

Preliminary Investigation
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Optimum Amount of Money/Resources for Public Outreach During a Major Planned Closure

Requested by
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The Caltrans Division of Research, Innovation and System Information (DRISI) receives and evaluates numerous research problem statements for funding every year. DRISI conducts Preliminary Investigations on these problem statements to better scope and prioritize the proposed research in light of existing credible work on the topics nationally and internationally. Online and print sources for Preliminary Investigations include the National Cooperative Highway Research Program (NCHRP) and other Transportation Research Board (TRB) programs, the American Association of State Highway and Transportation Officials (AASHTO), the research and practices of other transportation agencies, and related academic and industry research. The views and conclusions in cited works, while generally peer reviewed or published by authoritative sources, may not be accepted without qualification by all experts in the field.

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Executive Summary

Background

The closure known as DARMageddon (Direct Access Ramp) in Southern California from August 18-19, 2013 was considered a success for public outreach (PO) across all agencies involved, including cities and counties along the Interstate-805 corridor. The majority of the PO was sponsored by the California Department of Transportation (Caltrans) and the San Diego Association of Governments (SANDAG). A summary report of the successful “Steer Clear” PO campaign was produced and consequently the question arose about whether Caltrans and SANDAG “needed” to spend as much as they did on PO for this major planned closure in order for it to be successful.

Currently, Caltrans predetermines a “set” amount of money and resources for PO based upon their Traffic Management Plan (TMP). This “set” amount is determined by a specific group of people known as the Project Development Team, which consists of members from Caltrans District Divisions of Design, Construction, Traffic Operations, and Public Information. Development and approval of the TMP occurs well before a project even breaks ground, which could happen months or even years before construction begins. With the increased development in changing technology, social media, internet, smart devices, etc., the cost for PO varies year by year. As an example of cost variation, the use of social media to connect to the audience is cheaper to use to notify drivers during closure campaigns than the amount paid for print media. Therefore, the cost and availability of PO that was predetermined in the TMP may change from the time it was approved to the time the first PO campaign begins for a major planned closure. Additionally, the information about major planned closures and transportation related activities reaches users of the transportation system in so many different ways and almost instantaneously that it has been hard to determine what is the most efficient and successful way of conducting PO.

The purpose of this Preliminary Investigation (PI) is to assist Caltrans District staff to determine the “set” amount of PO for their TMP. This document will serve as an additional resource to assist staff when planning for future major planned closures. The question to be answered is, “what is the most optimum amount of money and resources necessary for PO during a major planned closure?” The intention of this PI is to summarize significant California examples, as well as those from other states. The PI will provide a summary of existing published guidelines and/or handbooks on this topic.

Summary of Findings

1. California Examples

A literature review was conducted and e-mail questionnaires were sent out to various Caltrans Districts related to public outreach campaigns for their areas. The following projects were selected for this PI:

- I-5 Boat Section – District 3
- Bay Bridge Labor Day Closure – District 4
- I-405 Sepulveda Pass Improvements Project (Carmageddon) – District 7
- I-15 Devore Interchange Project – District 8
- DARMageddon/Steer Clear Campaign – District 11

National Examples

A survey was sent out to members of the AASHTO Subcommittee on Transportation Communication (TransCom). Eight responses were received from various members. In addition to the survey responses received, a literature review was done on national public outreach campaigns. The following State DOT projects are highlighted in this PI:

- **Delaware Department of Transportation** closure of Interstate 95 from Wilmington to the Pennsylvania state line.
- **Indiana Department of Transportation** with three major closures including: U.S. 31 in Carmel, Interstate-65/Interstate-70 South Split, and Interstate-70 corridor between the airport and downtown.
- **Maine Department of Transportation** closure of I-295 southbound between Gardiner and Topsham.
- **Maryland Transportation Authority** introduced a series of toll increases over a five year periods from 2009 to 2013 using a clever social media approach.
- **Massachusetts Department of Transportation** closures known as the 93 Fast 14 project, with closures of 14 bridges along Interstate 93.
- **Missouri Department of Transportation** I-64 Reconstruction Project over a two-year period, which closed 10 miles on I-65 during this planned closure.
- **Nebraska Department of Roads** recently closed US Highway 75 from Union to Nebraska City to correct damage caused by overuse due to flooding of the Missouri River in 2011.
- **Nevada Department of Transportation** recently completed a planned a three-week closure of Kingsbury Grade, State Route-207.
- **New Jersey Department of Transportation** has an ongoing two-year closure on a 3 ½ mile-long bridge between Newark and Jersey City.
- **South Carolina Department of Transportation** closed I-385 in Laurens County that lasted 6.5 months.

2. International Examples

At this time, there were no known international PO examples directly related to major planned closures that had readily available information. Therefore, the example provided in this section was related to transportation, but the topic focused on congestion pricing. The information was provided from an international scan on PO for congestion pricing, which is still beneficial to compare with major planned closures.

3. Non Transportation Planned Closure Examples

There were many other non-transportation related PO campaigns that any DOT could benefit from, and those samples are included in this section.

Details

1. California Examples

A specific list of major planned closures within California was selected that had significant impact on the traveling public. An e-mail questionnaire was sent to the Caltrans Districts associated with each closure and a summary of the responses was assembled. In addition to the

survey, a literature review was conducted to incorporate more information related to the closures. See Appendix A for a sample of the e-mail sent out.

- **I-5 Boat Section – District 3**

In May and June of 2008, District 3 closed a section of Interstate 5 in Downtown Sacramento known locally as the “Boat Section”. The purpose of this closure was to replace the freeway surface drainage system that is located adjacent to a major waterway, the Sacramento River. This closure affected the entire Sacramento metropolitan area because Interstate 5 is considered a “lifeline” for all modes of transportation through the city. [1] During the Boat Section closure of I-5, there was a calculated decline of up to 9% in average daily traffic (ADT), which resulted in approximately 46,000 vehicles changing travel patterns to avoid the delay. [2] Request for Proposals (RFP) for PO campaign began a year before the construction started. District 3 budgeted \$200,000 of project funding for the PIO to use for PO. \$170,000 was designated for the advertising campaign on local radio, television and print media. This PO campaign was deemed as a success by the commuters and media alike, with minimal delays on the mainline Interstate 5 and alternate detoured routes. Notable lessons learned from the PO effort included:

- Work more closely with the media to improve the image of the Department. Sharing project information and success helps to gain public approval and acceptance.
- Involve local agencies early.
- Delays to a published full closure schedule should be avoided to maintain credibility. Additional time should be added to the schedule for contingencies, prior to publishing.
- People are flexible if they are provided with appropriate traveler information.
- An extensive and coordinated public outreach campaign is a key aspect of the successful closure of a highway facility for construction purposes. The public must be informed of the closure well in advance, and must be provided with timely and factual information to facilitate informed decision making.
- The use of permanent and portable Changeable Message Signs (CMS) and Highway Advisory Radio (HAR) was a success and should be a strategy used for any future projects. Upon deployment of the portable CMS, the hits on the project website increased dramatically, as people were now more aware of the closure. The press stories also increased.
- Modifying overhead guidance route and exit signs was beneficial. It reduced driver confusion and provided accurate and visible information.

<http://www.seanqian.info/publication/FixI5Data.pdf>

http://www.dot.ca.gov/newtech/researchreports/reports/2011/2011-10_task_2072_tsm.pdf

www.transportation.org/Documents/AASHTOJonespresentation.ppt

- **Bay Bridge Labor Day Closure – District 4**

One of the largest recent constructions projects in California has been San Francisco-Oakland Bay Bridge. During this project, it was “normalized” that District 4 would close traffic to the existing bridge for construction over each Labor Day holiday weekend. The last of these holiday closures was held on Labor Day 2013. This planned closure would lead to the “Grand Opening” of new Self-Anchored Suspension (SAS) bridge. A communications plan was created for the original East Span closure and new SAS bridge opening. This plan built upon the successes and lessons learned from previous Bay Bridge closures. Public outreach efforts began on August 15,

2013, when the Toll Bridge Program announced that the bridge would make its intended Labor Day weekend opening two weeks later. The public knew as early as the spring that there might be a closure for the old East Span of the bay bridge during Labor Day weekend, but it was not confirmed until August 15, when the outreach campaign began. There was no direct PO cost for the closure. The budget was tied into the District 4 PIO budget for the grand opening of the new SAS bridge, which received assistance from the graphics departments at Caltrans and the Bay Area Toll Authority (BATA). The public outreach campaign included up-to-the minute information and updates sent to Social Media (Facebook, Twitter), 511 Transit Information System coordination, media briefings and construction updates that were held twice a day. A Bay Bridge spokesperson remained on site during the East Span closure, and all outreach materials promoted the BayBridgeInfo.org website. Local transit agencies informed riders of the bridge closure and the grand opening events by distributing information to riders and staff through PIO-created collateral and placards. Public Service Announcements (PSA) were created for the East Span closure and ran statewide, in addition to setting up “E-Alert”, and an electronic alert was sent to announce the new grand opening. It was sent to recipients pulled from public outreach lists and transmitted via Constant Contact. The PO campaign resulted in motorists using alternate routes during the closure, and flocking to the new SAS bridge when it opened.

There were three contracts procured for the 2013 closure. The statewide cost for the PO campaign was approximately \$154K, the Bay Area campaign was just under \$100K, and the PSA was approximately \$29K.

<http://www.dot.ca.gov/hq/paffairs/news/pressrel/13pr081.htm>

http://baybridgeinfo.org/sites/default/files/pdfs/newsletters/jan_2007_newsletter_vol_2.pdf

<http://baybridgeinfo.org/closure>

http://baybridgeinfo.org/sites/default/files/pdf/SFOBB%20Senate%20Trans%208-5-14%20Final_Rpt_LessonsLearned_May2014.pdf

<http://www.bart.gov/news/articles/2013/news20130815>

- **I-405 Sepulveda Pass Improvements Project (Carmageddon 1 & 2) – District 7**

PO campaign for the I-405 Sepulveda Pass Improvements Project in District 7 was a partnership with Los Angeles Metropolitan Transportation Authority (LA Metro) and other transportation agencies. The project included various closures of 10-miles of northbound I-405 high occupancy vehicle (HOV) lanes between I-10 and U.S. 101. A website was developed and hosted by LA Metro, which contained links to social media sites, links to the latest news, meetings, maps, fact sheets, videos, reports and information, useful links, contact us, and daily closures. This entire closure was a multi-agency PO campaign, which included CMS, the Caltrans Highway Information Network (CHIN), GPS linked service announcements, transit alternatives, partnering on celebrity tweets, digital billboard advertising, pay check inserts to all LA Metro and LA County staff, as well as print media for billboards, construction sites, on-line tools, etc. A 9-minute video was developed to demonstrate all of the enhancements of the project and was housed on the District 7 project website.

Two major campaigns for closures from this project were known locally and nationally as Carmageddon 1 (July 2011) and Carmageddon 2 (September 2012). Carmageddon 1 was a multi-agency PO campaign that advised motorists to “Plan Ahead, Avoid the Area or Stay

Home”. The message was conveyed via multiple formats, including on CMS from the Oregon border down to Mexico. Major elements of the PO campaign included a closure-specific website and hotline, social media updates, web chats, and weekly e-mail blasts to a subscribed contact list. [3] At least 60 signs displayed the closure message a month ahead of the planned closure along LA County freeways, with up to 80 additional portable signs placed along the freeway and surface streets during the time leading up to the closure. LA Metro had the lead for the PO plan, while Caltrans was responsible for alerting motorists/users of the freeway system. Paid advertising was part of the PO plan, but the media took hold of the “Carmageddon” term from a news conference, and began to cover the story on their own. During Carmageddon 2, the PO changed its focus and used a different message, which was “eat, shop, and play locally”. The focus was to promote alternate methods of local transportation. Local transit agencies and retailers worked to provide discounts to users for public transit ridership during the closure. A great communication technique was to show the community how they would benefit from the result of this project, not just through additional freeway throughput. The highlighted benefits to the community included: placing underground major power lines on Sepulveda Boulevard, upgrading utility lines (oil, gas and water), improved drainage and water filtration, adding Sepulveda Boulevard bike lanes and the obvious roadway improvements. Each proved to be successful PO campaigns, even with each PO plan only finalized weeks before the closures. [4] During Carmageddon 1, the project team achieved up to 65 percent traffic diversion and suppression, while during Carmageddon 2, the project team achieved up to 50 percent traffic diversion and suppression.

Estimated project costs and staff costs for other public agencies involved CHP (\$290,639), City of Los Angeles (\$1,825,675), and LA Metro (\$791,916).

<http://www.fhwa.dot.gov/publications/publicroads/13mayjun/02.cfm>

<http://www.dot.ca.gov/dist07/video/?pg=view&id=20>

<http://www.dot.ca.gov/dist07/travel/projects/details.php?id=23>

http://www.dot.ca.gov/dist07/resources/envdocs/docs/I405_SepulvedaPass_IR_EIS.pdf

<http://www.metro.net/projects/I-405/>

<http://www.metro.net/projects/I-405/accomplished-during-carmageddon/>

http://www.metro.net/news/simple_pr/I-metro-caltrans-kiewit-open-new-mulholland-bridge/

<http://la.curbed.com/tags/carmageddon>

<http://thesource.metro.net/2013/12/18/carmageddon-revisited-metro-caltrans-and-kiewit-reopen-iconic-mulholland-bridge/>

- **I-15 Devore Interchange Project – District 8**

In 2004, Caltrans successfully completed 10 months of paving work in less than one month on a project in Southern California, which kicked-off the term “Rapid Rehab”. Later in 2006, Caltrans would use the same methodology to complete the I-15 Devore 2 Pavement Rehabilitation for a section of I-15 in San Bernardino County at the junction of I-215 in Devore (at Cajon Pass). [5] The goal was have at least 40 percent traffic diversion rate during closure periods. The public outreach campaign had to target not only travelers from Southern California, but also Nevada, and work with Nevada DOT , the Las Vegas Convention and Visitors Association, other private Nevada venues, California Trucking Association, and Southern California Automobile Club (AAA) to keep them apprised of the schedule. The PO campaign included press conferences in

Las Vegas, Los Angeles and San Bernardino, regular briefings and interviews provided with traffic reports to media and radio traffic reports, as well as the following tools to aid in disseminating information:

- All printed material and the web site had a consistent look and logo, so the public would easily recognize updates.
- A guide booklet was created to give drivers easy access to project information and detailed maps illustrating the closure areas and detours for the duration of the project. It was designed to fit in a typical glove compartment, and included Frequently Asked Questions, with alternate routes suggested to achieve the traffic diversion goals. It included the Caltrans district web site and a toll-free phone number.

Other helpful usage for public outreach was access to Closed Circuit television (CCTV) from the Caltrans website to view real-time traffic conditions and additional CMS messages. The success was measured by achieving only a 45 minute traveler delay versus the six hour original time estimate. The Caltrans team said the success of the campaign was due to the public viewing the web site, validating the theory that an enhanced web presence with up-to-date, relevant information is vital in today's society.

The PO campaign for the entire Devore Interchange project was contracted out by Atkinson Contractor to Westbound Communication. They had the full responsibility for the PO during the life of the contract, which included a lump sum item cost of \$500,000.

www.dot.ca.gov/docs/CTJ_v3_i2_AltFmt.doc
[http://ascelibrary.org/doi/abs/10.1061/40799\(213\)104](http://ascelibrary.org/doi/abs/10.1061/40799(213)104)

- **DARmageddon – District 11**

In August 2013, Caltrans closed I-805 to demolish a bridge for a construction project related to a Direct Access Ramps (DAR). This would affect motorists on both sides of the U.S. and Mexico Border. In partnership with San Diego Association of Governments (SANDAG) and other regional transportation agencies, a bilingual PO campaign was created known locally and nationally as “Steer Clear.” [6] The implementation of PO activities began six weeks prior to the closure. A dedicated website was developed for the project, in addition to connecting with a local newspaper to create a landing page for the project on their website. Many news conferences were held to begin a “media blitz”. Meetings were held with stakeholder groups, including local cities, 511, Emergency Services, and the Mayor of Tijuana. Electronic billboards in Mexico displayed the messages in Spanish and English to alert people crossing over the border. PO also included: social media, email blasts, radio advertising, television ads, and print newspaper. Total radio impressions reached 4,017,500, total television impressions reached 2,758,232, total online impressions reached 1,600,816, and total print impressions reached 944,476, bringing the grand total of impressions for the PO campaign to 9,321,024. The success of the PO campaign relied on a clear vision with consistent logo design and signage around the campaign theme, including the following:

- Communicated and received Lessons Learned from Caltrans District 7 Carmageddon 1 and 2
- Early coordination with Mexican officials and providing bilingual advertisements was key to successful outreach for the very diversified region

- A new tool to notify motorists of the closure was a digital countdown clock provided by Caltrans to be sent to cities and stakeholders to post on their websites

The estimated Public Information Office (PIO) staff costs associated with PO was approximately \$11,260. Estimated professional services were \$55,900: Southwest Strategies (Approximately \$40,000); Pro Media (\$6,500); D'Garay Mexico PR (\$8,500); Marketing Deli (\$900).

<http://www.dot.ca.gov/dist11/news/2013/81.html>
<http://www.dot.ca.gov/dist11/news/2013/104.html>
<http://www.dot.ca.gov/dist11/facts/805South.pdf>
<http://www.dot.ca.gov/dist11/milemarker11/D11MileMarker.pdf>
<http://keepsandiegomoving.com/steerclear>
<http://www.utsandiego.com/damageddon/>
<http://swspr.com/transportation-public-outreach.php>
<https://vistadelmarschool.files.wordpress.com/2013/08/advisory-i-805-closure.pdf>
http://www.keepsandiegomoving.com/Libraries/I805-Corridor-doc/91-13_I-805DARmageddonClosureNR_FINAL.sflb.ashx

2. **National Examples**

Using a network of state DOT partners through our Caltrans National Engagement focus, members of the AASHTO Subcommittee on Transportation Communication, also known as “TransCom”, were contacted. (View the website for more details about the committee at <http://communications.transportation.org/Pages/default.aspx>). They were provided a link to an online survey to complete. In addition to the survey responses received, a literature review was done on national public outreach campaigns. Below is the summary of State DOT samples. See Appendix B for a sample of the e-mail sent out to the committee members, Appendix C for the on-line survey, and Appendix D for the survey results.

- **Delaware Department of Transportation**

An FHWA case study describes lessons learned from an Interstate 95 rehabilitation project done in 2000 by the Delaware Department of Transportation (DelDOT). [7] The closure included a 6.1 mile section of roadway between Wilmington and the Pennsylvania state line. The alternate routes for users of the system would need improvement as well, since they would be receiving the increased congestion. DelDOT and the other major stakeholders developed a traffic management plan titled “The Five Elements of Mobility.” The planning began four years prior to the closure, while the actual PO started two to three years before the closure with a year-long information campaign that alerted the public about alternate ways to get around the northern Delaware section of I-95. The PO included advertising in local newspapers, purchase of billboards space for a three year period, live radio commercials every month for three years, “wrapping” of buses, free coffee coupon campaign provided by the local vendors, specific outreach events and public meetings and a developed "Survival Guide," which explained to the public what would happen, when it would happen, and how to plan ahead. They created a mascot known as “Creep” to encourage travelers to “beat the creep” by using alternate routes and modes of transportation. DelDOT purchased a radio station that enabled 24-hour travel information similar to the HAR. The lessons learned included:

- Including the public relations group as part of the project team is important and allows the public to remain informed as the project moves forward.
- A champion with technical knowledge and excellent communication skills should be identified early on to sell the public, elected officials, and senior DOT personnel on the value of full road closure.

[7] – See Appendix F

The technological advances that we use today, such as websites, social media, and variable message signs (VMS), etc. did not exist, or were so new that they had not been available during this closure. The cost of the actual PO included purchasing/building a VMS and the radio station that the DelDOT still owns today. The quoted PO cost for the entire construction project was \$11 million. This also included six months of a helicopter service needed to provide locals and DOTs updates to traffic conditions during the closure. If this was a more recent PO campaign, there would not be a need for these services, because there are already VMS in place and most DOTs use CCTVs, sensors, and post the information on website for the media to obtain. This example shows how far PO campaigns have come and the abilities that are within reach because of the ease of use of technology.

http://www.ops.fhwa.dot.gov/WZ/docs/Delaware_v3/index.htm
<http://www.ops.fhwa.dot.gov/wz/practices/factsheets/pdfs/factsheet4.pdf>

- **Indiana Department of Transportation**

In the last few years, there were three major closures for Indiana Department of Transportation (INDOT). The first project was the closure of U.S. 31 between Old Meridian and 136th Street in Carmel in April 2014. The closure was announced in 2012 to the public. The PO campaign was contracted out to a private group known as Borshoff. The second closure was known as the I-65/I-70 South Split Project. This was done in 2013, on the east side of downtown Indianapolis. The project aimed to increase bridge clearance for eight bridges by reconstructing and lowering the pavement beneath the bridges. Seven bridges have been completed to this date, with the last expected by the end of this year. The PO was done by INDOT, with assistance from their partners at Purdue University. The third closure was done in 2010, and related to their participation in "A Greener Welcome", which closed Interstate 70 on the west side of Indianapolis. With their partners, Keep Indianapolis Beautiful (KIB), INDOT landscaped and enhanced the interchanges to resemble living green spaces to promote "Welcome to Indianapolis." The PO campaign was led by Eli Lilly & Co. for this project. There were successful commonalities in each of the three closures, including: project specific websites that contained alternate routes, FAQs, construction schedule, and the benefits of the construction/enhancements being completed. Other PO methods used during these closures included: mailers, public meetings, radio traffic sponsorships, news releases, social media, press conferences, and videos to announce overnight reopening to traffic. In all cases, the closure duration was less than what was initially communicated. The reduced closure time lessened traffic impact and improved the public perception of the INDOT, which was a direct result of the successful PO campaigns. A lesson to be learned by INDOT would be to under-promise and over-deliver when setting public expectations about closure duration.

Of the closures listed, only the U.S. 31 Hamilton County closure in Carmel used an outside consultant. The consultant's estimated costs were \$125,000, including advertising, mailers,

public meetings, publishing regular updates and customer's inquiries. INDOT estimated half-time for one staff person during the months of February through April 2014 for that closure, which calculates to about \$4500 in salary costs.

The I-65/I-70 South Split Project PO was done in-house. INDOT estimated 2/3 time for one staff person during the months of June through October for that closure, which calculates to about \$9900 in salary costs.

<http://us31closure.com>

<http://southsplit.in.gov>

<http://agreenerwelcome.org>

- **Maine Department of Transportation**

There was a successful closure on I-295 Southbound in Maine between Gardiner and Topsham in 2008. [8] The construction project was such a success that it opened 20 days ahead of schedule. For the public outreach campaign, Maine Department of Transportation (MaineDOT) used signage on the highway, print ads in local newspapers, posters at rest areas, tollbooths, and tourist destinations, as well as radio spots aired during prime drive times. They also created flyers to pass out to local schools. To address delay concerns, MaineDOT partnered with a local marketing firm to design and implement a communications campaign that would raise awareness, encourage safety, and maintain public support before, during, and after the project. An advisory committee was formed of representatives from the communities along the corridor, the Maine Office of Tourism, Maine Merchants Association, Maine Motor Transport Association, chambers of commerce, Maine Turnpike Authority, Maine Restaurant Association, and AAA Northern New England. Communications materials encouraged drivers to use alternate Route 201, and the outreach campaign included sending letters to residents living along that route. In addition to print ads in daily newspapers and radio spots targeting tourists, MaineDOT sent email alerts and media advisories regarding changes in traffic patterns, significant traffic impacts, and project milestones. Fifty percent of the traffic ended up using an alternate route, well above the 35 percent anticipated, which resulted in only 15 minutes added to drive time.

Projected PO Amount was \$180,662.16 and the actual cost was \$171,897.88. This contract costs included: Public Relations (\$26,561.63), Media Consulting (\$49,176.47), Advertising and Promotion/Media Buy –Radio/Print/Printing (\$54,105.62), Copywriting (\$13,818.54), Graphic Design and Production (\$23,510.06) and Website Development and Maintenance (\$1,529.50)

<http://www.fhwa.dot.gov/publications/publicroads/09novdec/02.cfm>

- **Maryland Transportation Authority**

A thematic report was presented at the International Bridge, Tunnel and Turnpike Association (IBTTA) 2013 Organization Management Workshop that summarized the successful public outreach campaign for multiple toll increases over a five year period in Maryland. Although this was not a planned closure, it was an example of good public outreach that should be noted in this document. [9] In 2009, the Maryland Transportation Authority (MDTA) first notified the public 30 days before the initial toll increase. Since they did not want to draw any more negative attention to the ongoing increase, they completed the minimum effort required for public

notification. This included one public meeting and handling all the follow-up actions within that same day. With technology changing, for their toll increase in 2013 they sought out social media. There was no statutory requirement for public hearings, since the toll increases were part of the earlier process. However, MDTA still contacted people using email, social media, and letters. They utilized Facebook to draw approximately 2500 participants to a single chat function. MDTA considered this a success, as it attracted more people than holding a public meeting, and much less logistical planning was required. What they discovered was that DOT's can use social media to open two-way conversation with target audiences and communicate directly to users of the system without having to go through the media. This could be done for any construction project, toll increases, closures, special events etc. MDTA also created Twitter and Facebook accounts that were heavily relied upon during Hurricane Sandy later in 2013. Some recommendations for social media include setting objectives, identifying target audiences, and learning about each user group. DOT's can find the online platforms where those user groups gather and identify keywords or keyword strings that will capture their attention. Early stages of social media PO campaigns require a DOT to "listen", read, and watch, which may include joining in on chats, discussions, and reposting/retweeting information that others have already posted.

http://ibtta.org/sites/default/files/2013%20OMW%20Thematic%20Report%20FINAL_1.pdf
<http://ibtta.org/blog/grasstops-grassroots-making-case-tolling>

- **Massachusetts Department of Transportation**

In 2011, Massachusetts Department of Transportation (MassDOT) did not have funding for the "93 Fast 14" project PO campaign. Therefore, they had to use their own in-house resources to get the word out about the 14 bridge closures along Interstate 93 over 10 weekends [10]. The agency used various communications methods, including: taping fliers on every transit bus, hanging posters at rest areas and Motor Vehicle offices, handing out information cards from toll booths, communicating at public meetings, exhibits in municipal buildings, information on local access cable channels, and phone calls to area worship leaders. Other outreach methods included Twitter, Flickr, YouTube and a project website that provided users with an interactive map, fact sheets, detour maps, and tools for businesses to help their customers make better travel decisions. As a result of feedback during the PO campaign, project staff later visited local schools and gave a presentation to inform children (and give take-home flyers for their parents) about the project. In addition, MassDOT invited residents to watch a historic bridge move. They developed communication strategy tips for future projects. Below is a summary of lessons learned:

- Keep in mind who the project ultimately serves and focus communications on how the project accomplishes service-oriented goals.
- Use the community's project-related values and interests as a guide. Anticipate concerns and needs in project design and communications.
- The whole team should be consistent in its message points and focused on accomplishing the project mission.
- During public meetings, don't get lost in technical details. Instead, present how the project design solves problems.
- Be resourceful, even if you do not have funds for placing project-related advertisements, to inform people about projects that matter to them.

- Have a big communications tool box, but select the tools you need. You won't need to use all of them on every project.
- Take advice from people with local expertise, such as district staff and community liaisons, for the best ways to communicate with specific stakeholders.

[10] See Appendix F.
<http://cnews.com/article/9509/creative-project-communications>
<http://www.massdot.state.ma.us/highway/HighlightedProjects/93Fast14RapidBridgeReplacementProject.aspx>

- **Missouri Department of Transportation**

Over a two year period, Missouri Department of Transportation (MoDOT) was responsible for reconstructing 10 miles of Interstate 64 in St. Louis, known as the Interstate 64 Reconstruction Project. Prior to the closures, MoDOT had conducted more than 175 public appearances to nearly 15,000 people at regional businesses, community groups, and hospitals preparing people for the closure. MoDOT required the Design-Build contractor to have staff for public relations. Since the project was so large, the contractors had two full time staff, as well as three public relations/coordination staff from MoDOT assigned to it. During the closures, they focused on specific groups of people to specialize their public information plan. These groups included: commuters, the general public, employers, businesses, attractions, hospitals, emergency responders, all levels of elected officials, and the media. The PO plan included: public appearances, news releases, media interviews, media tours, publications, e-mail updates and a website, www.thenewi64.org, implementing 511 Traveler Information in St. Louis, interactive web tool known as “Map My Trip”, Facebook, Flickr, YouTube, as well as St. Louis radio, television and print media, which featured the closure in their press releases. As a result of the PO campaign, MoDOT computed the commuting traffic delay to be no more than 25% longer than before the closure. A survey was conducted to the public following the closures in 2010, and 97.7% of survey respondents were satisfied with how well the public was kept informed, and 97.6% of survey respondents were satisfied on the timeliness of the I-64 information that was made available to the public. MoDOT estimated only 20-30 minute extra time for travel during peak rush hour.

The contractor’s PO budget, including staff salaries, was approximately \$760,000. A white paper publication was produced as a result of the successful PO closure campaign which contained the above information.

<http://www.thenewi64.org/>

- **Nebraska Department of Roads**

Damage caused by overuse due to flooding of the Missouri River in 2011 required the Nebraska Department of Roads (NDOR) to conduct a major planned closure in 2014 for US Highway 75 from Union to Nebraska City. The actual cost of PO for this closure was less than \$1,000. This included: hand delivered letter and phone calls to all residents and businesses along the project, meeting with city officials, emergency services, schools, news releases, and information from the website, including detailed detour maps. The public response was positive, and the local county and city administrations were supportive and impressed with the outcome of PO.

As reported in the on-line survey, the cost of the PO campaign does not include staff costs from NDOR or its partners. The PO campaign cost break down included: \$200 - Meeting with city officials, emergency services, and local schools hosted by Nebraska City Businesses; \$0 - Highway commission meeting presentation; \$0 - Town Hall meeting with State Senators and general public; \$0 - One on One visits with residents and businesses; \$500 - News releases.

<http://www.transportation.nebraska.gov/>

http://www.arbordayfarm.org/documents/75ConstructionandDetourMap_2014_001.pdf

- **Nevada Department of Transportation**

In May 2014, Nevada DOT planned a three-week closure of Kingsbury Grade, State Route-207. The public outreach campaign included: extensive stakeholder/business meetings, print, radio and TV commercials, a project website, public meetings, media outreach, and social Media. This was contracted out to a private company. This closure was deemed successful by members of the public through traveler/commuter feedback. Some users requested a longer closure for that route to shorten the overall construction project and associated delay.

The PO for this closure was contracted out to a private company and the cost was approximately \$150,000.

www.kingsburyproject.com

- **New Jersey Department of Transportation**

In 2014, the New Jersey Department of Transportation (NJDOT) Pulaski Skyway Rehabilitation closed the 3 ½ mile long bridge for an estimated two years, which affects travelers between Newark and Jersey City. An early estimate of the closure delay predicted an average person would increase their commute time by 30 to 40%. Since media buys in the New York market are very expensive, New Jersey transportation officials planned the cost of public outreach to be approximately \$1.5 million, which included: key stakeholder and public meetings, project website, Quick Draw Video posted on YouTube , Social Media (Twitter), transit/train/bus advertising, collateral material (brochure, rack cards, posters,) placed at rest areas, airport, distributed by Airport and Limo Companies, car rental agencies, shopping mall banner, television and radio advertising and E-ZPass toll e-mail blast. The public was satisfied, and once the closure occurred, the outreach efforts and the traffic management plan worked.

Recommendations from the public outreach so far have been:

- Transportation Management Associations can be very useful resources with outreach to the workforce and employers, carpool and vanpool initiatives. A significant amount of attention and outreach was done with the New Jersey/New York area port users in and with the agencies managing the ports, since truck traffic is very high in the Pulaski Skyway project area.
- Build partnerships with the locals early. This included helping partners understand the purpose of carrying out the project, and allowing each partner to play a useful role in the planning process, especially with regard to traffic mitigation.

The costs associated with the PO campaign as reported in the survey: Key Stakeholder (Task Force) Meetings, Public Meetings – (Approximately \$2,000 – space & equipment rental);

Project Website, Quick Draw Video posted on YouTube (cost to develop material) – Approximately \$5,000; Twitter - Approximately \$3,000 to set up and \$2,000 monthly (mainly for obtaining information and maintenance of automatic feed, other daily updates etc. provided by NJDOT staff); Bus Advertising (NJ Transit) - \$100,000; Collateral Material (brochure, rack cards, posters,) design + printing cost - \$5,000; TV, Radio & Internet (Bright Roll) advertising - \$600,000 ; E-ZPass Email blast - \$50,000

<http://www.state.nj.us/transportation/commuter/roads/pulaski/>

<https://www.youtube.com/watch?v=EXMc8e247m4&feature=youtu.be>

<https://www.youtube.com/watch?v=MRJXdUiVKwY&feature=youtu.be>

http://www.nj.com/news/index.ssf/2014/04/pulaski_skyway_closure_no_access_to_nyc_for_2_years.html

<http://www.buzzsprout.com/18987/165036-njdot-using-its-for-pulaski-skyway-closure>

- **South Carolina Department of Transportation**

In 2010, South Carolina DOT planned a major closure on I-385 in Laurens County, which was scheduled to last eight months, but only lasted 6.5 months. The public outreach campaign consisted of mostly staff time and used the following: public meetings, news briefings, site tours for the media, press releases. Media outlets were provided detour information to include timelines in advance of any detour. South Carolina DOT implemented work zone intelligent transportation systems during the project, and information regarding the project detours was provided at the rest area adjacent to the closure, as well as at the Georgia and North Carolina state lines. The public perception of the closure was successful because the project was finished ahead of schedule and under budget, which was shown in the coverage by the media (particularly the editorial pages, which were very favorable at the completion of the project).

<http://www.cityofandersonsc.com/planning/transportation/385-plan.pdf>

3. **International Examples**

The below PO examples are actually learned from an international scan document based upon experience in the Netherlands, Singapore, Czech Republic, London, Stockholm, and Germany. This scan was primarily related to congestion pricing; however, the lessons learned regarding PO are valuable for any planned closure. [11] In Netherlands, it took over two years of public outreach to promote the topic of congestion pricing. Their slogan “drive less, pay less” was deemed successful. In Singapore, they opened the Land Transport Authority (LTA) Gallery, which educated audiences about various transportation concepts. Below are the lessons learned from the scan:

- Consider using various forms of public involvement based on the cultural and political context of the host country to address public concerns
- Provide clear, salient, and timely messages about the purpose and benefits to help educate key stakeholders and garner public acceptance
- Address issues of equity and privacy

<http://www.itslessons.its.dot.gov/ITS/benecost.nsf/ID/22293AA18D6DC3AB85257930004EA2A2?OpenDocument&Query=LLCategory>

<http://international.fhwa.dot.gov/pubs/pl10030/pl10030.pdf>

[11] – See Appendix F

4. **Non Transportation Planned Closure Examples**

Here are examples of public outreach that were not directly related to major planned closures, but whose lessons learned could still benefit DOTs.

From a metropolitan planning organization (MPO) training session, the cost of PO will vary based on the size/magnitude of your PO campaign. [12] The estimated cost for PO campaign: small/low campaign is up to \$999, moderate campaign ranges between \$1,000 to \$9,999, a high campaign ranges from \$10,000 to \$50,000, and very high profile campaign is anything \$50,000 and above. Samples of high profile PO campaign include prime time television and radio spots, and print advertising. Moderate profile PO campaigns use social media and radio spots. Other recommendations:

- If an agency has limited resources, it needs to focus on advertising mediums that provide the greatest reach and frequency of exposure for the dollar. The more that people see or hear the ad, the more likely that it will be successful.
- When creating an ad, agencies need to be sensitive to the needs of the target market. The language and images that are used on advertisement should be carefully selected and tested to ensure that they are well received by the target audience.
- Before starting production, contact the media outlet to obtain their requirements. It is important to know the specifications for formatting, preferred length, etc. in order to avoid costly changes. Agencies also need to know the deadlines and the point of contact.
- If using television or radio advertising, the script should be shorter than the allotted time to ensure that the ad does not get cut off at the end

<http://mpotransportationoutreachplanner.org/strategies/age/youth/129/paid-advertising-and-public-service-announcements>

California has many MPOs. The one in the San Francisco Bay Area is known as the Metropolitan Transportation Commission (MTC). MTC has guidelines and recommendations for their PO campaign. [13, 14] The following are some of the tactics they use to ensure reaching the largest number residents in the most effective manner:

- Early engagement is best
- Communication is a two-way street
- Notify general public of proposed and final actions that may affect them
- Increase the involvement of often underrepresented people in low-income and minority communities and ensure that their voices are heard

http://www.mtc.ca.gov/planning/2035_plan/Supplementary/Final_2035_Phase_1_and_2_Outreach_Report.pdf

http://www.mtc.ca.gov/planning/2030_plan/downloads/outreach/Final_T2030_Evaluation_Report.pdf

[15] A guidance document was developed for PO related to storm water; however, these recommendations apply to all PO campaigns:

- For action messages, determine your target audience (i.e. drivers, pedestrians, transit users, regional community)

- Discover the media your target already uses (e.g. Hispanic radio, automobile newsletters, cables news/talk)
- Create or use an existing message that suits the media choice
- Work with media vendors to plan a two to thirteen week campaign. (13 weeks is the maximum number of weeks allowed for each campaign block.) You should use a mix of media over the PO campaign because your audience does.
- Ensure each campaign delivers a frequency of three to 12 times. At minimum, this could be one TV commercial, one print ad and one radio ad or three of any one item reaching your target. If you can't reach 50 percent of the audience in one campaign block, remember you should try to do so by the end of your PO campaign.
- Measure your campaign as you go, especially news coverage. This will also help you adjust your PO campaign if you are not reaching your audience goals.

http://www.ncstormwater.org/pdfs/phase%202_outreach_n_pub_partc_guide%20-1.pdf

PO campaigns may be contracted out to a private consultant. The costs will depend on the scale of the PO campaign. [16] The costs of a PO campaign using a private consultant would be approximately \$5,000 for local and single audience public relations solutions, and may exceed \$30,000 for far-reaching national programs.

<http://www.axiapr.com/blog/thepublicrelationsblog/how-much-does-public-relations-cost>

[17] The key lessons on effectively developing and implementing public outreach/involvement were:

- Make a locally-compelling case that meets a critical need.
- Demonstrate the cost-effectiveness of the funding approach.
- Use several forms of proactive outreach.

<http://www.epa.gov/evaluate/pdf/water/eval-sw-funding-new-england.pdf>

[18] The Kansas Independent Oil & Gas Association (KIOGA) has implemented a public outreach program designed to improve the image and credibility of the Kansas oil and gas industry. This consists of using a combination of radio advertising, outdoor advertising, news media, civic club and professional presentations, on-site marketing, online exposure, industry workshops, and education programs. One major recommendation was advertising during a major sporting event that would gain large regional audience. Their radio advertising was conducted in conjunction with the Kansas State University 2004 football season and the 2004-2005 women's basketball season. Kansas State University football and women's basketball were the Big 12 champions, with radio broadcasts of games drawing a very large and loyal audience all across Kansas and beyond. They received a 69% increase in positive news. Other positive PO came from booth space at the Kansas State Fair, and sponsorships for Oil and Gas day at the Kansas State Capitol.

<http://ipec.utulsa.edu/Conf2004/Papers/cross.pdf>

General Information for Public Outreach

Items that affect the price of PO:

Print: Cost to print in Newspapers, Magazines, Brochures, Factsheets, Post Cards, Flyers, etc.

Media: Cost to advertise on Television, Radio, On-line Websites, etc.

Social Media: Cost to post feeds on Facebook, Twitter, LinkedIn, Professional Blogs, etc.

Meetings: Cost of site and personnel for News Conferences, Stakeholder Meetings, Public Hearings, etc.

Campaign: Cost of development for Consistent Theme, Logo, Message or Slogan, Dedicated Website, etc.

Benefits:

Media relations: Positive news coverage about the event, services, products, etc.

Crisis Communication Management: Diverse and credible messengers who are prepared with detailed answers to all potential questions from the public

Project Branding: Visual Tools to explain project/closure

Contacts/Agencies: Participation and cooperation from all of the major stakeholders, including Transportation Officials, Public Information Officers, Police Commissioners, Project Managers, Elected Officials, etc.

Summary of Recommendations

The cost and resources can be affected based on the year the closures are conducted and what policies/regulations/processes have been set in place for PO at each DOT. This Preliminary Investigation highlighted many of these. Below is a summary of PO methods that were used, various lessons learned, and recommendations from public outreach campaigns. Part of the list is included below:

- DOT implementing messages on highway signage, HAR, and CMS before and throughout the duration of closure
- Project specific websites, including publicly viewable Closed-Circuit Television (CCTV)
- Up-to-the minute information and updates sent to Social Media (Facebook, Twitter, Flickr, YouTube, etc.), as well as E-Alert transmitted to groups such as toll tag users 511 Transit/Traveler Information System coordination
- Media briefings, special news conferences/coverage, construction updates, public meetings and specialized meetings for specific target audiences
- Public Service Announcements (PSA), Television ads and radio spots aired during prime drive times
- Hand delivered letter and phone calls to all residents and businesses along the project corridor or within the closure proximity
- Delays to a published full closure schedule should be avoided to maintain credibility. Additional time should be added to the schedule, for contingencies, prior to publishing. Under-promise, over-deliver!
- All printed material and the web sites should have a consistent look and logo, so the public can easily recognize updates
- A champion with technical knowledge and excellent communication skills should be identified early on to sell the public, elected officials, and senior DOT personnel on the use of full road closure
- Providing bilingual advertisements is key to successful outreach for very diversified regions

- A digital countdown clock (or similar tool) for the closure for cities and stakeholders to post on their websites
- If an agency has limited resources, it needs to focus on advertising mediums that provide the greatest reach and frequency of exposure for the dollar
- If using television or radio advertising, the script should be shorter than the allotted time to ensure that the ad does not get cut off at the end
- Discover the media your target already uses (e.g. Hispanic radio, automobile newsletters, cables news/talk) and create or use an existing message that suits the media choice
- Ensure each campaign delivers a frequency of three to 12 times. If you can't reach 50 percent of the audience in one campaign block, remember you should try to do so by the end of your PO campaign.
- Measure your campaign as you go, especially news coverage. This will also help you adjust your PO campaign if you are not reaching your audience goals

Conclusion

The PO component is noted as the key point of every successful planned closure. The delay and projected congestion impacts are minimized during the closures as a result of information dissemination. Whether the PO is conducted in-house or contracted out, the public outreach can be successful with a well executed PO plan. The best cost estimates for a PO campaign would be \$999 for low, \$1,000 to \$9,999 for moderate, \$10,000 to \$50,000 for high, and \$50,000 and above for a very high profile campaign. It would be up to each decision maker to determine how much should be spent based on the profile of the planned closure.

As discovered through this Preliminary Investigation, there is no set dollar amount for a PO campaign to be successful. The success relies more on the amount of impressions of your PO effort, and knowing which way is the correct way to obtain those impressions. For example, if your goal is to plan a major closure near an elderly community, social media may not be the best way to grab their attention. You will most likely receive a better impression rate by using national public radio, newspaper advertisements, and large electronic billboards or CMS. Conversely, if a planned major closure is located near a college campus, the best and most successful way to gain the attention of the students is through social media and project specific/only websites. The impression rate is highly dependent on the demographic of the audience that is near the major planned closure.

It is concluded that the most successful PO campaigns have these similar recommendations: (1) craft a good message (2) start the PO efforts early (3) use media that is preferred by the target audience (print, TV, website, radio, social, etc.) (4) enable feedback from the audience during the process and adjust the message if necessary (5) promote project success to show progress and (6) thank the public for their patience after the project closure is complete.

There was no scale, chart, or other measurement discovered during this investigation that determines what the most optimal amount of resources for PO is. However, the guidelines and handbooks provided in this preliminary investigation do provide the best recommendations for a PO campaign.

APPENDIX A

Sample E-mail Sent to Caltrans District PIO

Andrew-

My name is Melissa Clark and I work in the Caltrans Division of Research, Innovation and Systems Information (DRISI). I am responsible for writing a Preliminary Investigation (PI) titled, "Optimum Amount of Money/Resources for Public Outreach (PO) During a Major Planned Closure." A PI is a document which evaluates a given research topic to provide a summary of best practices of information of existing credible work on that topic nationally and internationally. (For further information on DRISI PI process or to view the DRISI currently published PI view the website at

http://www.dot.ca.gov/research/researchreports/preliminary_investigations/index.htm)

The intention of this PI is to summarize significant California examples, as well as other states, to determine what the most optimum amount of money/resources is necessary for PO during a major planned closure. The PI may also include international examples, as well as provide a summary of any existing published guidelines and/or handbooks on this topic. The results of this PI will be available for all Caltrans Districts and Divisions to use as an additional tool to assist them when planning PO for future major planned closures.

As part of the PI effort, I am attempting to retrieve examples of PO that has already occurred within California. Your name has been provided to me as a contact for the **San Francisco-Oakland Bay Bridge Labor Day** closure. (If you are not the contact, please send me a response with the correct contact's information.) Below are the questions that I am requesting the answers to:

Was there any documentation/manuals (including guidelines, handbooks, templates, etc.) used in planning for the PO? If so, list the titles or provide your completed version of documents.

What was the initial date(s) (exact first date) of the public outreach?

What date(s) did the planned closure occur on?

What was the intended length of the closure (hours/days)? What was the actual length of the closure (hours/days)?

What was the estimated delay in time? What was the actual delay in time?

What was the planned cost of PO? What was the actual cost of PO?

List all the types of PO that were used and the actual costs associated with them (i.e. Social Media, Commercials, Billboards, etc.)

What was the public's perception of the closure once it was completed (how did they react)?

Was Caltrans executive staff satisfied (to what degree)?

How did you measure the success of the PO after the closure was complete?

Is there any additional material or information that you can provide to me on the planned closure?

I do have a short deadline, and I am hoping for a completed response to this request within **2 weeks**. Please let me know if this will be an issue.

The PI will take a couple of weeks to compile after I receive information from various California contacts, as well as complete the research on national and international examples. I will send you a draft version of the PI for review to allow you to comment/correct any information that you have provided me before a final version is completed.

Feel free to contact me if you have any questions or need clarification on my request.

Thank you in advance for your time and cooperation,

Melissa L. Clark

California Department of Transportation (Caltrans)

Division of Research, Innovation and System Information (DRISI)

Work: (916) 657-4448

Fax: (916) 657-4677

APPENDIX B

E-mail Sent to AASHTO Subcommittee on Transportation Communication

From: Brown Lloyd

To: scote@ashto.org

Cc: Dorsey Tony; Clark, Melissa L@DOT; McGowen, Tamie D@DOT

Subject: RE: CT Survey to Identify Optimal Funding for Public Outreach on Major Closures

Date: Friday, May 23, 2014 5:51:41 AM

Good morning,

I'm passing along a note from our colleague, Tamie McGowen of Caltrans. The research question below looks amazing and Tamie says she is planning to forward the results along to all of us. She would really appreciate your help and support. See the message below for more information. - ldb

From: McGowen, Tamie D@DOT [mailto:tamie.mcgowen@dot.ca.gov]

Sent: Thursday, May 22, 2014 9:26 PM

To: Brown Lloyd

Cc: Dorsey Tony; Clark, Melissa L@DOT

Subject: CT Survey to Identify Optimal Funding for Public Outreach on Major Closures

Hello,

The California Department of Transportation invites you to take part in a survey of state public information officers. Your feedback about your agency's public outreach during a major planned closure will be critical in establishing the state of the art and best practice in what is the ideal amount of money/resources for public outreach during a major planned closure. Caltrans Division of Research, Innovation and System Information are conducting this survey and will publish a preliminary summary of the survey findings to the Caltrans website. Please follow https://www.surveymonkey.com/s/caltrans_pi_public_outreach to take the brief 21 question survey now. I have also provided a copy of the questions in the attached PDF file. We would appreciate your response by Friday, June 6, 2014.

Please direct any questions related to the preliminary investigation to Melissa Clark at melissa.clark@dot.ca.gov. She will be handling the survey collection and publication of the preliminary investigation. She will send you a link to the completed version of the preliminary investigation when it is released. Thanks for taking the time to complete this survey.

Tamie McGowen

Assistant Deputy Director

Public Affairs

1120 N Street, MS#49

Sacramento, CA 95814

APPENDIX C

On-Line Survey for E-mail Sent to AASHTO Members

Preliminary Investigation - Page 1

The intention of this Preliminary Investigation is to summarize significant State Department of Transportation agency examples to determine what the most optimum amount of money/resources is necessary for public outreach during a major planned closure. Caltrans would like for you to provide information to ONE major planned closure from your state that has already occurred within the last 5 years.

For the survey please consider closures that have had a positive impact on your state. Examples you may consider: the largest planned closure, the closure that had the most media attention, the closure with the most information available for the survey, the closure with a post survey report/evaluation, etc.

1. Please provide your contact information:

First and Last Name
State Department of
Transportation (DOT)
E-Mail Address
Phone Number

2. What was the name/title of ONE major planned closure within the last 5 years?

3. Was there any documentation/manuals (including guidelines, handbooks, templates, etc.) used in planning for the public outreach?

YES

NO

4. If you responded "YES" to previous question, please list the titles of items or provide an electronic version of document(s) to melissa.clark@dot.ca.gov.

Preliminary Investigation - Page 2

5. What date(s) did the planned closure occur on?

6. What was the initial date(s) (exact first date) of the public outreach?

7. What was the intended length of the closure (hours/days)?

8. What was the actual length of the closure (hours/days)?

9. What was the estimated delay in time?

10. What was the actual delay in time?

Preliminary Investigation - Page 3

11. Was the public outreach conducted by a private company contracted out by your State DOT?

- YES
- NO

12. If you responded "YES" to previous question, please provide the name of the private company below.

13. What was the planned cost of public outreach?

14. What was the actual cost of public outreach?

15. Please list all the types of public outreach that were used during this planned closure and the actual costs associated with them (i.e. Social Media, Commercials, Billboards, etc.)

Preliminary Investigation - Page 4

16. What was the public's perception of the closure once it was completed (how did they react)?

17. To what degree was your State DOT executive staff satisfied with the response to public outreach for this major planned closure?

Ratings: 1-Not Satisfied to 10-Extremely Satisfied

Satisfaction Rate 1 2 3 4 5 6 7 8 9 10

18. Please explain your selection to previous question below.

19. How did you measure the success of the public outreach after the closure was complete?

Preliminary Investigation - Page 5

20. Is there any additional material or information that you can provide on your major planned closure? (please include links to websites, summary report titles, etc.)

21. Is there any other methodology/strategy that your State DOT or another DOT uses for public outreach that may be helpful for this preliminary investigation? Please list the titles of items or provide an electronic version of document(s) to melissa.clark@dot.ca.gov.

Thank you for taking the time to provide input to our survey. The Preliminary Investigation will take a few weeks to compile after we receive information from various DOT contacts. We will send you a link to the completed version of the document when it is released on our Caltrans website.

APPENDIX D

On-Line Survey Results from AASHTO Members

First and Last Name	Steve Schapiro
State Department of Transportation (DOT)	New Jersey
E-Mail Address	stephen.schapiro@dot.state.nj.us
Phone Number	609.530.4280
What was the name/title of ONE major planned closure within the last 5 years?	Pulaski Skyway Rehabilitation
Was there any documentation/manuals (including guidelines, handbooks, templates, etc.) used in planning for the public outreach?	YES
If you responded "YES" to previous question, please list the titles of items or provide an electronic version of document(s) to melissa.clark@dot.ca.gov.	FHWA Work Zone Mobility & Safety Program- Public Information and Outreach Strategies. Potential use of social media in the NEPA Process Use of Social Media in Public Transportation TCRP Synthesis 99
What date(s) did the planned closure occur on?	April 12, 2014 - Ongoing
What was the initial date(s) (exact first date) of the public outreach?	01/01/2013
What was the intended length of the closure (hours/days)?	2 years
What was the actual length of the closure (hours/days)?	Ongoing
What was the estimated delay in time?	N/A
What was the actual delay in time?	N/A
Was the public outreach conducted by a private company contracted out by your State DOT?	NO
If you responded "YES" to previous question, please provide the name of the private company below.	No- The outreach was a DOT initiative with some technical support from consultants on some tasks.
What was the planned cost of public outreach?	Approximately \$1 million. (Media buys in New York market are very expensive).

<p>What was the actual cost of public outreach?</p>	<p>Approximately \$1.5 million</p>
<p>Please list all the types of public outreach that were used during this planned closure and the actual costs associated with them (i.e. Social Media, Commercials, Billboards, etc.)</p>	<ul style="list-style-type: none"> • Key Stakeholder (Task Force) Meetings • Public Meetings - (Approximately \$2,000 - space & equipment rental) • Project Website • Quick Draw Video posted on YouTube (cost to develop material)- Approximately \$5,000 • Twitter - Approximately \$3,000 to set up and \$2,000 monthly (mainly for obtaining information and maintenance of automatic feed, other daily updates etc. provided by NJDOT staff) • Bus Advertising (NJ Transit) - \$100,000 • Collateral Material (brochure, rack cards, posters,) design + printing cost - \$5,000 • Rest Area (Poster and Rack Card distribution) • Airport - Rack card distribution • Taxi & Limo Companies- Rack card distribution • Car Rental agencies - Rack card distribution • Mall Banner (included in TV/ radio media buy) • Transit /Train & Bus (In car and platform advertising) • TV, Radio & Internet (Bright Roll) advertising - \$600,000 • E-ZPass Email blast - \$50,000 • Project Newsletters and others through various other agencies
<p>What was the public’s perception of the closure once it was completed (how did they react)?</p>	<p>There was much skepticism and second-guessing when we announced how we would stage the construction. The idea of shutting down both northbound lanes of the four-lane, 3.5-mile long Skyway for two years worried many elected officials and commuters. The Department explained repeatedly that it looked at all options, including daily contra-flow to accommodate commuters in the peak travel direction. Once the northbound lanes were closed, the outreach efforts showed the need for the work and the traffic mitigation plan has worked well in the first several weeks of the closure.</p>
<p>To what degree was your State DOT executive staff satisfied with the response to public outreach for this major planned closure? Ratings: 1-Not Satisfied to 10-Extremely Satisfied</p>	<p style="text-align: right;">9</p>
<p>Please explain your selection to previous question below.</p>	<p>Very satisfied. In addition to the countless stakeholder meetings and robust advertising campaign, the Department worked closely with print, radio and TV reporters. These efforts culminated with a “corrosion tour” in the week prior to the closure. This helped end any lingering doubts as to whether the plan to shut down half the highway was necessary and prudent. The construction staging method chosen by the Department cut years from the construction schedule, and it was plain to see that time was not on our side.</p>

How did you measure the success of the public outreach after the closure was complete?	We thought the effort was successful because we reached our target audience. The public was keenly aware that the closure was coming and was aware of the available travel options. There was no public outcry in the media from commuters, elected officials, local residents or business owners that they were caught off guard.
Is there any additional material or information that you can provide on your major planned closure? (please include links to websites, summary report titles, etc.)	Project Website -- http://www.state.nj.us/transportation/commuter/roads/pulaski/ NJDOT YouTube Channel- http://youtu.be/EXMc8e247m4 - TV Commercial http://youtu.be/MRjXdUiVKwY - Speed Drawing video
Is there any other methodology/strategy that your State DOT or another DOT uses for public outreach that may be helpful for this preliminary investigation? Please list the titles of items or provide an electronic version of document(s) to melissa.clark@dot.ca.gov .	Transportation Management Associations can be very useful resources with outreach to the workforce and employers, carpool and vanpool initiatives. A significant amount of attention and outreach was done with the Port users and with the agency managing the Ports since truck traffic is very high in the Pulaski Skyway project area. One lesson we took from the California I-405 was to build partnerships early. This included helping partners understand why we were planning to carry out the project as we did, and to allow each partner to play a useful role in the planning process, especially with regard to traffic mitigation. This worked very well. Our partners knew their roles and what was required of them. While the experience was not challenge-free, it was evident that without most of our partners our work would have been more difficult.

First and Last Name	Meg Ragonese
State Department of Transportation (DOT)	Nevada DOT
E-Mail Address	mragonese@dot.state.nv.us
Phone Number	(775) 888-7172
What was the name/title of ONE major planned closure within the last 5 years?	Three-week closure of Kingsbury Grade (SR 207)
Was there any documentation/manuals (including guidelines, handbooks, templates, etc.) used in planning for the public outreach?	NO

If you responded "YES" to previous question, please list the titles of items or provide an electronic version of document(s) to melissa.clark@dot.ca.gov.	
What date(s) did the planned closure occur on?	May 1-May 23, 2014
What was the initial date(s) (exact first date) of the public outreach?	January/February 2014
What was the intended length of the closure (hours/days)?	23 days
What was the actual length of the closure (hours/days)?	23 days
What was the estimated delay in time?	
What was the actual delay in time?	
Was the public outreach conducted by a private company contracted out by your State DOT?	YES
If you responded "YES" to previous question, please provide the name of the private company below.	Bauserman Group (Reno, Nevada)
What was the planned cost of public outreach?	
What was the actual cost of public outreach?	
Please list all the types of public outreach that were used during this planned closure and the actual costs associated with them (i.e. Social Media, Commercials, Billboards, etc.)	Extensive stakeholder/business meetings Print, radio and TV commercials Project website Public Meetings Media Outreach Social Media
What was the public's perception of the closure once it was completed (how did they react)?	After initially expressing concerns, many members of the public were understanding of the closure. A few citizens even asked us to lengthen the closure in order to further shorten the time duration of the entire construction project.
To what degree was your State DOT executive staff satisfied with the response to public outreach for this major planned closure? Ratings: 1-Not Satisfied to 10-Extremely Satisfied	
Please explain your selection to previous question below.	

How did you measure the success of the public outreach after the closure was complete?	Public feedback, as measured in citizen calls, correspondence, social media and standard media postings
Is there any additional material or information that you can provide on your major planned closure? (please include links to websites, summary report titles, etc.)	www.kingsburyproject.com
Is there any other methodology/strategy that your State DOT or another DOT uses for public outreach that may be helpful for this preliminary investigation? Please list the titles of items or provide an electronic version of document(s) to melissa.clark@dot.ca.gov .	

First and Last Name	Tracey Bramble
State Department of Transportation (DOT)	Iowa
E-Mail Address	tracey_bramble@dot.iowa.gov
Phone Number	5152391314
What was the name/title of ONE major planned closure within the last 5 years?	We have not had what we would consider a major planned closure in the last five years. We have had several brief overnight interstate closures, but no planned closures that impacted traffic long-term.
Was there any documentation/manuals (including guidelines, handbooks, templates, etc.) used in planning for the public outreach?	NO

First and Last Name	Pete Poore
State Department of Transportation (DOT)	South Carolina DOT
E-Mail Address	poorej@scdot.org
Phone Number	803.737.1270
What was the name/title of ONE major planned closure within the last 5 years?	I-385 in SC (Laurens County)

Was there any documentation/manuals (including guidelines, handbooks, templates, etc.) used in planning for the public outreach?	NO
If you responded "YES" to previous question, please list the titles of items or provide an electronic version of document(s) to melissa.clark@dot.ca.gov.	
What date(s) did the planned closure occur on?	Late January 2010
What was the initial date(s) (exact first date) of the public outreach?	10/01/2009
What was the intended length of the closure (hours/days)?	Eight months
What was the actual length of the closure (hours/days)?	6.5 months
What was the estimated delay in time?	None
What was the actual delay in time?	None
Was the public outreach conducted by a private company contracted out by your State DOT?	NO
If you responded "YES" to previous question, please provide the name of the private company below.	
What was the planned cost of public outreach?	No real costs. Only staff time.
What was the actual cost of public outreach?	See #13
Please list all the types of public outreach that were used during this planned closure and the actual costs associated with them (i.e. Social Media, Commercials, Billboards, etc.)	Public meetings, news briefings, site tours for the media, press releases.
What was the public's perception of the closure once it was completed (how did they react)?	Very favorable: Project was finished ahead of schedule and under budget. The public got 15 miles of interstate highway brought up to standard and resurfaced with concrete.
To what degree was your State DOT executive staff satisfied with the response to public outreach for this major planned closure? Ratings: 1-Not Satisfied to 10-Extremely Satisfied	

Please explain your selection to previous question below.	We experienced very few complaints from the public. The detour that was established for this project was constantly publicized as well as project updates that were typically ahead of schedule. Residents in the area navigated local detours and shared them with SCDOT which we also publicized.
How did you measure the success of the public outreach after the closure was complete?	The coverage by the media, particularly the editorial pages were very favorable at the completion of the project.
Is there any additional material or information that you can provide on your major planned closure? (please include links to websites, summary report titles, etc.)	The project concluded in July 2010
Is there any other methodology/strategy that your State DOT or another DOT uses for public outreach that may be helpful for this preliminary investigation? Please list the titles of items or provide an electronic version of document(s) to melissa.clark@dot.ca.gov.	

First and Last Name	Linda Wilson Horn
State Department of Transportation (DOT)	Missouri Department of Transportation
E-Mail Address	Linda.WilsonHorn@modot.mo.gov
Phone Number	314-453-5063
What was the name/title of ONE major planned closure within the last 5 years?	The New I-64 Reconstruction
Was there any documentation/manuals (including guidelines, handbooks, templates, etc.) used in planning for the public outreach?	YES
If you responded "YES" to previous question, please list the titles of items or provide an electronic version of document(s) to melissa.clark@dot.ca.gov.	Contractor Public Information Plan MoDOT White Paper on the I-64 Public Outreach Plan
What date(s) did the planned closure occur on?	There were two one-year complete closures of 5 miles of I-64 in ST. Louis. Jan 2, 2008-Dec 13, 2008 and Dec 13, 2008 to Dec 7, 2009

What was the initial date(s) (exact first date) of the public outreach?	01/01/2006
What was the intended length of the closure (hours/days)?	one year each for each five mile section
What was the actual length of the closure (hours/days)?	less than one year each Both were completed two weeks early
What was the estimated delay in time?	I'm guessing this is travel time, but the question is not clear. Estimated 20-30 minute extra time to get around in peak rush hour
What was the actual delay in time?	Actual time was less than 10 minutes additional travel time
Was the public outreach conducted by a private company contracted out by your State DOT?	NO
If you responded "YES" to previous question, please provide the name of the private company below.	
What was the planned cost of public outreach?	MoDOT budgeted a few hundred thousand for tangible items the rest of the cost was strictly staff time. The contractor also had PR staff and the cost was included in the project budget. Overall efforts were primarily time and not tangible materials or advertising.
What was the actual cost of public outreach?	Met our budget
Please list all the types of public outreach that were used during this planned closure and the actual costs associated with them (i.e. Social Media, Commercials, Billboards, etc.)	website, media relations, social media, public meetings, robust speakers bureau, paid insert in local newspaper, community advisory committee and local elected officials briefings, project newsletter door dropped within 1/2 mile radius either side of the interstate
What was the public's perception of the closure once it was completed (how did they react)?	Extremely positive. Post work survey showed 95% satisfaction with information flow and decision to close the highway
To what degree was your State DOT executive staff satisfied with the response to public outreach for this major planned closure? Ratings: 1-Not Satisfied to 10-Extremely Satisfied	10
Please explain your selection to previous question below.	We exceeded the expectations of our senior management with such a high overall satisfaction from the public. MoDOT was praised for its work and suggested that all major work in ST Louis should be done by the DOT to ensure success.

How did you measure the success of the public outreach after the closure was complete?	We conducted a survey three times during the course of the project including after completion and the public opinion continued to grow each time. At the end of the project we had a public open road day and 20,000+ people came out to run, walk, bike on the road. We received thank you letters from the major business leaders of ST. Louis. The project won a few dozen awards including local, state and national PR awards and the AASHTO Transportation Project of the Year in 2010.
Is there any additional material or information that you can provide on your major planned closure? (please include links to websites, summary report titles, etc.)	The website is still available although it's not active any more. http://www.thenewi64.org/
Is there any other methodology/strategy that your State DOT or another DOT uses for public outreach that may be helpful for this preliminary investigation? Please list the titles of items or provide an electronic version of document(s) to melissa.clark@dot.ca.gov .	MoDOT's foundation for public involvement is based on a course called Systematic Development of Informed Consent which focuses on identifying audiences and their issues and working to get agreement on the problem you are trying to solve. I will send an email to Melissa with more information.

First and Last Name	Mary Jo Oie/Thomas Goodbarn
State Department of Transportation (DOT)	Nebraska Department of ROADS
E-Mail Address	maryjo.oie@nebraska.gov / Thomas.Goodbarn@nebraska.gov
Phone Number	402-479-4512
What was the name/title of ONE major planned closure within the last 5 years?	Union South, U.S. Hwy 75
Was there any documentation/manuals (including guidelines, handbooks, templates, etc.) used in planning for the public outreach?	NO
If you responded "YES" to previous question, please list the titles of items or provide an electronic version of document(s) to melissa.clark@dot.ca.gov .	

What date(s) did the planned closure occur on?	31-Mar-14
What was the initial date(s) (exact first date) of the public outreach?	This project was the result of damage caused by overuse due to flooding of the Missouri River in 2011. Initially mentioned to the public in the 2013 program book. The scope changed to closure in November of 2013 and first publicly discussed at an open house for a nearby project on 12/05/2013.
What was the intended length of the closure (hours/days)?	24hr/day, March 31-September 13, 2014
What was the actual length of the closure (hours/days)?	full closure, still closed and on schedule.
What was the estimated delay in time?	n/a
What was the actual delay in time?	n/a
Was the public outreach conducted by a private company contracted out by your State DOT?	No
If you responded "YES" to previous question, please provide the name of the private company below.	
What was the planned cost of public outreach?	Not planned
What was the actual cost of public outreach?	<\$1000
Please list all the types of public outreach that were used during this planned closure and the actual costs associated with them (i.e. Social Media, Commercials, Billboards, etc.)	Hand delivered letter and phone calls to all residents and businesses along the project. 200\$ Meeting with City officials, Emergency services and schools hosted by Nebraska City Businesses, 0\$ Highway commission meeting presentation, 0\$ Town Hall Meeting with State Senators and public, 0\$ One on One visits with residents and Businesses, 500\$, News releases,?
What was the public's perception of the closure once it was completed (how did they react)?	The public understands the need and for the most part are on board, the local county and City administrations are supportive, Most are impressed with the production and expectations are being met.
To what degree was your State DOT executive staff satisfied with the response to public outreach for this major planned closure? Ratings: 1-Not Satisfied to 10-Extremely Satisfied	9
Please explain your selection to previous question below.	There was some detour confusion as expected initially. Communication has been well maintained throughout the project. Responses to concerns have

	been delivered in a timely manner, We are delivering the product as promised.
How did you measure the success of the public outreach after the closure was complete?	Still Closed. The rising positive enthusiasm in the local area and lack of complaints speak volumes.
Is there any additional material or information that you can provide on your major planned closure? (please include links to websites, summary report titles, etc.)	http://www.transportation.nebraska.gov/
Is there any other methodology/strategy that your State DOT or another DOT uses for public outreach that may be helpful for this preliminary investigation? Please list the titles of items or provide an electronic version of document(s) to melissa.clark@dot.ca.gov .	We have a formal course of action for planned projects with closures but as this was driven by an urgent need, we did not have the luxury of time to follow or complete the process. Mary Jo can elaborate.

First and Last Name	Will Wingfield
State Department of Transportation (DOT)	Indiana DOT
E-Mail Address	wwingfield@indot.in.gov
Phone Number	317-344-9455
What was the name/title of ONE major planned closure within the last 5 years?	U.S. 31 in Carmel, I-65/I-70 South Split, I-465 Allisonville Road, I-70 Lilly Day of Service
Was there any documentation/manuals (including guidelines, handbooks, templates, etc.) used in planning for the public outreach?	NO
If you responded "YES" to previous question, please list the titles of items or provide an electronic version of document(s) to melissa.clark@dot.ca.gov .	
What date(s) did the planned closure occur on?	Ranging from one day for A Greener Welcome to several months for other projects
What was the initial date(s) (exact first date) of the public outreach?	Plans were only finalized a few months beforehand for I-65/I-70 South Split in 2013 and U.S. 31 Carmel closure in 2014

What was the intended length of the closure (hours/days)?	Varies
What was the actual length of the closure (hours/days)?	In all cases, the closure duration was less than what was initially communicated.
What was the estimated delay in time?	None
What was the actual delay in time?	In all cases, it is important to under-promise and over-deliver when setting public expectations about closure duration. An A+B bidding technique where contractors competed over both cost and closure duration helped on the South Split and Allisonville Road projects.
Was the public outreach conducted by a private company contracted out by your State DOT?	YES
If you responded "YES" to previous question, please provide the name of the private company below.	Borshoff for Allisonville Road and U.S. 31 closure. Eli Lilly & Co. led A Greener Welcome communications as part of their national day of service. I-65/I-70 South Split was done in house with assistance from our research partnership with Purdue.
What was the planned cost of public outreach?	Varies
What was the actual cost of public outreach?	Varies
Please list all the types of public outreach that were used during this planned closure and the actual costs associated with them (i.e. Social Media, Commercials, Billboards, etc.)	Cost varies. Mailers, public meetings, radio traffic sponsorships, news releases, social media, press conferences, videos to announce overnight reopening to traffic.
What was the public's perception of the closure once it was completed (how did they react)?	Overall, the perception is positive. Some initial coverage of impacts to business should be expected, but in the end the business community recognizes the positive impact.
To what degree was your State DOT executive staff satisfied with the response to public outreach for this major planned closure? Ratings: 1- Not Satisfied to 10-Extremely Satisfied	9
Please explain your selection to previous question below.	Construction contractors exceeded the public expectations set by communications staff. Parallel local street networks absorbed diverted traffic as predicted in traffic modeling.
How did you measure the success of the public outreach after the closure was complete?	Success measured by traffic delay and media coverage following closure.

Is there any additional material or information that you can provide on your major planned closure? (please include links to websites, summary report titles, etc.)	http://us31closure.com http://southsplit.in.gov http://agreenerwelcome.org
Is there any other methodology/strategy that your State DOT or another DOT uses for public outreach that may be helpful for this preliminary investigation? Please list the titles of items or provide an electronic version of document(s) to melissa.clark@dot.ca.gov .	

First and Last Name	Lori Ryan
State Department of Transportation (DOT)	Montana Department of Transportation
E-Mail Address	lryan@mt.gov
Phone Number	406-444-6821
What was the name/title of ONE major planned closure within the last 5 years?	Custer Interchange Project
Was there any documentation/manuals (including guidelines, handbooks, templates, etc.) used in planning for the public outreach?	NO

APPENDIX E

Resources/Additional Information

1. Published Guidelines, Handbooks, etc.

Communicating the Value of Preservation: A Playbook

http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_742.pdf

FHWA, Guide to Creating an Effective Marketing Plan

http://www.fhwa.dot.gov/hfl/091013/091013_final.pdf

FHWA-Innovative Program Delivery, Major Project Program Cost Estimating Guidance

http://www.fhwa.dot.gov/ipd/pdfs/project_delivery/major_project_cost_guidance.pdf

FHWA, Project-Level Public Information and Outreach Examples

<http://www.ops.fhwa.dot.gov/wz/publicinfostrategies/projectlevel.htm>

FHWA, Work Zone Public Information and Outreach Strategies

http://ops.fhwa.dot.gov/wz/info_and_outreach/

FHWA, Your Guide to Work Zone Public Outreach Campaigns

<http://www.fhwa.dot.gov/publications/focus/06mar/03.cfm>

NCHRP, Public Outreach in Transportation Management

<http://apps.trb.org/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=516>

Public Outreach Planner

<http://www.itd.idaho.gov/pop/LevelGuide.html>

TCRP Synthesis 99, Uses of Social Media in Public Transportation

http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_syn_99.pdf

2. Additional Information (Articles, Presentations, Survey, Attachments, etc.)

8 Building Blocks of Successful Influence Strategies

<http://www.slideshare.net/EMBARQNetwork/successful-influence-strategies-in-sustainable-transport-benoit-colin-embarq-atuq-4oct2013-slideshare>

Creative Project Communications - Article

http://www.cenews.com/article/9509/creative_project_communications

Caltrans, Contracts for Public Relations Services Information Bulletin IB15-01

<http://dpac.onramp.dot.ca.gov/downloads/dpac/files/ib-15-01.pdf>

Caltrans District 10 State Route 12 Transportation Concept Report

http://www.dot.ca.gov/dist10/divisions/Planning/advancedplanning/docs/TCR's/SR12_report_Final02132012signed.pdf

Caltrans District 10 Media Advisory, Full Closure State Route 12

<http://www.dot.ca.gov/dist10/pages/pressreleases/2013/may/13-05-52ExtremeMaintenanceMediaAdvisory.pdf>

City of Austin, PIO Recommendations for public outreach
<http://www.austintexas.gov/edims/document.cfm?id=158491>

City of Denver, Strategic Transportation Plan, Public Outreach
<https://www.denvergov.org/stp/Homepage/PublicOutreach/tabid/435849/Default.aspx>

City of Salem, North Broadway/High Street Parking Management Plan: Public Outreach Plan
<http://www.cityofsalem.net/Departments/CommunityDevelopment/Planning/NorthBroadway-HighStreetParkingManagementPlan/Documents/Draft%20Public%20Outreach%20Plan.pdf>

Combine Search Engine Optimization with Public Relations to Boost Search Engine Rankings
<http://www.cyberalert.com/blog/index.php/combine-seo-with-public-relations-to-boost-search-engine-rankings/>

Delaware DOT Aims to Keep Public in the Loop on Route 26 Project
http://www.coastalpoint.com/content/deldot_aims_keep_public_loop_route_26_project_03_13_2014

How to Develop Your Outreach Strategy
<http://mitigationguide.org/task-3/how-to-develop-your-outreach-strategy/>

Iowa Department of Transportation New Construction page
<http://www.iowadot.gov/travel.html#/highwayconstruction>

Interstate-93 Transit Investment Study
http://www.nh.gov/dot/programs/i93transit/documents/PIP_111406.pdf

Morgantown Monongalia Metropolitan Planning Organization, Public Outreach Summary
<http://plantogether.org/APPENDIX%20A.pdf>

Public Outreach and Education in Michigan, Energy Regulatory Partnership Program
http://www.naruc.org/international/Documents/MPSC_act3_Outreach.pdf

Promoting Caltrans Projects through Public Outreach
www.dot.ca.gov/docs/CTJ_v3_i2_AltFmt.doc

Spokane Regional Transportation Council uses online maps
<http://www.spokesman.com/stories/2014/mar/31/new-tools-let-users-see-road-projects-by/>

Social Media in Rulemaking
<http://acus.recommendationroom.org/recommendations/social-media-rulemaking/committee-draft-2/public-outreach#nid-102-101>

South Carolina DOT Launches Website for I-26 Improvements

<http://gsabusiness.com/news/50244-s-c-dot-launches-website-for-i-26-improvements?rss=0>

Texas DOT Launches New Technology to Reduce Congestion

<http://www.txdot.gov/inside-txdot/media-center/statewide-news/2014-archive/012-2014.html>

Traffic Demand Reduction Using an Automated Work Zone Information System for Urban Freeway Rehabilitation

[http://ascelibrary.org/doi/abs/10.1061/40799\(213\)104](http://ascelibrary.org/doi/abs/10.1061/40799(213)104)

Transportation's Best of 2013: Communication with the Public

<http://talkingtransportation.wordpress.com/2014/01/28/transportations-best-of-2013-communicating-withthe-public/>

Transportation Management for Major Highway Construction

http://ntl.bts.gov/lib/jpodocs/repts_te/10783.pdf

Value Pricing and Public Outreach: Minnesota's Lessons Learned

http://www.fhwa.dot.gov/ipd/pdfs/revenue/resources/webinars/reading_mats_outreach.pdf

3. Reports may not available on the web

-Boat Section Report: Fix I-5 Keys to Success Rapid Rehabilitation of Interstate 5 in Downtown Sacramento

- Prepared by Ken Solak, Mark Dinger, Joe Horton, Scott Jarvis, Oscar Vasquez (2009)

-Caltrans "Fix I-5" Boat Section Project Outreach Campaign Final Report

- Prepared by ProProse (2008)

-Public Outreach Summary Steer Clear Interstate 805 South Express Lanes Project "DARmageddon" Freeway Closure

- Prepared by Southwest Strategies LLC

-I-405 Sepulveda Pass Improvements Project Power Point Presentation

- Prepared by Metro

-Communication Recap: I-805 Freeway Closure: Demolition of the East Palomar Bridge – DARmageddon Campaign

- Prepared by Caltrans, District 11

-Informational Report on the "DARMAGEDDON" Strategy & Supplemental Report Analysis

- Prepared by Caltrans, District 11

-The Missouri Department of Transportation Interstate Reconstruction Project Interstate 64 – White Paper

- Prepared by Linda Wilson Horn Missouri Department of Transportation

APPENDIX F

References

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- [2] Fix I-5 Keys to Success Rapid Rehabilitation of Interstate 5 in Downtown Sacramento, K.Solak, M. Dinger, J. Horton, S. Jarvis, O.Vasquez (2009)
- [3] The Road Not Taken, J. Gish, Public Roads Vol 76 No 6 (2013)
- [4] Carmageddon Revisited: Metro, Caltrans and Kiewit Reopen Iconic Mulholland Bridge, D. Sotero, The Source Transportation News and Views (2013)
- [5] Promoting Caltrans Projects Through Public Outreach, R. Melgoza, California Transportation Journal, Vol 3 Issue 2 (2007)
- [6] Public Outreach Summary Steer Clear Interstate 805 South Express Lanes Project “DARmageddon” Freeway Closure, Southwest Strategies LLC (2013)
- [7] Full Road Closure for Work Zone Operations: A Case Study Reducing the Impact of Construction During Rehabilitation of a Major Interstate Highway, FHWA-HOP-05-012 (2004)
- [8] Rehabbing Maine's I-295 Southbound, M. Lane, Public Roads Vol 73 No 3 (2009)
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- [10] MassDOT Combines Accelerated Bridge Construction With Innovative Communications to Build Public Trust and Acclaim, E. Partington, Civil and Structural Engineer News (2013)
- [11] Reducing Congestion and Funding Transportation Using Road Pricing in Europe and Singapore, R. Arnold, V. Smith, J. Doan, R. Barry, J. Blakesley, P. DeCorla-Souza, M. Muriello, G.Murthy, P. Rubstello, N.Thompson, FHWA-PL-10-030 (2010)
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- [14] Transportation 2035 Plan for the San Francisco Bay Area Draft Public Outreach and Involvement Program Report, J. Bort, Metropolitan Transportation Commission (2009)
- [15] Phase II Outreach & Public Participation Guidance, North Carolina Department of Environment and Natural Resources
- [16] How Much Does Public Relations Cost?, Axia Public Relations (2013)
- [17] Evaluation of the Role of Public Outreach and Stakeholder Engagement in Stormwater Funding Decisions in New England: Lessons from Communities, Ross Strategic and Industrial Economics, Incorporated (IEc), EPA-100-K-13-0004 (2013)
- [18] The Kansas Oil and Gas Industry Public Outreach Program, E. Cross, (2004)

APPENDIX G

Contacts

Project Title	Main Contacts	E-mail Address
Fix I-5 Boat Section	Ken Solak, Caltrans District 3	ken.solak@dot.ca.gov
	Mark Dinger, Caltrans District 3	mark.dinger@dot.ca.gov
	Anne Staines, ProProse	anne@proprose.com
	Michael Zhang, UC Davis	hmzhang@ucdavis.edu
Fix 50	Dennis Keaton, Caltrans District 3	dennis_keaton@dot.ca.gov
Bay Bridge	Andrew Gordon, MTC	agordon@mtc.ca.gov
	Pochana Chongchaikit, Caltrans District 4	pochana_chongchaikit@dot.ca.gov
Carmaggedon 1 & 2	Judy Gish, Caltrans District 7	judy.gish@dot.ca.gov
	Yvette Rapose, LA County MTA	CustomerRelations@metro.net RAPOSEY@metro.net
Devore Interchange Project	Jesus Paez, Caltrans District 8	jesus.paez@dot.ca.gov
	Robert Chevez, West Bound Communications	rchevez@westboundcommunications.com
Extreme Maintenance State Route 12	Chantel Miller, Caltrans District 10	chantel.miller@dot.ca.gov district10publicaffairs@dot.ca.gov
DARmaggedon	Cathryne Bruce-Johnson, Caltrans	cathryne.bruce-johnson@dot.ca.gov
	Greg Lawson, Caltrans District 11	Greg.Lawson@dot.ca.gov
	Steve Saville, Caltrans, District 11	steve.saville@dot.ca.gov
	Helen Gao, SANDAG	helen.gao@sandag.org
	Tedi Jackson, SANDAG	Tedi.Jackson@sandag.org
Union South, U.S. Hwy 75	Thomas W. Goodbarn, Nebraska DOT	Thomas.Goodbarn@nebraska.gov
	Mary Joe Oie, Nebraska DOT	maryjo.oie@nebraska.gov
Pulaski Skyway Rehabilitation	Stephen Schapiro, New Jersey DOT	stephen.schapiro@dot.state.nj.us
Kingsbury Grade (SR 207)	Meg Ragonese, Nevada DOT	mragonese@dot.state.nv.us
NO PROJECT	Tracey Bramble, Iowa DOT	tracey.bramble@dot.iowa.gov
I-385 closure	Pete Poore, South Carolina DOT	poorej@scdot.org
Interstate 64 Reconstruction Project	Linda Wilson Horn Missouri DOT	Linda.WilsonHorn@modot.mo.gov

U.S. 31 in Carmel, Interstate-65/Interstate-70 South Split, and Interstate-70	Will Wingfield, Indiana DOT	wwingfield@indot.in.gov
Custer Interchange Project	Lori Ryan, Montana DOT	lryan@mt.gov
AASHTO Contact	Lloyd Brown, SCOTC AASHTO	lbrown@ashto.org
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