NEVADA DOT
SAFE AND CONNECTED

FREIGHT ADVISORY COMMITTEE MEETING

May 7, 2019

NEW ANNOUNCEMENT

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 to speak during the meeting, please contact Jenny Roberts jmroberts@parametrix.com.

AGENDA

TIME	TOPIC	FACILITATOR(S)
9:00	Welcome and Introductions	Bill Thompson, NDOT
9:10	Project Updates	Bill Thompson, NDOT
9:20	Truck Parking Implementation Plan Update	Dan Andersen, Cambridge Systematics
10:15	Hazardous Commodity Flow Study Update Link to Study	Rebecca Wingate, Cambridge Systematics
10:35	Freight Program Implementation Project	Vern Keeslar, Parametrix Dike Ahanotu, CPCS Transcom
10:50	Open Discussion	Bill Thompson, NDOT

FREIGHT PROGRAM FUNDED PROJECTS – $78.2M

Obligated Freight Funds ($32.9M)

1. $12.9 million – NEPA Study Reno Spaghetti Bowl (2016)
2. $0.5 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. *$11.6 million* – I-80 Truck Climbing Lanes @ Pequop Summit (2019)

Non-Obligated Freight Funds ($45.3M)

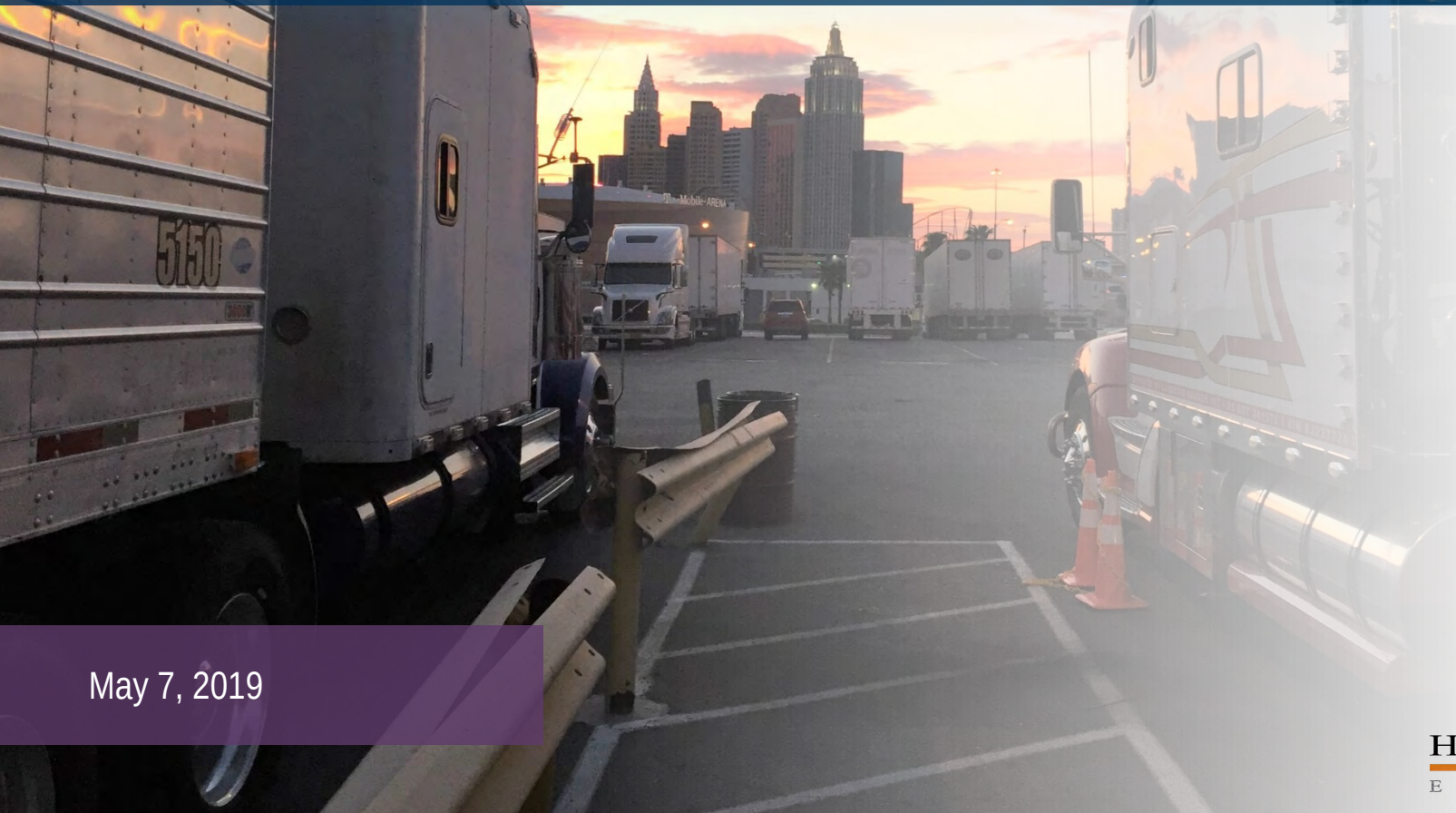
7. *$11.0 million – I-80 Truck Climbing Lanes, Bridge Replacement @ Emigrant Pass (2020)*
8. *$2.7 million* – I-80 SR 306 Ramp Improvements (2020)
9. $3.5 million – I-80 Exit 173 Ramp Improvements (2020)
10. $1.9 million – I-15 Construct Weigh in Motion Station (2020)
11. $7.1 million – Construct Truck 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. $9.7 million – North Virginia St. Improvements (2022)

TRUCK PARKING
IMPLEMENTATION PLAN

Presented by: Dan Andersen, Cambridge Systematics

NEVADA DOT
SAFE AND CONNECTED

Nevada Department of Transportation Truck Parking Implementation Plan



presented to

Nevada Freight Advisory Committee

presented by

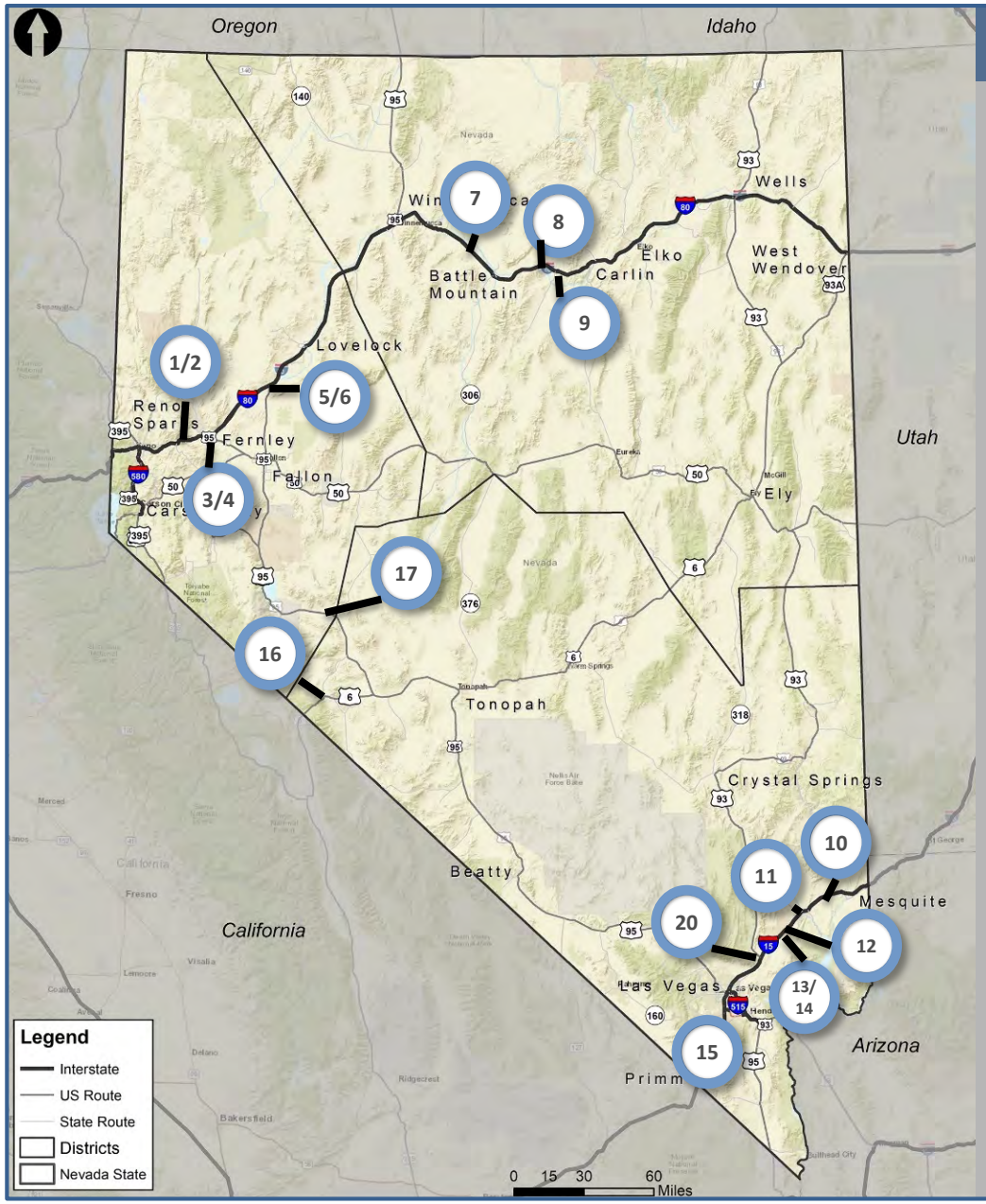
Dan Andersen, Cambridge Systematics, Inc.

May 7, 2019

Agenda

- Draft Recommendations
- Draft Implementation Plan
- Next Steps

Task 5 Recommendations

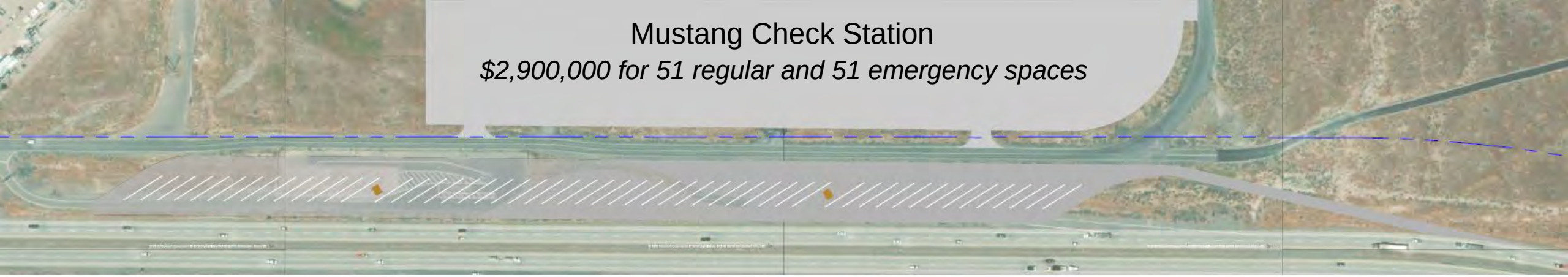


Recommended Projects

1. Mustang Check Station – Regular Parking
2. Mustang Check Station – Emergency Parking
3. Wadsworth Rest Area Expansion – Regular Parking
4. Wadsworth Rest Area Expansion – Emergency Parking
5. Trinity/Fallon Rest Area Expansion – Regular Parking
6. Trinity/Fallon Rest Area Expansion – Emergency Parking
7. Golconda Summit Expansion – Regular Parking
8. Beowawe Rest Area Expansion – Regular Parking
9. SR 306 @ I-80 New Parking – Regular Parking
10. I-15 MP 110 (Mormon Mesa) Expansion – Regular Parking
11. I-15 MP 96 Expansion – Regular Parking
12. I-15 MP 88 Expansion – Regular Parking
13. 14 I-15 MP 84 New Parking – Regular Parking (paved or gravel)
15. I-15 South Check Station
16. SR 360 @ US 6 Expansion – Regular Parking
17. Luning Rest Area Expansion – Regular Parking
18. 19 TPAS Phase I and Phase II
20. Las Vegas Blvd. Relocation & New Parking @ Loves

Mustang Check Station

$2,900,000 for 51 regular and 51 emergency spaces



I-80 WESTBOUND

CHARACTERISTICS:
51 - 15' X 90' PARKING STALLS
THREE CXT CASCADIAN DOUBLE VAULT RESTROOM W/ TWO STALLS
THREE TRASH ENCLOUSURES
WITHIN NDOT ROW

ESTIMATED CONSTRUCTION COSTS:
$ 1.4 M

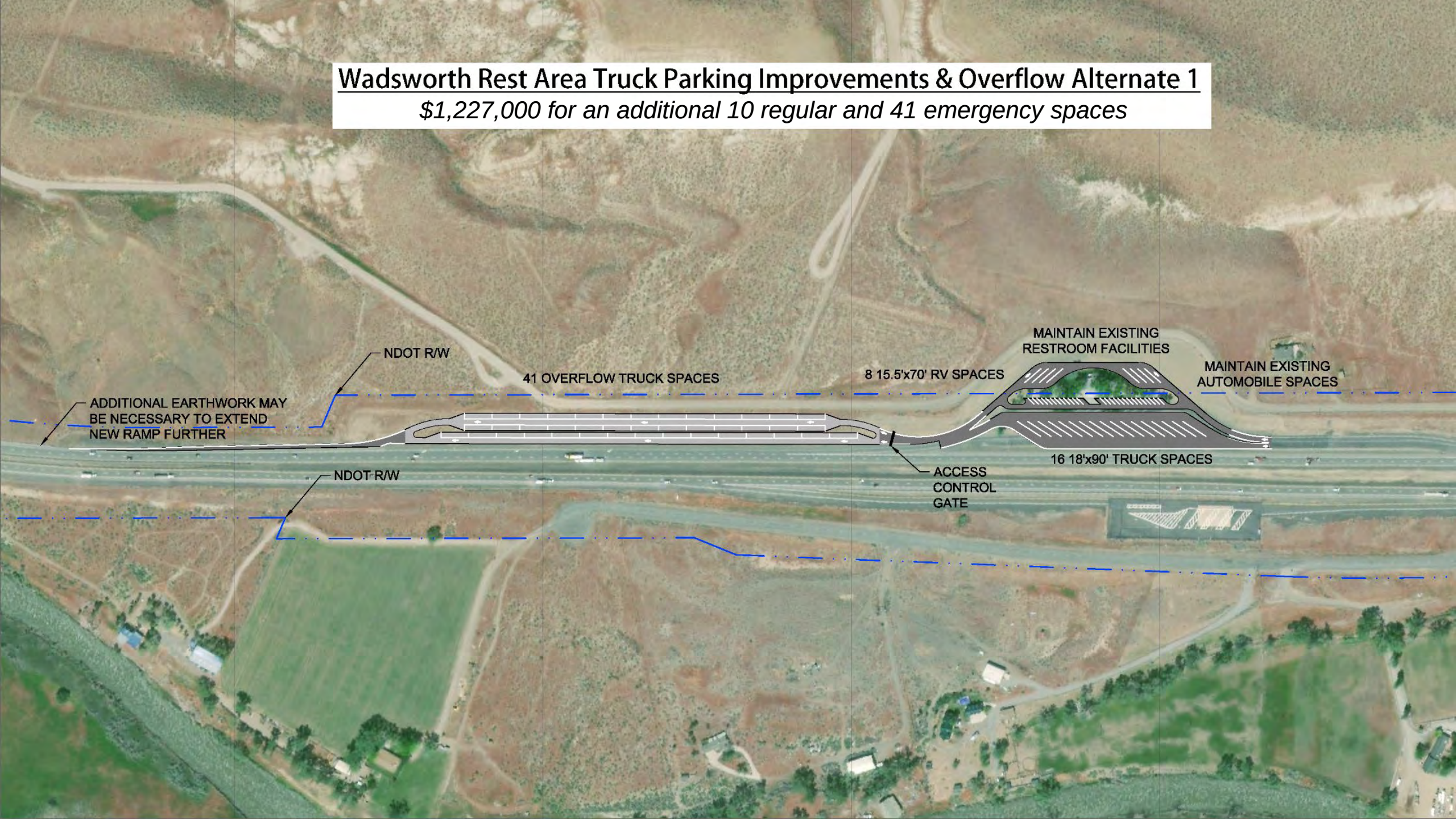
I-80 EASTBOUND

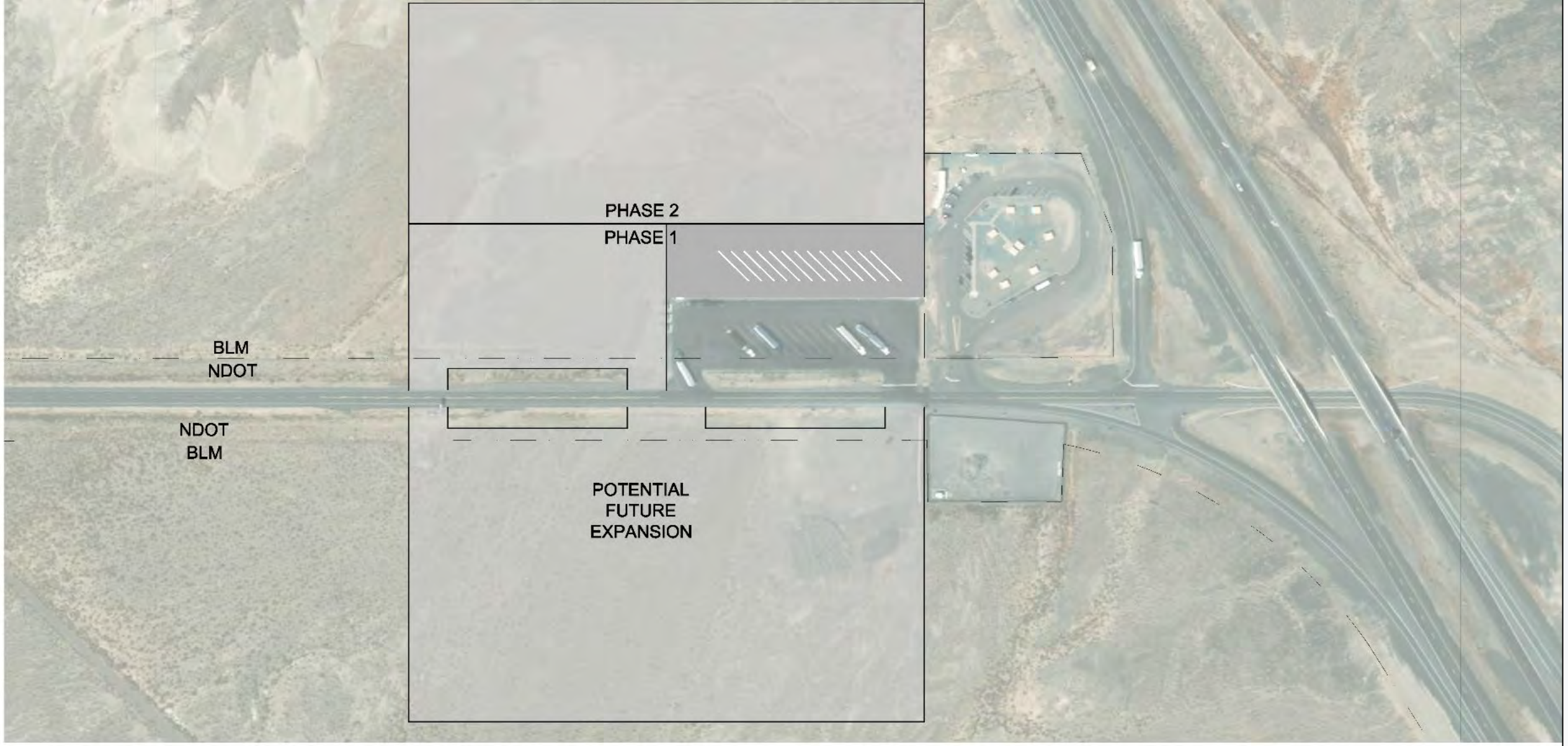
CHARACTERISTICS:
51 15' X 90' PARKING STALLS
TWO CXT CASCADIAN DOUBLE VAULT RESTROOM W/ TWO STALLS
FOUR TRASH ENCLOSURES
REQUIRES BLM EASEMENT

ESTIMATED CONSTRUCTION COSTS:
$ 1.5 M

Wadsworth Rest Area Truck Parking Improvements & Overflow Alternate 1

$1,227,000 for an additional 10 regular and 41 emergency spaces





PHASE 1

CHARACTERISTICS:
24 STALLS (PAVED, 12 NEW)
24 STALLS (GRAVEL)
3 EXISTING BATHROOMS
NEEDS ADDITIONAL ROW FROM BLM

ESTIMATED COST:
$ 765,000

US 95 & I 80

Trinity/Fallon Rest Area

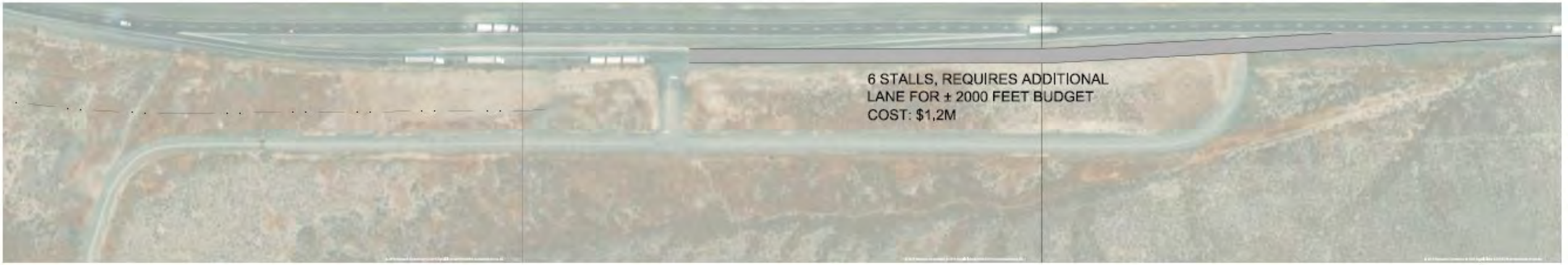
PHASE 2

CHARACTERISTICS:
48 STALLS (PAVED, 24 NEW)
48 STALLS (GRAVEL)
6 BATHROOMS (3 NEW)
NEEDS ADDITIONAL ROW FROM BLM

ESTIMATED COST:
$ 1.86 M

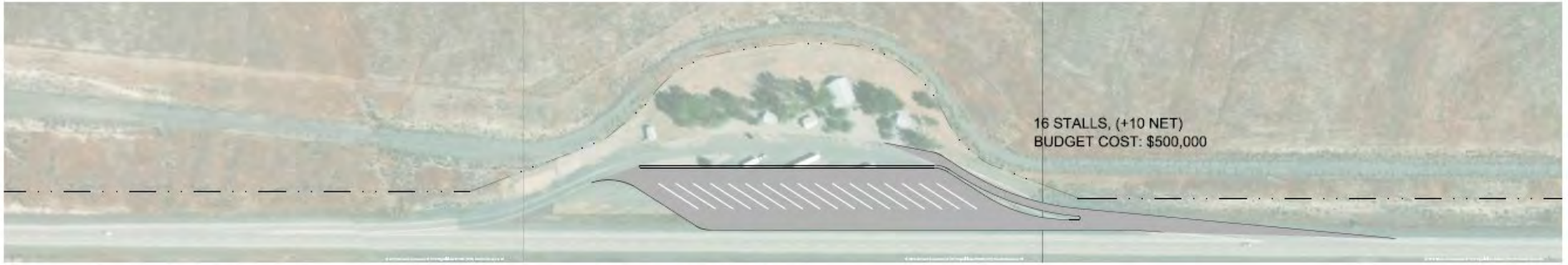
HORROCKS

I-80 WESTBOUND



I-80 EASTBOUND

Golconda Truck Turnout Expansion



I-80 WESTBOUND

I-80 EASTBOUND

Beowawe Rest Area Expansion

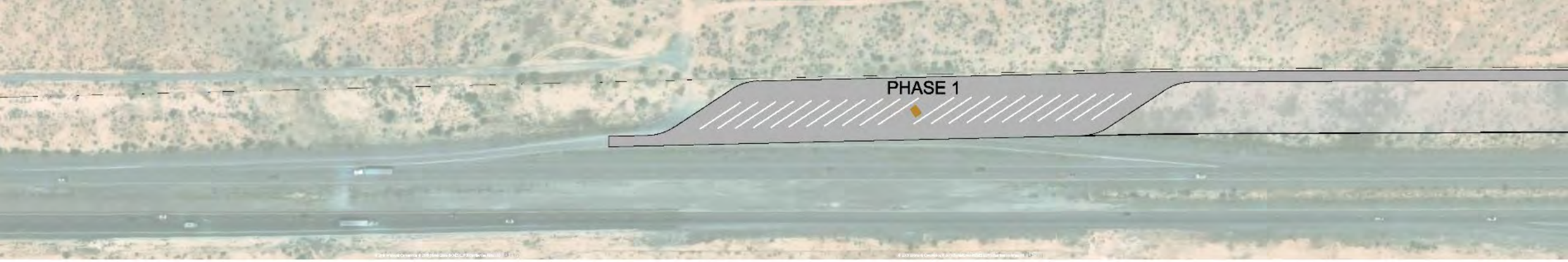
New Truck Parking Lot on SR 306 at I-80

$414,000 for 14 spaces

I-15 SOUTHBOUND

I-15 NORTHBOUND

MP 110 (Mormon Mesa)



PHASE 1

CHARACTERISTICS:
20 STALLS (PAVED)
2 RESTROOMS
EXPANDABLE

ESTIMATED COST:
$ 1.34 M

I-15 SOUTHBOUND

PHASE 2

CHARACTERISTICS:
100 STALLS (PAVED, 80 NEW)
48 STALLS (GRAVEL)
10 BATHROOMS (8 NEW)

ESTIMATED COST:
$ 2.3 M

I-15 SOUTHBOUND

MP 96 Truck Turnout Expansion - Southbound

PHASE 1

CHARACTERISTICS:
20 STALLS (PAVED)
2 RESTROOMS
EXPANDABLE

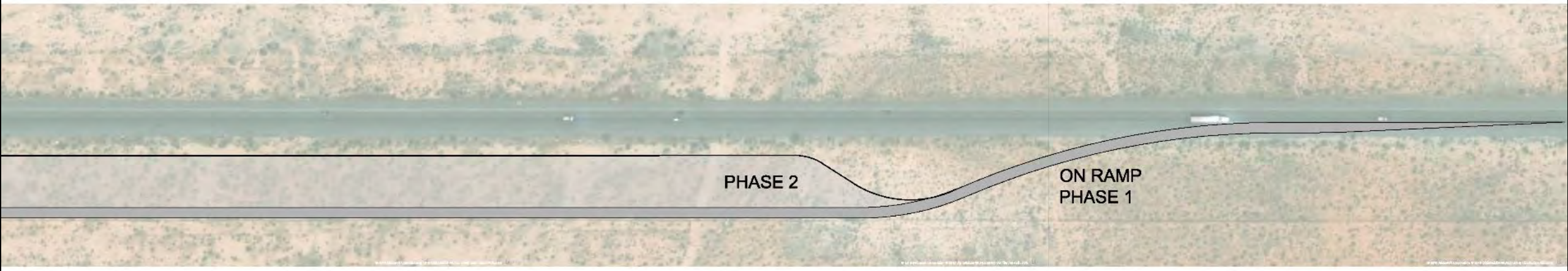
ESTIMATED COST:
$ 1.4 M

I-15 NORTHBOUND

PHASE 2

CHARACTERISTICS:
100 STALLS (PAVED, 80 NEW)
48 STALLS (GRAVEL)
10 BATHROOMS (8 NEW)

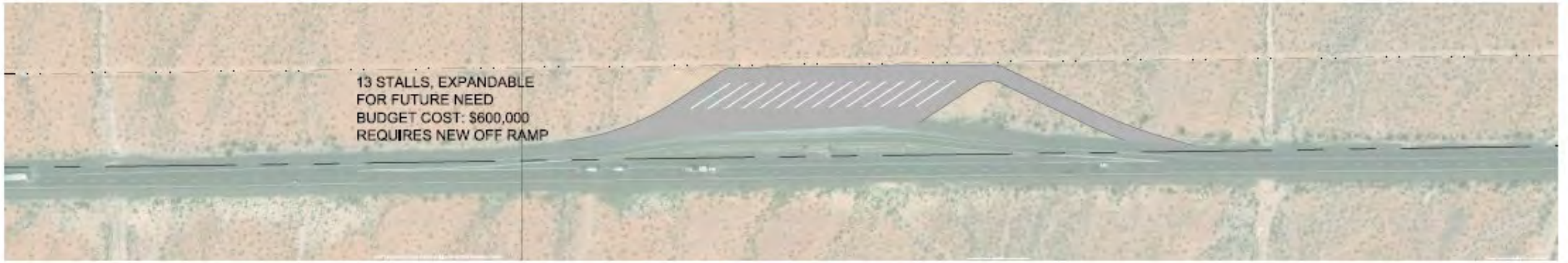
ESTIMATED COST:
$ 2.43 M



I-15 NORTHBOUND

MP 96 Truck Turnout Expansion - Northbound

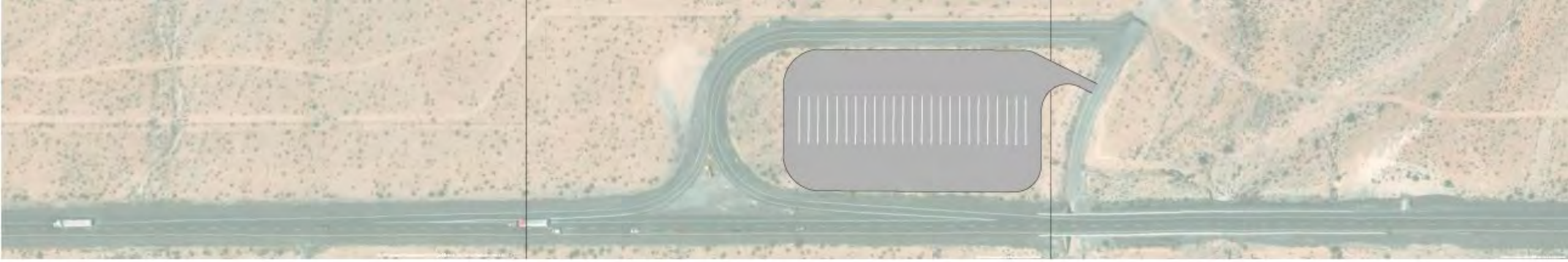
N
HORROCKS



I-15 SOUTHBOUND

I-15 NORTHBOUND

MP 88 Truck Turnout Expansion



I-15 SOUTHBOUND

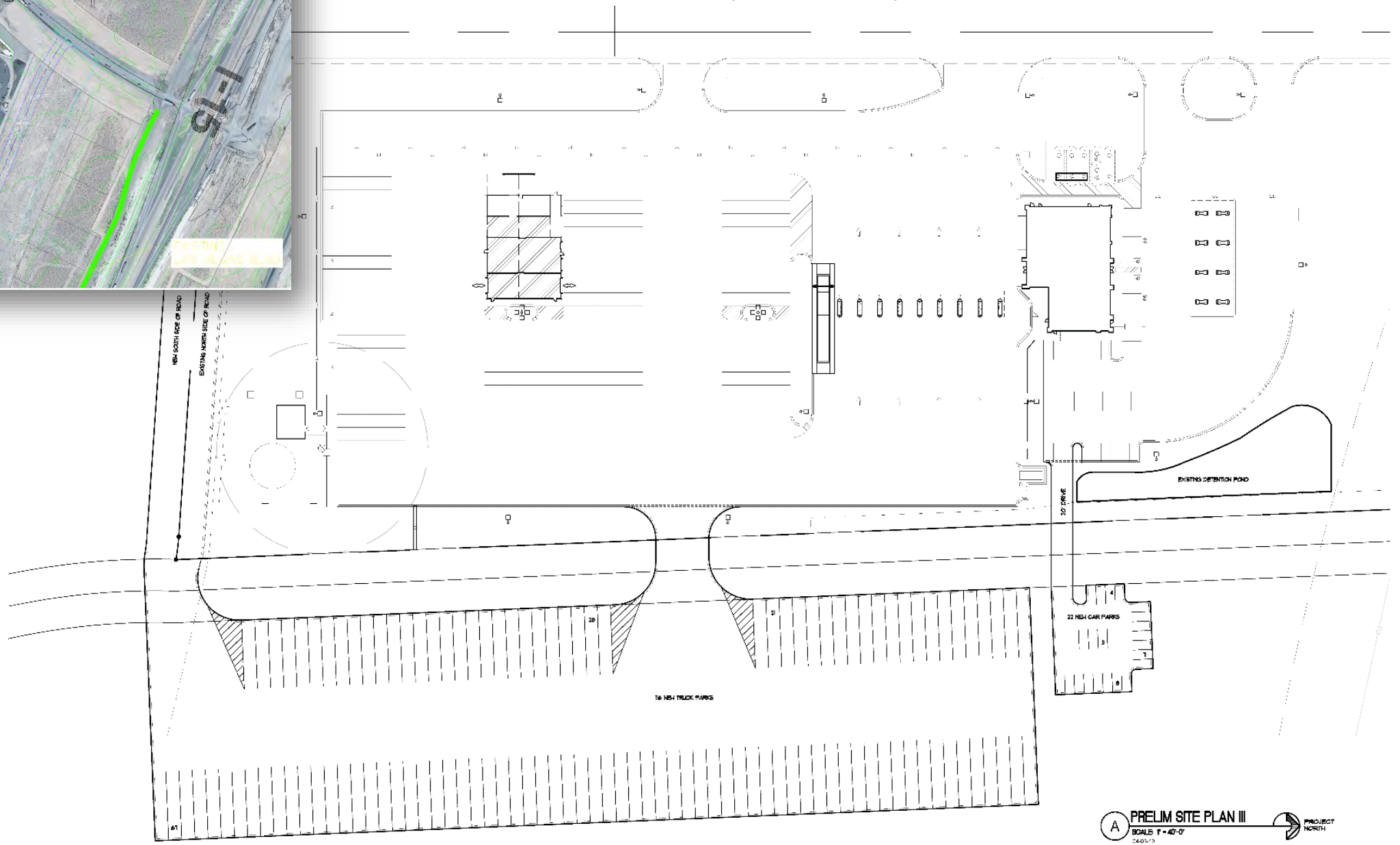
I-15 NORTHBOUND

MP 84 New Truck Parking

$1,320,000 for new lot with 54 paved spaces (or $740,000 for approximately 40 space gravel lot)

New Lot Adjacent to Loves, Las Vegas Blvd at US 93

$2,250,000 for new lot with 116 paved spaces



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PARKING ADDITION
STORE No. 340
CLARK COUNTY, NV

Love's Travel Stops

Revisions	
No.	Date

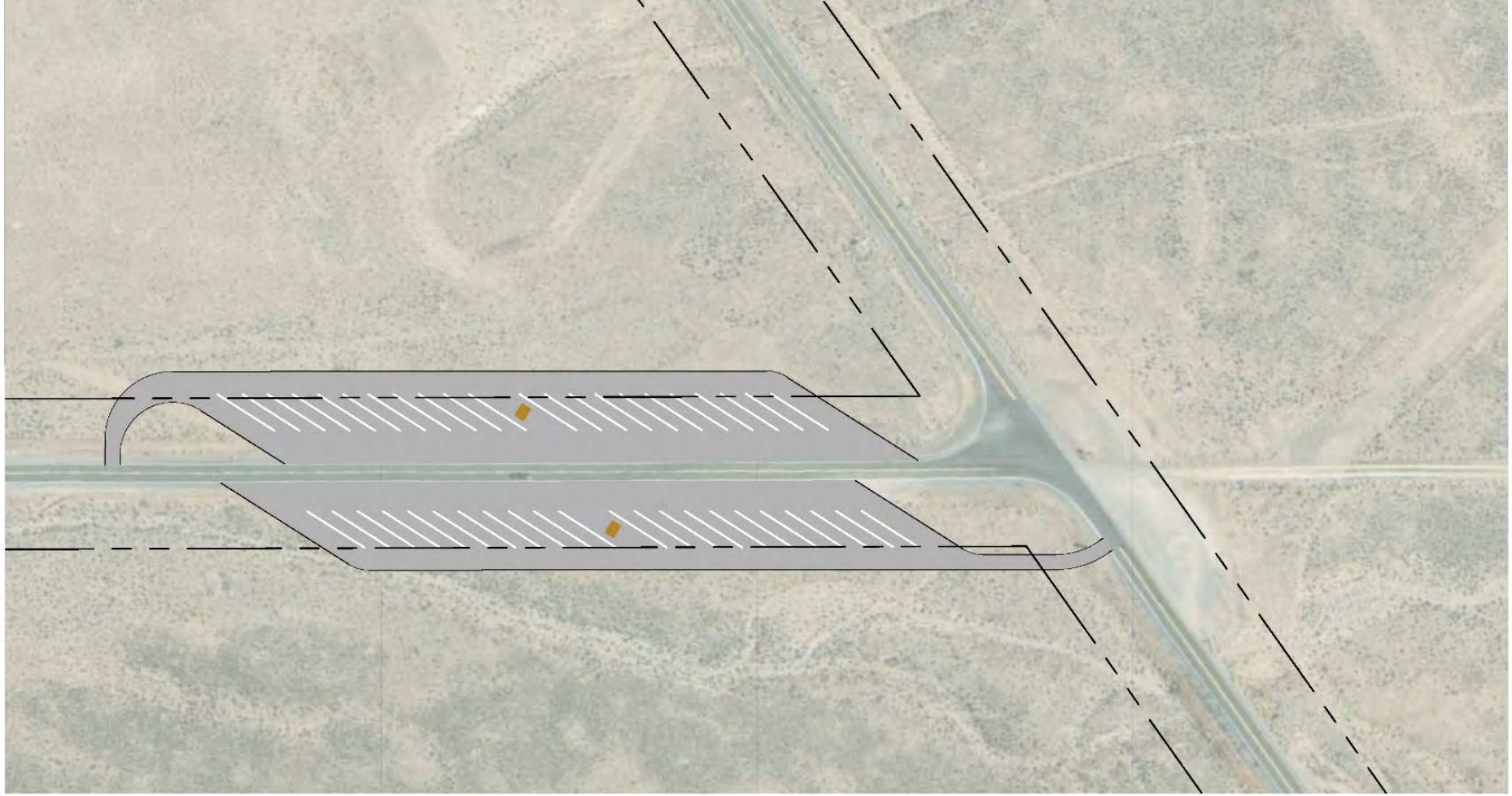
Project No: LVS—
Date: / /
Sheet No.:
A-X
Of: XX

SR 360 & US 6

Truck Parking Expansion, Phase 1

CHARACTERISTICS:
CLEAR & GRUB
20 STALLS (GRAVEL)
WITHIN NDOT ROW

ESTIMATED COST:
$ 226,000



SR 360 & US 6

CHARACTERISTICS:
40 STALLS (PAVED)
4 RESTROOMS
NEEDS ADDITIONAL ROW FROM BLM

Truck Parking Expansion, Phase 2
(optional if needed)

ESTIMATED CONSTRUCTION COSTS:
$ 1 M

HORROCKS

US 95, Luning Rest Area Restriping

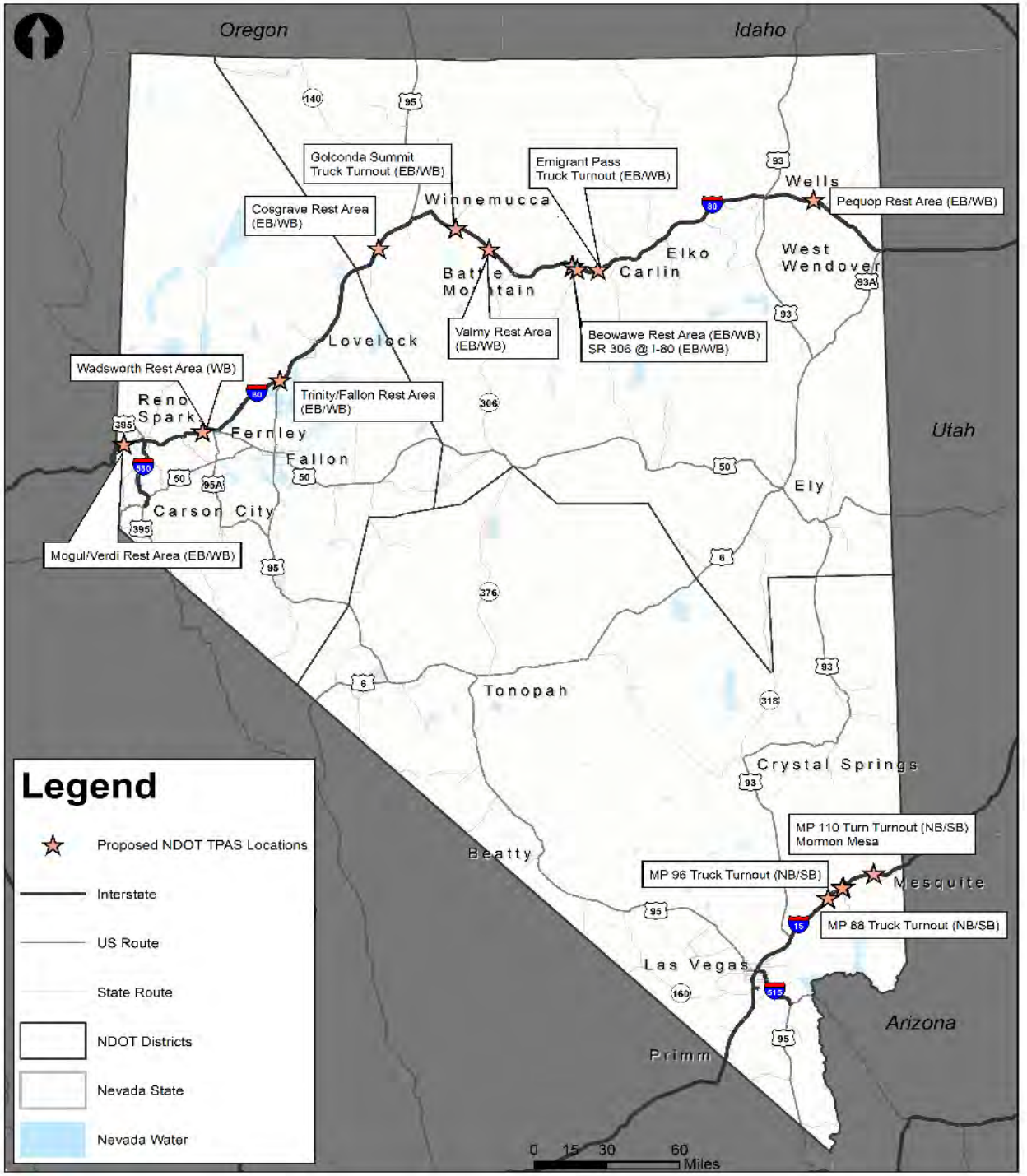
Recommended Projects

Task 5 – Recommendations – Additional Location

- I-15 (NB) New Inspection Site (north of Primm)
  - Possibly 20 spaces
  - $1,000,000 placeholder cost estimate

Task 5 – Recommendations - TPAS

- Phase I: $2,260,000
  - » Trial at 6 sites (3 each on I-80 and I-15)
  - » Back office systems, data connections, etc.
- Phase II: $2,220,000
  - » Deployment to remaining 17 public truck parking facilities on I-15 and I-80
  - » Good candidate for BUILD or INFRA grant submitted as joint application with neighboring states



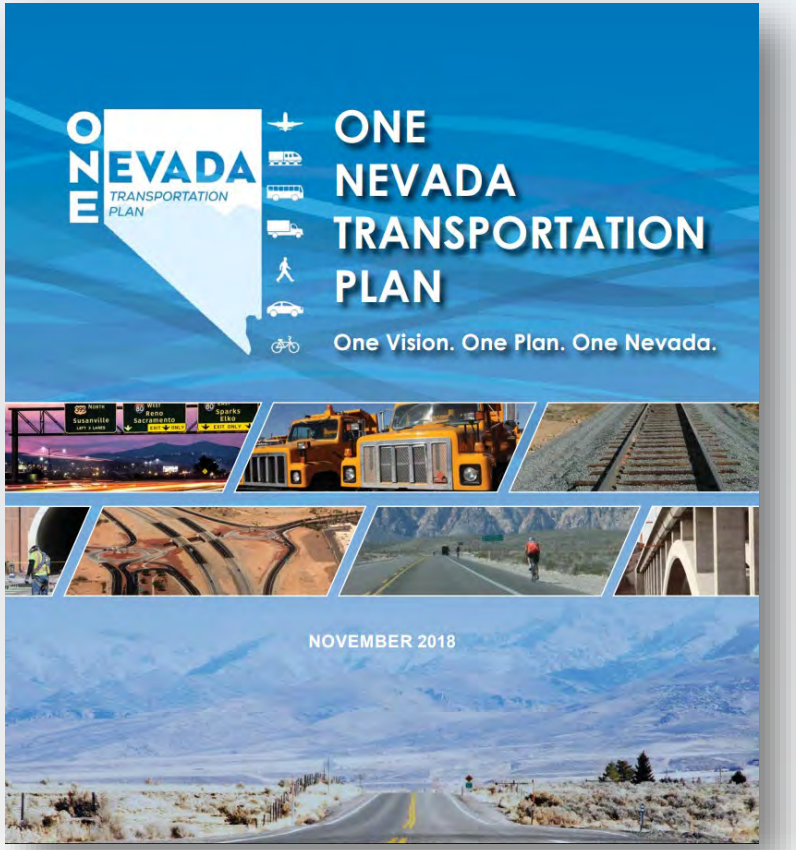
Task 6 Implementation

Approach

Task 6 – Implementation

- One Nevada Plan – Six Goal Area:
  - Enhance Safety
  - Preserve Infrastructure
  - Optimize Mobility
  - Transform Economies
  - Foster Sustainability
  - Connect Communities

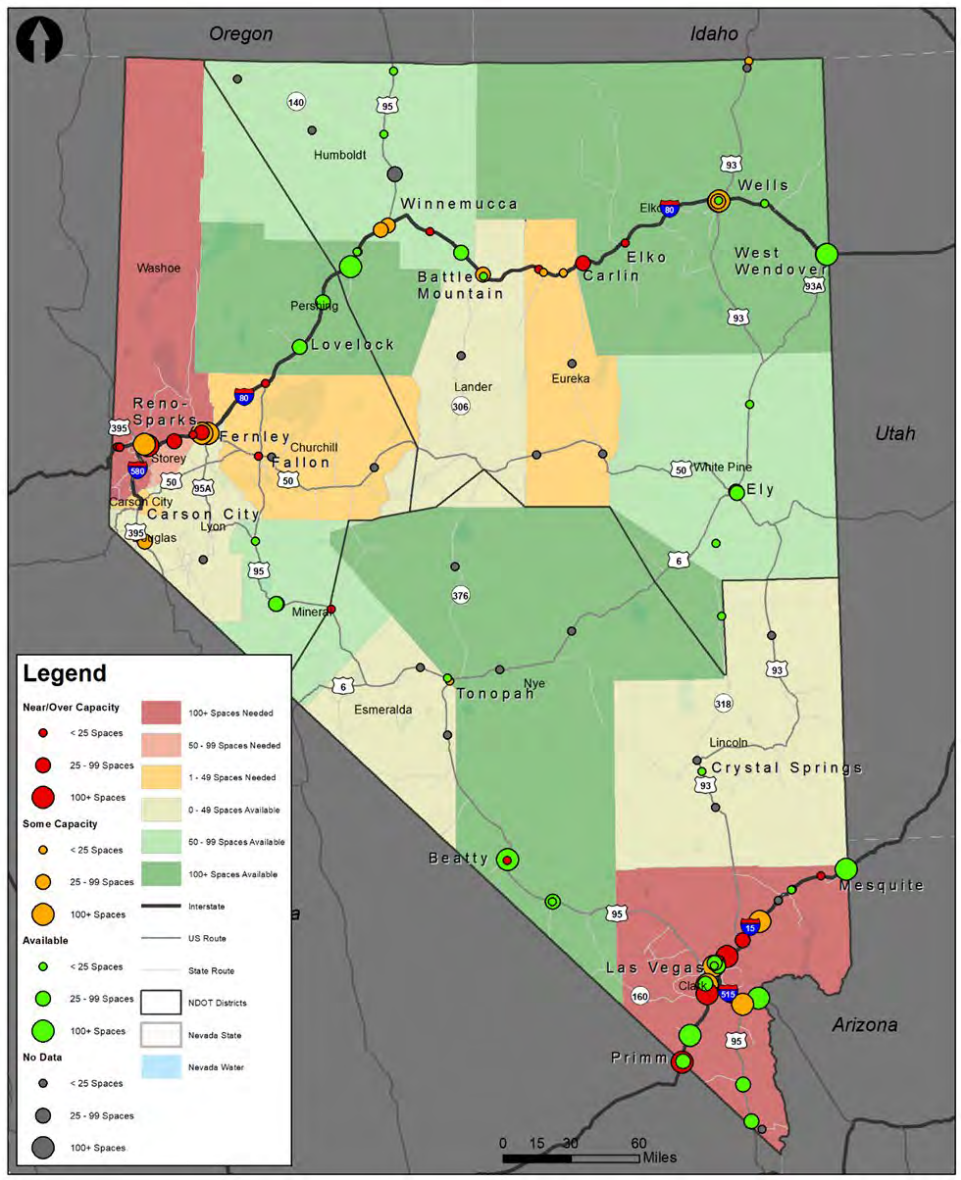
- Used this as basis for scoring recommended projects
  - Modified goals to better capture truck parking projects and emphasize differences between similar projects



Truck Parking Goals

Task 6 – Implementation

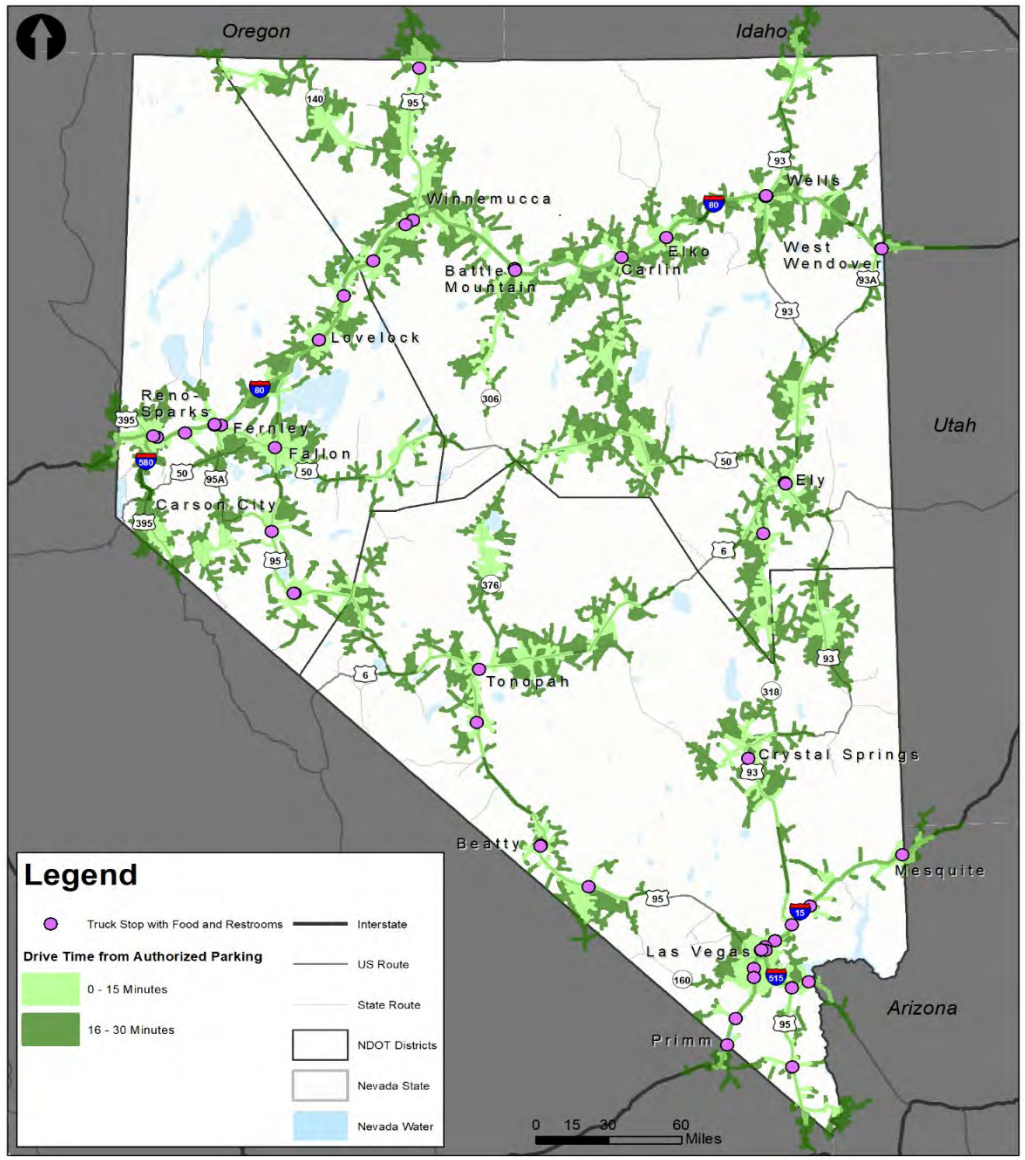
- Mobility (surrogate for Parking Demand)
  - » Provides Emergency Parking (score X2)
  - » Adds parking in a county with a gap
  - » Adds parking at a site with high utilization
  - » Each sub-category scored 0-3
  - » Summed and normalized



Truck Parking Goals

Task 6 – Implementation

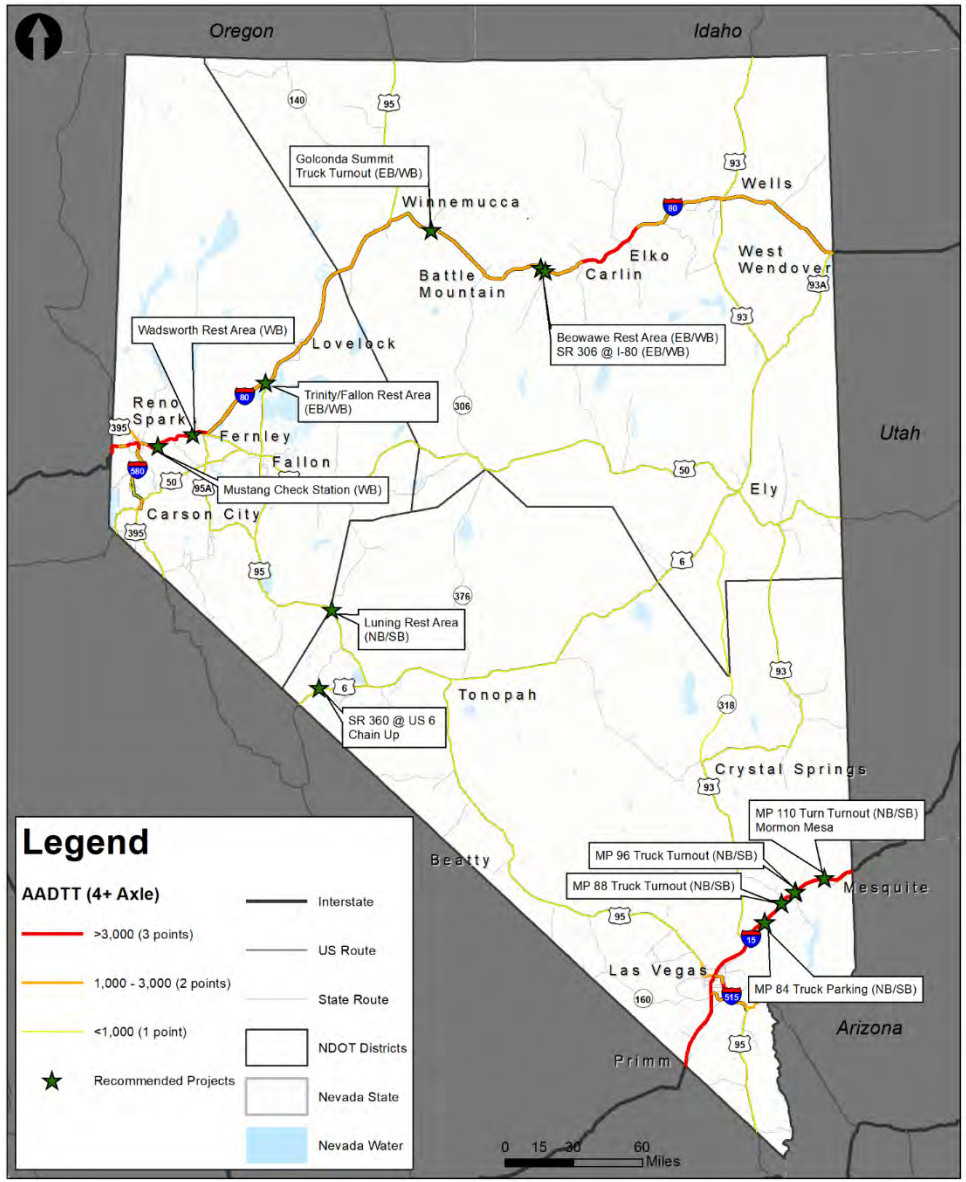
- Safety
  - » Reduces the distance between parking locations with food and restrooms
    - – 30+ miles to a site (3 points)
    - – 20-29 miles to a site (2 points)
    - – 10-19 miles to a site (1 point)
    - – Less than 10 miles to a site (0 points)



Truck Parking Goals

Task 6 – Implementation

- Economy
  - » Based on AADTT at site
    - – 3,000 + (3 points)
    - – 1,000 – 2,999 (2 points)
    - – 0 – 999 (1 point)
    - – Less than 1,000 (0 points)



Truck Parking Goals

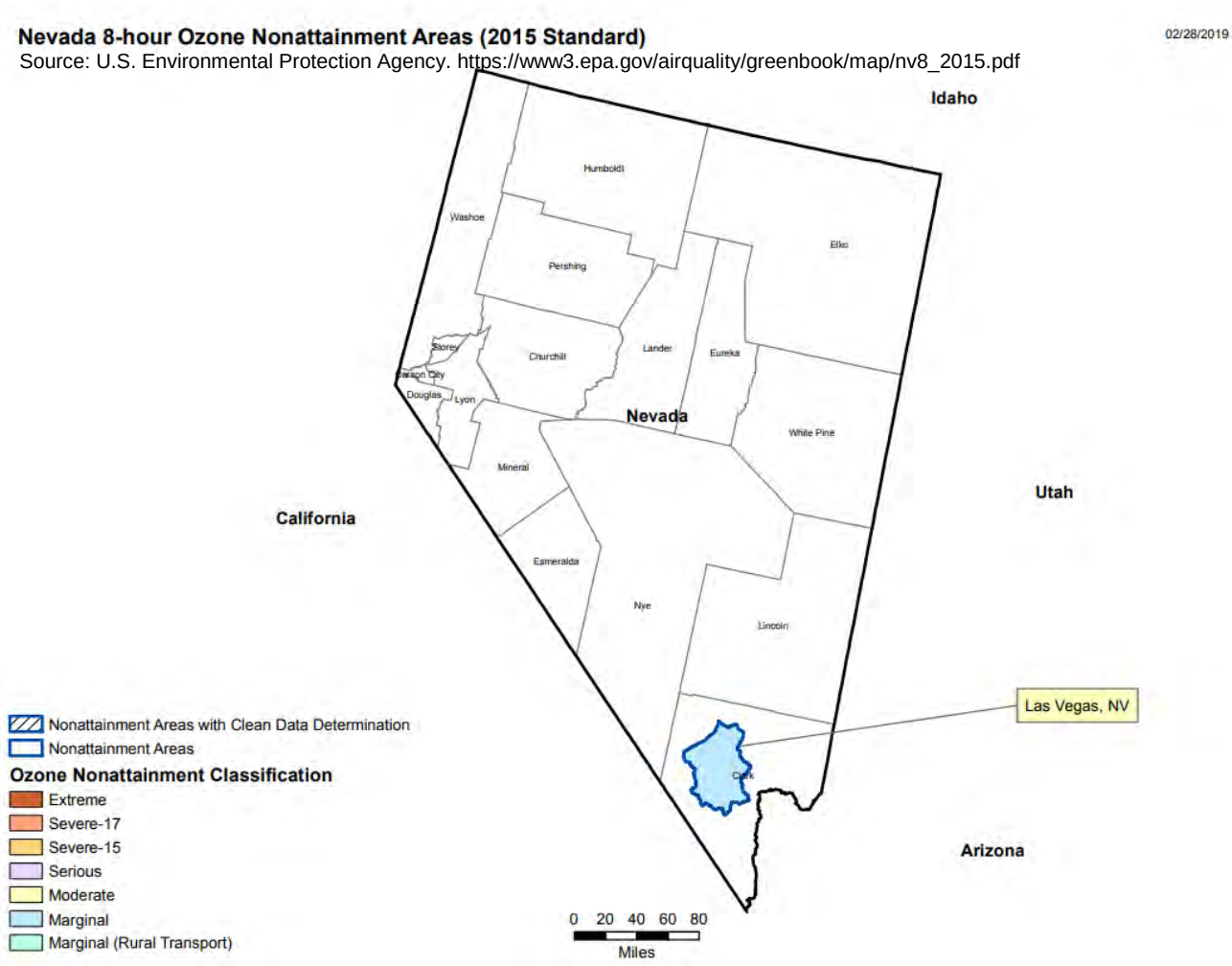
Task 6 – Implementation

- Connect Communities (Aesthetics)
  - » Landscaped Rest Areas (3 points)
  - » Some landscaping anticipated (2 points)
  - » Minimal landscaping anticipated (1 point)
  - » No landscaping anticipated (0 points)

Truck Parking Goals

Task 6 – Implementation

- Sustainability
  - » Environmental: project is outside non-attainment areas (1 point)
  - » Fiscal:
    - – Project included in 4-year STIP (1 point)
    - – Project can be completed in-house by NDOT Maintenance (1 point)
- Values summed



Truck Parking Goals

Task 6 – Implementation

- Preservation
  - Reuse of existing space (3 points)
  - Minor expansion of existing site (2 points)
  - Major expansion of existing site (1 point)
  - New facility (0 points)

Truck Parking Goals

Task 6 – Implementation

- Project Readiness
  - Project entirely within NDOT ROW (1 point)
  - Project can be obligated within 2 years (1 point)
  - Project is not inconsistent with other corridor plans (1 point)
    - Note, project doesn't need to be consistent. Not receiving points in this section may also indicate a need to examine existing plans, not that the parking project is an issue
- Values summed

Criteria/Goal Weighting and Final Scores

Sorted by Benefit Score

Route	Project Weighting	# Spaces add	Capital Cost	Mobility (Parking Demand) Emerg	Area	Site	Total	Norm 2	Safety (Distance) 2	Economy (AADTT) 2	Connect Communities (Aesthetics) 1	Foster Sustainability 1	Preservation 1	Project Readiness 1	Benefit Score	Benefit Score / Cost per Space (*10,000)
all	TPAS - Phase I (6 sites + Backbone)	125	$ 2,260,000	3	3	3	15	3	3	3		1		3	22	12.17
I-80 & US95	Trinity Expansion - Phase 1 (Reg + emergency)	36	$ 765,000	2	2	3	11	2	2	3	3	1	1	3	22	10.35
all	TPAS - Phase II (all NDOT sites on Interstates)	175	$ 2,220,000	3	3	3	15	3	3	3		1		3	22	17.34
I-80	Wadsworth Expansion - Reg	10	$ 646,000	3	3	3	12	3	0	3	3		2	3	20	3.10
I-15	I-15, MP 96, Phase 1	20	$ 2,740,000		3	1	6	1	2	3	1	1	1	3	18	1.31
I-80	Beowawe RE Expansion	32	$ 1,200,000		2	3	7	1	2	2	3	1	1	3	18	4.80
I-15	I-15, MP 96, Phase 2	256	$ 4,730,000		3	1	6	1	2	3	1	1	1	3	18	9.74
US95	Luning RE Expansion (in-house striping)	4	$ -			3	5	1	2	1	3	1	2	3	17	Max
US6	SR 360 @ US6 Expansion (gravel)	14	$ 226,000	1		1	6	1	3	1		2	2	3	17	10.53
I-80 & US95	Trinity Expansion - Phase 2 (Reg + emergency)	48	$ 1,860,000	2	2		8	2	2	3		1		2	17	4.39
I-15 & US 93	Relocate Las Vegas Blvd. and add parking @ Loves	116	$ 2,250,000	0	3	3	6	1	0	3	3	1	3	1	16	8.25
I-80	SR 306 @ I-80	14	$ 414,000		2		4	1	2	2	1	1	1	3	16	5.41
I-15	I-15, MP 88	26	$ 1,150,000		3	1	5	1	1	3	1	1	1	3	16	3.62
I-80	Golconda Summit Expansion	19	$ 1,600,000			3	5	1	2	2	1	1	1	3	16	1.90
I-80	Mustang Check Station - Reg (sign & stripe only)	10	$ -	3	3		9	2	0	3	1		1	3	15	Max
I-80	Mustang Check Station - WB, Regular Parking	51	$ 1,400,000	3	3		9	2	0	3	1		1	3	15	5.46
I-15	I-15, MP 110	41	$ 1,600,000		3	3	6	1	0	3	1	1	1	3	14	3.59
I-80	Mustang Check Station - EB, Emergency (gravel)	40	$ 200,000	3	3		9	2	0	3				3	13	26.00
I-80	Wadsworth Expansion - Emergency	41	$ 581,000	3	3		9	2	0	3				3	13	9.17
I-15	I-15, MP 96, Phase 1 & 2 combined	276	$ 7,470,000		3	1	6	1	2	3	1	1	1	3	18	6.65
I-80	Mustang Check Station - EB, Emergency	51	$ 1,500,000	3	3		9	2	0	3				3	13	4.42
I-15	I-15, MP 84 (paved)	54	$ 1,320,000		3		3	0	0	3	1	1		3	11	4.50
I-15	I-15 South Check Station	20	$ 1,000,000		3		3	0	0	3	1	1		2	10	2.00
I-15	I-15, MP 84 (gravel)	40	$ 740,000		3		3	0	0	3		1		3	10	5.41

Criteria/Goal Weighting and Final Scores

Sorted by Benefit Score / Cost per Space

Route	Project Weighting	# Spaces add	Capital Cost	Mobility (Parking Demand) Emerg	Area	Site	Total	Norm 2	Safety (Distance) 2	Economy (AADTT) 2	Connect Communities (Aesthetics) 1	Foster Sustainability 1	Preservation 1	Project Readiness 1	Benefit Score	Benefit Score / Cost per Space (*10,000)
US95	Luning RE Expansion (in-house striping)	4	$ -			3	5	1	2	1	3	1	2	3	17	Max
I-80	Mustang Check Station - Reg (sign & stripe only)	10	$ -	3	3		9	2	0	3	1		1	3	15	Max
I-80	Mustang Check Station - EB, Emergency (gravel)	40	$ 200,000	3	3		9	2	0	3				3	13	26.00
all	TPAS - Phase II (all NDOT sites on Interstates)	175	$ 2,220,000	3	3	3	15	3	3	3		1		3	22	17.34
all	TPAS - Phase I (6 sites + Backbone)	125	$ 2,260,000	3	3	3	15	3	3	3		1		3	22	12.17
US6	SR 360 @ US6 Expansion (gravel)	14	$ 226,000	1		1	6	1	3	1		2	2	3	17	10.53
I-80 & US95	Trinity Expansion - Phase 1 (Reg + emergency)	36	$ 765,000	2	2	3	11	2	2	3	3	1	1	3	22	10.35
I-15	I-15, MP 96, Phase 2	256	$ 4,730,000		3	1	6	1	2	3	1	1	1	3	18	9.74
I-80	Wadsworth Expansion - Emergency	41	$ 581,000	3	3		9	2	0	3				3	13	9.17
I-15 & US 93	Relocate Las Vegas Blvd. and add parking @ Loves	116	$ 2,250,000	0	3	3	6	1	0	3	3	1	3	1	16	8.25
I-15	I-15, MP 96, Phase 1 & 2 combined	276	$ 7,470,000		3	1	6	1	2	3	1	1	1	3	18	6.65
I-80	Mustang Check Station - WB, Regular Parking	51	$ 1,400,000	3	3		9	2	0	3	1		1	3	15	5.46
I-80	SR 306 @ I-80	14	$ 414,000		2		4	1	2	2	1	1	1	3	16	5.41
I-15	I-15, MP 84 (gravel)	40	$ 740,000		3		3	0	0	3		1		3	10	5.41
I-80	Beowawe RE Expansion	32	$ 1,200,000		2	3	7	1	2	2	3	1	1	3	18	4.80
I-15	I-15, MP 84 (paved)	54	$ 1,320,000		3		3	0	0	3	1	1		3	11	4.50
I-80	Mustang Check Station - EB, Emergency	51	$ 1,500,000	3	3		9	2	0	3				3	13	4.42
I-80 & US95	Trinity Expansion - Phase 2 (Reg + emergency)	48	$ 1,860,000	2	2		8	2	2	3		1		2	17	4.39
I-15	I-15, MP 88	26	$ 1,150,000		3	1	5	1	1	3	1	1	1	3	16	3.62
I-15	I-15, MP 110	41	$ 1,600,000		3	3	6	1	0	3	1	1	1	3	14	3.59
I-80	Wadsworth Expansion - Reg	10	$ 646,000	3	3	3	12	3	0	3	3		2	3	20	3.10
I-15	I-15 South Check Station	20	$ 1,000,000		3		3	0	0	3	1	1		2	10	2.00
I-80	Golconda Summit Expansion	19	$ 1,600,000			3	5	1	2	2	1	1	1	3	16	1.90
I-15	I-15, MP 96, Phase 1	20	$ 2,740,000		3	1	6	1	2	3	1	1	1	3	18	1.31

Project Implementation Schedule

- Benefit Score / Cost per Space
- Ability to obligate project by September 2020
- Ability to integrate work with adjacent projects

Route	Project	# Spaces add	Capital Cost	Benefit Score	Benefit Score / Cost per Space (*10,000)	Packaged with other projects		Can Obligate by Sept 2020	Proposed Timing
						Adjacent Projects	Date		
all	TPAS - Phase I (6 sites + Backbone)	125	$ 2,260,000	22	12.17			Yes	By 9/2020
I-80 & US95	Trinity Expansion - Phase 1 (Reg + emergency)	36	$ 765,000	22	10.35	RE Upgrade and 3R on US95	2022	Yes	By 9/2020
I-15	I-15, MP 96, Phase 1	20	$ 2,740,000	18	1.31			Yes	By 9/2020
US95	Luning RE Expansion (in-house striping)	4	$ -	17	Max			Yes	By 9/2020
I-80	Mustang Check Station - Reg (sign & stripe only)	10	$ -	15	Max	I-80 Widening	2030	Yes	By 9/2020
I-15	I-15, MP 110	41	$ 1,600,000	14	3.59	SB Site expansion	2021	Yes	By 9/2020
I-80	Mustang Check Station - EB, Emergency (gravel)	40	$ 200,000	13	26.00	I-80 Widening	2030	Yes	By 9/2020
all	TPAS - Phase II (all NDOT sites on Interstates)	175	$ 2,220,000	22	17.34			Yes	2020 - 2024
I-80	Wadsworth Expansion - Reg	10	$ 646,000	20	3.10	Closure	2021	Yes	2020 - 2024
I-80	Beowawe RE Expansion	32	$ 1,200,000	18	4.80	RE Upgrade	2023	No	2020 - 2024
US6	SR 360 @ US6 Expansion (gravel)	14	$ 226,000	17	10.53	3R	2021 or 2022	Yes	2020 - 2024
I-15 & US 93	Relocate Las Vegas Blvd. and add parking @ Loves	116	$ 2,250,000	16	8.25			No	2020 - 2024
I-80	SR 306 @ I-80	14	$ 414,000	16	5.41	Interchange upgrade	2021	Yes	2020 - 2024
I-80	Wadsworth Expansion - Emergency	41	$ 581,000	13	9.17	Closure	2021	No	2020 - 2024
I-80 & US95	Trinity Expansion - Phase 2 (Reg + emergency)	48	$ 1,860,000	17	4.39	RE Upgrade and 3R on US95	2022	Yes	2025 - 2030
I-80	Mustang Check Station - WB, Regular Parking	51	$ 1,400,000	15	5.46	I-80 Widening	2030	Yes	2025 - 2030
I-80	Mustang Check Station - EB, Emergency	51	$ 1,500,000	13	4.42	I-80 Widening	2030	Yes	2025 - 2030
I-15	I-15 South Check Station	20	$ 1,000,000	10	2.00	New Check Station	TBD	No	2025 - 2030
I-15	I-15, MP 96, Phase 2	256	$ 4,730,000	18	9.74			Yes	2031 - 2040
I-15	I-15, MP 88	26	$ 1,150,000	16	3.62			Yes	2031 - 2040
I-80	Golconda Summit Expansion	19	$ 1,600,000	16	1.90			Yes	2031 - 2040
I-15	I-15, MP 84 (paved)	54	$ 1,320,000	11	4.50			Yes	2031 - 2040

Policy Implementation Schedule	Action	Time-frame	Lead Agency	Partner(s)
Expand existing public truck stops and rest areas	Consider expansion with any rest area upgrade	Ongoing	NDOT	
Sponsorship of public truck stops and rest areas	Monitor FDOT's efforts and consider for future inclusion in any truck parking system designs	1-5 years	NDOT	FAC, FHWA
Add truck parking to weigh stations	Consider adding truck parking to any new or renovated weigh station	Ongoing	NDOT	NHP
Repurpose NDOT or NHP facilities for truck parking	All rest areas and weigh stations that are planned to be closed should be considered for conversion to truck parking	Ongoing	NDOT	NHP, FHWA
Allow parking at chain-up, brake check, inspection sites during off season	Conduct a safety assessment of all subject locations to determine if allowing overnight parking would be safe and operationally feasible.	1-5 years	NDOT	NHP
Add truck parking to rural highways	Adding simple truck parking areas, such as a truck pull-off/turnout, should be considered with highway expansion or improvement projects. These sites should be added in locations where NDOT has sufficient ROW along critical corridors to help close gaps between existing truck parking facilities. Ideally, small truck parking facilities should be located every 20-30 miles to provide drivers with authorized parking options. Key corridors that should be targeted include: • US 95 between Las Vegas and Amargosa Valley • US 95 between Beatty and Tonopah • US 95 between Tonopah and Luning • US 93 between I-15 and Alamo/Crystal Springs • SR 318 between Crystal Springs and Sunny Side Rest Area • US 93 between US 93/93A junction and Wells • US 93A between US 93/93A junction and West Wendover • US 93 between Wells and Jackpot	Ongoing	NDOT	

Policy Implementation Schedule	Action	Time-frame	Lead Agency	Partner(s)
Enforcement	As NDOT, its partner agencies and municipalities, and the private sector continue to add parking capacity and information systems in Nevada, law enforcement agencies should become more active in enforcing HOS regulations in areas with viable, authorized, alternatives. Reevaluate in future after immediate and short-term projects have been implemented.	2025	NHP	Local law enforcement, NDOT, FAC
Modify freight performance measures	Consider modifying freight performance measures during the next update of the Nevada State Freight Plan.	1-5 years	NDOT	FAC
Multistate coordination	Continue multi-state coordination, in particular with the Western States Freight Coalition, the I-15 Mobility Alliance, and the recent National Economic Partnerships grant award for the I-15 Freight Mobility Enhancement Plan.	Ongoing	NDOT	
Public-private partnerships (P3)	By providing funding, land, access, or other benefits, public investment may be able to induce private-sector investment in truck parking in areas where high costs would otherwise discourage private investment. This is particularly applicable in urban areas where the demand for parking and values are the highest. Identify a P3 pilot project, secure funding commitments from public and private partners, and request USDOT funding support via BUILD or INFRA grants. Such a project would be highly competitive for USDOT funding under the current criteria for these grants.	1-5 years	NDOT	Applicable local jurisdiction
Truck parking ordinance	Require facilities that receive and dispatch large numbers of trucks to provide onsite and/or contribute to the construction, operations, and maintenance of common staging/parking areas. A common staging/parking facility would likely be developed as a P3 as described above.	1-5 years	Urban cities and counties	NDOT
Public urban truck parking facility	No action required at this time. It is recommended that a P3 urban truck parking facility, described above, be investigated first.	N/A		
Competitive loan/grant program	No action recommended at this time. Reevaluate in future.	2025	NDOT	FAC

Next Steps

Next Steps

- May 6 – Submitted draft Implementation Plan tech memo to NDOT
- May 14 – Review draft Implementation Plan with NDOT District Engineers
- May 31 – Submit draft Final Report to NDOT
- June 30 – Submit Final Report

Questions

THANK YOU!

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HAZARDOUS COMMODITY FLOW STUDY UPDATE

Presented by: Rebecca Wingate, Cambridge Systematics

NEVADA DOT
SAFE AND CONNECTED

Nevada Department of Transportation Hazardous Commodity Flow Study

May 7, 2019

presented to

Nevada Freight Advisory Committee

presented by

Rebecca Wingate, Cambridge Systematics, Inc.

Dan Andersen, Cambridge Systematics, Inc.

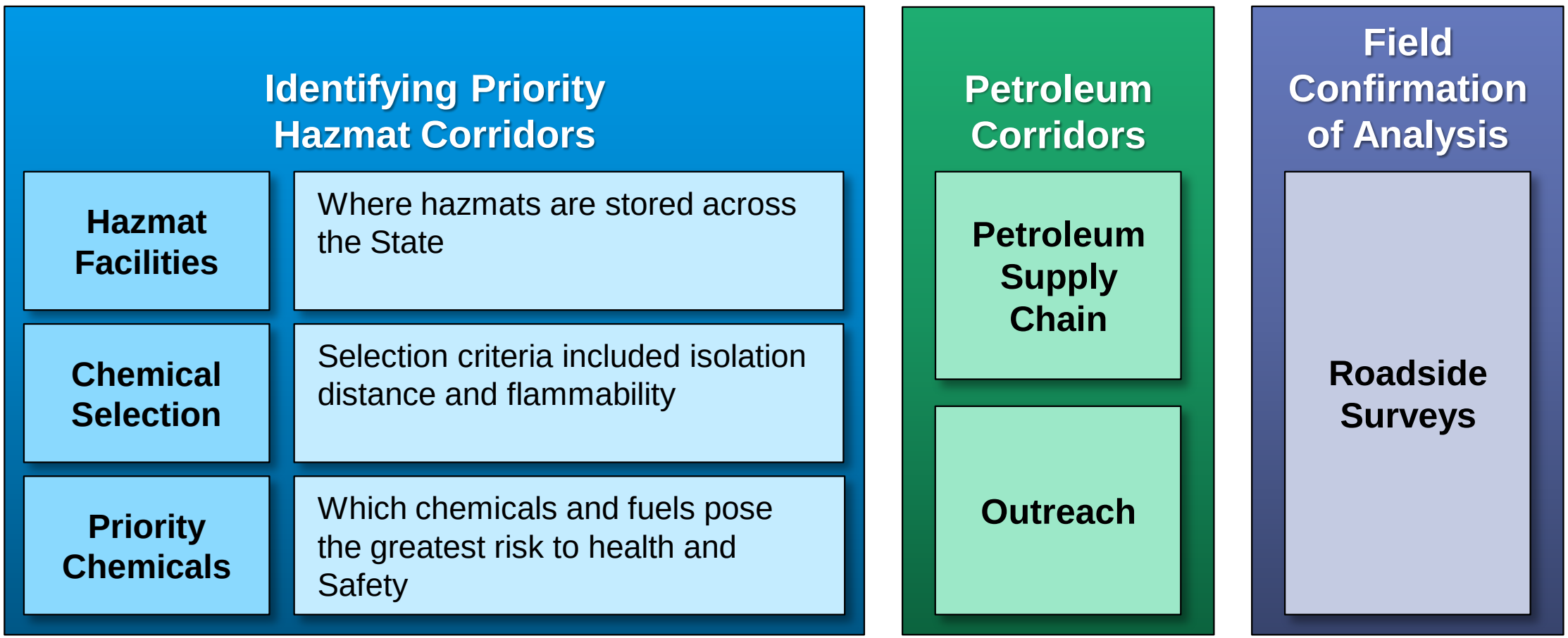
NEVADA DOT SAFE AND CONNECTED

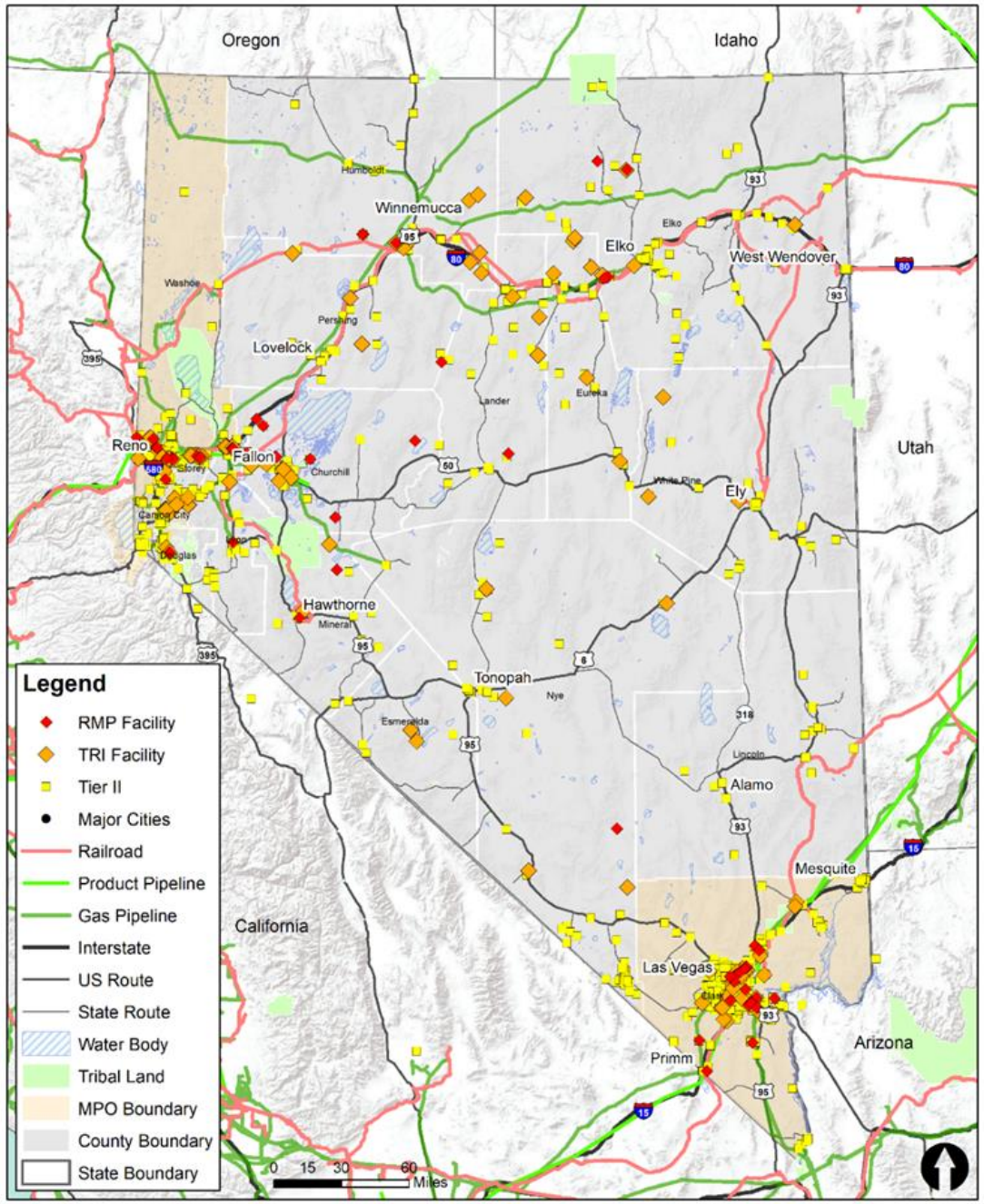
CAMBRIDGE SYSTEMATICS Think Forward

Study Overview

- Three Part Study Methodology
  - » Identified priority corridors
  - » Developed petroleum supply chain analysis
  - » Conducted roadside survey for field confirmation
- Stakeholder outreach, primarily industry representatives
- Mapped Results
- Hazmat Classification
- Questions

Three Part Study Methodology





Nevada Hazmat Facilities

- EPA Requirements for Facilities
- Risk Management Plan (RMP)
- Toxics Release Inventory (TRI)
- Tier II Reporting
- These facilities provided the basis for determining Nevada Hazmats

Chemical Selection Process

- Using the data collected from NDEP, EPA and SFMO, the study team focused on toxic and high-volume flammable chemicals, then applied four selection criteria to organize the chemicals into a list of priority Hazmats for analysis.

Criterion	Description	Source
Isolation Distance	Recommended distance from a spill source within which first responders should position emergency assets.	Emergency Response Guidebook
Threshold Planning Quantity	Minimum amount of chemical that if present at a facility poses a hazard.	EPA/CAMEO[1]
Lower Flammable Limit (LFL)	Lower limit of a concentration range of a gas or vapor that will burn if exposed to an ignition source.	Engineering Toolbox
Flash Point	Temperature at which vapor from gas ignites	National Fire Protection Association

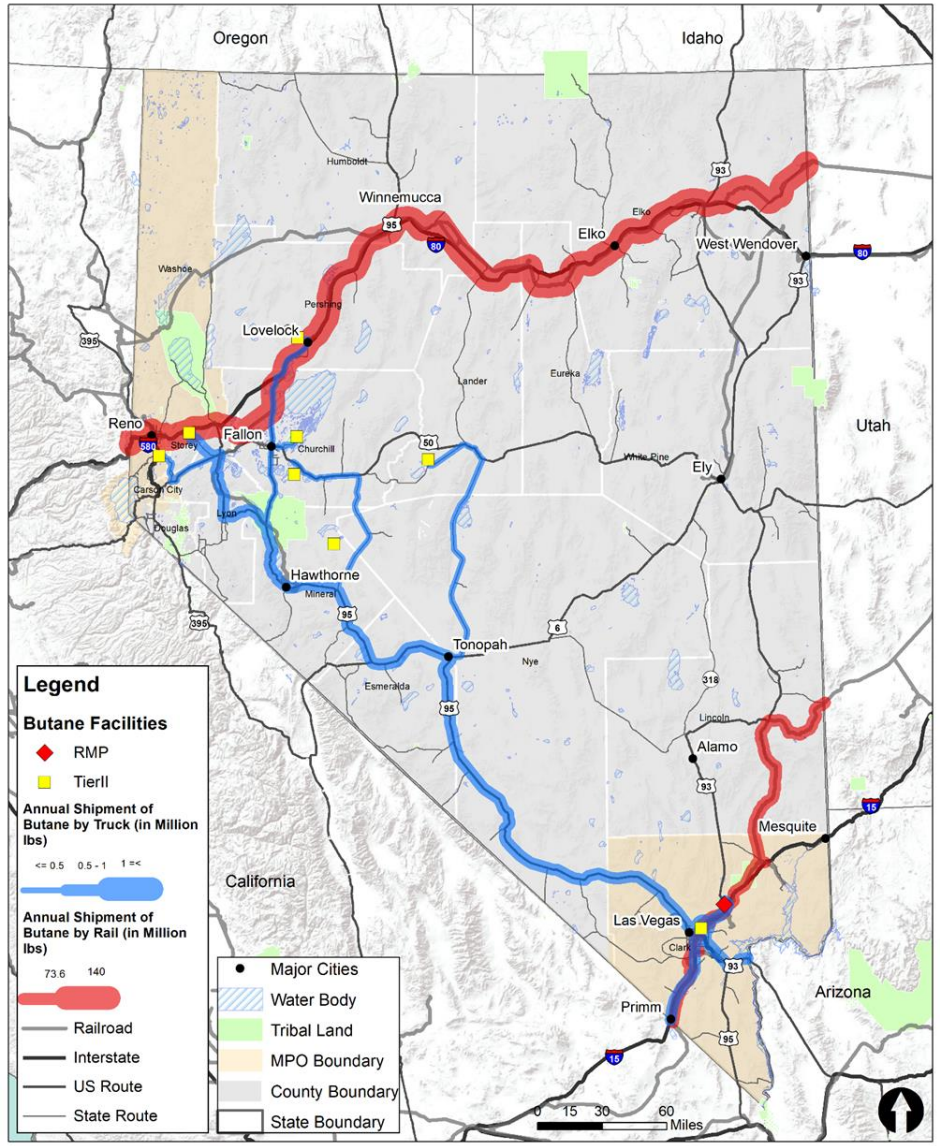
Priority Hazardous Materials

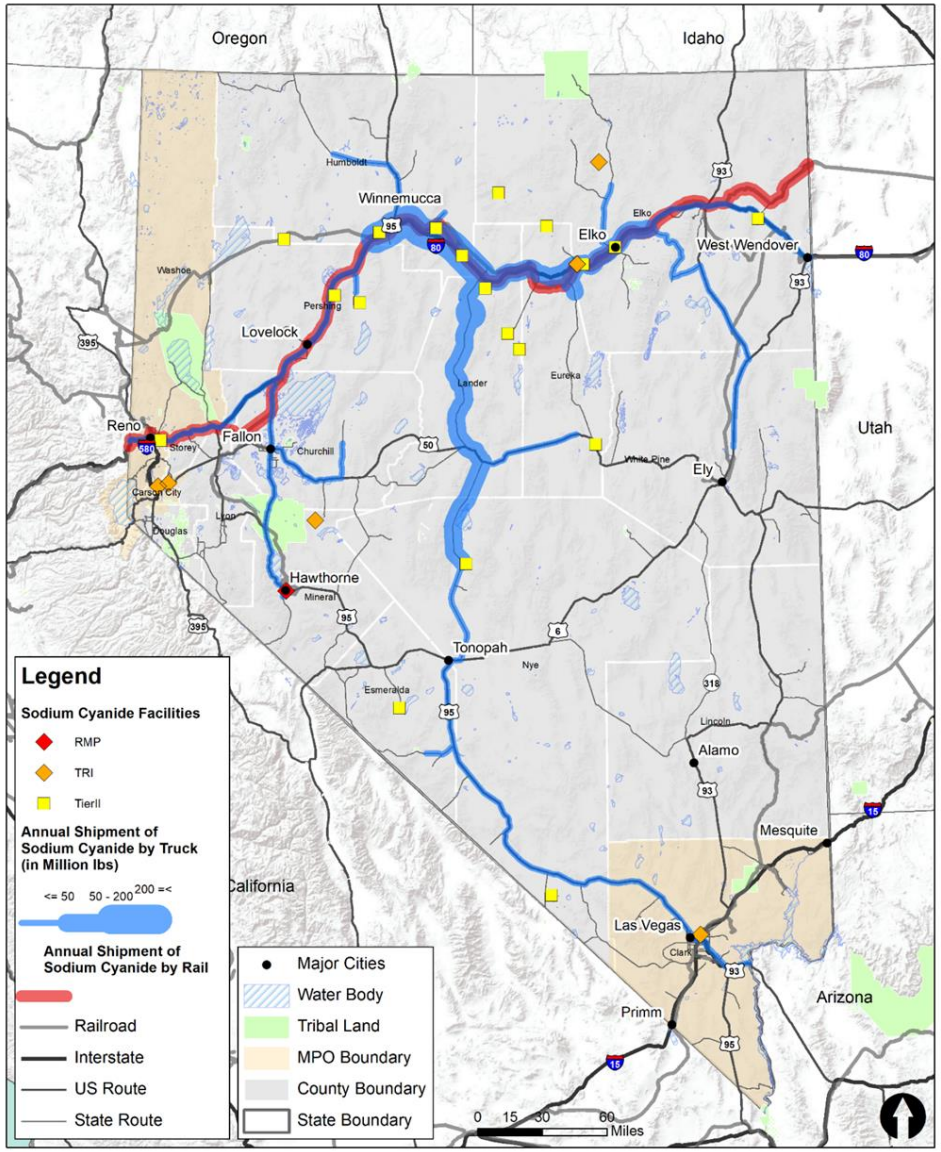
	Chemical Name	Score	Chemical Uses	Facilities	EHS
1	Ammonia, Anhydrous	4	Refrigerant, fertilizer	18	Yes
2	Butane	4	Fuel and blending	6	No
3	Chlorine	7	Water treatment	6	Yes
4	Ethanol	1	Biofuel	5	No
5	Hydrogen Fluoride	4	Manufacturing	8	Yes
6	Nitrogen Dioxide	6	Catalyst, oxidizing agent	2	Yes
7	Potassium Cyanide	4	Mining and electroplating	2	Yes
8	Propane	3.5	Fuel and heating	7	No
9	Sodium Cyanide	4	Mining operations	18	Yes
10	Titanium tetrachloride	4	Titanium, whitening	4	Yes

Priority Hazmat Selection Process

- Identified hazmat facilities storing priority hazmats
- Identified distribution centers and manufacturers
- Conducted outreach to priority hazmat facility representatives
- Developed priority hazmat maps
- Produced composite hazmat map all priority hazmats

Priority Hazmat - Selected Results

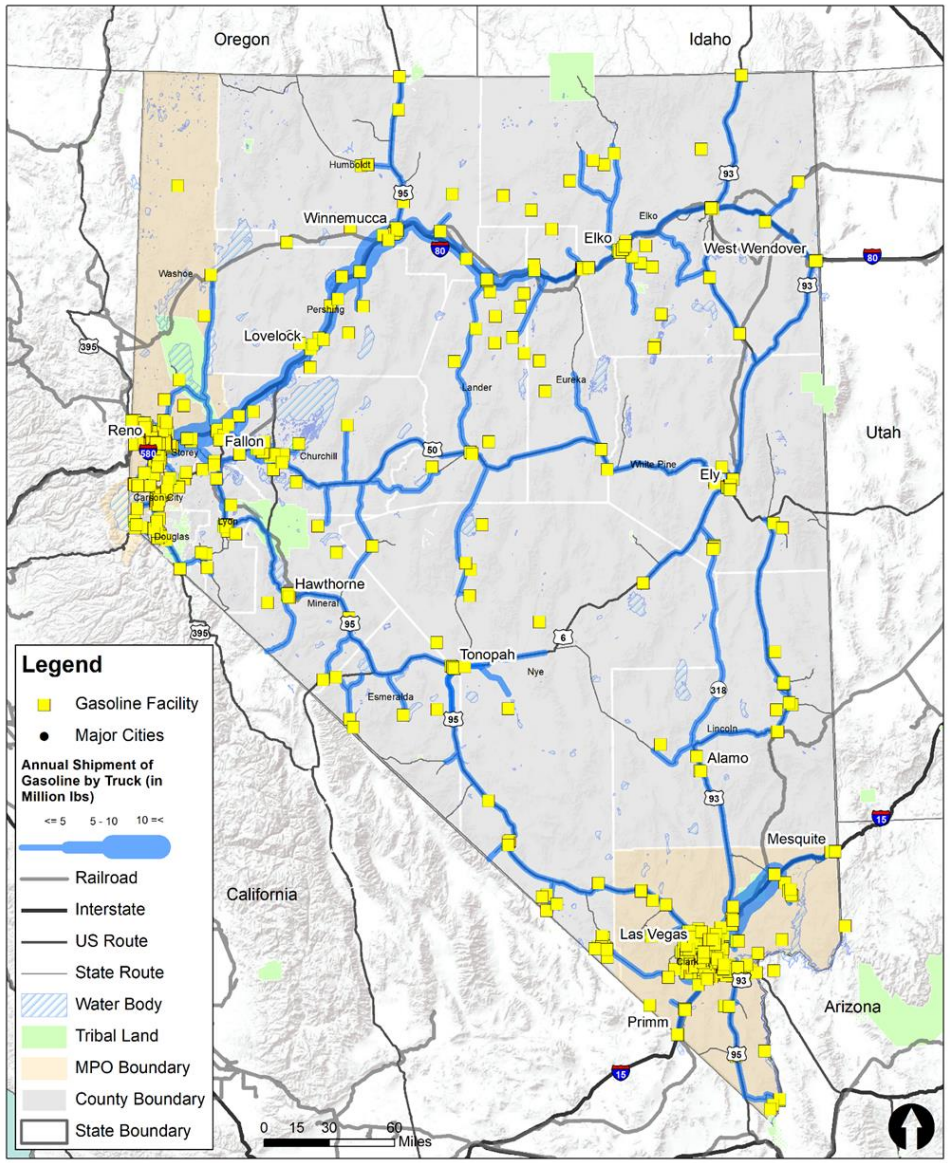


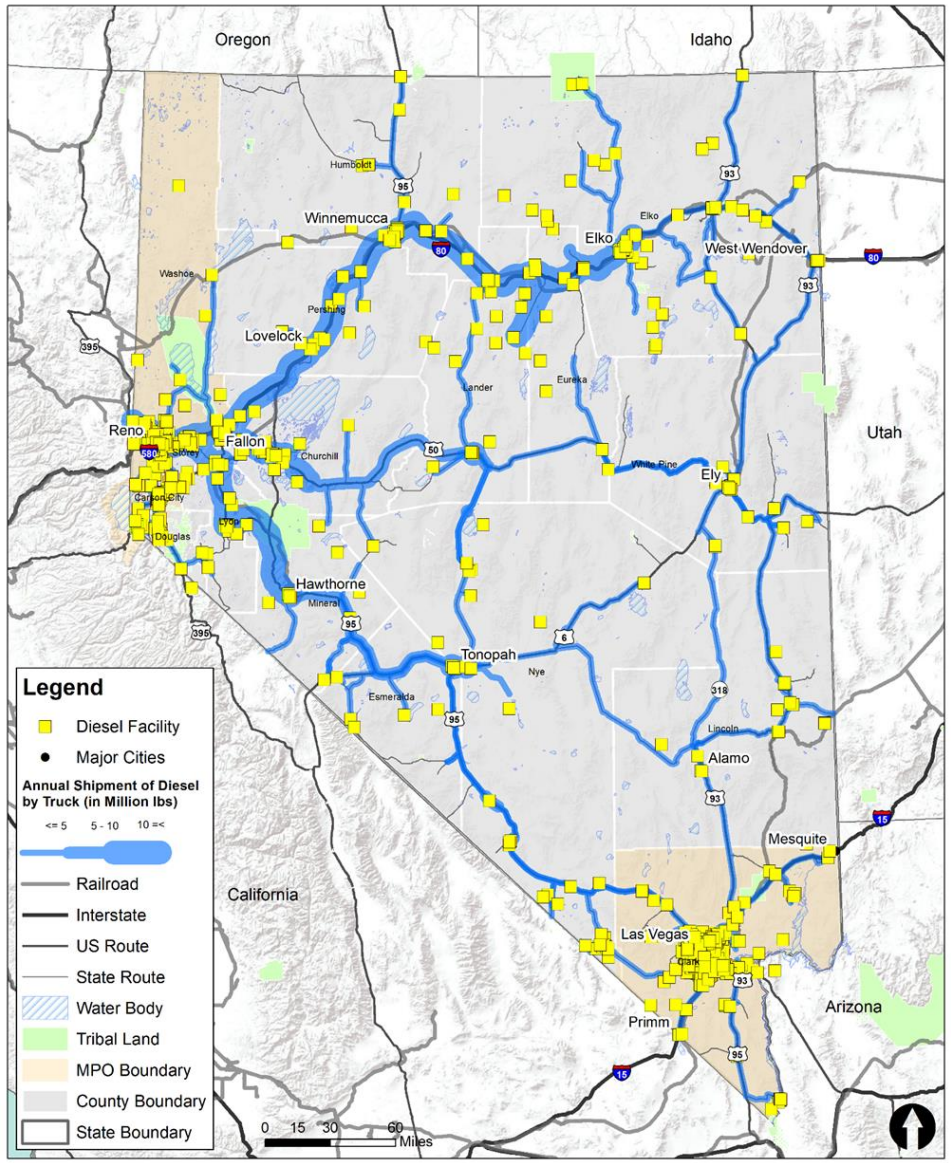


Petroleum Supply Chain Methodology

- Refined petroleum is mostly produced in California and Utah and transported to Nevada via pipelines
- Petroleum is primarily stored in Reno and Las Vegas
- Trucks transport refined petroleum to retail and other facilities

Petroleum Distribution Results





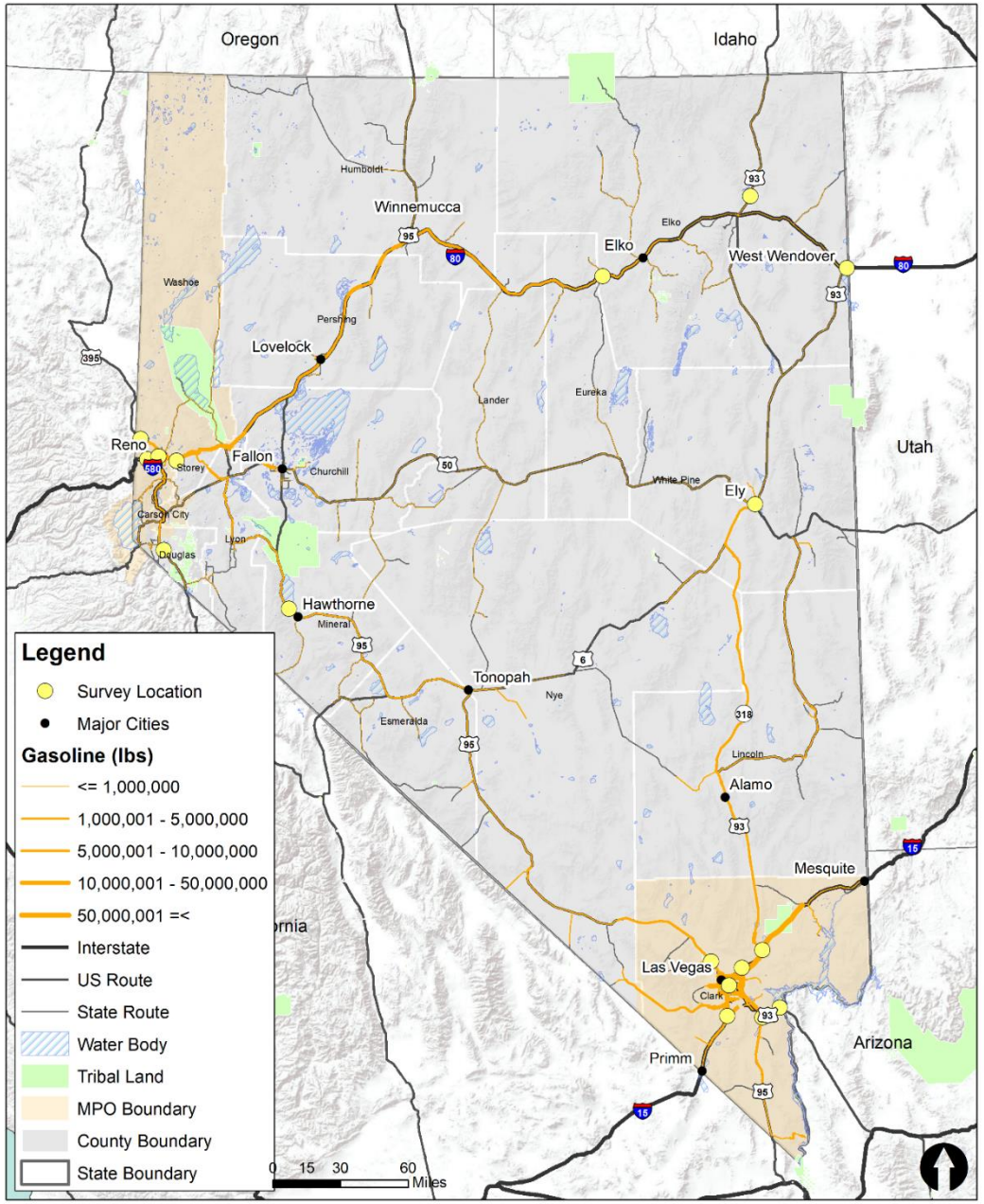
Roadside Hazmat Surveys

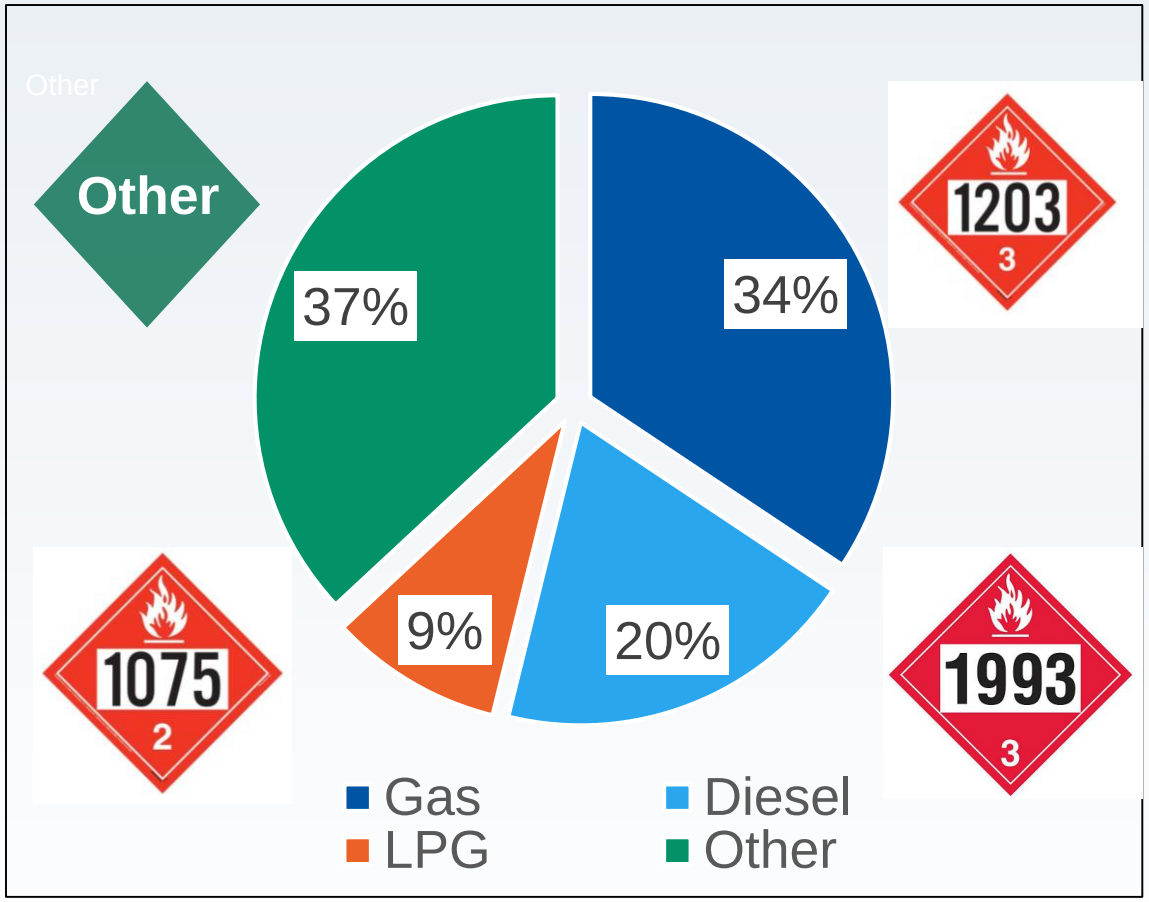
Roadside Placard Surveys

- Two hour bi-directional counts of trucks displaying hazmat placards
  - » ID truck volumes, types and hazmat placards
  - » Conducted on weekdays and daylight hours
- 18 count locations
  - » 7 in Las Vegas area
  - » 5 in the Reno area
  - » 6 in rural areas

Survey Results

Primarily Gasoline, Diesel, LPG



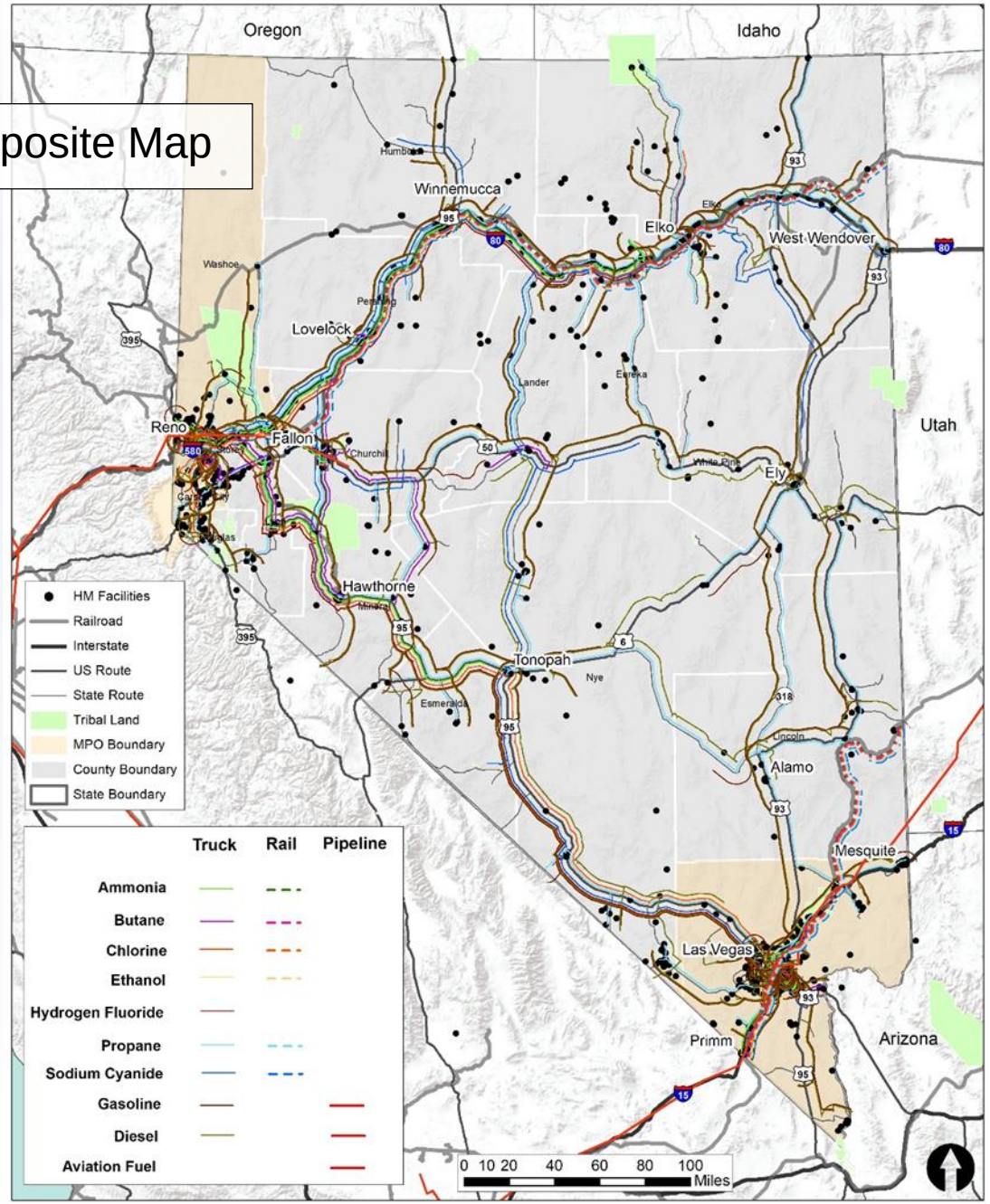


Petroleum Observations and Findings

- 63% of trucks observed transported flammable liquids and gases
- 65% trucks observed were in Reno and Vegas (top 5 locations)
- Fuel additives such as heptanes and hexanes were observed near Reno

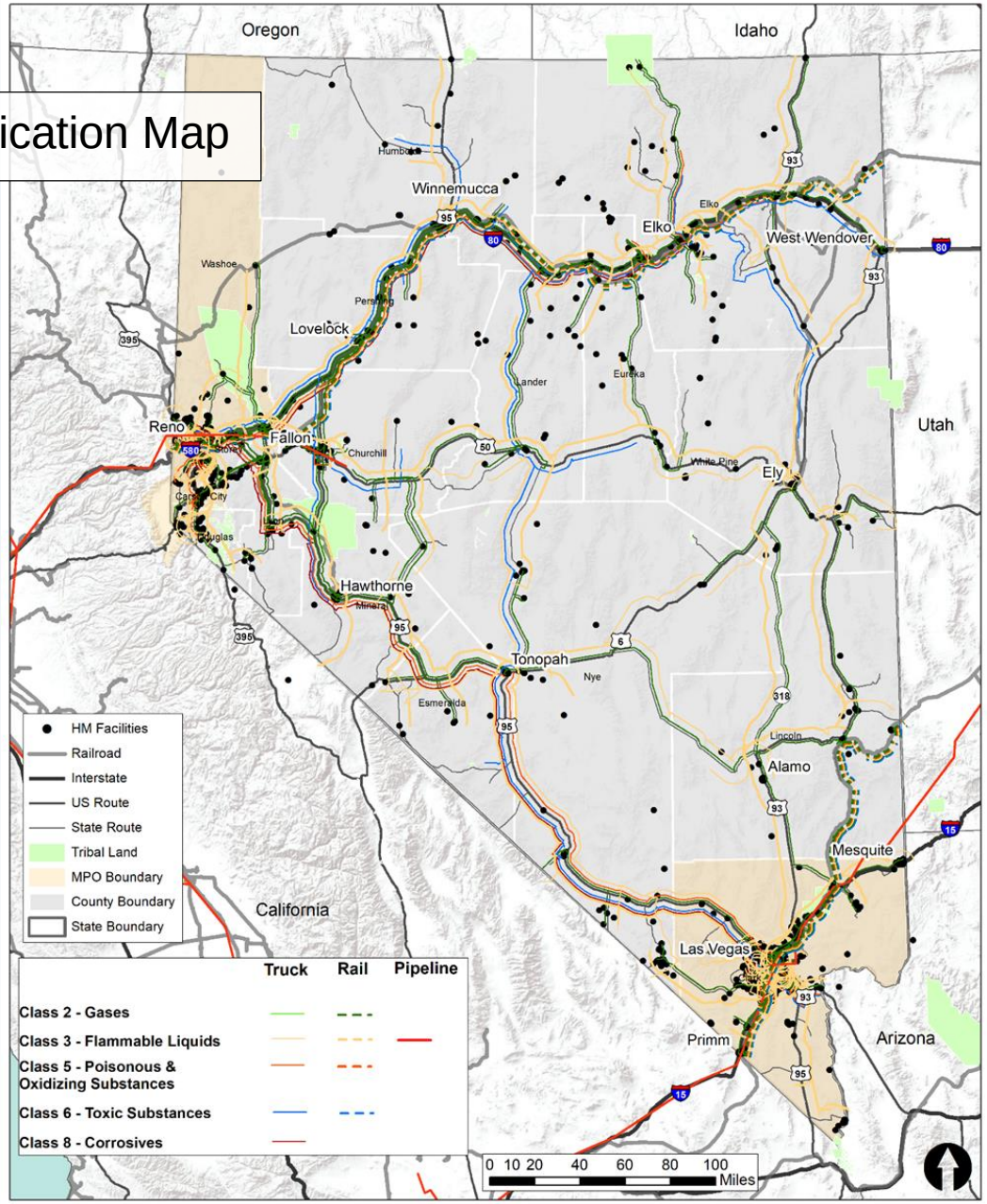
Map Development

Composite Map



Section	Maps	#
Section 4	Hazmat Facilities Map	1
Section 6	Priority Hazmat Maps	7
Section 7	Petroleum Facilities and Flows Maps	3
Section 8	Hazmat Classification Map	1
Section 9	Roadside Hazmat Survey Locations	1
Section 10	Statewide Hazmat Composite Map	1
Appendix	NDOT District Hazmat Composite Maps	3

Classification Map



Hazmat Classification

#	Class	Hazmat
2	Gases	Ammonia, Butane, Chlorine, Propane
3	Flammable Liquids	Gasoline, Diesel, Jet Fuel, Avgas, Ethanol
5	Oxidizing Substances	Chlorine
6	Toxic Substances	Hydrogen Fluoride, Sodium Cyanide, Titanium Tetrachloride
8	Corrosives	Ammonia, Chlorine, Hydrofluoric Acid

Priority Hazmat Classes

		Classes	Description
1	Ammonia, Anhydrous	2.3, 8	Gas, corrosive
2	Butane	2.1	Petroleum gas
3	Chlorine	2.3, 5.1, 8	Poisonous gas, oxidizer, corrosive
4	Ethanol	3	Flammable liquid
5	Hydrofluoric Acid	6.1, 8	Poisonous, corrosive
6	Nitrogen Dioxide (Dinitrogen Tetroxide)	2.3, 5.1, 8	Poisonous gas, oxidizer, corrosive
7	Potassium Cyanide	6.1	Poisonous, corrosive
8	Propane	2.1	Petroleum gas
9	Sodium Cyanide	6.1	Poisonous
10	Titanium Tetrachloride	6.1, 8	Poisonous, corrosive

Study Findings

- Priority hazards are similar to other states, including ammonia, chlorine, propane
- Northern Nevada uses more diesel than gasoline due to industry, mining
- One third of Nevada Hazmats are traveling through the state
- Nevada mining-related hazmats include specialty chemicals
- Surveys confirmed refined petroleum comprise majority of highway shipments
- Air cargo represents less than one percent of all Hazmats
- Recommend urban area and county level maps only be accessible via a secure portal to control access

Questions

THANK YOU!

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FREIGHT PROGRAM
IMPLEMENTATION PROJECT

Presented by: Vern Keeslar/Parametrix & Dike Ahanotu/CPCS

NEVADA DOT
SAFE AND CONNECTED

Parametrix

CPCS

AGENDA

- About the Project
- Project Team
- Project Highlights
- Schedule
- Deliverables
- Role of FAC

ABOUT THE PROJECT

- Nevada State Freight Plan (NSFP)
  - Provided framework to improve freight mobility
  - Proposed strategies and implementation actions to advance Nevada's freight system
- Freight Program Implementation Project
  - Next step in furthering the NSFP
  - Help better define NDOT's Freight Program

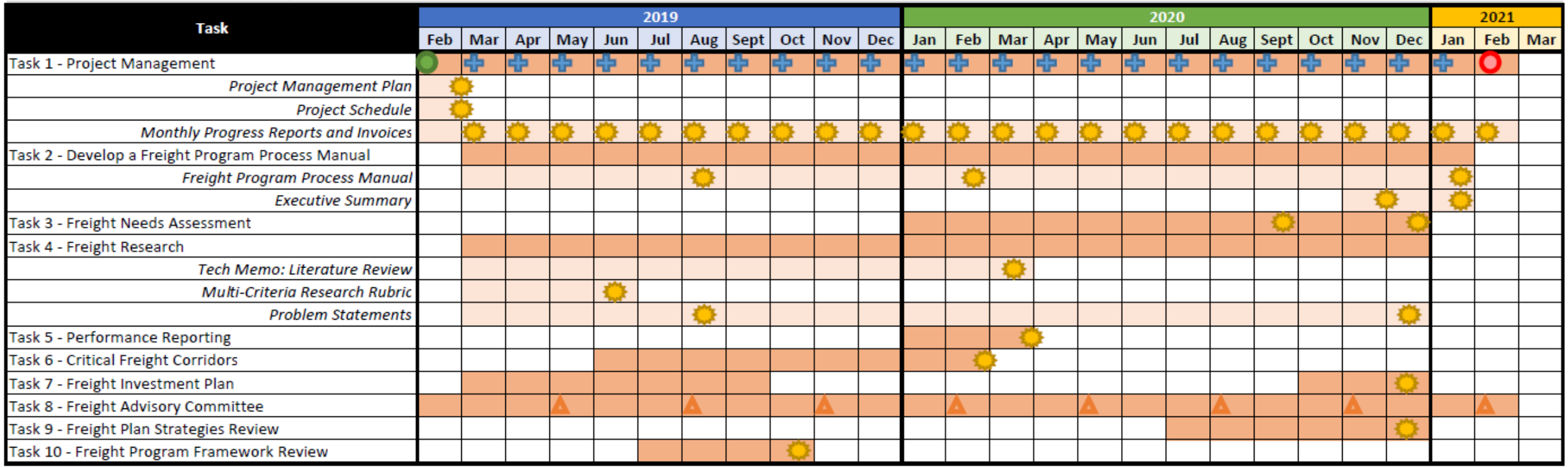
PROJECT TEAM

PROJECT HIGHLIGHTS

- Continue Freight Advisory Committee Meetings
- Develop process manual to help manage and deliver NDOT's overall freight planning efforts
- Develop process for acquiring data related to performance metrics
- Develop guidelines to define the re-evaluation process for inclusion, or redistribution/re-designation of Critical Freight Corridors
- Develop guidance document outlining Freight Project Prioritization Process and inclusion in the Freight Investment Plan
- Update the NSFP Freight Strategies and Implementation Actions

SCHEDULE

PROJECT COMPLETED OVER A 2-YEAR PERIOD (FEB 2021)



NTP
Monthly Team Coordination Mtgs
Deliverable
FAC meeting
Project Completion

DELIVERABLES

TOTAL OF 10 TASKS AND 18 DELIVERABLES ( )

01 | PROJECT MANAGEMENT
- *Project Management Plan*
- *Project Schedule*
- *Monthly Progress Reports*

02 | DEVELOP A FREIGHT PROGRAM PROCESS MANUAL
- *Freight Program Process Manual*
- *Executive Summary of Process Manual*

03 | FREIGHT NEEDS ASSESSMENT
- *Tech Memo: Freight Needs Scoring System for Prioritization*

04 | FREIGHT RESEARCH
- *Tech Memo: Summary of Freight Research*
- *Literature Review*
- *Multi-Criteria Research Rubric*
- *List of Problem Statements*

05 | PERFORMANCE REPORTING
- *Freight System Performance Infographic Template*

DELIVERABLES (cont.)

TOTAL OF 10 TASKS AND 18 DELIVERABLES ( )

06 | CRITICAL FREIGHT CORRIDORS

- *Critical Freight Corridor Implementation Guidance Document*

07 | FREIGHT INVESTMENT PLAN

- *Guidance Document that outlines the Freight Project Prioritization Process and inclusion in the Freight Investment Plan*

08 | FREIGHT ADVISORY COMMITTEE

- *FAC Meeting Materials*
- *FAC Meeting Summaries*
- *FAC Guiding Principles Document*

09 | FREIGHT PLAN STRATEGIES REVIEW

- *Update NSFP Freight Strategies & Implementation Actions*

10 | FREIGHT PROGRAM FRAMEWORK REVIEW

- *White Paper with recommendations based on peer reviews*

ROLE OF FAC

- Provide feedback throughout 2-year project
- Provide input on freight project prioritization
- Review and provide comments on major deliverables
- Provide updates and input on the NSFP strategies and actions

Nevada State Freight Plan

Table 1-4. Freight Strategies and Implementation Actions

Strategy		Actions	Timeframe to Initiate Action	Lead Agency/ Department	Required Partnerships	Potential Funding Source	Funding Need Approximation
4. Preserve and renew Nevada's freight highway network.	4.1	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.	Immediate/ongoing	NDOT	NA	NDOT – Other	TBD
	4.2	Determine a reliable source of funding for implementation of needed preservation/maintenance requirements.	Immediate	NDOT	• State Transportation Board • State legislature • Nevada Trucking Association • FHWA	NDOT – Other	TBD
5. Develop a preservation and expansion program for short-line freight rail infrastructure.	5.1	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.	Immediate	FAC	• FRA	FRA	N/A
	5.2	Develop a new rail spur to the Apex Industrial site in Southern Nevada to serve existing and near-term anticipated manufacturers.	Immediate	RTCSNV	• NDOT • City of North Las Vegas • Apex Holding Company	City of North Las Vegas	$35 million
6. Strengthen NDOT's Rail Safety and Security Program	6.1	Secure additional funding for NDOT's Rail Safety and Security Program. Additional funding from private stakeholders, discretionary grants, or other Federal, state, or local sources could help to fund more significant changes, such as closures or physical grade separations.	Near-Term	NDOT	• UPRR • MPOs • Cities • Counties	TBD	TBD
7. Develop a method to track and integrate freight transportation, land use, and economic development planning along major freight corridors in Nevada.	7.1	Form land use advisory committees throughout the state to coordinate with NDOT on changes in land use strategies that may impact access along state- owned freight corridors, as well as new land developments that may impact the movement of freight vehicles.	Immediate/ongoing	• Cities • Counties	• MPOs • NDOT • GOED • Economic development agencies	N/A	N/A
8. Maintain organization of the FAC to advise on implementation of freight strategies statewide.	8.1	Establish a schedule and process for convening or engaging the FAC in freight-related planning issues and progress upon completion of the NSFP.	Immediate/ongoing	NDOT	• FAC	N/A	N/A
9. Maintain organization and coordination of the WSFC to advise and support on regional freight issues, projects, and policies.	9.1	Establish the mission, organizational structure, process, and schedule for engaging the WSFC in freight-related planning issues upon completion of the NSFP.	Immediate/ongoing	NDOT	• WSFC	N/A	N/A
10. Encourage logistics and manufacturing- based companies and organizations to pursue workforce development training opportunities.	10.1	Advise on known educational/training opportunities at FAC meetings and encourage members to pursue educational opportunities	Immediate/ongoing	FAC	• GOED • Nevada System of Higher Education • DETR	Knowledge Fund	TBD
11. Pursue freight-related research through NDOT's Research Section to improve the State's readiness and adaptability to new freight [illegible]vement and technology trends.	11.1	Develop freight related problem statements to submit to NDOT's Research Section.	Imm[illegible]				

QUESTIONS / OPEN DISCUSSION

2019 Freight Program Implementation Project

THANK YOU

Next FAC Meeting: August 6, 2019

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https://www.nevadadot.com/mobility/freight-planning