.

**Economic Competitiveness**
Improve the contribution of the freight transportation system to economic efficiency, productivity, and competitiveness.

**Mobility & Reliability**
Provide an efficient and reliable multimodal freight transportation system for shippers and receivers across the State.

**Infrastrucure Preservation**
Maintain and improve essential multimodal infrastructure within the State.

**Environmental Sustainability & Livability**
Reduce adverse environmental and community impacts of the freight transportation system.

**Sustainable Funding**
Fully fund the operations, maintenance, renewal, and expansion of the freight transportation system.

**Collaboration, Land Use, and Community Values**
Establish an ongoing freight planning process to coordinate the freight transportation system and ensure consistency with local land use decisions and community values.
Environmental Sustainability & Livability
Reduce adverse environmental and community impacts of the freight transportation system.

**Objective:**

**Vehicular Emissions:** Reduce vehicular emissions by reducing congestion, deploying technologies that improve the fuel-efficiency of commercial vehicles, and providing better mode-choice and integration to encourage utilization of the most sustainable options.

**Measure:** Percentage of trucks registered within the state having an engine model-year of 2010 or newer

**Baseline:**

2015 Trucks registered in Nevada with MY2010 or newer engines: 22%

**Target:** ≥ 4% new trucks registered per year

**Score:** ▼

**Analysis:** A majority of Nevada-based trucking fleets operate within California, and are required to meet the CARB GHG emissions standards, providing a direct benefit to Nevada. As a result, there has been a steady increase of approximately 4% per year of newer vehicles (14% in 2013 to 18% in 2014), which is expected to continue to rise through 2023 as fleets continue to be upgraded.


**Baseline:**

2015 Conditions: 42 locations with speeds below 40 mph

**Target:** 10% reduction by 2021

**Score:** ◇

**Analysis:** Travel speeds during afternoon peak periods (4 to 6 pm) on the major truck routes were evaluated to identify some of the chokepoints on major truck corridors. During the month of July 2015, there were 42 locations where the average truck speed during the afternoon peak period dropped below 40 miles per hour.
# Sustainability Program Design

|---|---------------------------------|---------------------------------|-------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|

**Notes:**

- Sustainability Program Design include:
  - Developing Goals and Objectives
  - Evaluating Performance, Issues, and Needs
  - Determining Policies, Programs, Projects, and Priorities
  - Implementing Target Priorities
  - Assessing Organizational Structure, Resources, and Competencies
  - Determining Funding and Financing Plan
  - Evaluating Implementation
Emerging Freight Sustainability Themes

• Examine Relationships with Key Stakeholders
  ▪ Energy, environmental, business agencies are all critical
  ▪ Consider participation by emerging community groups

• Scenario Planning
  ▪ Determine how sustainability options fare under different transportation, technology, and economic outcomes

• Focus on Supply Chains
  ▪ Not all bottlenecks are of equal importance

• Implement Select Data and Technology Programs
  ▪ Track private sector developments (e.g. hydrogen vs. electric trucks)
  ▪ Learn from pilot programs across the country
Presentation Overview

- Sustainability Trajectory in Nevada
- Sustainability Examples in Neighboring States
- Incorporation into Nevada Freight Planning
- Discussion
STATUS UPDATE FROM FAC ON FREIGHT IMPLEMENTATION STRATEGIES / ACTIONS / PROJECTS (TABLE 1-4)

Presented by: Bill Thompson, NDOT
Immediate-Term Actions
## Table 1-4: Freight Strategies and Implementation Actions - IMMEDIATE-TERM ACTIONS

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Actions</th>
<th>Timeframe to Initiate Action</th>
<th>Lead Agency/Contact</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> Advance multi-use corridor planning for I-11.</td>
<td>Conduct an analysis of the regional freeway system in Southern Nevada and determine how and where the I-11 corridor would most appropriately fit in the network.</td>
<td>2017-2020/ongoing</td>
<td>NDOT/Kevin Verre</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>1.</strong></td>
<td>Form a series of dialogues to assess the strategic extension of I-11 from Las Vegas to the Canadian border, comprising two sub-studies: (1) detailed corridor planning to determine a single preferred I-11 corridor between the Las Vegas metropolitan area and Northern Nevada border, and (2) high-level envisioning to assess the most logical connection in Canada, based on the greatest economic and trade-related opportunities.</td>
<td>2017-2019</td>
<td>NDOT/Kevin Verre</td>
<td>Completed/ Ongoing</td>
</tr>
<tr>
<td><strong>2.</strong> Facilitate private development of intermodal facilities in Northern and/or Southern Nevada.</td>
<td>Identify and facilitate private development opportunities for intermodal facilities.</td>
<td>2017-2019/ongoing</td>
<td>NDOT/Christine Schnee (Deputy Director)</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>3.</strong> Deploy technologies that improve the fuel-efficiency of commercial vehicles, and provide better mode-choice and integration to encourage the most sustainable freight transportation options.</td>
<td>Work with the FAC to recommend a policy that encourages moving freight in the most sustainable manner.</td>
<td>2017-2019</td>
<td>Nevada Trucking Association/Paul Enos</td>
<td>Planned</td>
</tr>
<tr>
<td><strong>4.</strong> Preserve and renew Nevada’s freight highway network.</td>
<td>Update the State Highway Preservation Report every two years to keep an accurate assessment of current maintenance needs to renew funding allotments by the Nevada State Legislature.</td>
<td>2017-2019/ongoing</td>
<td>NDOT</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>5.</strong> Develop a preservation and expansion program for short-line freight rail infrastructure.</td>
<td>Establish a policy to strengthen NDOT’s role in rail planning and implementation, including funding. Establish a policy and criteria for state involvement in rail preservation. Based on criteria, identify investments on short-line rail infrastructure and service preservation.</td>
<td>2017-2019</td>
<td>NDOT/Lee Bonner</td>
<td>Planned</td>
</tr>
<tr>
<td><strong>6.</strong> Develop a method to track and integrate freight transportation, land use, and economic development planning along major freight corridors in Nevada.</td>
<td>Form land-use advisory committees through the state to coordinate with NDOT on changes in land use strategies that may impact access along state-owned freight corridors, as well as real-world developments that may impact the movement of freight vehicles.</td>
<td>2017-2019/ongoing</td>
<td>NDOT/John Arias</td>
<td>Planned</td>
</tr>
<tr>
<td><strong>7.</strong> Maintain organization of the FAC to advise on implementation of freight strategies statewide.</td>
<td>Establish a schedule and process for convening or engaging the FAC in freight-related planning issues and progress upon completion of the NSFHP.</td>
<td>2017-2019/ongoing</td>
<td>NDOT/Bill Thompson</td>
<td>Completed</td>
</tr>
</tbody>
</table>

### Strategic Objectives

1. **Maintain organization and coordination of the WSFC to advise and support on regional freight issues, projects, and policies.**
   - **Strategic Objective:** Establish the mission, organizational structure, processes, and schedule for convening the WSFC in freight-related planning issues upon completion of the NSFHP.
   - **Timeframe to Initiate Action:** 2017-2019/ongoing
   - **Lead Agency/Contact:** NDOT/Bill Thompson
   - **Status:** Completed/ Ongoing

2. **Encourage logistics and manufacturing-based companies and organizations to pursue workforce development training opportunities.**
   - **Strategic Objective:** Advise on known education/training opportunities at FAC meetings and encourage members to pursue educational opportunities.
   - **Timeframe to Initiate Action:** 2017-2019/ongoing
   - **Lead Agency/Contact:** FAC Nevada Trucking Association/Paul Enos
   - **Status:** Planned

3. **Pursue freight-related research through NDOT’s Research Section to improve the State’s readiness and adaptability to new freight movement and technology trends.**
   - **Strategic Objective:** Complete a series of studies to assess the strategic extension of I-11 from Las Vegas to the Canadian border, comprising two sub-studies: (1) detailed corridor planning to determine a single preferred I-11 corridor between the Las Vegas metropolitan area and Northern Nevada border, and (2) high-level envisioning to assess the most logical connection in Canada, based on the greatest economic and trade-related opportunities.
   - **Timeframe to Initiate Action:** 2017-2019/ongoing
   - **Lead Agency/Contact:** NDOT/Bill Thompson
   - **Status:** Ongoing

4. **Incorporate autonomous system technologies into Nevada’s freight system.**
   - **Strategic Objective:** Develop freight-related problem statements to submit to NDOT’s Research Section.
   - **Timeframe to Initiate Action:** 2017-2019/ongoing
   - **Lead Agency/Contact:** Nevada Institute of Autonomous Systems/Paul Enos
   - **Status:** In Progress

5. **Enforce regulatory compliance through aggressive inspections, use advanced inspection technologies to reduce costs and improve efficiencies for law enforcement and operators alike, and develop reasonable standards for over-dimensional freight transportation.**
   - **Strategic Objective:** Identify locations for permanent truck inspection equipment, stations, and data systems.
   - **Timeframe to Initiate Action:** 2017-2019
   - **Lead Agency/Contact:** NDOT
   - **Status:** In Progress

6. **Update the NSFHP at regular intervals to ensure relevance of goals, objectives, and performance measures, and maintain a prioritized list of projects and programs.**
   - **Strategic Objective:** Update the NSFHP at regular intervals to ensure relevance of goals, objectives, and performance measures, and maintain a prioritized list of projects and programs.
   - **Timeframe to Initiate Action:** 2017-2019/ongoing
   - **Lead Agency/Contact:** NDOT/Kevin Verre
   - **Status:** In Progress
Governor’s Office of Economic Development
UPDATE – Kristopher Sanchez

- Current Activities and Initiatives
Mid-Term Actions
<table>
<thead>
<tr>
<th>Strategy</th>
<th>Actions</th>
<th>Timeframe to Initiate Action</th>
<th>Lead Agency/Contact</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Advance multi-use corridor planning for I-11.</td>
<td>2020-2022</td>
<td>NDOT/Carlos Ayala</td>
<td>Planned</td>
</tr>
<tr>
<td>2</td>
<td>Deploy technologies that improve the fuel-efficiency of commercial vehicles, and provide better modchoice and integration to encourage the most sustainable freight transportation options.</td>
<td>2020-2022</td>
<td>Nevada Trucking Association/Paul Enos</td>
<td>Planned</td>
</tr>
<tr>
<td>3</td>
<td>Bi​ll Thompson</td>
<td>2020-2022</td>
<td>NFC/Christopher Sanches (Deputy Director)</td>
<td>Planned</td>
</tr>
<tr>
<td>4</td>
<td>Pursue electrification at truck stops to reduce vehicle emissions at diesel fueling stations</td>
<td>2020-2022</td>
<td>NFC/Nevada Trucking Association/Paul Enos/ Private Truck Stops NV2X/Janie Worley</td>
<td>Planned</td>
</tr>
<tr>
<td>5</td>
<td>Establish incentives to encourage the trucking industry to invest in next generation truck technologies.</td>
<td>2020-2022</td>
<td>Nevada Trucking Association/Paul Enos</td>
<td>Planned</td>
</tr>
<tr>
<td>6</td>
<td>Strengthen NDOT's Rail Safety and Security Program</td>
<td>2020-2022</td>
<td>NDOT/Doug Fromm</td>
<td>Planned</td>
</tr>
<tr>
<td>7</td>
<td>Increase truck parking spaces and capacity, along with supportive ITS improvements.</td>
<td>2020-2022</td>
<td>NDOT/Bill Thompson</td>
<td>Completed</td>
</tr>
<tr>
<td>8</td>
<td>13.1</td>
<td>Implement investments in partnership with private and public stakeholders on truck parking (TS) and expanding rest areas along interstate and interregional highways. Explore multistate partnerships.</td>
<td>2020-2022</td>
<td>NDOT/Bill Thompson</td>
</tr>
<tr>
<td>9</td>
<td>13.2</td>
<td>Implement investments in partnership with private and public stakeholders on truck parking (TS) and expanding rest areas along interstate and interregional highways. Explore multistate partnerships.</td>
<td>2020-2022</td>
<td>NDOT/Bill Thompson</td>
</tr>
<tr>
<td>10</td>
<td>13.3</td>
<td>Complete a Nevada Truck Rest Stop Implementation Plan. Phase I is largely completed as part of the NSFP, and Phase II would consist of continued data collection and analysis, including surveys and interviews that will result in identification of issues as well as recommendations for additional truck parking areas.</td>
<td>2020-2022</td>
<td>NDOT/Bill Thompson</td>
</tr>
<tr>
<td>11</td>
<td>13.4</td>
<td>Conduct periodic updates to Nevada's defined National Highway Freight Network.</td>
<td>2020-2022</td>
<td>NDOT/Bill Thompson</td>
</tr>
<tr>
<td>12</td>
<td>13.5</td>
<td>Implement projects defined in the NSFP prioritized list of improvements.</td>
<td>2020-2022</td>
<td>NDOT/Bill Thompson</td>
</tr>
<tr>
<td>13</td>
<td>13.6</td>
<td>Incorporate the fiscally constrained freight investment plan into the longrange transportation plan, and update as needed.</td>
<td>2020-2022</td>
<td>NDOT/Bill Thompson</td>
</tr>
<tr>
<td>14</td>
<td>13.7</td>
<td>Periodically identify and prioritize additional freight-related capital improvement projects, and update the prioritized list of projects and eventually constrained freight investment plan.</td>
<td>2020-2022</td>
<td>NDOT/Kevin Verre</td>
</tr>
<tr>
<td>15</td>
<td>13.8</td>
<td>Pursue an “all of the above” strategy to achieve sustainable transportation funding to operate, maintain, and expand Nevada’s freight transportation system.</td>
<td>2020-2022</td>
<td>NDOT/Kristopher Sanchez (Director)</td>
</tr>
<tr>
<td>16</td>
<td>13.9</td>
<td>Prepare a “business case” document that assesses quantitatively and/or qualitatively the economic and non-economic benefits of full implementation of the state's long-range transportation plan to the significant beneficiary groups.</td>
<td>2020-2022</td>
<td>NDOT/Kristopher Sanchez (Director)</td>
</tr>
</tbody>
</table>
NSFP ACTION 1.3 UPDATE - Lee Bonner

- **Action:** Update the Nevada Rail Plan.
- **Timeline:** 2020-2022
- **Lead Agency:** NDOT
Objectives of Connect Rail Nevada

• Optimize the integration of rail/truck transportation
• Apply whole supply-chain systems approach
• Support economic development with rail strategy
• Lead smart freight rail land use protocols
• Evaluate private-sector funding opportunities
What is the status of freight rail service in Nevada?

Rail infrastructure and service should keep up with growth.

- Nevada rail service - 83% thru traffic
- 4% of the freight in Nevada is rail traffic to or from instate businesses.
- 77% of all Nevada freight tonnage is carried by trucks.
- 70% of the truck traffic is coming from or going to California.
Implementation

Regional Strategy

Distinguish the regions in the state on which to focus rail development efforts

- Southern Nevada - Region 1
- Lincoln County - Region 2
- Nevada Northern Railway - Region 3
- I80 Corridor - Region 4
- Fernley Region - Region 5
- Reno-Sparks-Stead - Region 6
- Hazen-to-Hawthorne Corridor - Region 7
- Beatty to Jean Corridor – Region 8
Implementation

*Rail Action Plan for each area*

A. Identify current rail assets

B. Identify the Opportunities
Implementation

Tools Strategy

Provide stakeholders with actionable information and tools for enhancing their own and their collective projects

- Stakeholder lists
- Nevada's freight shippers and receivers
  - Truckload shipper lists
  - Rail shipper lists
- Nevada industrial developers
- Nevada municipalities / Economic development agencies
- Nevada's industrial associations
- Rail asset and property index
- Rail project lists
- Freight data

15-layer state and regional map

- Main rail lines and branch lines with roads
- Yard and interchange tracks
- Team and house tracks (potential transloading sites)
- Existing sidetracks to active customers
- Existing sidetracks to inactive customers
- Existing potential rail customers without sidetracks
- Selected land segments that can feasibly be reached by rail and commercially relevant
- Opportunity Zones
- Land use zoning—county by county
- Regional maps
- Stakeholders
- Truckload shipper locations, businesses
- Potential freight rail projects
- Freight data
- Passenger rail assets, existing stations and lines that are potential for passenger service
Implementation
Reno Stead
Reno Parr
Supply Chain System Strategy

Expand investment strategies to statewide and regional supply chain level for:

- Mining materials
- Food and beverage
- Building materials
- Construction aggregates
- Chemicals
- Containers
- Agriculture
- Waste & scrap
- Manufacturing
- Energy
Mining Materials Supply Chain Logistics Strategy

Comprehensive mining supply chain mapping and infrastructure development plan

- Map the mining industry and supply chain
- Map storage and distribution facilities
- Include mines in development
- Propose optimal mining supply chain system
California-Nevada Supply Chain Alliance

Create a two-state alliance for supply chain coordination and optimization

- Nevada’s recent economic development is spurred by its adjacency to California
- Truck traffic is increasing in both states as California’s supply chain has expanded into Nevada for warehousing, distribution, and production
- 70% of all trucks in Nevada are coming from or going to California
- There is a significant upside to the economy, environment, and quality of life from the revitalization of rail service for this critical two-state supply chain system
Implementation

Private-sector Funding Strategy

Launch new model for statewide private-sector funding of rail development

- Attract private-sector capital sources for rail development
- Identify federal funding programs applicable to rail projects and establish partnerships with in-state and DC program managers
  - US Department of Transportation
  - US Department of Agriculture
  - US Department of Commerce
  - US Small Business Administration
Implementation

Union Pacific and BNSF Partnership Strategy

*Co-develop corridor and regional rail service plans that integrate with UP and BNSF operations*

- Create a rail growth initiative for the entire state
- Short-term (18-month) and longer term (2-12 year) horizons
- Rail education for town, county, and economic and land development leaders
- Connect prospects to rail service, rail properties, federal, state, and local support
- Develop partnership with UP and BNSF
For more information please contact:

Lee Bonner
State Railroad Coordinator
lbonner@dot.nv.gov
Long-Term Actions
## UPDATED Nevada State Freight Plan

### Table 1-4. Freight Strategies and Implementation Actions - LONG-TERM ACTIONS

<table>
<thead>
<tr>
<th>Strategy</th>
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<tr>
<td>14</td>
<td>Enforce regulatory compliance through aggressive inspections, use advanced inspection technologies to reduce costs and improve efficiencies for law enforcement and operators alike, and develop reasonable standards for over-dimensional vehicles to operate with fewer impediments on the freight</td>
<td>2023-2027</td>
<td>NDOT/Bill Thompson NHP Northern Command/Don Plowman NHP Southern Command/ John Arias</td>
<td>Planned</td>
</tr>
<tr>
<td>14.2</td>
<td>Construct the inspection stations at key locations, including integration of advanced technologies to gather information — reducing layover time for truckers and limiting the number of on-hand staff required (e.g. Drivewyze or PrePass, which use electronic transponders to quickly access vehicle information and ensure compliance with state requirements).</td>
<td>2023-2027</td>
<td>NDOT/Bill Thompson NHP Northern Command/Don Plowman NHP Southern Command/ John Arias</td>
<td>Planned</td>
</tr>
<tr>
<td>16</td>
<td>Update the NSFP at regular intervals to insure relevance of goals, objectives, and performance measures, and maintain a prioritized list of projects and programs.</td>
<td>2023-2027</td>
<td>NDOT/Bill Thompson</td>
<td>Planned</td>
</tr>
<tr>
<td>16.4</td>
<td>Conduct a wholesale update to the NSFP every five years.</td>
<td>2023-2027</td>
<td>NDOT/Bill Thompson</td>
<td>Planned</td>
</tr>
</tbody>
</table>
NATIONAL ECONOMIC PARTNERSHIP GRANT
I-15 FREIGHT MOBILITY ENHANCEMENT PLAN UPDATE
Presented by: Vern Keeslar, Parametrix
I-15 Freight MEP Plan Goals

- Identify strategies, best practices and templates for providing effective urban truck parking along I-15
- Establish new partnerships and a successful multi-state coalition
- Advance important near-term corridor improvement opportunities
- Advance key freight planning efforts in both California and Nevada for I-15
- Better coordinate local and megaregional corridor planning efforts
- Elevate engagement with local and regional planning agencies who have a vital role in mobility and safety planning and programming for I-15
Conducted research on potential freight technologies and applications to support urban truck parking solutions and prepared Technology Exploration White Paper - (April 29)

Conducted mid-project check-in meeting with FHWA Headquarters on status of project since its inception (March 17)

Conducted 2nd stakeholder webinar on Technology options (May 6)

Received and evaluated responses to RFI from technology vendors, conducted one-on-one interviews with vendors (as necessary)

Submitted Urban Truck Parking Technology Exploration to FHWA and Partner Agencies (May 28).
Next Steps

Task 6: Strategy Development and Implementation Framework

- Investigating actionable set of truck parking strategies for the I-15 corridors.
- Researched best practices for truck parking strategic implementation/guidance.
- Researched available federal discretionary grant funding for freight/truck parking.
Next Steps (cont.)

Task 7: I-15 Freight Mobility Enhancement Plan

- Initiated preliminary discussion/ideas regarding ultimate deliverable, including organization and various communication platforms for sharing the plans’ recommendations.

3-month looking ahead:

- Final Implementation Framework
- Final I-15 Freight MEP
- FHWA Final Report
- Share Resources / Lessons Learned
TRUCK PARKING AVAILABILITY SYSTEM (TPAS)
PROJECT UPDATE

Presented by: Bill Thompson, NDOT
Data Distribution Strategy

• Data published in real-time on Nevada Data Exchange
  ▪ Published on NVRoads Website and App
  ▪ Available to 3rd party app developers
QUESTIONS
OPEN DISCUSSION
THANK YOU

Next FAC Meeting: November 3, 2020

Bill Thompson
NDOT Freight Program Manager
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https://www.nevadadot.com/mobility/freight-planning

2019 Freight Program Implementation Project