

Long-haul Trucking

Focus Group Report

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LONG-HAUL TRUCKING FOCUS GROUP REPORT

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Introduction

Lighthouse Research & Development, Inc. was contracted by Utah Department of Transportation, InterPlan, and Love Communications to conduct and evaluate the results of four focus groups regarding the availability of semi-truck parking in the state of Utah. The focus groups were also conducted to evaluate media brochures that have been designed to inform truck drivers of parking in the state of Utah.

Objectives

Owners and Operators

The main goal of this research project is to understand the decision-making inputs necessary to expand truck parking at truck stops. Commercial truck stop owners/operators will be introduced to the results of the I-15 truck parking survey and then asked to react to results as well as proposed truck-parking solutions that might involve capital investment. Commercial owners/operators will be able to provide observations about what truck parking solutions will most likely be accepted or rejected by themselves as well as by truck drivers. Guided questions and discussion will determine their interest in engaging in a public/private partnership to increase truck-parking availability along the I-15 corridor in Utah. The specific objectives of the research are itemized below.

- Gather profile information from participants selected through pre-existing relationships with UDOT.
- Evaluate the current truck stop parking availability by discovering the following:
 - How many spaces are available at each individual's truck stop
 - How full the truck parking is on an average weeknight
 - How full the truck parking is on an average weekend
 - How often truck parking is full to capacity
- Discuss the level of concern truck stop owners/operators have towards the lack of parking for long haul trucks
- Identify the areas with the greatest shortage of parking availability
- Discover owner/operators feelings towards expansion of their parking
- Identify the perceived benefits of expanding parking availability
- Identify the perceived challenges of expanding parking availability
- Identify the benefits and costs of opening a new site versus adding more spots to an existing site

- Discover barriers to communicating with truck drivers when they are on the road looking for long-term parking
- Discover the most preferred methods for communicating with truck drivers about available parking spaces for long-term parking
- Determine level of interest in partnering with the public sphere to help truck drivers find parking spaces
- Identify information that would motivate owners/operators to increase the amount of truck parking at their location

Truck Driver Objectives

The main goal of this research project is to identify the parking solutions that will most effectively solve the problem of long-haul truck parking along the I-15 corridor. The research study will present proposed solutions and determine drivers' willingness to use or adopt a solution that will help them locate truck parking. The research will also determine the key elements or barriers to communicating with drivers about truck parking availability. The specific objectives of the research are itemized below.

- Gather profile information from participants randomly selected from the target audience
- Evaluate the effectiveness of the proposed solution by discovering the following:
 - Overall appeal of the map
 - The value of the information provided on the map
 - The clarity and comprehensiveness of the information on the map
 - The appeal of the overall size, color, and print, and its ease of use
 - Aspects of the map resonate most and why
 - Ways the map could be improved to increase its effectiveness
 - Level of motivation drivers would have to use the map and why
- Identify the importance of receiving information about truck parking availability in real time
- Identify the most effective method of communicating long-term truck parking availability to truck drivers
- Discover barriers to communicating with truck drivers when they are on the road looking for long-term parking
- Discover the most preferred attributes of truck stops for long-term parking
- Identify current smart phone app usage for locating long-term truck parking
- Identify anticipated usage of an app for Smartphones, should it be developed
- Identify key elements to be included in a successful Smartphone app that will provide long-term truck parking

- Discover biggest challenges and barriers to finding available long-term truck parking in Utah
- Discover changes drivers would make in regards to long-term truck parking availability
- Determine participants' intention to get screened and how frequently they intend to get screened
- Determine reasons drivers may find public/private rest areas less attractive
- Determine the locations in Utah suffering from the greatest long-term truck parking shortage

Project Overview

The report provides the results of this qualitative research study consisting of four focus groups, three of which were conducted with truck drivers, and one of which was conducted with owners and operators of truck stops in Utah. The specific scope of work for this portion of the research project is described below:

- Recruitment of ten to twelve participants for each group
- Confirmation emails and reminder telephone calls to each participant
- Development of a moderator's guide and handout, including specific discussion topics, questions, and ratings
- Facilitation of the focus groups
- Development of a written report of results, including the findings organized according to the topic areas

Research Methodology

The research methods used to complete the project are outlined in detail below.

Screening Design and Development

Lighthouse Research, in consultation with Utah Department of Transportation, InterPlan, and Love Communications personnel, prepared the participant screener. The information collected during the screening process was used to verify participant eligibility and gather demographic information. For a copy of the screener, please refer to Appendix A.

Sampling Procedures

The recruiting for the focus groups was completed using general public sample and Lighthouse Research & Development database.

Recruiting

Experienced executive recruiters from the Lighthouse Research facility in Riverton, Utah, conducted the recruiting. Interviewers were briefed thoroughly on the screener before proceeding with recruiting. Calling hours for this recruit were between 9:00 a.m. and 9:00 p.m. on weekdays. Participants received personal emails confirming their invitation to participate in the user test, indicating the date and time of the interview. Careful attention was paid during the recruiting process to ensure only qualified individuals were invited.

Development of Moderator's Guide

Lighthouse Research designed the moderator's guides for these focus groups. The questionnaire encompassed the following topic areas:

Owners and Operators

- Greeting and Introduction
- Owner and Operator Concern
- Owner and Operator Expansion
- Communication with Truck Drivers
- Looking Ahead
- Conclusion

Truck Drivers

- Greeting and Introduction
- Survey Results Questions
- Evaluation of Visor Card Solution
- Ranking Activity
- Discussion of Smartphone App Solution
- Barriers Affecting Communication with Long-haul Truckers
- Conclusion

For more details and to see the complete discussion guides, please refer to Appendices C and F.

Focus Group Fulfillment

The focus groups were conducted at the offices of Lighthouse Research facility in Riverton, Utah. Each focus group was facilitated by Jessica Farber. Participants were guided through the topic areas outlined in the moderator's guide. Each interview was video recorded. A total of three focus groups were conducted, with two groups being held on January 25th and one group being held on January 26th.

Organization of the Report

Data collected during the interviews was analyzed for reporting. The results were compiled and are presented in this report, organized by the following areas:

- Introduction
- Conclusions and Opportunities
- Detailed Results: Owners and Operators
- Detailed Results: Truck Drivers
- Appendices

The Conclusions and Opportunities section of this report was created to provide the most pertinent findings of the user test interviews. This section includes a summary of the research findings and provides recommendations based on the conclusions of the research.

The Detailed Results portion of this report presents the complete findings of the research, organized by topic area.

The Appendices section provides interviewer observations, frequency of results, and verbatim open-ended responses provided by participants.

This report represents the deliverable for this portion of this contract and is presented respectfully to the project sponsors.

Executive Summary

Owners and Operators

Summary

Truck Stop Descriptions

When asked to indicate how many spaces they have dedicated to long-term truck parking, four participants reported having between 30 and 88 spaces, while one participant reported having 125 spaces, and another reported having 150 spaces.

Nearly all participants said that on an average weeknight and over an average weekend, their truck parking is full or nearly full to capacity.

Owner & Operator Concerns

Participants agreed that finding available truck parking in the state of Utah is a challenge for many truck drivers.

Participants indicated that the greatest shortage of truck parking exists along the entire I-15 corridor. While some participants said there is a shortage of truck parking in the Salt Lake City area, others said that truck parking is scarce in industrial areas between Salt Lake City and Logan.

When asked to identify the best and most feasible ideas for assisting drivers and providing them with more information about parking in the state of Utah, owners and operators targeted on three main areas: 1) expand or open rest stops, 2) provide information to drivers via GPS locators, 3) and increase signage (specifically DOT markers) along freeways and highways.

Owner & Operator Expansion

Participants said they've considered expanding, but that expansion does not seem feasible or profitable. Multiple participants, however, said they would be likely to consider expansion if their businesses received some sort of compensation for the construction of additional parking, specifically in the form of tax breaks or tax incentives. Others said they would consider expanding if they would be guaranteed a return on their investment or if they received assistance in maintaining their properties.

Multiple participants suggested that perhaps the solution for increasing the amount of truck parking does not exist in expanding truck stop parking, but in opening rest stops that have been closed.

A couple participants have considered opening additional truck stop locations; however, these participants indicated that their stores have been met with resistance and that communities make it difficult for them to open additional stores.

Communication with Truck Drivers

Owners and operators, in general, do not track availability of parking at their stations. Participants agreed that this would be a difficult task to oversee, as there is constant movement at each of their truck stops. However, a couple of owners and operators said they track parking availability loosely for internal purposes only.

Owners and operators acknowledged word of mouth as one of the primary methods of communication among drivers. Participants, in general, do not communicate with truck drivers. However, these participants reported seeing a lot of “regulars” and indicated that drivers will call and ask if they have parking availability. Participants also said that dispatch will route drivers to their destinations, and that owners and operators don’t have a lot of control about the business they receive from truck drivers.

When asked what should be included in a Smartphone app, participants said it would be important for drivers to know parking availability at various truck stops, especially on weekends. Participants did, however express concerns with having a Smartphone app. Specifically, participants would question the accuracy and validity of the information provided in the app. In addition, some participants were unsure of whether drivers would use such an app.

Participants were neutral or slightly negative toward the idea of having paper maps available to drivers to show parking availability. Participants, in general, felt that drivers already have access to GPS locators and that drivers already have a “routine” they follow regularly. Participants were, however, open to the idea of listing their establishments on such a map.

Looking Ahead

Participants indicated that incentives such as money, tax breaks and assistance with maintenance would encourage them to increase truck parking availability.

Participants said they would consider partnering with the state to help truckers find parking if it benefited their establishments. Participants said that monetary incentives, assistance in maintaining facilities, and additional DOT markers would entice them to consider a partnership with the state.

Conclusion

Multiple participants, during the discussion cited the need for additional truck parking, specifically along the I-15 corridor. Participants also noted that many rest stops have been closed to drivers, which has reduced the amount of available truck parking within the state. Participants also suggested providing shuttles that transport drivers from rest stops to other facilities that have the necessary services and amenities that drivers need.

Participant Demographics

Overall, two-thirds of participants were men and one-third were women. Two-thirds of participants have managed their stores for one to five years. One-half of participants reported having a bachelor's degree. All participants are married.

Conclusions and Opportunities

Based on the findings of the research, Lighthouse Research & Development, Inc. respectfully makes the following recommendations

- As participants stated that a shortage of truck parking is prevalent in Salt Lake City and along the I-15 corridor, consider encouraging the expansion of truck stops in these areas or consider opening rest stops in these areas to provide truck drivers with the parking availability they need.
- As owners and operators recognize a need for additional truck parking, and as participants commented on the availability of parking in closed rest areas, consider opening certain rest areas for truck drivers to park in.
- As participants recognize drivers' needs for services and amenities, and as owners and operators recognize that there is unutilized parking in rest areas, consider shuttling drivers from rest stops to areas that provide these services.

- As owners and operators said they would consider a partnership with the state if it were beneficial to their establishment, consider offering such incentives to private businesses. Specifically, consider these incentives, as participants mentioned these to be particularly appealing:
 - Tax breaks or tax incentives
 - DOT markers
 - Assistance in maintaining properties (i.e. cleaning, repairs, snow removal, etc.)
- As owners and operators identified lack of return on investment (ROI) as one of the biggest barriers that prevents them from expanding, consider showing owners and operators that their businesses would benefit financially from expanding.
- As some participants indicated that truck drivers do not know about their establishments and as participants expressed frustration with not having DOT markers for their establishments, consider placing more DOT markers along freeways to inform truckers of various truck stops.
- As some participants have considered expanding by building additional facilities, but as these owners and operators have been met with resistance, consider providing these establishments with the assistance they need to alleviate resistance from communities.

Long-Haul Truck Drivers

Summary

Survey Results Questions

When asked if there is a long-term parking shortage in Utah, participants unanimously agreed. Multiple participants specifically stated that there is a shortage of parking for trucks hauling double and triple loads.

Participants most frequently said that the greatest shortage of truck parking exists in Salt Lake City and along the I-15 corridor.

When asked how they find long-term truck parking, multiple participants said they drive their routes over and over again and that they usually stay at the same places. In general, participants plan ahead for their trips and anticipate where they will stay before they even leave. Many drivers said they use truck stop guides to help them plan their routes in advance. Others learn about parking spots by observing other drivers.

When asked to identify important factors to consider when deciding where to park, some participants said they like to stop where they know they can have access to services and amenities. Others said that where they park depends largely on the size of their load and the amount of space available.

Though some drivers like to stop at truck stops for the services and amenities they provide, many others say they prefer avoiding truck stops when they can. When asked if truck stop services and amenities are appealing to drivers, participants' responses were mixed. Though some drivers like the opportunity to shower and get a hot meal, others said that the layout of many truck stops are not accommodating for their needs.

Many participants suggested communicating with truck drivers by increasing the amount of signage on the road. Specifically, participants suggested adding signs that say "Truck Stop Ahead" or "Next Rest Area." Participants said they see these signs fairly frequently when traveling through other states. Participants also suggested distributing materials to truck drivers to let them know about available parking in the state. Participants also suggested informing truck drivers of available parking by adding symbols to existing maps that they already use.

Evaluation of Visor Card Solution

Yellow Visor Card

Participants, in general, gave neutral/positive ratings when rating the overall usefulness of the yellow visor card.

Participants said they like the information provided in this card, however, most participants did not like the layout and design of this card. Participants specifically felt that it would be too confusing to drivers who are not familiar with Utah and too complicated to flip open while driving. Participants also felt that this map was difficult to read and that it lacked critical pieces of information.

Participants most frequently said that this visor card is missing information about rest stops. Participants also said this visor card is lacking information about services and amenities available at each of the listed truck stops. With this particular visor card, participants said they would like to see more information about the parking available in these areas.

When rating how likely they would be to use this map to locate long-term truck parking, most participants gave neutral ratings.

Pink Visor Card

Most participants gave neutral ratings when rating the usefulness of the pink visor card.

When discussing what they like about the pink visor card, participants said they like how this card provides a lot of information and that its design is familiar to drivers. One participant commented on the QR code on the back of the brochure and stated that this particular feature could be especially helpful in learning more about each individual truck stop.

However, when stating what they dislike about the pink visor card, participants most frequently said that this visor card is too complex, too confusing, and provides too much information.

Participants most frequently mentioned that this map lacks rest area information. Multiple participants also said that this map does not contain addresses for each of the listed truck stops, nor does it indicate which services are available at each location. Participants also said they would like to see information regarding truck stop hours of operation.

Participants, in general gave neutral or low ratings when rating how likely they would be to use the pink visor card to locate long-term truck parking. Participants, in general, felt that this visor card would be too complicated to use.

Blue Visor Card

When rating the overall usefulness of the blue visor card, participants' responses were mixed. Overall, nearly one-half of participants gave a rating of "3" on the one-to-seven rating scale," while more than one-quarter of participants gave a rating of "6."

When discussing what they like about the blue visor card, participants indicated that this visor card contains much more information than did other visor cards. Participants also like that this visor card contains a full map of the state and that it pinpoints locations for each truck stop. Participants also like that this map provides information about rest areas, where the other maps lacked this information. In addition, participants liked how this map provided information for parking along the I-15 in addition to other parts of the state as well.

When discussing what they dislike about this map, participants said this map is confusing and hard to read and difficult to look at at-a-glance. Some participants felt that this map contained too much information. Other participants specifically stated that the font and colors of the text on this map is too small and difficult to read.

When asked to identify any missing information in this particular map, participants most frequently mentioned the lack of information regarding services and amenities located at each of the listed stops. Participants also felt that this map lacked information regarding available parking at each of the mentioned stops.

When rating how likely they would be to use this map, more than one-half of participants indicated they would not be likely to use this map, as they gave a rating of "3" or lower on the one-to-seven rating scale. Participants, in general, indicated they would not use this particular map because it is lacking information they feel is important, or because the map provides too much information and is complicated and difficult to read.

Green Visor Card

Participants, in general, were positive toward the green visor card. More than one-half of participants gave a rating of "5" or higher when rating the usefulness of this particular visor card.

When discussing what they like about the green visor card, participants most frequently said this card is easy to read. Participants specifically said that the large print in this map and the color combinations make it easy for drivers to refer to and understand this map. Participants also liked that they don't have to open this map up all the way unless they needed information about parking along the I-15 corridor.

When discussing what they dislike about the green visor card, participants had two main complaints: 1) the visor card is lacking information, and 2) the white-on-black text is difficult to read at night.

When asked to identify any information that is missing from the map, participants most frequently said that this lacks information on 1) rest areas and 2) services and amenities available at each truck stop location. Participants also said this visor card needs to inform drivers about the type of parking available and the distance between each truck stop.

When rating how likely they would be to use the green visor card, nearly one-half of participants gave a rating of "6" or "7 – very likely." Participants, in general, liked the layout and design of this particular visor card and felt that this card was easy to read. Participants indicated they would be more likely to use the green visor card if it had additional information.

Orange Visor Card

Most participants had favorable views regarding the orange visor card. When rating the overall usefulness of this particular card, nearly two-fifths of participants gave a rating of "6" or "7 – very useful."

When discussing what they like about the orange visor card, participants stated that the layout and design make it easy to read and that the color-coded information is appealing and useful. Participants felt that this map would be particularly helpful for drivers that were unfamiliar with Utah.

However, when discussing what they dislike about this particular map, multiple participants stated that this map is lacking information. Specifically, participants want to know the types of parking available at each location, how many miles are between each truck stop, and which truck stops are most accessible.

When rating their likelihood of using the orange visor card to locate long-term parking, approximately one-quarter of participants gave ratings of "6" or "7" on the one-to-seven rating scale. Participants, on average, gave a rating of 4.94 to describe their likelihood of using this particular visor card. Participants, in

general, felt that this particular visor map would be useful for those who are not familiar with the state.

Comparative of Visor Card Evaluations

Participants clearly identified the green and orange visor cards as those they found to be the most useful.

When rating their likelihood of using each visor card, participants clearly identified their preference for the orange and green visor cards by indicating that they would be most likely to use these maps.

The orange visor card received the highest overall rank score from participants and, on average, was ranked first in terms of preference. Participants ranked the green visor card second highest in terms of preference. Participants ranked the blue visor card last in terms of preference.

Many participants expressed concerns about the durability of the visor cards in general. Participants recognized and that such materials would easily become damaged through constant use and wear and tear.

Many participants also suggested changing the color of the white-on-black text boxes in the green and orange visor cards. Some participants indicated that such text would be difficult to read in a truck at night.

Many participants stated that they would like more information in each of the visor cards. Specifically, participants wanted to know where rest areas are located, which services and amenities are available at each truck stop location, and the type of parking available to drivers. Participants recognized the difficulty in keeping the visor cards simple and uncomplicated but indicated that these cards need to be more useful to drivers by providing more information. Therefore, drivers suggested that symbols be used to indicate specific services and amenities. Participants further suggested that symbols be used to indicate if a truck stop has pull-through parking, if a truck stop can accommodate trucks hauling double or triple loads, and if a truck stop allows hazmat or fuel trucks at their stations. Drivers indicated that many industry maps use universal symbols and suggested incorporating these symbols into the visor card maps, as truck drivers are already familiar with these symbols and know what they mean.

Smartphone App Solution

Nearly all participants reported having cell phones, and most of these reported having Smartphones.

Many participants said they would use a Smartphone app to find parking in Utah. Participants also felt that younger drivers and new drivers would be particularly prone to using Smartphone applications to finding parking spots.

Though drivers like the idea of having a Smartphone app to help them find parking, many participants voiced concerns about using their phones while driving. It is illegal for them to use their phones without a hands-free device and using their phones while driving would count as distracted driving and could potentially lose them their jobs if they got caught using an application while driving.

However, participants suggested that drivers bookmark this app and use it to plan their routes before they head out.

When asked what they want in an app, participants said they want rest stops included and they want to know which services and amenities are available at truck stops. Participants also said it would be helpful to know fuel prices and parking availability. Another critical piece of information drivers want to know is whether truck stops and rest stops have parking availability for trucks pulling double or triple loads.

Regarding the design of the Smartphone application, participants said that for this application to be successful, it is crucial that the information be accurate.

Barriers Affecting Communication with Long-Haul Truckers

Participants, in general, communicate with other truck drivers to find available long-term parking. There is a feeling of camaraderie among drivers in this industry, and participants, in general, trust their peers. However, many participants also said they use guides and maps to find the information they need.

Participants indicated that the biggest barrier that prevents them from being informed about long-term parking availability in Utah is the lack of communication in general. Participants felt that not any one source exists to inform truckers about long-term trucking—and if such a resource does exist, truckers are not aware of it. Participants also suggested placing such information in state welcome centers, ports of entry, rest areas, and truck stops. In addition,

participants suggested distributing such materials through affiliations such as the Utah Trucker's Association or the Utah Travel Council.

Participant Demographics

All participants were male.

One-third of participants fell between the ages of 45 and 49. Nearly one-half of participants have more than 20 years of experience as a long-haul truck driver. More than one-quarter have driven a truck for one to five years. One-half of participants have a high school degree, while two-fifths have some college or technical training. More than three-quarters of participants reported being married.

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Conclusions and Opportunities

- As many truck drivers prefer to park in rest areas, and as there is a shortage of truck parking along the I-15 corridor, consider opening rest stops in certain areas.
- Consider using DOT markers as a way to let truck drivers know about truck stops and their available parking. Participants specifically said it would be helpful to have “Truck Stop Ahead” or “Next Rest Area” signs. Consider, also, using signage to let drivers know how many miles exist between truck stops or rest areas.
- As truck drivers frequently used guides to find truck stop locations, and as drivers frequent certain locations more often than others, consider distributing visor cards through the following methods:
 - Organizations such as Utah Trucker’s Association or Utah Travel Council
 - State welcome centers or ports of entry
 - Truck stops
 - Rest areas
- As participants clearly preferred the orange and green visor cards, consider improving these cards and distributing them to truck drivers.
- As participants indicated that the visor cards would need the following information in order for them to be more useful, consider adding the following critical pieces of information to visor cards:
 - Information about rest stops
 - Information about services and amenities available at truck stops
 - Information about the type of parking available (i.e. double or triple load, pull-through parking, hazmat or fuel allowed)
- As participants identified the following information as critical pieces of information already included on the visor cards, consider keeping the following when revising the cards:
 - Exit numbers
 - Location
 - Number of parking spaces available
 - Name/brand of truck stop (i.e. Love’s, Pilot Flying J)
- Consider making visor cards out of a more durable material. However, do not laminate visor cards, as the reflection from the glare would make them difficult for drivers to read.

- Consider eliminating the white-on-black text in the visor cards, as it is difficult for drivers to read, especially at night.
- Consider creating a Smartphone app to inform truck drivers of truck stops and rest areas. Emphasize that this could be a tool that could be used to plan ahead for their trips.
- Consider including the following features in a Smartphone application:
 - Parking availability
 - Fuel prices
 - Services and amenities
 - Hours of operation
 - Type of parking available (i.e. double or triple load, pull-through parking, hazmat or fuel allowed)
- Ensure that information provided in a Smartphone app is accurate and up-to-date, as this is the biggest concern drivers have with using Smartphone app.

Detailed Results: Owners and Operators

Truck Stop Descriptions

At the commencement of the focus groups, participants were asked to identify the truck stops they own or operate and describe their truck stops to the rest of the group. In response, approximately one-half of participants reported that their truck stops are owned by large corporations such as Love's or Pilot Flying J, while two participants said their truck stops are owned by smaller corporations that own multiple truck stops, and one participant reported being independently owned and operated.

When asked to indicate how many spaces they have dedicated to long-term truck parking at their particular truck stops, participants' responses ranged from 30 to 150. Four participants reported having between 30 and 88 spaces, while one participant reported having 125 spaces, and another reported having 150 spaces.

Nearly all participants said that on an average weeknight and over an average weekend, their truck parking is full or nearly full to capacity. Multiple participants said that their truck parking is full to capacity half of the time or that it is entirely full at night and open during the day.

One-half of participants said their stores "probably do not" have sufficient overnight truck parking, and one participant said he "definitely does not" have sufficient overnight truck parking.

Though one-half of participants said they see commercial trucks parking outside of their facilities in areas that are not designated for long-term parking, the other one-half of participants said they do not see such activity.

When asked if there is a certain time of month or year that their parking areas are fullest, one-half of participants said they have noticed that their truck stops are busier during the summer months. The other one-half of participants said they have not noticed their truck stops being busier during certain times.

When asked if they track parking availability at their truck stops, all participants respondents said "no."

Owner & Operator Concerns

To gather awareness of current parking availability, participants were asked if they think there is a shortage of truck parking. Participants agreed that finding available truck parking in the state of Utah is a challenge for many truck drivers. Participants indicated that a shortage of parking is evident in the fact that their truck stops are full to capacity each night, and that other truck stops near to them are full as well. One participant said, "Every night, lots fill up, and it's not just ours. All three of ours [indicating himself and two others] are completely full."

Participants indicated that the greatest shortage of truck parking exists along the entire I-15 corridor. While some participants said there is a shortage of truck parking in the Salt Lake City area, others said that truck parking is scarce in industrial areas between Salt Lake City and Logan. Participants specifically noticed a need for more parking in industrial areas, as drivers often have to wait over the weekend to deliver their loads on Monday morning. One participant said, "Those guys have to stop, whether it be at the Walmart Distribution Center, Kimberly Clark, whatever. They could be sitting there for a day. They've got to wait. At our store, [the spaces] fill up Friday night and [the drivers] don't leave until Monday. They're sitting there waiting 'til Monday to load or unload and they don't have anywhere to go." Another participant pointed out that due to a shortage of truck parking, many drivers are forced to stay in lots they deliver to or in abandoned areas. One participant said, "There's nowhere else to go. They have to find an old abandoned Fred Meyer to stop at for the weekend." Owners and operators recognized that this is problematic because these areas are often unlit and do not provide the services and amenities drivers need.

When asked if there is truck parking that drivers are unaware of, participants said, "No, we know all of them," and "There's just not much out there."

When discussing the parking situation, many participants brought up the fact that certain drivers have designated travel stops they are required to use, and that these drivers are not allowed to visit other travel stops. Participants specifically mentioned that certain drivers are required to visit Love's travel stops, while others are required to visit Pilot Flying J travel stops. In addition, participants also indicated that many drivers already have a pre-arranged route and that they know beforehand where they will stop.

Think, Pair, Share Activity

When asked to identify the best and most feasible ideas for assisting drivers and providing them with more information about parking in the state of Utah, owners and operators targeted on three main areas: 1) expand or open rest stops, 2) provide information to drivers via GPS locators, 3) and increase signage (specifically DOT markers) along freeways and highways.

Multiple participants indicated that opening closed rest stops or expanding current rest stops would alleviate many of the problems drivers face regarding the limited amount of truck parking throughout the state of Utah.

Regarding increased signage, one participant said, "The DOT does not allow freeway signage for truck stops. They won't allow a DOT marker on our exits. That's a pain. That hurts us. On I-215 they allow it, but they don't allow it in the city. It's absolutely insane. We're losing revenue." Another participant said that their store's partnership with the state provides them with freeway signage. She said, "I run a Chevron, and we take care of all of [the maintenance]. We get some signage for that."

Regarding GPS locators, one participant said, "Drivers really like direction. They don't think outside the box. Think about what they have to do. It's very structured for them. If it's something where you could easily get information to them, that would be good. A GPS or something could get them that information."

Owner & Operator Expansion

Considering Expansion

During this portion of the focus group, participants were asked if owners of their stores have ever considered expanding. In general, participants said they've considered expanding, but that they just don't see expansion as feasible or profitable. While some participants said their truck stops are land-locked, others said they would not consider expansion as it would not bring a return on their investment. One participant specifically said, "Why would you go out and buy property just to put asphalt on it just for people to park on? It doesn't make sense. You'd just go broke. There's no return on your investment to put in a parking lot." Participants do not believe that if they add more parking to their lots that it would bring more business to their stores. One participant said, "You don't get any more volume or inside sales from the guys parking in your lot." Some participants felt that because certain drivers are required to fuel at designated truck stops, they would fuel at one truck stop but park at another.

Owners and operators generally felt that more truck parking does not equate to increased sales, and therefore does not justify the cost of constructing and maintaining extra parking. One participant said, "It doesn't bring in more inside sales. History has shown that. And you can't charge. Once you do that, they're going to go to your competitor."

Incentives for Expanding

Participants were then asked to identify motivators that would encourage owners and operators to expand truck parking at their facilities. In response to this question, multiple participants said they would be likely to consider expansion if their businesses received some sort of compensation for the construction of additional parking. However, participants also indicated that they would need assistance with or compensation for the maintenance of their facilities. Participants specifically said that owners and operators would be likely to consider constructing additional parking if their business were to receive tax breaks or tax incentives. One participant said, "That would be the easiest thing; give them some sort of tax break." Some participants also said that they would consider putting in additional parking if they were guaranteed that additional parking would increase sales or provide a return on their investment.

Many participants were skeptical, however, that regardless of the incentives provided, owners would not see expansion as a viable or profitable option. One participant said, "There's no incentive for them to do it. Even if we did the cleaning of it, it's costing my maintenance guys extra time to do that. There's a lot involved." Another participant said, "I don't think they're going to buy into it anyway. There's not a return on their investment. Any person in the business wouldn't invest in something like that. Would you? Why would someone pay thousands of dollars for parking? There's not a return on your investment." One other participant said, "They are going to draw a certain amount of business for me, but it's not going to be enough to maintain it: the cleaning of it, the snow plow, the repairs, the liability."

Alternative Solutions

Rest Stops

Multiple participants suggested that perhaps the solution for increasing the amount of truck parking does not exist in expanding truck stop parking, but in opening rest stops that have been closed. One participant said, "Expanding property that's already being used for that purpose is a good idea. Most rest stops have expandability. At this point, they're already maintaining it."

Additional Locations

When asked if they have considered opening additional truck stop locations, a couple of participants answered affirmatively. These participants specifically mentioned that they are in the process of acquiring approval to expand to other areas. These participants said they are interested in building in Brigham City, Provo, or in the eastern part of the state. However, at least one operator said owners of his company have been met with resistance from the cities they want to build in. This participant shared his experience: “[They] make it really hard for owners to want to do business. Provo is like that. The city is too harsh. They are way too restrictive and non-friendly. We put the land back up for sale.” In one other instance, a participant said, “We looked in Toquerville and they said they don’t want a truck stop there.”

Multiple participants said that perhaps the negative response from cities and their residents is due to the negative connotation people have of truck stops. For this reason, participants indicated that the “truck stops” are now referred to as “travel centers.” One participant said, “They’re not called truck stops any more. They’re travel centers. There is a negative connotation with ‘truck stops.’ That’s why we don’t use that phrase anymore.”

Participants said that the obvious attraction to building a new store is increased sales. One participant said, “I could get more business if I opened a new store. We wouldn’t take business from [Pilot Flying J] because we have different drivers. It wouldn’t hurt us.” Though participants acknowledged that additional stores would be beneficial to larger corporations, they also indicated that “the little guys just don’t have the resources” to build additional stores.

Idle Air Facilities

When asked if idle air facilities are attractive to truck drivers, participants indicated that some drivers like this feature, while others do not. One participant that has idle air at her facility said, “I get fights because they don’t want to use it, but I get fights because they do want to use it.” For this reason, she is continually moving trucks at her facility. Though participants feel that drivers have mixed impressions of idle air facilities, owners and operators perceive this feature to be appealing. One participant said, “It’s cheaper to buy idle air than to run a truck. They’re going to save money by using it.” Participants did, however, indicate that this feature would be more appealing to independent drivers than fleet drivers, as independent drivers are the ones that would have to pay for their own fuel. One participant said, “Fleet drivers, they couldn’t care less. They’re not buying the fuel.”

Communication with Truck Drivers

General Communication

Owners and operators, in general, do not track availability of parking at their stations. Participants agreed that this would be a difficult task to oversee, as there is constant movement at each of their truck stops. However, a couple of owners and operators said they track parking availability loosely for internal purposes only. One participant said, "I have a security guard moving trucks around to maximize spaces. We spend 16 hours a day maximizing availability." Another said, "If we have a bobtail in a full-size spot, we need to move them." However, neither of these operators said they advertise parking availability to truck drivers.

When asked about communication among truck drivers, owners and operators acknowledged word of mouth as one of the primary methods of communication among drivers. One participant said, "I think that communication network is very solid among drivers. They'll tell each other. They'll communicate that stuff. If they find an empty lot somewhere, it doesn't take long before 12 other guys know about it."

Participants, in general, said that they themselves do not communicate with truck drivers. However, these participants reported seeing a lot of "regulars" and indicated that drivers will call and ask if they have parking availability. Participants also said that dispatch will route drivers to their destinations, and that owners and operators don't have a lot of control about the business they receive from truck drivers. One participant said, "They have dispatch that sets up their route. There's not much deviation from that. It's all computerized. Dispatch becomes the critical figure." Participants did, however, indicate that there is some room for freedom in terms of where drivers decide to stop; specifically one participant said, "We have the best fried chicken. We have dispatchers that dispatch trucks to my store so they can have our chicken. Everyone has their niche and trucks will go out of their way to find it."

Smartphone App

When asked what should be included in a Smartphone app, participants said it would be important for drivers to know parking availability at various truck stops, especially on weekends. Participants also said that a Smartphone app should include locations and phone numbers for truck stops in a particular area.

Though some participants liked the idea of having a Smartphone app to communicate with drivers, multiple others pointed out concerns with having such

an app. Participants indicated that truckers are not allowed to use their cell phones while driving, and therefore, such an app would not be useful unless drivers were stopped. Participants also expressed concern about the validity of such an app. One participant said, "It's going to be so hard to maintain and update and keep accurate." Participants further pointed out that inaccuracy of information could result in frustrated and offended drivers. Some participants felt that such an app would be unnecessary, as drivers already have access to GPS, and as they are likely to stop at the same places each time they drive their route. One participant said, "I think nine out of ten times, these truckers have been at these spots. They know where the parking is most likely to be." A couple of participants also felt that where drivers park depends largely on where they decide to fuel, regardless of information provided in a Smartphone app.

Likelihood of Paying for Guaranteed Spots

Participants, in general, were negative toward the idea of charging drivers for a guaranteed parking spot. Though participants said some drivers would pay for a guaranteed parking spot, others said that the drivers they see purchase hundreds of gallons of gas a week at their truck stops, and that charging them for parking could potentially harm their business. One participant said, "They would come back on me and say, 'I'm taking my gallons up the road.' That hurts me when they take gallons from me. They will take their gallons somewhere else and we're hard to find." Participants also felt that guaranteeing parking spaces would "cause a customer service issue." One participant said, "If I have three spots reserved and 15 trucks lined up, they would get mad."

Paper Map

Participants were neutral or slightly negative toward the idea of having paper maps available to drivers to show parking availability. Participants, in general, felt that drivers already have access to GPS locators. One participant said, "I haven't met a trucker yet that doesn't have GPS." Another said, "I think they already have access to that. We have our locators and it tells them everything they need to know." Participants also felt that most drivers are "routine" and that they already know their routes, and therefore, a paper map would not be useful to them.

Participants said "it wouldn't hurt" to have their stores listed on such a map. One participant said, "I have a lounge with free magazines and I would be willing to put it up."

Looking Ahead

Participants indicated that incentives such as money, tax breaks and assistance with maintenance would encourage them to increase truck parking availability.

When asked if they would consider partnering with the state to help truckers find parking spots, participants agreed that they would do so if it benefited their truck stops. One participant said, "It has to be a win-win. They're family-owned companies and they didn't get where they are because they didn't make smart decisions. You'd have to come to the table with something pretty tempting." Other participants said they would consider a partnership if the state agreed to put up DOT markers. One other participant said his business has met resistance when trying to build an additional truck stop and that assistance from the state in cutting through red tape would cause him to consider a partnership. He said, "With my company, it might be helping us solve the issue down there in Provo. If there was something in there for my company to help us build stores, it would help us. There's at least one thing they could approach my company about. I know they've got a lot of power. The DOT is very powerful."

Participants suggested that the Department of Transportation speak with business owners and corporations to share the research they have found and to bridge the gap between the state and travel centers. Participants said that owners would be interested in establishing partnerships, especially if it benefited their businesses. However, multiple participants felt that such decisions could not be made locally as their corporations are large and out of state.

Conclusion

As a concluding question, participants were asked:

“If you could change one thing about long-term parking availability, what would it be?”

Multiple participants, during the discussion cited the need for additional truck parking, specifically along the I-15 corridor. Participants also noted that many rest stops have been closed to drivers, which has reduced the amount of available truck parking within the state. In response to the question asked, one participant said, “Rest stops are the biggest one we went back to. They’re closing rest stops and we have problems with parking. It’s just stupid. They already own the land. Open it up. Let them use it.” Participants recognized that the state would have to take responsibility for maintaining these properties, but they felt that this is something that they themselves have had to deal with since the closure of these rest stops. One participant said, “They’re going to have to find out how to monitor them; but that’s what we do all the time.” Participants also suggested providing shuttles that transport drivers from rest stops to other facilities that have the necessary services and amenities that drivers need.

Participant Demographics

Overall, two-thirds of participants (4 of 6) were men and one-third (2 of 6) were women.

Two-thirds of participants (4 of 6) have managed their stores for one to five years, while one participant reported managing a store for eleven to fifteen years, and one other participant reported managing a store for less than one year.

One-half of participants (3 of 6) reported having a bachelor’s degree, while one reported having some college or technical training, and two reported having a high school diploma.

All participants are married.

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Detailed Results: Long-haul Truck Drivers

Survey Results Questions

Descriptions of Truck Parking

As an opening question, participants were asked to indicate which words or phrases best describe long-term truck parking in the state of Utah. In response to this question, many participants described the parking situation as limited and said there is a shortage of truck parking. One participant said, "Between here and down south, there's only a few of them." Another said, "If you come into town at four or five in the afternoon and you're not there by three, there's no parking."

Multiple participants said that due to a shortage of truck parking, drivers are forced to park in areas that are not designated for parking. Some drivers specifically said they park on exit ramps while others said they park in store parking lots owned by Walmart or Shopko. One participant said he chooses parking based on space, as he hauls double- or triple-loads and needs enough space to pull in, park, and get out. This participant indicated that there is specifically a shortage for these types of drivers, and as such, he often has to park in places not designated for parking.

Many drivers perceive truck drivers to be unwelcomed in the state of Utah. Participants specifically said this is evidenced by the shortage of truck parking and by the closure of state rest stops. In addition, drivers feel they are "harassed" by Utah Highway Patrol officers for parking in undesignated areas. Drivers indicated that for safety purposes, they need to stop and rest, but often, they are unable to find parking spaces, which results in them parking in undesignated areas. Parking in such areas, however, can result in a ticket from the UHP. Some participants did say that UHP officers don't ticket as much as other states do, but that drivers are not welcomed to stop.

Some participants, when describing truck parking in Utah, said they are concerned with safety and a lack of security. For this reason, one participant said, "I look for a safe place to park and where my sleep won't be disturbed." Another said, "I prefer to park in rest areas. It's quieter and they have restrooms."

Shortage of Truck Parking

When asked if there is a long-term parking shortage in Utah, participants unanimously agreed that there is a shortage of truck parking. One participant said, "From Spanish Fork to Brigham City, there's nothing," while another said, "From the time you get to the point of the mountain to North Salt Lake, there's three truck stops. And they're all owned by Flying J." Drivers indicated that Utah did not always have a shortage of long-term truck parking. One participant said, "We had a couple of rest stops and they wiped them out. Park City, Silver Summit, Pleasant Grove..."

Areas with the Greatest Shortage of Parking

Participants were then asked to indicate, on a state map, which areas have the greatest shortage of long-haul parking in the state of Utah. Participants most frequently said that the greatest shortage of truck parking exists in Salt Lake City and along the I-15 corridor. Some participants said that parking is scarce from Provo to Ogden, while others said there is limited parking between St. George and Ogden.

Regarding the parking situation in Utah, one participant said, "You get out of SL, you only have one real state rest stop, and anywhere else, you're going to have to go find a commercial truck stop."

Multiple participants said they prefer parking in rest stops; however, drivers have found that passenger vehicles will often park in designated truck parking, which further limits their options. One participant said, "There are rest areas just for trucks, but people that have passenger vehicles that will park there and take up a spot we could use. It's aggravating."

Why a Shortage of Parking is Problematic

Multiple participants indicated that a shortage of truck parking is problematic because they are only allotted so many hours in which to drive. Drivers indicated that it is imperative that they find parking when their shift is up. One participant said, "Our trucks have GPS on there, and if your time's up, your truck shuts down on you. If you can't get into a place, you could be shut down on the side of the highway." Participants further explained that their trucks have governors that only allow them to go so fast. Drivers indicated that if there isn't available truck parking, they are required to stop early, which cuts into their drive time.

Finding Truck Parking

When asked how they find long-term truck parking, multiple participants said they drive their routes over and over again and that they usually stay at the same places. In general, participants plan ahead for their trips and anticipate where they will stay before they even leave.

Many drivers said they use truck stop guides to help them plan their routes in advance. One participant said, "I go all over the country and I use the truck stop guide, and I also have an exit guide that tells me where to park. I try to plan ahead and pick three or four of them." Participants specifically mentioned using the Rand McNalley map when traveling.

Other participants said they learn about parking spots by observing others. One participant said, "It's just by seeing them. That's a lot of how you learn about places to park." By observing other truck drivers, one participant learned about parking in Midvale; he said, "There's a street in Midvale, they let the trucks park there. It's behind McDonalds there on 7200. You don't get harassed there."

Some participants, because they know the state has a shortage of parking spots, plan their routes so they never have to stop in Utah. One participant said, "You've got to plan in advance. I team drove, and even back east, we would not stop in Utah, not even for fuel. When I'd load up and come back, I'd make sure I had plenty of fuel so I could drive on by. I didn't even want to stop here."

A couple of participants said they use their phones to find available parking in a particular area; one participant said, "There's a new app on my phone that will tell me everything. I use Google Earth. You can look around, scroll, and see if they have a truck stop. Even if it isn't a truck stop, if it's in an industrial area it should be okay."

Important Factors Influencing the Decision of Where to Park

When asked to identify important factors to consider when deciding where to park, some participants said they like to stop where they know they can have access to services and amenities. One participant said, "I like to look for a place to take a shower and grab a good bite to eat. Things we need, to maybe do laundry."

However, others said that where they park depends largely on the size of their load and the amount of space available. Participants specifically mentioned that rest stops have inadequate parking for semis hauling large loads. One participant said, "Right now, some of the rest areas we've got, there's just not enough

room. You're just about scraping your mirrors off, and you go up on the curb just to make sure you don't rip the other guys' off."

Though some drivers like to stop at truck stops for the services and amenities they provide, many others say they prefer avoiding truck stops when they can. Participants avoid stopping at truck stops because their trucks have been damaged, because they often get disturbed, and because "lot lizards" frequent truck stops. Regarding his experience at truck stops, one participant said, "Most of the time, I try to avoid truck stops. My truck has been damaged when in truck stops. I prefer rest stops, but Utah is very lacking in rest areas. Other states, there are a lot of rest stops; they're well lit." Another participant said, "A lot of the times, I don't stop at truck stops because you don't want them ["lot lizards"] knocking on your door all night."

When specifically asked if truck stop services and amenities are appealing to drivers, participants' responses were mixed. Though some drivers like the opportunity to shower and get a hot meal, others said that the layout of many truck stops are not accommodating for their needs. One participant said, "It depends. Some of [the truck stops] are so small. It's more of a pain to get in and out of than it is to keep going." Another said, "When they engineered a lot of these truck stops, they didn't consider the truckers. A lot of them have one way in and one way out." This seemed to be especially problematic for drivers that haul particularly large loads.

Useful Materials

To find parking information, participants said they use a variety of guides. Participants specifically mentioned using exit guides, the TCH book, the Rand McNalley map. One participant said, "The nice thing about [the exit guide] is that it also tells you about all of the rest areas around there."

Participants generally reported storing these materials in their visors, in the door of their trucks, in cubbies, or on their passenger seats.

Though many drivers rely heavily on travel guides to find available parking at truck stops, participants expressed frustration that the guides become quickly outdated. One participant said, "One problem is that accuracy isn't always very good. Truck stops have changed their names, and you have a stack of stuff. Some of it's old, some of it's new."

In addition to using travel guides, participants also reported using computers, GPS, and CB radios to find available parking spots.

Think, Pair, Share Activity

During this portion of the discussion group, participants were asked to provide suggestions for communicating long-term parking availability to drivers.

Many participants suggested communicating with truck drivers by increasing the amount of signage on the road. Specifically, participants suggested adding signs that say "Truck Stop Ahead" or "Next Rest Area." Participants said they see these signs fairly frequently when traveling through other states, and one participant said, "They're almost as common as mile markers." Participants indicated that such signage is useful in helping them know how much further they can travel before they need to stop. One participant said, "It makes it so you no longer have to worry about drivers breaking the law trying to get from point A to point B. It eliminates a lot of problems." Participants also indicated that it would be helpful if the signage indicated how much distance is between themselves and the next three rest stops. One participant said, "There should be signs that show the next three. The next sign will tell you how far the next three are. They should show how far away it is. You will know if you can make it or not."

Participants also suggested distributing materials to truck drivers to let them know about available parking in the state. While some participants suggested distributing this information to major trucking companies' headquarters or posting such information in company newsletters, others suggested placing information in public areas that see a diversity of drivers. Participants specifically suggested placing such information in truck stops, travel bureaus, and state welcome centers. Participants said they would be likely to hold on to such materials they pick up at a truck stop. One participant said, "If you can pull into a truck stop, you're going to have it for as many times as you go through the state." Participants also indicated that welcome centers would be a good place for drivers to pick up such information. However, participants indicated they would not be likely to stop at the port of entry to pick up such information. One participant said, "Nobody wants to stop at the port of entry unless you have to." Participants do not perceive port-of-entry officers as friendly and feel that officers are highly suspicious of truck drivers. As such, drivers avoid lingering in these areas and only stop when they have to.

Participants also suggested informing truck drivers of available parking by adding symbols to existing maps that they already use. One participant said, "Rand McNally is one of the biggest map makers. Off the interstate or even on highways, they have symbols for rest areas. It would cover Utah and the rest of the country too, but they could make a symbol that shows parking for trucks."

A couple of other participants said it would be helpful if information regarding truck parking were available on a website.

Evaluation of Visor Card Solution

Yellow Visor Card

The yellow visor card is a multi-page booklet. Each page features one region in the state of Utah.

Overall Usefulness

Participants, in general, gave neutral/positive ratings when rating the overall usefulness of the yellow visor card. Overall, participants gave an average mean rating of 4.17 on a one-to-seven rating scale.

Likes and Dislikes

When discussing what they like about this visor card, participants said they like the information provided. One participant said, "There's good general information and cross-references that tell you the name of the place and how it's laid out in your travels." Participants that are familiar with Utah also liked that this visor card was separated by area. Participants also liked that this visor card allows them to take notes. One participant said, "I like the notes section. If you're frequently driving through, you could write down if you ate here last time. I would do that. "

However, when discussing what they don't like about the yellow visor card, participants most frequently commented on the layout and design of the visor card. Participants said that when driving, they need to be able to look at something that has all of the information in one place and that this visor card has too many pages. Participants also said that this visor card could be confusing to drivers who are not familiar with Utah, as it is segmented according to region. One participant said, "Say I'm from the east coast and picked up the book. I would have to pull out my atlas and say this region is here, this region is here. It doesn't have a general map of where it is."

Participants also felt that this map was difficult to read and that it lacked critical pieces of information. While some participants said they want to know about services and amenities available in each area, others said they need to know what kind of parking is available. Specifically, participants need to know which truck stops can accommodate oversized, overweight, and hazmat trucks. One participant said, "If you're driving fuel, there's only a few places that will let you come in." Participants also want to know if parking will accommodate trucks hauling double or triple loads and if pull-through parking is available. One participant said, "With hauling doubles, I can't back into places, and the places I

do find, I'm hanging out ten feet on one end and ten feet on another. If this map gave the specifics of whether I could go there or not, and pull-through parking or parking for doubles was available, that would help."

Critical Information

When asked to indicate the most important pieces of information on this particular visor card, participants most frequently mentioned exit numbers. Multiple participants also said that location is useful to them. Multiple other participants said it is helpful to know the number of parking spaces available at each listed truck stop.

Missing Information

Participants most frequently said that this visor card is missing information about rest stops. Participants also said this visor card is lacking information about services and amenities available at each of the listed truck stops. With this particular visor card, participants said they would like to see more information about the parking available in these areas. Specifically, participants want to know if these areas have overnight parking availability and if they can accommodate double or triple loads. Participants also said it would be helpful if truck stop addresses were provided and if a general map of the state were provided.

Likelihood of Using Visor Card

When rating how likely they would be to use this map to locate long-term truck parking, most participants gave neutral ratings. On average, participants gave an average mean rating of 3.61 on the one-to-seven rating scale to describe their likelihood of using the yellow visor card.

Though some participants admitted that this visor card needs improvements, they still said they would use it to find available truck parking. One participant said, "There's still good information in it. If I had seen this first, I would be very likely to use this. It's still better than what is out there now." Another participant said, "I would use this map over GPS."

However, other participants said they would not be likely to use this visor card, as it is lacking in information and they don't perceive it would be easy to use.

Pink Visor Card

The pink visor card features map lines with dots indicating truck stops, and is broken out by I-80, I-84, and I-70 on the inside. The I-15 is shown on the inside flap of the cover.

Overall Usefulness

Most participants gave neutral ratings when rating the usefulness of the pink visor card. Participants, in average, gave a rating of 3.67 on the one-to-seven rating scale to describe the overall usefulness of the pink visor card.

Likes and Dislikes

When discussing what they like about the pink visor card, participants said they like how this card provides a lot of information and that its design is familiar to drivers. One participant said, "It's more like an atlas. You can just open it. It's easier to read when you're driving down the road." One participant commented on the QR code on the back of the brochure and stated that this particular feature could be especially helpful in learning more about each individual truck stop. He said, "One thing I noticed is that it has a QR code on the back. You could have a QR reader and scan it and get more detail. It's probably going to link you to DOT site, but you could link it to each one of these areas for more detail."

However, when stating what they dislike about the pink visor card, participants most frequently said that this visor card is too complex, too confusing, and provides too much information.

Critical Information

Participants most frequently identified exit numbers as the most important piece of information in this particular visor card. Participants also found information about parking spots and location to be useful. While one participant said he found the "Additional Resources" section of this visor card to be useful, another said he felt the QR code would be important in providing him with additional information.

Missing Information

Participants most frequently mentioned that this map lacks rest area information. Multiple participants also said that this map does not contain addresses for each of the listed truck stops, nor does it indicate which services are available at each

location. Participants also said they would like to see information regarding truck stop hours of operation.

A few participants noticed that this particular map was missing numbered reference dots on the I-80 map to indicate where each truck stop is located.

Likelihood of Using Visor Card

Participants, in general gave neutral or low ratings when rating how likely they would be to use the pink visor card to locate long-term truck parking. Participants, on average, gave a rating of 3.31 on the one-to-seven rating scale to describe their likelihood of using this map to locate long-term truck parking.

Participants, in general, felt that this visor card would be too complicated to use. Though participants like the large size of the visor card, they criticized the layout and design, saying "Back and forth is hard to keep track of" and "Booklet form is preferred." A couple of participants also criticized this visor card, stating that it lacks important information.

Blue Visor Card

The blue visor card is printed on an 8 ½ by 11 sheet of paper. It has a map of the I-15 on one side and a map of the other Utah arteries on the other side. It features information about rest stops as well as truck stops.

Overall Usefulness

When rating the overall usefulness of the blue visor card, participants' responses were mixed. Overall, nearly one-half of participants (8 of 18) gave a rating of "3" on the one-to-seven rating scale," while more than one-quarter of participants (5 of 18) gave a rating of "6." Participants, on average, gave a rating of 4.11 on the seven-point rating scale to describe the usefulness of this particular map.

Likes and Dislikes

When discussing what they like about the blue visor card, participants indicated that this visor card contains much more information than did other visor cards. Participants also like that this visor card contains a full map of the state and that it pinpoints locations for each truck stop. Participants also like that this map provides information about rest areas, where the other maps lacked this information. In addition, participants liked how this map provided information for parking along on I-15 in addition to other parts of the state as well.

When discussing what they dislike about this map, participants said this map is confusing and hard to read and difficult to look at at-a-glance. Some participants felt that this map contained too much information; one participant said, "Truckers would throw this away. It's way too busy." Other participants specifically stated that the font and colors of the text on this map is too small and difficult to read. One participant said, "It's hard to read blue on black. It might be great, but in a truck, you better have a magnifying glass."

Multiple participants indicated that this particular map is lacking critical pieces of information. One participant said "It's an incomplete map, I would say. It's great it tells you where everything is at. That's nice, but what town is near that?" Other participants said they would like to know which services and amenities are available at each stop; one participant said, "I've got to find a restaurant with good food. Utah can get rid of all these fast food joints."

Some participants were also confused with this visor card, as it had two sides and two different maps.

A couple of participants felt that this map contained information that isn't as useful. Specifically, participants didn't feel that it mattered that UDOT produced this map.

Critical Information

When asked which pieces of information are the most important to them on this map, participants mentioned: exit numbers, rest areas, locations, the direction of the truck stop at the exit, and types of stations. Participants also liked the full map view of the state in this particular visor card.

Missing Information

When asked to identify any missing information in this particular map, participants most frequently mentioned the lack of information regarding services and amenities located at each of the listed stops. Participants also felt that this map needed to include addresses of truck stops or mile markers to indicate where truck stops or rest areas are located.

Participants also felt that this map lacked information regarding available parking at each of the mentioned stops. One participant said, "If we're talking parking, this is not enough information about parking. For me, I've got to know I can pull through. If not, it's not even worth my time. Look how many trucks you have on the road that are doubles and triples. There's clearly a need. For me, all you have to do is put on there that there's pull-through parking."

Likelihood of Using Visor Card

When rating how likely they would be to use this map, more than one-half of participants (10 of 18) indicated they would not be likely to use this map, as they gave a rating of "3" or lower on the one-to-seven rating scale. Participants, on average, gave a rating of 3.41 to describe their likelihood of using the blue visor card.

Participants, in general, indicated they would not use this particular map because it is lacking information they feel is important, or because the map provides too much information and is complicated and difficult to read.

Green Visor Card

The green visor card opens vertically to first reveal a map of the I-80, I-84, and I-70 printed in black. It opens further to a full page spread of the I-15 corridor.

Overall Usefulness

Participants, in general, were positive toward the green visor card. More than one-half of participants gave a rating of "5" or higher when rating the usefulness of this particular visor card. Overall, participants gave an average mean rating of 5.06 on the one-to-seven rating scale to describe this card's usefulness.

Likes and Dislikes

When discussing what they like about the green visor card, participants most frequently said this card is easy to read. Participants specifically said that the large print in this map and the color combinations make it easy for drivers to refer to and understand this map. Participants also liked that they don't have to open this map up all the way unless they needed information about parking along the I-15 corridor.

When discussing what they dislike about the green visor card, participants had two main complaints: 1) the visor card is lacking information, and 2) the white-on-black text is difficult to read at night.

Critical Information

Participants most frequently said that the exit numbers are the most critical piece of information in this particular visor card. Participants also said that the location of the truck stops and the number of parking spaces at each truck stop is useful to them. The fact that this visor card has larger print, is easier to read, and is user-friendly is important to drivers as well.

Missing Information

When asked to identify any information that is missing from the map, participants most frequently said that this lacks information on 1) rest areas and 2) services and amenities available at each truck stop location. Participants also said this visor card needs to inform drivers about the type of parking available and the distance between each truck stop.

Likelihood of Using Visor Card

When rating how likely they would be to use the green visor card, nearly one-half of participants (8 of 18) gave a rating of "6" or "7 – very likely." Participants, on average, gave a rating of 4.71 to describe their likelihood of using the green visor card to find long-term truck parking.

Participants, in general, liked the layout and design of this particular visor card and felt that this card was easy to read. Participants indicated they would be more likely to use the green visor card if it had additional information. Specifically, drivers want to know about rest areas, services and amenities available at each location, and type of parking available.

Orange Visor Card

The orange visor card opens horizontally. The first inside flaps show a map of the I-15 and the inside of the card shows the rest of the major arteries in the state.

Overall Usefulness

Many participants had favorable views regarding the orange visor card. When rating the overall usefulness of this particular card, nearly two-fifths of participants (7 of 18) gave a rating of "6" or "7 – very useful." However, nearly two-fifths of other participants (7 of 18) gave a neutral rating of "4." Participants, on average, gave a rating of 4.94 to describe the overall usefulness of the orange visor card.

Note: In general, participants in the first group gave much higher ratings to the usefulness of this map than did participants in the second group. Differences in responding could be due to the order in which visor cards were presented. Participants in the first group were shown the orange visor card first. Therefore, to avoid bias, visor cards were presented in a different order during the second group.

Likes and Dislikes

When discussing what they like about the orange visor card, participants stated that the layout and design make it easy to read and that the color-coded information is appealing and useful. One participant said, "It's actually very easy on the eyes. If you look at exit 222. Color keeps it from blurring. If this was in one big list, I wouldn't want to look at it." Participants also liked that this map provided exit numbers and locations of truck stops. Participants felt that this map would be particularly helpful for drivers that were unfamiliar with Utah. One participant said, "For someone that's out of state, I think if they were to flip it open to a full Utah view, they could find their corresponding colors." Participants also indicated that the full map of the state would be helpful to out-of-state drivers, as these drivers wouldn't know where highways are in the state.

However, when discussing what they dislike about this particular map, multiple participants stated that this map is lacking information. Specifically, participants want to know the types of parking available at each location, how many miles are between each truck stop, and which truck stops are most accessible.

Critical Information

Participants most frequently identified exit numbers as the most important piece of information provided on the orange visor card. Participants felt that the number of parking spaces available, the location of each truck stop, and the name and brand of each truck stop are important as well.

Missing Information

When asked which information is missing from the orange visor card, participants most frequently stated that this map lacks information on rest areas.

Multiple participants also said that this map lacks information regarding the type of vehicle parking available. One participant said, "I'm sticking to oversized vehicle parking. You find yourself in some ugly situations sometimes. It doesn't show availability for doubles or triples." Participants also said this would be helpful in alleviating the shortage of parking; one participant said, "Doubles, triples, and wide loads might take up two or three or four parking spots. You get three, four, five oversized trucks in there who need those extra spots, you might lose 40 of those spots depending on the size of the loads." By informing truckers who have oversized loads where they can park, it would help drivers with oversized loads, as well as drivers with smaller loads.

Some participants said they would like to know how accessible and large each truck stop is. One participant said, "I would like to see a rating guide. You're showing three truck stops for 222; rate them by which is most accessible, which is the biggest, and how easy they are to get in and out of from the freeway. You could rate it by color or number."

Other participants said they would like to know how many miles they have between truck stops. One participant said, "I want to know how many miles there are between each exit. Being governed, I have very little time to figure out the math. If I am going from 78 and want to make it to 94, a key would be nice."

Some participants mentioned that this particular visor card does not provide information about services, amenities, and hours of operation for the truck stops listed. One participant said, "Something you might want to put on there is amenities, showers, laundry, food, that would tell us what's available."

Likelihood of Using Visor Card

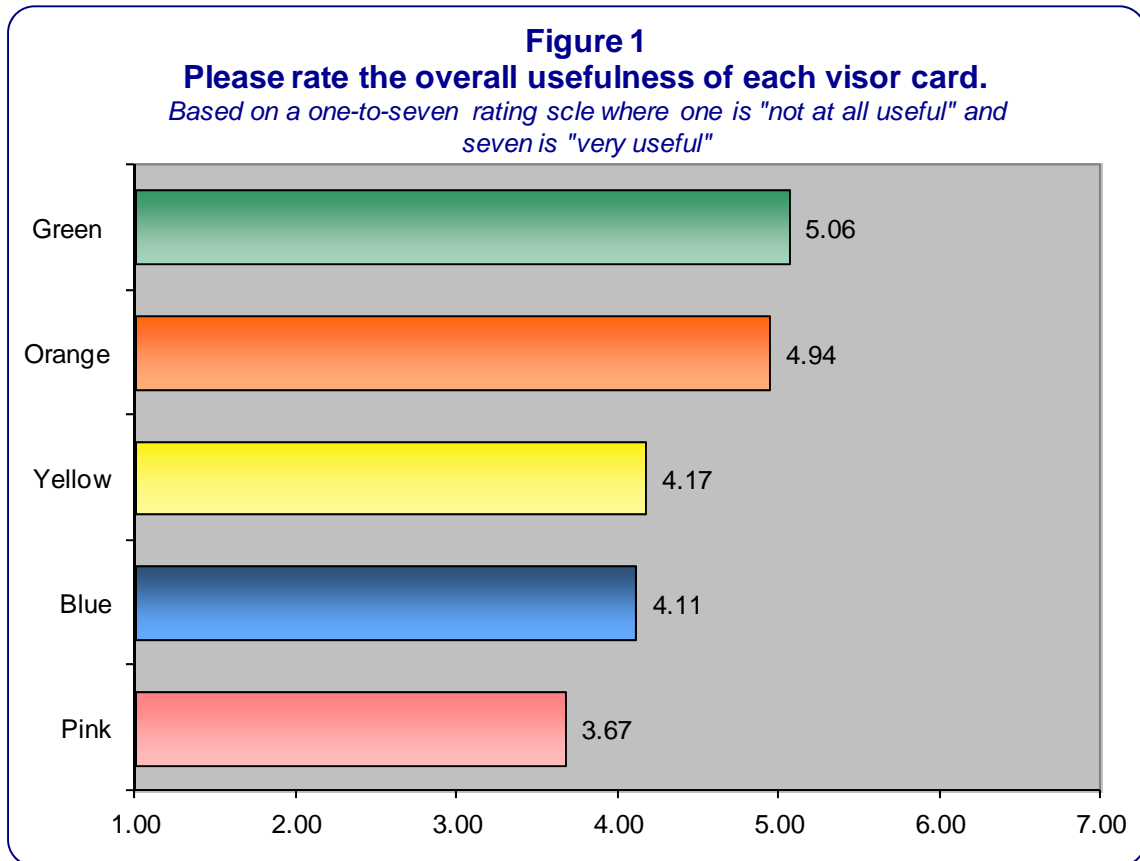
When rating their likelihood of using the orange visor card to locate long-term parking, approximately one-quarter of participants (8 of 18) gave ratings of "6" or "7" on the one-to-seven rating scale. However, one-half of participants (9 of 18) gave neutral ratings of "3" or "4" to describe their likelihood of using the orange visor card to locate long-term truck parking. Participants, on average, gave a rating of 4.94 to describe their likelihood of using this particular visor card.

Participants, in general, felt that this particular visor map would be useful for those who are not familiar with the state. One participant said, "If I was new and didn't know where to go, this would be very helpful." Another said, "It's nice to have a quick guide with basic information. Multiple participants said they would be more likely to use the orange visor map if it included additional information. One participant said, "Any information will be helpful for parking, fuel, and food," while another said, "I don't know if I can park my double size truck at any of these places."

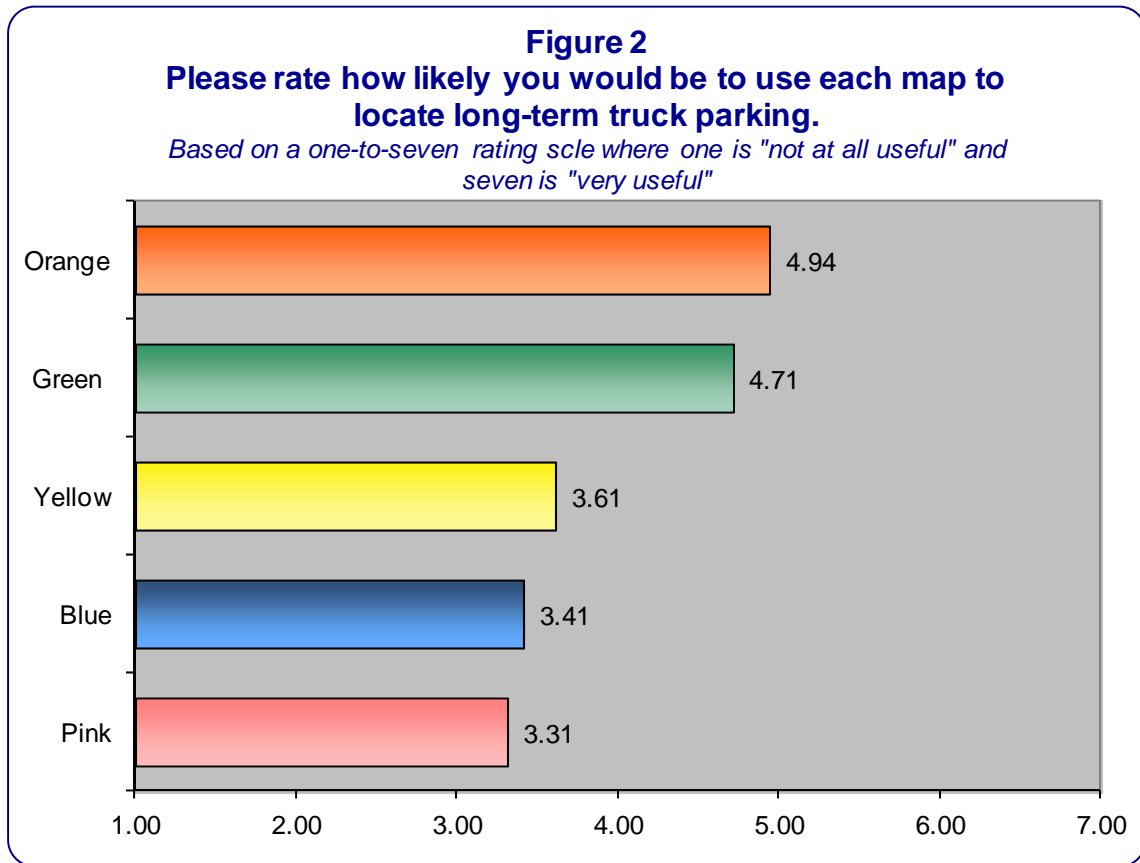
One participant, though he admitted that this map shows available truck parking, does not feel that the visor cards address the biggest problem truckers face: a shortage in parking. He said, "It shows where there's already parking, which to me is still a problem because it doesn't show me that they want to do anything to alleviate the problem. There's still a shortage. "

Comparative of Visor Card Evaluations

Figure 1 illustrates the average mean ratings participants gave when rating the usefulness of each visor card. As illustrated, participants clearly identified the green and orange visor cards as those they found to be the most useful.



When rating their likelihood of using each visor card, participants clearly identified their preference for the orange and green visor cards by indicating that they would be most likely to use these maps. Please see Figure 2.



Participants were then asked to rank each visor card in order of their preference. As Table 1 illustrates, the orange visor card received the highest overall rank score and, on average, was ranked first in terms of preference. Participants ranked the green visor card second highest in terms of preference. Participants ranked the blue visor card last in terms of preference.

TABLE 1
Please rank the five maps we just discussed according to preference.
1 is the most preferred map, 2 is the second most preferred map, and so forth, and 5 is the least preferred map

	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Average Rank	Rank Score
Yellow	3	1	8	3	3	3.11	52
Pink	1	1	3	9	3	3.50	39
Blue	0	4	2	2	9	3.83	39
Green	6	4	3	2	2	2.28	61
Orange	7	7	2	1	1	2.00	72

Suggestions for Improvement

Many participants expressed concerns about the durability of the visor cards in general. Participants indicated that in their current form, the paper is too lightweight. Participants recognized and that such materials would easily become damaged through constant use and wear and tear. Participants suggested printing visor cards on a more durable material, however, drivers do not want visor cards to be laminated. Though laminated materials would provide better protection, drivers indicated that the glare from the lamination could make it difficult to read each map, especially at night.

Many participants also suggested changing the color of the white-on-black text boxes in the green and orange visor cards. Some participants indicated that such text would be difficult to read in a truck at night, and therefore suggested testing font and text colors in actual truck lighting.

Many participants stated that they would like more information in each of the visor cards. Specifically, participants wanted to know where rest areas are located, which services and amenities are available at each truck stop location, and the type of parking available to drivers. Participants recognized the difficulty in keeping the visor cards simple and uncomplicated but indicated that these cards need to be more useful to drivers by providing more information.

Therefore, drivers suggested that symbols be used to indicate specific services and amenities (i.e. a knife and fork to indicate food). Participants further suggested that symbols be used to indicate if a truck stop has pull-through parking, if a truck stop can accommodate trucks hauling double or triple loads, and if a truck stop allows hazmat or fuel trucks at their stations. Drivers indicated that many industry maps use universal symbols and suggested incorporating these symbols into the visor card maps, as truck drivers are already familiar with these symbols and know what they mean. Other participants suggested color coding maps instead of using symbols to indicate services and amenities and type of truck parking. One participant said, "Have the spaces available for larger trucks available in a different color. Something where you can look at it and make a quick decision." Another said, "For me, it would be helpful if they had a 'D' or 'T' for doubles and triples."

Smartphone App Solution

Likelihood of Using a Smartphone App

Nearly all participants reported having cell phones, and most of these reported having Smartphones. Some participants said they have considered using an app to find parking in Utah; however, a few said they “don’t do too well with these new gadgets” and that many apps “are not very user friendly.”

Many participants, though, said they would use a Smartphone app to find parking in Utah. Participants also felt that younger drivers and new drivers would be particularly prone to using Smartphone applications to finding parking spots. One participant said, “If we’re talking about somebody coming through for the first time, you’re a little nervous about where you’re going to get fuel; those kind of things. When you’re coming through Utah, if you had access to an app, that would be a great thing.” Another said, “I think if you were to take a poll, the group coming in their 20s and 30s won’t pick up a piece of paper. They would use an app. Even me, I hardly use a road atlas anymore.”

Concerns with Smartphone Apps

Though drivers like the idea of having a Smartphone app to help them find parking, many participants voiced concerns about using their phones while driving. One participant said, “There is one major problem with it. It is illegal in parts of the country to use a cell phone. If a cop sees you, you’re done. In California, that’s a \$500 ticket.” Another participant said, “With using cell phones, you can use a blue tooth but you can’t hold a phone to your head and you can’t text. [Using an app] would count as distracted driving.”

Drivers did, however offer solutions for using this app legally. Participants specifically suggested that drivers bookmark this app and use it to plan their routes before they head out. One participant said, “It’s a know-before-you-go situation.” Some participants also admitted that if the app was easy to use, they would use it while driving—legal or not.

What Drivers Want in an App

When asked what they want in an app, participants said they want rest stops included and they want to know which services and amenities are available at truck stops. Specifically, drivers want to know if showers are available and if they can get a hot meal. Participants also said it would be helpful to know fuel prices and parking availability.

One participant who would like to know fuel prices said, "I know a lot of independents, that if they can get updates on fuel prices, they would pay for the app just to have that. When you're buying 200 gallons of fuel at the same time, a few cents add up."

All participants said it would be helpful to know parking availability. One participant said, "If you could look ahead and see that they have spaces left, and they have spaces, you think, 'I'll stop there.' If they only have a few spaces left and you're a half hour out, you think, 'I'm going to stop now.'" One participant said that such information is available in other parts of the country, and that this information is particularly helpful to drivers.

Another critical piece of information drivers want to know is whether truck stops and rest stops have parking availability for trucks pulling double or triple loads. These drivers also want to know if pull-through parking is available at various truck stops.

Smartphone App Design

Regarding the design of the Smartphone application, participants said that for this application to be successful, it is crucial that the information be accurate. Participants were skeptical that parking availability would be accurate; one participant said, "I think it would be hard to constantly update that number. There's times where I'll pull into a truck stop and you circle around and there's nothing. It goes from one to zero just like that." Participants also felt that this app would be more functional if it included various universal symbols to indicate food, showers, and availability of double- and triple-load parking.

Barriers Affecting Communication with Long-Haul Truckers

Information Sources

When asked where they get their current information about long-term parking, participants' responses were mixed. Participants in the second group were much more likely to say they communicate with other truck drivers to find available long-term parking. All participants in the second group said they talk to other truck drivers over the radio while driving. For these participants, there is a feeling of camaraderie among drivers in this industry, and participants, in general, trust their peers. However, many participants also said they use guides and maps to find the information they need. Participants also said they learn about parking availability by calling or pulling into truck stops.

Barriers to Preventing Communication

Participants indicated that the biggest barrier that prevents them from being informed about long-term parking availability in Utah is the lack of communication in general. Participants agreed that "information is key," but said, "We need more information."

Where to Place Information for it to be Accessible

Participants felt that not any one source exists to inform truckers about long-term trucking—and if such a resource does exist, truckers are not aware of it. One participant said, "It needs to be where you can find it. In the truck stops or put out by trucking organizations." Participants also suggested placing such information in state welcome centers, ports of entry, rest areas, and truck stops. In addition, participants suggested distributing such materials through affiliations such as the Utah Trucker's Association or the Utah Travel Council.

Participant Demographics

All participants were male.

One-third of participants (6 of 18) fell between the ages of 45 and 49, while nearly one-fifth (3 of 18) fell between the ages of 35 and 39.

Nearly one-half of participants (8 of 18) reported having more than 20 years of experience as a long-haul truck driver. More than one-quarter (5 of 18) have driven a truck for one to five years, and two participants each have driven for six to ten years or sixteen to twenty years.

Most participants do not drive a refrigerated truck, though two participants do.

One-half of participants (9 of 18) reported having a high school degree, while two-fifths (7 of 18) reported having some college or technical training. One participant each reported having a bachelor's degree or less than a high school education.

More than three-quarters of participants (14 of 18) reported being married, while two participants reported being single, and one reported being divorced.

APPENDIX A: OWNER / OPERATOR PARTICIPANT SCREENER

Hello, my name is _____ and I'm calling from Lighthouse Research. May I please speak with _____? We are conducting a study for the Utah Department of Transportation to gather ideas and opinions regarding overnight truck parking along the Wasatch Front. We are not trying to sell anything, and the discussion will be used for research purposes only. Individuals who qualify and participate in the groups will receive \$250.00 at the end of the groups as a thank you for their participation. ? **[If in Beaver, Cedar City, or Parowan]** We will give you an addition \$100.00 for your travel. May I ask you a few questions to see if you qualify?

1. Record gender by observation.

	Count	%
Male	4	67%
Female	2	33%

2. How long have you managed your location?

	Count	%
Less than 1 Year	1	17%
1 – 5 Years	4	67%
6 – 10 Years	0	0%
11 – 15 Years	1	17%
15 – 20 Years	0	0%
More than 20 Years	0	0%

3. How many parking stalls do you have at your location?

- 24
- 40
- 50
- 80
- 120
- 150

4. In your opinion, do you have sufficient parking stalls for the volume of overnight truck parking needed on any given day?

	Count	%
Definitely	2	33%
Probably	0	0%
Probably Not	3	50%
Definitely Not	1	17%

5. Have you ever participated in paid research discussion group?

(This question asked for verification purposes only.)

6. What is the highest level of education you have completed?

	Count	%
Less than High School	0	0%
High School Graduate	2	33%
Some College / Technical School	1	17%
Bachelor's Degree	3	50%
Post-Graduate Degree	0	0%

7. What is your current marital status?

	Count	%
Married	6	100%
Single, Never Married	0	0%
Divorced	0	0%
Separated	0	0%
Widowed	0	0%
Other	0	0%

INVITATION [FOR THOSE WHO QUALIFY]:

We're interested in learning more about your thoughts and opinions. You do not need any special skills to participate. We would like to invite you to participate in a group discussion that will take place on _____ at Lighthouse Research located at 1292 W 12700 South, Riverton, UT.

Again, I assure you we are not selling anything and you will not be asked to share any personal information, only your opinions and ideas. As we mentioned earlier, you will receive \$250.00, in cash, as a thank you for your participation at the conclusion of the focus group. ***[If in Beaver, Cedar City, or Parowan]*** We will give you an addition \$100.00 for your travel. Would you be willing to participate?

Group 1: Wednesday, January 25, 2012 5:30 PM (Owners/Managers)

Great! We would like to be able to send you directions and a reminder before the group. Can you please confirm you name, address, and contact information?
(Collect participant contact information below)

If you have any questions or find that you can't attend, please call us right away at **(801) 446-4000** so that we can find a replacement. If you care for children, please do not bring them with you because we are unable to provide child-care at our facility. Thank you for your time and for agreeing to participate in the discussion.

CONTACT INFORMATION

NAME _____

MAILING ADDRESS _____

MAIN PHONE _____ **ALTERNATE PHONE** _____

E-MAIL ADDRESS _____ **CELL PHONE** _____

RECRUITED BY _____ **DATE/TIME RECRUITED** _____

RECRUIT SOUCE _____

APPENDIX B: OWNER / OPERATOR PRE-GROUP QUESTIONNAIRE

1. How many spaces do you have dedicated to long term truck parking?
 - 30
 - 46
 - 50
 - 88
 - 125
 - 150

2. On an average *weeknight*, what percentage of your truck parking is full?
 - 25%
 - 80%
 - 100% (4)

3. On an average *weekend*, what percentage of your truck parking is full?
 - 35%
 - 90%
 - 100% (4)

4. What percentage of your time is your truck parking full to capacity?
 - 0%
 - 15%
 - 50% (2)
 - Overnight
 - Overnight it's full. It's open during the day.

5. Do you notice commercial trucks parking outside of your facility in areas not meant for long term truck parking?

	Count	%
Yes	3	50%
No	3	50%

6. *If yes:* How many trucks, on average, park outside your facility in areas not meant for long term truck parking?

- 1, maybe 2, not often
- 3 to 5
- 12 to 20

7. Is there a peak time of the year that your parking area is fuller? (Season, month)

- No (3)
- Summer (3)

8. Do you currently track truck parking availability on your property?

	Count	%
Yes	0	00%
No	6	100%

9. *If yes:* how frequently do you track truck parking availability?

- N/A

APPENDIX C: OWNERS / OPERATOR DISCUSSION GUIDE

Objectives

The main goal of this research project is to understand the decision-making inputs necessary to expand truck parking at truck stops. Commercial truck stop owners/operators will be introduced to the results of the I-15 truck parking survey and then asked to react to results as well as proposed truck-parking solutions that might involve capital investment. Commercial owners/operators will be able to provide observations about what truck parking solutions will most likely be accepted or rejected by themselves as well as by truck drivers. Guided questions and discussion will determine their interest in engaging in a public/private partnership to increase truck-parking availability along the I-15 corridor in Utah. The specific objectives of the research are itemized below.

- Gather profile information from participants selected through pre-existing relationships with UDOT.
- Evaluate the current truck stop parking availability by discovering the following:
 - How many spaces are available at each individual's truck stop
 - How full the truck parking is on an average weeknight
 - How full the truck parking is on an average weekend
 - How often truck parking is full to capacity
- Discuss the level of concern truck stop owners/operators have towards the lack of parking for long haul trucks
- Identify the areas with the greatest shortage of parking availability
- Discover owner/operators feelings towards expansion of their parking
- Identify the perceived benefits of expanding parking availability
- Identify the perceived challenges of expanding parking availability
- Identify the benefits and costs of opening a new site versus adding more spots to an existing site
- Discover barriers to communicating with truck drivers when they are on the road looking for long-term parking
- Discover the most preferred methods for communicating with truck drivers about available parking spaces for long-term parking
- Determine level of interest in partnering with the public sphere to help truck drivers find parking spaces
- Identify information that would motivate owners/operators to increase the amount of truck parking at their location

Part One: Introduction and Greeting

15 Minutes

Moderator Introduction

- Moderator introduction
- Ask participants to turn off cell phones
- Advise participants of video and audio taping
- Inform participants there is someone viewing the group to take notes and ensure participant ideas and opinions are recorded correctly

Purpose of Focus Group

"The reason we are here today is to gather your perceptions, understanding, and knowledge of the problem of long-term truck parking along the I-15 corridor, and to get your impressions and opinions of some solutions that are being developed to deal with this problem. We are very interested in each of your personal thoughts and opinions. We want your unbiased opinions, thoughts, and ideas. Please feel free to share even if your opinion differs from someone else in the group."

Moderator Role

- To introduce the discussion topics, ask probing questions, and guide the discussion through each of the relevant issues.
- The moderator is not to guide the participants' responses, or give advice.

Discussion Rules

- Speak one at a time; we want to hear all of your ideas.
- Everyone needs to participate; we need everyone's ideas and comments.
- There are no wrong or right answers; we invited each of you here so we could understand what you know and how you feel about these topics. This is your opportunity to express your opinions, regardless of what others think.
- I am not an expert on the topic.

Participant Icebreaker

Participants will be asked to introduce themselves, including the following four items:

- Name
- How long you've been in the business
- How many spots dedicated to long-term truck parking are at your facility

Part Two: Owner/Operator Concern *25 minutes*

- Q1.** What are your thoughts about the availability of long haul long term parking in Utah?
- Q2.** What areas in Utah do you think have a long-term parking shortage? (Show map of Utah and have participants mark spots that have a shortage.) Discuss.
- Q3.** What do you think is the biggest challenge to finding available long-term truck parking in Utah?
- Q4.** When you think about long-term truck parking at your facility, what comes to mind? (Generate general list of words, record ideas on flipchart)
- Q5.** How often is your truck parking full to capacity?
- Q6.** If there is a lack of long-term truck parking at your facility, how does it make you feel? Tell me more.

Think, Pair, Share Activity

1. A recent Utah Department of Transportation survey showed that long haul truck drivers need more information about parking availability along the I-15 corridor. If you were trying to fix the problem of long-term truck parking availability to drivers, how would you do this? Please write your ideas on **Page 2** of your handout.
2. Have participants share their ideas with the person next to them and come up with the most compelling idea for solving the problem of the lack of long-term truck parking along the I-15 corridor.
3. Have each pair of participants share the idea they created with the whole group.
4. Discuss why they think their ideas would be effective.

Have participants rank solution ideas in their handout, then discuss.

Part Three: Owner/Operator Expansion

20 minutes

This section of the discussion guide will focus on the option of truck stop expansion to accommodate more long haul truck drivers' parking needs.

Q7. With a show of hands, how many of you have considered expanding the number of long-term truck parking spaces that you have?

Have participants turn to **page 4** in the handout and write down some ideas for motivators and barriers to expanding. Discuss responses.

Q8. How would expanding benefit you as the owner/operator?

Q9. What would help you to expand the number of parking spaces?

Q10. What are some of the barriers that keep you from expanding?

Q11. How would expanding be a cost to you as the owner/operator? What problems do you foresee?

Q12. Why haven't you considered expanding?

- Q13.** What would you need in place in order to consider expanding the number of long-term truck parking spaces that you have?
- Q14.** What are the differences between expanding your truck parking facilities and opening a new truck stop?
- Q15.** How do you make a decision to expand your truck parking facilities or to build a new truck stop? Generate list of ideas and write them on the flipchart.

Part Four: **Communication With Truck Drivers** *15 minutes*

- Q16.** With a show of hands, how many of you track parking availability on your property? If yes, how do you advertise this information? Record locations/companies they advertise with on the flipchart. Note whether it is a Smartphone app or otherwise.
- Q17.** What are some other ways that you communicate with truckers? Generate list on flipchart.

Have participants cast two votes for options for communication with truckers, according to how much they prefer each type of communication. Options will include Smartphone apps, radio, word of mouth, not at all, etc.

Discuss reasons why they like and dislike each option. Do they use any of the standard materials? Why or why not?

- Q18.** How do you think truck drivers learn about parking availability at your truck stop?
- Q19.** What is your biggest barrier to communicating with truck drivers about long-term truck parking? (Record on flipchart)
- Q20.** How would you prefer to communicate with truck drivers about available parking spaces for long-term parking? Why?

If a Smartphone App was developed that would communicate information to truckers as they drive along the I-15 corridor...

- a. What kinds of things would you like the app to show or do?
- b. What else besides parking availability would you like included in a Smartphone App to improve the experience of driving along the I-15 corridor?

A free map is being developed that will communicate information to truckers that drive along the I-15 corridor.

Q21. How would you feel about having your facility be included in such a map?

Q22. Would you be willing to make the map available at your truck stop in a prominent location for truck drivers? If no, why not?

Part Five: Looking Ahead

15 Minutes

Q23. Would you ever consider partnering with the state on helping truck drivers find available parking spaces at your truck stop? Why or why not?

Q24. From your perspective what would be the elements of a public private partnership? (list on flipchart)

Q25. What would you need from the State of Utah that would attract you to increase your truck parking?

Have participants consider the kinds of information that would attract them to increase their truck parking, and write some notes in their handout.

Discuss.

Q26. What measures would you use to address a future long-term truck parking shortage?

Part Six: Conclusion

5 Minutes

Q27. If you could change one thing about long-term truck parking availability, what would it be?

Q28. If you were the person in charge of this campaign to solve the problem of limited parking for long haul truck drivers, what would you do to make sure it was successful?

Moderator will ask participants if they have any additional comments. Moderator will also thank participants for their participation and remind them to pick up incentive envelopes.

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APPENDIX D: OWNER / OPERATOR PARTICIPANT HANDOUT

Map Activity

Circle the areas on the map that you think have the greatest long haul parking shortage in the state of Utah.

- Along the I-15 between the 14 and the 50, and along I-70 near Fish Lake
- Salt Lake City area (2)

Think, Pair, Share Activity

A recent Utah Department of Transportation survey showed that long haul truck drivers need more information about parking availability along the I-15 corridor. If you were trying to fix the problem of long-term truck parking availability to drivers, how would you do this? Please write your ideas below.

- Allow DOT markers inside the 80 business loop, ease sign restrictions to help drivers locate us, create a Salt Lake City locator guide on GPS or website
- Better signage, designated areas to park, inform companies of where there is parking, provide incentives for frequent parkers
- Designated long haul parking lots, pay to park, working with businesses to create lots for drivers paid for by distribution companies, greater communication via GPS with good street areas to park
- Expand rest area parking, create shuttle service to local amenities, work with warehouse/distribution centers to expand parking, work with travel centers to give incentives to create more parking
- More spaces in rest areas, truck pullouts, spaces on exits, website to list truck stops and number of spaces at the facility
- Paid parking, letting drivers know about parking availability in old stores, Find a way to get more drivers to drive at night, shuttle service, expand rest area parking

Ranking Activity

Please rank the solutions we just discussed in order of preference, where 1 is the solution you think would be the best, 2 is the solution you think would be second best, and so on.

Rank 1

- DOT markers
- Expand rest area parking
- Expand rest area parking and use shuttles
- Expanding rest stops
- GPS
- Locator

Rank 2

- DOT markers (2)
- Expand rest stops
- Global website for truck drivers
- More spaces in rest areas
- Park at secure distributors

Rank 3

- DOT markers
- Expanding rest areas
- Magazines (2)
- Tax incentives, government grants, cost, return on investment, net operating costs
- Website

Rank 4

- DOT markers
- GPS
- Magazines
- Park at distributors (2)

Truck Stop Expansion

10. In your opinion, what would motivate truck stop owners or operators like you to expand their truck stop parking space availability? Please list all the reasons below.
- Better returns on investments, tax incentives
 - Compensation for maintenance, tax incentives
 - Free property, donated land
 - If the state purchased and maintained the lot
 - Tax breaks on property, revenue to maintain upkeep and repair
 - Tax incentives, government grants
11. In your opinion, what would discourage truck stop owners or operators like you from expanding their truck stop parking space availability? Please list all the reasons below.
- Cost, return on investment, net operating costs
 - No return on investment, cost
 - Return on investment, maintenance cost, price of property
 - ROI, maintenance
 - ROI, space, cost of upkeep
 - The mess, maintenance costs

Private Public Partnership

12. What would you need from the state of Utah that would attract you to increase your truck parking availability?
- Incentives
 - Money
 - Tax breaks on property, help maintaining the lot

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APPENDIX E: LONG HAUL TRUCK DRIVER PARTICIPANT SCREENER

Safety Manager Intro:

Hello, my name is _____ and I'm calling from Lighthouse Research. May I please speak with the safety manager?

We are conducting a study for the Utah Department of Transportation to gather ideas and opinions regarding overnight truck parking along the Wasatch Front. Terry Smith with the Utah Trucking Association gave me the number and the names of several professional truck drivers who have been awarded driver of the month that I would like to contact. We are not trying to sell anything, and the discussion will be used for research purposes only.

Can you tell me how I can get in touch with _____ from your company to see if they would be willing to participate in a paid two hour discussion group at our office?

Trucker Intro:

Hello, my name is _____ and I'm calling from Lighthouse Research. May I please speak with _____? We are conducting a study for the Utah Department of Transportation to gather ideas and opinions regarding overnight truck parking along the Wasatch Front. We are not trying to sell anything, and the discussion will be used for research purposes only. Individuals who qualify and participate in the groups will receive \$125.00 at the end of the groups as a thank you for their participation. May I ask you a few questions to see if you qualify?

8. Record gender by observation.

	Count	%
Male	18	100%
Female	0	0%

9. Do you drive as a long haul driver?

(This question asked for verification purposes only.)

10. Do you typically drive along the Wasatch Front?

(This question asked for verification purposes only.)

11. Do you spend the night in your truck?

(This question asked for verification purposes only.)

12. Which of the following ranges includes your age? (Recruit a good mix of ages.)

	Count	%
18 to 25	1	6%
25 to 29	1	6%
30 to 34	1	6%
35 to 39	3	17%
40 to 44	1	6%
45 to 49	6	33%
50 to 54	1	6%
55 to 59	2	11%
60 to 64	1	6%
65 and Older	1	6%

13. Have you ever participated in a paid research discussion group?

(This question asked for verification purposes only.)

14. How many years have you been driving as a long haul trucker? (Recruit a good mix of years of experience.)

	Count	%
Less than 1 year	0	0%
1 - 5 years	5	28%
6 - 10 years	2	11%
11 – 15 years	1	6%
16 – 20 years	2	11%
More than 20 years	8	44%

15. Do you drive a refrigerated or non-refrigerated truck?

	Count	%
Refrigerated	2	11%
Non-refrigerated	16	89%

16. What is the highest level of education you have completed?

	Count	%
Less than High School	1	6%
High School Graduate	9	50%
Some College / Technical School	7	39%
Bachelor's Degree	1	6%
Post-Graduate Degree	0	0%

17. What is your current marital status?

	Count	%
Married	14	78%
Single, Never Married	2	11%
Divorced	1	6%
Separated	0	0%
Widowed	1	6%
Other	0	0%

11. Which trucking company do you drive for?

- A and K
- A1 Pioneer Moving and Storage
- Admiral Transports (Pepsi Cola)
- Alpha Transport (2)
- Container Transfer (2)
- Conway Freight
- Geneva Rock
- Kearns Towing
- Kelly Transport, Cottonwood Motors
- KT Transport
- Mayflower Trans
- Ol'Skool Trucking
- PraxAir
- Pride Transport
- Walmart (2)

INVITATION [FOR THOSE WHO QUALIFY]:

We're interested in learning more about your thoughts and opinions. You do not need any special skills to participate. We would like to invite you to participate in a group discussion that will take place on _____ at Lighthouse Research located at 1292 W 12700 South, Riverton, UT.

Again, I assure you we are not selling anything and you will not be asked to share any personal information, only your opinions and ideas. As we mentioned earlier, you will receive \$70.00, in cash, as a thank you for your participation at the conclusion of the focus group. Would you be willing to participate?

Group 2: Wednesday, January 25, 2012 7:30 PM (Truckers)

Group 3: Thursday, January 26, 2012 3:30 PM (Truckers)

Great! We would like to be able to send you directions and a reminder before the group. Can you please confirm you name, address, and contact information? (Collect participant contact information below)

If you have any questions or find that you can't attend, please call us right away at (801) 446-4000 so that we can find a replacement. If you care for children, please do not bring them with you because we are unable to provide child-care at our facility. Thank you for your time and for agreeing to participate in the discussion.

CONTACT INFORMATION

NAME _____

MAILING ADDRESS _____

MAIN PHONE _____ **ALTERNATE PHONE** _____

E-MAIL ADDRESS _____ **CELL PHONE** _____

RECRUITED BY _____ **DATE/TIME** _____

RECRUITED _____ **RECRUIT SOURCE** _____

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APPENDIX F: LONG HAUL TRUCK DRIVER DISCUSSION GUIDE

Objectives

The main goal of this research project is to identify the parking solutions that will most effectively solve the problem of long-haul truck parking along the I-15 corridor. The research study will present proposed solutions and determine drivers' willingness to use or adopt a solution that will help them locate truck parking. The research will also determine the key elements or barriers to communicating with drivers about truck parking availability. The specific objectives of the research are itemized below.

- Gather profile information from participants randomly selected from the target audience
- Evaluate the effectiveness of the proposed solution by discovering the following:
 - Overall appeal of the map
 - The value of the information provided on the map
 - The clarity and comprehensiveness of the information on the map
 - The appeal of the overall size, color, and print, and its ease of use
 - Aspects of the map resonate most and why
 - Ways the map could be improved to increase its effectiveness
 - Level of motivation drivers would have to use the map and why
- Identify the importance of receiving information about truck parking availability in real time
- Identify the most effective method of communicating long-term truck parking availability to truck drivers
- Discover barriers to communicating with truck drivers when they are on the road looking for long-term parking
- Discover the most preferred attributes of truck stops for long-term parking
- Identify current smart phone app usage for locating long-term truck parking
- Identify anticipated usage of an app for Smartphones, should it be developed
- Identify key elements to be included in a successful Smartphone app that will provide long-term truck parking
- Discover biggest challenges and barriers to finding available long-term truck parking in Utah
- Discover changes drivers would make in regards to long-term truck parking availability

- Determine participants' intention to get screened and how frequently they intend to get screened
- Determine reasons drivers may find public/private rest areas less attractive
- Determine the locations in Utah suffering from the greatest long-term truck parking shortage

Part One:

Introduction and Greeting

10 Minutes

Moderator Introduction

- Moderator introduction
- Ask participants to turn off cell phones
- Advise participants of video and audio taping
- Inform participants there is someone viewing the group to take notes and ensure participant ideas and opinions are recorded correctly

Purpose of Focus Group

"The reason we are here today is to gather your perceptions, understanding, and knowledge of the problem of parking along the I-15 corridor, and to get your impressions and opinions of some solutions that are being developed to deal with this problem. We are very interested in each of your personal thoughts and opinions. We want your unbiased opinions, thoughts, and ideas. Please feel free to share even if your opinion differs from someone else in the group."

Moderator Role

- To introduce the discussion topics, ask probing questions, and guide the discussion through each of the relevant issues.
- The moderator is not to guide the participants' responses, or give advice related to this topic during the discussion.

Discussion Rules

- Speak one at a time; we want to hear all of your ideas.
- Everyone needs to participate; we need everyone's ideas and comments.
- There are no wrong or right answers; we invited each of you here so we could understand what you know and how you feel about these topics. This is your opportunity to express your opinions, regardless of what others think.
- I am not an expert on the topic.

Participant Icebreaker

Participants will be asked to introduce themselves, including the following three items:

- Name
- How long you've been driving
- Number of people in your household

Part Two: Survey Results Questions

20 minutes

- Q29.** When you think about long-term truck parking in Utah, what comes to mind? (Generate general word association list of the issues, record ideas on flipchart)
- Q30.** Do you feel there is a long-term parking shortage in Utah?
- Q31.** What areas in Utah have a long-term parking shortage? (Show map and have participants circle the areas.)
- Q32.** When you're on the road, how do you find parking spots?
- Q33.** Do you typically go to the same places to park? Or do you change?
- Q34.** What factors do you consider when making a decision of where to park?
- Q35.** What is the biggest challenge to finding available long-term truck parking in Utah when you need it to rest or to meet Federal hours-of-service regulations?
- Q36.** What other types of informative material do you have in your truck? (ex: maps, books)
- Q37.** Where do you store materials providing parking information?
- Q38.** What types of communication devices do you have in your truck?

Think, Pair, Share Activity

5. A recent Utah Department of Transportation survey showed that long haul truck drivers like you need more information about parking availability along the I-15 corridor. If you were trying to communicate long-term truck parking availability to drivers, how would you do this? Please write your ideas on **Page 2** of your handout.
6. Have participants share their ideas with the person next to them and come up with the most compelling idea for communicating parking information to long haul drivers.
7. Have each pair of participants share their ideas with the whole group.
8. Discuss why they think their ideas would be effective.

Part Three: Evaluation of Visor Card Solution

60 minutes

This section of the discussion guide will assist in evaluating the effectiveness of the proposed visor card as a valuable source of information to inform drivers of parking solutions along the I-15 corridor.

There are a lot of ways to communicate information to long haul truck drivers. I am going to show you a couple of tools that are being created to improve communication.

Read, Write, and Discuss Activity

Have participants take a few minutes to look at the 1st map and read it over. Then have them answer questions in their handout relating to the map.

- Please rate the overall usefulness of this map, using a one-to-seven scale where one is “not at all useful” and seven is “very useful.” Explain your answer.
- Which pieces of information on the map are most important to you? (List all)
- What information, if any, is missing from the map?
- Please rate how likely you would be to use the map to locate long-term truck parking, using a one-to-seven scale where one is “not at all likely” and seven is “very likely.”

After participants have answered the questions in their handout about the map, discuss their opinions and perceptions of the map.

Introduce the rating cards to participants: give each participant rating cards to use during the discussion. Explain what the numbers represent. Tell participants to use the numbers to show how they rated the map.

Discuss the following questions for the map:

Q39. Please show me how you rated the overall appeal of this map, using the rating cards: using a one-to-seven scale where one is "very unappealing" and seven is "very appealing." Please explain.

To identify, in detail, how participants feel about the map, draw a "T" chart on the flipchart and write the words "like" and "dislike" at the top. Ask participants to explain what they like and what they dislike about the map. Record responses on the flipchart.

Q40. Which pieces of information here are most important to you? Explain.

Q41. Which pieces of information are less important to you? Explain.

Q42. What other information would you like included on this map? Explain.

To identify in detail how participants feel about the ***ease of reading the map***, draw a "T" chart on the flipchart and write the words "like" and "dislike" at the top. Ask participants to explain what they like and what they dislike about the physical appearance of the map. Record participant responses on the flipchart. Prompt with size of the map, size and style of font, and colors of letters, overall colors, and overall formatting.

Q43. Using the rating cards, please show me how likely you would be to use this map to locate long-term truck parking, using a 1 to 7 scale where 1 is not at all likely and 7 is very likely. Discuss your answer. Why or why not?

Repeat the above evaluation for all versions of the map. (5 in total)

- Yellow
- Pink
- Blue
- Green
- Orange

If participants feel that this would not be helpful, discuss what would work for them. What does work for them?

Part Four: Ranking Activity

10 minutes

Have participants rank the **five** maps in their handout in order of preference, where 1 is their most preferred map, 2 is their second most preferred map, 3 is their third most preferred map, 4 is their fourth preferred map, and 5 is their least preferred map.

Discuss their reasons for ranking the maps as they did.

Part Five: Discussion of Smartphone App Solution

10 minutes

- Q44.** By a show of hands, how many of you have used a Smartphone app to locate long-term truck parking? If yes, which app? Record apps on the flipchart.
- Q45.** If there were a Smartphone app designed specifically for professional truck drivers while driving in Utah that provided truck parking availability, would you use it? Explain your answer.
- Q46.** What kinds of things would you like the app to show or do?
- Q47.** What else, besides parking availability, would you like included in a Smartphone app to improve the experience of driving along the I-15 corridor?
- Q48.** How important is it for you to receive information about truck parking availability in real time? Using the rating scale, please use a one-to-seven scale, where one is "not at all important," and seven is "very important."

Part Six: Barriers Affecting Communication with Long Term Truckers

10 Minutes

This section of the discussion guide is designed to define the barriers to communicating with truck drivers when they are on the road looking for long-term truck parking, and examine how participants would prefer to receive communication.

Defining Most Important Barriers Activity

- Q49.** Where do you currently receive your information about parking?
- Q50.** What do you wish would be different about the communication you can receive?
- Q51.** What could be done to improve communication of parking information?

Part Seven: Conclusion

5 Minutes

- Q52.** What is the most important change you would make regarding long-term truck parking availability?
- Q53.** If you were the person in charge of this campaign to improve communication regarding parking for long haul truck drivers, what would you do to make sure it was successful?

Moderator will ask participants if they have any additional comments. Moderator will also thank participants for their participation and remind them to pick up incentive envelopes.

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APPENDIX G: LONG HAUL TRUCK DRIVER PARTICIPANT HANDOUT

Map Activity

Circle the areas on the map that you think have the greatest long haul parking shortage in the state of Utah.

- All along the I-15 corridor (3)
- All along the I-15, up to Park City, and east along the 80
- All of the I-15, the 70, Ogden
- Along the I-15 from Ogden to Provo
- Around Salt Lake City
- Around Salt Lake, Provo, areas in the south
- Logan area, Salt Lake City area, Provo and south of Provo to the 50, St. George
- Logan, Flaming Gorge, Park City, Price, Fish Lake, Torrey, Zion, Bryce Canyon, Monticello, Moab, Arches, Blanding
- Ogden, Salt Lake City, Park City, Provo, Beaver, near the 50 and 60, Cedar City, St. George, Vernal
- Park City and Ogden, the area around 28 on the I-15, Provo
- Salt Lake City area
- Salt Lake City area and Provo area
- Salt Lake City area, St. George
- The I-15 between Cedar City and Provo
- The I-15 between St. George and Cedar City, I-15 from Logan to 28, I-80 West, southeastern Utah
- The Wasatch front and along the I-80 East of Salt Lake City, the western side of I-70, St. George

Think, Pair, Share Activity

A recent Utah Department of Transportation survey showed that long haul truck drivers like you need more information about parking availability along the I-15 corridor. If you were trying to communicate long-term truck parking availability to drivers, how would you do this? Please write your ideas below.

- Add truck-only parking along the mid-area between cities. They need to be easy in, easy out, no more than one-half of a block off the highway and well lit.
- Billboards, radio ads, notices at truck stops
- Billboards, signs, TV, radio, truck stops, Internet, information centers
- Highway signs, state maps, symbols on maps, company newsletter, exit guide book
- I would have some stops where it was easy to get in and out of, with good lighting and food, showers, and entertainment around.
- Internet, TV commercials, signs, radio ads
- Let the trucking companies know, use the CB radio, newsletter, have someone call to ask, signs
- Make more parking for long combination trucks by offering larger spots with signs and road side information.
- More rest areas, more designated truck parking, make it legal to park somewhere close off the freeway, make truck stop parking bigger so you can get in and out
- Overhead message board signs specifically for truck drivers, using the local radio stations, using CB radio from truck stops, more truck-only pull offs
- Pamphlets at points of entry and truck stops, road signs, visible rules at rest stops
- Phone apps, map materials, truck stop grid, overhead signs, roadside signs
- Signage indicating how far until the next available commercial parking, have signs along the highway showing parking
- Signs, trade magazines, travel materials, point of entry handouts, if the point of entry had information available or if they passed it out it would be helpful
- Signs, what are the next three rest areas, notices in truck stops, flyers to company headquarters
- Use the electronic, overhead signs, have a radio AM/FM update like they use for construction, better signs to get you to additional parking areas
- When renewing licenses, give a parking-friendly guide, get the Utah Travel Bureau to make a website with parking and amenities in Utah
- Word of mouth, Google

Yellow Visor Card

1. Please rate the overall usefulness of this map, using a one-to-seven scale where one is "not at all useful" and seven is "very useful." Explain your answer.

	Count	%
1 = Not at all Useful	0	0%
2	3	17%
3	4	22%
4	2	11%
5	5	28%
6	4	22%
7 = Very Useful	0	0%
<i>Average Mean</i>	<i>4.17</i>	
<i>Median</i>	<i>4.50</i>	

Please explain your rating.

- Exits and stops
- Good general information
- Hard to read, must look back and forth
- I don't know if it has large parking or not.
- I have doubles and cannot back in to a parking spot, and what I can pull into I'm hanging out on both ends.
- I like the book because it's better than nothing, but it could be a little more detailed
- Information is critical in OTR driving. It gives you more time. Time is money!
- It could have rest areas listed as well as truck stops.
- It could use more information (i.e. services, restaurants, showers, shop, and tires).
- It is difficult to read.
- It needs more information such as oversized, overweight parking and HAZMAT okay.
- It tells you where you can park but not what kind of parking is available (i.e. HAZMAT).
- More information is better.
- Not as easy to match up
- Not large enough

- There are more stops along the way.
 - Too many pages, information is not in one spot
 - You have to look at too many things.
2. Which pieces of information on the map are most important to you?
- Amount of parking, different sections of the state
 - Exit numbers
 - Exit numbers, parking spaces available, name of establishment
 - Exit numbers, parking spaces
 - Exits, general information
 - Geographic areas on different pages
 - Highway location and amenities
 - It is good to know that there is parking available, but this is too vague.
 - Location and distances
 - Locations and amount
 - Mile markers, exits
 - Regional maps are helpful.
 - Size of stop (number of parking spaces available)
 - The exits they are at, the towns
 - The notes area
 - Where they are and DOTs
3. What information, if any, is missing from the map?
- A general map of all the maps
 - Addresses to exactly where you are going
 - Amenities
 - Distance and direction off the freeway
 - Fuel type, miles to location, parking availability
 - It needs more parking details, such as details on stations and no parking areas.
 - More information (services, restaurants, shops, tires, etc.)
 - No amenities and number of parking spaces
 - Rest areas (2)
 - Rest areas, towns
 - Rest stops
 - Roadside parking or rest areas, HAZMAT parking availability
 - Size of the lot
 - Type of parking, services available at the locations, phone numbers, websites
 - Whether it has overnight parking or not

4. Please rate how likely you would be to use the map to locate long-term truck parking, using a one-to-seven scale where one is "not at all likely" and seven is "very likely."

	Count	%
1 = Not at all Likely	1	6%
2	5	28%
3	3	17%
4	2	11%
5	6	33%
6	0	0%
7 = Very Likely	1	6%
<i>Average Mean</i>	<i>3.61</i>	
<i>Median</i>	<i>3.50</i>	

Please explain your rating.

- I feel like I'm looking at Rand McNally.
- I frequently park at my home base.
- I would because it gives a driver something to use to find parking
- Information is helpful.
- It does not let you know where they are.
- It gives the general idea.
- Most places don't allow long term truck parking.
- Not colorful enough but better information
- Not easy to use
- Not enough information
- Seems a little bit too much
- Takes more time
- The paper is lightweight. It would need to improve.
- There are just too many pages and it takes too long to find what I want.
- There needs to be more information.
- Time is money, and any time saver is critical.

Pink Visor Card

5. Please rate the overall usefulness of this map, using a one-to-seven scale where one is "not at all useful" and seven is "very useful." Explain your answer.

	Count	%
1 = Not at all Useful	1	6%
2	2	11%
3	7	39%
4	3	17%
5	2	11%
6	3	17%
7 = Very Useful	0	0%
<i>Average Mean</i>	<i>3.67</i>	
<i>Median</i>	<i>3.00</i>	

Please explain your rating.

- A lot of information
- Book form is more preferred but it needs more detail
- Color coding, easy to read
- Hard to read
- Harder to use
- It is useful but more busy so it could get you lost in trying to find certain places
- It lets you know exit numbers
- It's more open, no turning pages, more like an atlas
- It's too complex.
- The information is spread out too much.
- Too big for a quick reference
- Too big; the I-80 doesn't have the marks on the map.
- Too confusing to me so far
- Too much back and forth looking
- Too much flipping
- Useful at a glance, but I would tear it up.
- Useful but incomplete, better design than Yellow
- Worse than the Yellow

6. Which pieces of information on the map are most important to you?

- All the areas are easy to see for the I-15.
- Easy to read
- Exit numbers
- Exit numbers and locations
- Exit numbers, number of parking spots
- Exit numbers, number of parking spots, brand of stop
- Exit numbers, what's there, parking spaces
- It's in a category.
- Location of fuel and food stops
- Location, number of spaces, I like the QR code
- None
- Parking spaces, exit numbers
- Rest stops
- Services provided
- The additional resources
- The exit numbers

7. What information, if any, is missing from the map?

- Addresses, phone numbers, and no rest area information
- Addresses
- Amenities, no rest areas
- Double and triple parking, pull through parking
- I-80 does not have numbered dots.
- I-80 doesn't show where to stop on the map
- If it is a fuel stop, a rest area, or overnight parking
- Need more information
- No amenities or services, not enough info
- No times of operation, miles to each location
- Rest areas (2)
- Rest areas and shower facilities
- Rest areas, food, etc.
- Rest stops
- Services provided
- Services, hours of operation
- The map itself needs more information.

8. Please rate how likely you would be to use the map to locate long-term truck parking, using a one-to-seven scale where one is "not at all likely" and seven is "very likely."

	Count	%
1 = Not at all Likely	2	13%
2	2	13%
3	5	31%
4	3	19%
5	4	25%
6	0	0%
7 = Very Likely	0	0%
<i>Average Mean</i>	<i>3.31</i>	
<i>Median</i>	<i>3.00</i>	

Please explain your rating.

- A fold type is not preferred, booklet form is preferred.
- Back and forth is hard to keep track of
- Complicated
- I just do not like the layout.
- It needs more information.
- It's better to read.
- Too complex
- Not a compact format
- Too much to look for, still no rest areas
- Not very clear
- The larger size is okay but not great.
- It's better than nothing and the QR could link to more information
- Not enough information

Blue Visor Card

9. Please rate the overall usefulness of this map, using a one-to-seven scale where one is "not at all useful" and seven is "very useful." Explain your answer.

	Count	%
1 = Not at all Useful	0	0%
2	2	11%
3	8	44%
4	1	6%
5	1	6%
6	5	28%
7 = Very Useful	1	6%
<i>Average Mean</i>	<i>4.11</i>	
<i>Median</i>	<i>3.00</i>	

Please explain your rating.

- Exit numbers and number of spots
- Hard to read
- Has rest areas listed along with parking spaces
- Has rest areas mentioned
- It gives more information but is still limited.
- It is not user friendly.
- It lets you know the parking places.
- Lots of information, exit numbers
- Not enough information
- Overall information for exit numbers
- Pinpoint locations, add more rest area locations
- Separates rest area from truck stops
- The print is too small. The info covers up the roads.
- The writing is too small. It would be hard to read while moving.
- Too busy, small print
- Too hard to read, too busy if it was all you had, no good place for notes
- Too much information, poor formatting, major eye cluster
- Very simple to use

10. Which pieces of information on the map are most important to you?

- All, rest areas
- Everything a truck parking place has to offer
- Exit numbers, town names, parking spaces, highway numbers
- Exits listed
- Full state view is nice to see
- If it is large or small
- Location, number of spaces
- Mile port services
- Names of stops and rest areas including number of spots
- One page has all the info, does not show rest areas
- Shows rest areas
- Tell us where the rest areas are
- The direction of the truck stop at the exit
- The truck parking locations
- Truck stop name, mile markers and exit numbers
- What is where
- Where stops are, type of stations

11. What information, if any, is missing from the map?

- Address, phone, types of fuel
- It doesn't say anything about what is there for our use.
- Map is confusing, could be broken down into areas
- Miles
- Needs more information about style of parking
- Not as easy as rest areas at a glance
- Services rendered
- Services, amenities
- Services, hours of operation
- The picture is too small.
- The state rest areas are hard to find.
- There are too many long lines pointing to locations of P/A. It needs the highway number on the information spot.
- Too small to read, missing restaurants, showers, information
- What is available, food, lodging
- Whether or not it is a fuel stop

12. Please rate how likely you would be to use the map to locate long-term truck parking, using a one-to-seven scale where one is "not at all likely" and seven is "very likely."

	Count	%
1 = Not at all Likely	2	12%
2	4	24%
3	4	24%
4	2	12%
5	3	18%
6	1	6%
7 = Very Likely	1	6%
<i>Average Mean</i>	<i>3.41</i>	
<i>Median</i>	<i>3.00</i>	

Please explain your rating.

- A lot more information is needed
- Again, the map is very gaudy and over flagged.
- Flimsy, the writing is too small
- I can hardly tell what's what on it.
- I'd like one map on one page.
- If I have time.
- It could be difficult to understand.
- It could be sturdier.
- It tells you what town it's in.
- It's too hard to read and the images are too close together.
- Lots of information
- More information on rest area truck parking
- Too hard to read
- Very simple

Green Visor Card

13. Please rate the overall usefulness of this map, using a one-to-seven scale where one is "not at all useful" and seven is "very useful." Explain your answer.

	Count	%
1 = Not at all Useful	0	0%
2	0	0%
3	4	22%
4	4	22%
5	2	11%
6	3	17%
7 = Very Useful	5	28%
<i>Average Mean</i>	<i>5.06</i>	
<i>Median</i>	<i>5.00</i>	

Please explain your rating.

- Easy to read (2)
- Not enough information
- Size of information
- Easier to read
- Very good size, easy to read
- It still doesn't tell you what it is.
- Large letters, good information
- I do like the full Utah map view.
- It's too big of a map, it needs to be sectioned out.
- Large print and coloring
- No information on anything
- The color is easy to look at.
- Large, colorful, easy to read
- I like the bigger print.
- Still not enough information
- Limited information again, exit numbers, stop type (is: Flying J, Pilot)
- I like the size.

14. Which pieces of information on the map are most important to you?

- Amount of parking
- Exit number, number of spots
- Exit numbers
- Exit numbers, locations
- Exit numbers, number of parking spaces, brand
- Exit numbers, truck stop names, parking spot numbers
- Fuel stop rest area or overnight parking
- I like the full map view coupled with detail
- It's bigger.
- It's user friendly.
- Large print
- Larger print is good and easier to read. The color is better.
- Location of fuel stops and type
- Location spaces available
- Truck stop name, mile markers, exit numbers

15. What information, if any, is missing from the map?

- Amenities
- Amenities, services, no truck pull offs in the state
- Double and triple parking, pull through parking
- Not enough information
- Oversized parking information
- Parking information, amenities
- Rest area information and shower and food
- Rest area parking, hazmat, doubles, and triples parking
- Rest areas
- Rest areas, not as many truck stops
- Rest areas, food
- Rest areas, services, hours
- Rest stops, food
- State rest areas
- The distance between stops, more details
- Truck stop or not
- Which side of the road it is on

16. Please rate how likely you would be to use the map to locate long-term truck parking, using a one-to-seven scale where one is "not at all likely" and seven is "very likely."

	Count	%
1 = Not at all Likely	0	0%
2	2	12%
3	3	18%
4	3	18%
5	1	6%
6	6	35%
7 = Very Likely	2	12%
<i>Average Mean</i>	<i>4.71</i>	
<i>Median</i>	<i>5.00</i>	

Please explain your rating.

- Easy to read (2)
- Good, still missing rest areas
- I can see it.
- I don't like the I-15 routes in black.
- It would help on a first time visit to the state
- Much easier to read.
- Need more information
- Need more information on stop, type, etc.
- Nice separation from area to area
- Not enough information (2)
- Not enough information about parking
- Small places, you can't tell if they have truck parking, there's no information
- Would have to flip it over

Orange

17. Please rate the overall usefulness of this map, using a one-to-seven scale where one is "not at all useful" and seven is "very useful." Explain your answer.

	Count	%
1 = Not at all Useful	0	0%
2	0	0%
3	3	17%
4	7	39%
5	1	6%
6	2	11%
7 = Very Useful	5	28%
<i>Average Mean</i>	<i>4.94</i>	
<i>Median</i>	<i>4.00</i>	

Please explain your rating.

- A map like this tells us what we need, except for large vehicles.
- All on one page
- Color coding on detail, more information on rest areas
- Easy to read
- Everything was on one page
- Info appears to be quite useful
- It allows you to estimate your route.
- It's missing the same information as all the others.
- Mile marker numbers, exit numbers
- More information is better.
- Needs more information
- No rest stops are listed.
- Not enough information
- Nothing showing parking for large combo trucks
- Perfect way to show how many spots there are
- Still dislike the black color
- Very helpful exit number and spots
- When it's open, all the information is available.

18. Which pieces of information on the map are most important to you?

- All exits – how many parking spots, name of truck stops
- Exit number, location
- Exit number, number of parking spaces, type of parking area (i.e. store)
- Exit numbers
- Exit numbers, number of parking spots available
- Exit numbers, number of parking spots
- Full map on the inside.
- How many trucks can park at a stop, exit numbers, name brand of the truck stop
- It tells you the exit number.
- Large scale map
- Location, number of spaces
- Need an explanation
- Parking numbers
- Parking spaces, exit numbers, city, what type of parking
- Showers, food
- The full map
- The number of trucks that can park at each stop

19. What information, if any, is missing from the map?

- Amenities, services
- Double and triple parking information
- Fuel stop, rest area, overnight parking
- It doesn't say anything about large vehicle parking or other amenities.
- Maybe the distance off the freeway
- Miles between stop from place to place
- Need to replace black and white with colors
- No rest area locations (2)
- Not color coded and no amenities
- Rest area addresses, notes area
- Rest areas, hazard load parking areas, food
- Rest areas, how easy it is to get off and on
- Rest areas, services, hours, types
- Rest stops, food
- Wide load parking, rest areas,

20. Please rate how likely you would be to use the map to locate long-term truck parking, using a one-to-seven scale where one is "not at all likely" and seven is "very likely."

	Count	%
1 = Not at all Likely	0	0%
2	0	0%
3	5	29%
4	4	24%
5	0	0%
6	3	18%
7 = Very Likely	5	29%
<i>Average Mean</i>	<i>4.94</i>	
<i>Median</i>	<i>4.00</i>	

Please explain your rating.

- All the stops are on the map.
- Any information will be helpful for parking, fuel, and food.
- Easy to look at
- I don't know if I can park my double size truck at any of these places.
- If I was new and didn't know where to go, this would be very helpful.
- It depends on my hours.
- It's nice to have a quick guide with basic information.
- More information
- Needs more information (3)
- Shows most truck stops and parking availability.
- Tells me a lot of what I need to know
- Very helpful
- When you open it it's all there.

Ranking Activity

Please rank the five maps we just discussed according to preference where 1 is your most preferred map, 2 is your second most preferred map, 3 is your third most preferred map, 4 is your fourth preferred map, and 5 is your least preferred map.

	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Average Rank	Rank Score
Yellow	3	1	8	3	3	3.11	52
Pink	1	1	3	9	3	3.5	39
Blue	0	5	2	2	9	3.83	39
Green	6	4	3	2	2	2.28	61
Orange	7	7	2	1	1	2.00	72