



U.S. Department  
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## Features of Traffic and Transit Internet Sites

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Prepared by:

Jonah Soolman, Volpe Center  
Sari Radin, Volpe Center

Economic Analysis Division  
John A. Volpe National Transportation Systems Center  
Cambridge, Massachusetts

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U.S. Department of Transportation  
Federal Highway Administration  
Intelligent Transportation Systems  
Joint Program Office  
Washington, DC 20590

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# I. INTRODUCTION

## 1.1 Overview

Over the last several years, research on Advanced Traveler Information Systems (ATIS) customer preferences has been conducted and led to a number of conclusions about desirable features.<sup>1</sup> For internet sites providing traffic information, these features include:

- The presence of a metro area map
- Real-time traffic information beyond the metro area
- Incident information
- Real-time camera views
- The presence of a metro area map supporting point-and-click inquiries for traffic conditions
- Prevailing speeds for highway segments
- Real-time travel times between markers
- Links to information about other modes of transportation or programs
- Special services
- Frequency of site updates

For internet sites providing transit information, these features include:

- The presence of a system map
- The presence of a system map clearly showing transfer points
- The presence of a system map supporting point-and-click inquiries for transit status
- Links/information for the other transit authorities in the given metro area
- Real-time information
- Schedule and fare information
- Itinerary planning services
- Links to information about other modes of transportation
- Email link/address for customer feedback
- Telephone number for customer feedback

This paper summarizes the current state of internet sites with respect to these features, first considering whether sites with the features are available in metro areas, then comparing sites developed by public and private sectors.

In order to determine what information is available to the commuting public via the internet, a list of traffic reporting and transit system information sites was established for analysis. The list, including sites with information pertinent to the 78 largest metropolitan areas within the United

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<sup>1</sup> MMDI Customer Satisfaction evaluations of the Puget Sound Traffic Conditions web site and Trailmaster, the greater Phoenix travel conditions web site (1999).

States, was synthesized from already-existing lists from Intelligent Transportation Society of America, the American Public Transportation Association (APTA,) and the 1999 metropolitan ITS deployment tracking data base. A total of 85 traffic sites and 120 transit sites were reviewed during the month of December, 1999 to determine the rate of availability of ten predetermined features for each of the two categories. Out of the 78 metro areas considered, traffic sites serving 42 of them and transit sites serving 38 of them were examined. Some areas have many more than one site. New York/Northern New Jersey/Southwestern Connecticut, for example, has 18 transit sites, while San Francisco/Oakland/San Jose has 7 traffic sites.

Section II examines some of the traffic information features by metro area and explores how many areas have a given feature available on at least one of their sites. This section will show that some of the most sought-after information is not widely available to users.

The following twenty charts in Section III show the statistical results of this exploration. They give the overall frequency of each feature appearing on a site, and dissect each frequency into subgroups by public and private sites. The availability of each feature varies amongst a wide range, but two generalities will be shown in this analysis:

- Traffic: Private sites contain the examined features more often than public sites.
- Transit: Public sites contain the examined features more often than private sites.

## **II. AVAILABILITY OF FEATURES**

### **2.1 Overview**

Out of the 78 largest metro areas, 42 have at least one traffic site, and 38 have at least one transit site, that could be evaluated for the presence of the predetermined features.

### **2.2 Traffic Sites**

The 42 metro areas with examined web sites have more traffic, as measured by ADT per freeway lane, than the average of the 78 metro areas included in metropolitan ITS deployment tracking. The examined web sites show that some of the most sought-after traffic information is not widely-available.

Traffic Sites		
Of the 42 metro areas explored, what percentage have at least one site with the following features?		
	% Of Metro Areas	
	Yes	No
Does at least one site offer incident information?	88.1%	11.9%
Does at least one site give the ability for the user to click on, or move the cursor to, a segment of the highway map and receive more detailed information describing conditions on that segment of road?	57.1%	42.9%
Does at least one site have camera views available?	38.1%	61.9%
Does at least one site present prevailing speeds for all wired segments of highways and roads?	35.7%	64.3%
Does at least one site give the user the ability to determine travel times between markers?	21.4%	78.6%

With 88.1% of the metro areas having it available, incident information is featured for most users in the 42 metro areas with web sites. The point-and-click tool is not as widespread, but the majority of areas still have it. Camera views, prevailing speeds, and travel times are relatively uncommon. It appears that the metro areas where web sites portray prevailing speeds or have special services have even more traffic than the average metro area with an examined web site.

## 2.3 Transit Sites

Some of the most helpful features are common, while others are rare.

Transit Sites		
Of the 38 metro areas explored, what percentage have at least one site with the following features?		
	% Of Metro Areas	
	Yes	No
Does at least one site offer a system map that shows, at a minimum, the rail lines and/or major bus routes in the metro area?	89.5%	10.5%
Does at least one site offer a system map that shows, at a minimum, the rail lines and/or major bus routes in the metro area and clearly presents all modes of transit and transfer points sufficiently so that the viewer can see on the map at precisely which stop(s) the transit lines and/or bus routes intersect?	31.6%	68.4%
Does at least one site provide itinerary planning?	13.2%	86.8%

System maps are relatively-common, with nearly 90% of metro areas having at least one site with a system map. However, maps showing transfer points are scarce, and itinerary planning services are even more rare.

## III. PUBLIC AND PRIVATE PROVIDERS

### 3.1 Overview

Public agencies and private companies are likely to have different motivations, resources, and constraints when they develop internet sites. Public agencies are interested in managing the

system and have direct access to data they collect for traffic or transit management purposes. Private companies are interested in profiting from their efforts and covering data collection or procurement costs. This section examines how the differences between the public and private sectors affect internet site features.

### **3.2 Traffic Sites**

Traffic internet sites include those developed for the purpose of providing general traffic information as well as those oriented toward reporting incidents. They are provided by state DOT's, toll authorities, local traffic agencies, and private companies. There are nearly equal numbers of public and private sites. The features are divided into three groups for discussion: those that appear with approximately equal frequency on public and private sites, those that are more common on public sites, and those that are more common, or better, on private sites. To summarize, the features sort into these groups as follows:

Same for public and private sites

- Real-time traffic information beyond the metro area
- Incident information
- Prevailing speeds

More common on public sites

- Real-time camera views
- Information on other modes or programs

More common on private sites

- Point-and-click inquiries
- Real-time travel times
- Special services
- Frequency of update

The following sub-sections discuss each of these groups of features in detail. (Note that the question numbers in the first line of each chart indicate to which question in Appendix A each chart corresponds.)

#### **3.2.1 Traffic Sites: No Significant Differences Between Public and Private Sites**

This sub-section discusses the three features for which there is no significant difference between public and private sites. The results are displayed below.

### Traffic Sites: Question #2

Does the site contain real-time traffic information (such as congestion, traffic cameras, average speed, road conditions, incident information, etc.) beyond the metro area?

	Yes		No		Total	
	# Sites	%	# Sites	%	# Sites	%
Public Sites	16	35.6%	29	64.4%	45	100.0%
Private Sites	12	30.0%	28	70.0%	40	100.0%
<b>All Sites</b>	<b>28</b>	<b>32.9%</b>	<b>57</b>	<b>67.1%</b>	<b>85</b>	<b>100.0%</b>

The above table shows a difference of 5.6% between the number of public and private sites containing real-time traffic information beyond the metro area. While the tendency is therefore that public sites do offer a higher likelihood for distributing such information, the difference is not so significant that a user would by far be better off trying a public site for this information. Given the similar numbers in the pools of public and private sites (45 and 40, respectively,) this 5.6% difference is only reflective of two sites. Therefore, the frequency of occurrence this feature is similar between public sites and private sites.

### Traffic Sites: Question #3

Does the site offer incident information, such as accidents or construction notices?

	Yes		No		Total	
	# Sites	%	# Sites	%	# Sites	%
Public Sites	37	82.2%	8	17.8%	45	100.0%
Private Sites	35	87.5%	5	12.5%	40	100.0%
<b>All Sites</b>	<b>72</b>	<b>84.7%</b>	<b>13</b>	<b>15.3%</b>	<b>85</b>	<b>100.0%</b>

The above chart shows that private sites more often display incident information than public sites by a margin of 5.3%. For reasons of pool size already discussed, this is not a significant difference. However, some of the public sites listed were solely for construction notices, and not necessarily real-time notices. Therefore, if a user were looking for general traffic information as opposed to specifically wanting construction notices, he/she would probably not think of looking at these public sites. This means that when a user chooses a site for general traffic information, a private site is more likely, theoretically, to have pertinent incident information than a public site, despite the above chart showing the two groups to be even in reality.

### Traffic Sites: Question #6

Does the site present prevailing speeds for any segments of highways or roads?

	Yes		No		Total	
	# Sites	%	# Sites	%	# Sites	%
Public Sites	10	22.2%	35	77.8%	45	100.0%
Private Sites	10	25.0%	30	75.0%	40	100.0%
<b>All Sites</b>	<b>20</b>	<b>23.5%</b>	<b>65</b>	<b>76.5%</b>	<b>85</b>	<b>100.0%</b>

Public and private sites are very similar in not presenting prevailing speeds. Only one out of four sites presents prevailing speeds, thus making the information hard for a user to find.

Of the three types of information portrayed with approximately the same frequency by public and private sites, the only one that is common is incident information. It appears that presenting real-time information beyond the metro area and presenting traffic speeds are either low priority for both public and private or difficult to do.

### 3.2.2 Traffic Sites: Features For Which Public Sites Are Better

The following two charts indicate which features are more common on public sites.

Traffic Sites: Question #4						
Does the site have real-time camera views available?						
	Yes		No		Total	
	# Sites	%	# Sites	%	# Sites	%
Public Sites	12	26.7%	33	73.3%	45	100.0%
Private Sites	6	15.0%	34	85.0%	40	100.0%
<b>All Sites</b>	<b>18</b>	<b>21.2%</b>	<b>67</b>	<b>78.8%</b>	<b>85</b>	<b>100.0%</b>

The above chart shows that public sites are more likely to offer real-time camera views than private sites; however, it is still a seldom-used tool as nearly four out of every five sites do not offer it.

Traffic Sites: Question #8						
Does the site provide links to information about other modes of transportation or programs such as paratransit, carpooling, or transit services?						
	Yes		No		Total	
	# Sites	%	# Sites	%	# Sites	%
Public Sites	28	62.2%	17	37.8%	45	100.0%
Private Sites	19	47.5%	21	52.5%	40	100.0%
<b>All Sites</b>	<b>47</b>	<b>55.3%</b>	<b>38</b>	<b>44.7%</b>	<b>85</b>	<b>100.0%</b>

As shown by the above chart, public sites provide links or information about other modes of transportation more often than private sites. Unlike camera views, links or information about other modes is relatively common.

### 3.2.3 Traffic Sites: Private Sites Are Often More Useful Than Public Sites

The following five charts illustrate when the private sites outdo their public counterparts.



### Traffic Sites: Question #5

Can the user click on, or move the cursor to, a segment of the highway map and receive more detailed information describing conditions (such as average speed, incidents, weather, etc.) on that segment of road?

	Yes		No		Total	
	# Sites	%	# Sites	%	# Sites	%
Public Sites	18	40.0%	27	60.0%	45	100.0%
Private Sites	27	67.5%	13	32.5%	40	100.0%
<b>All Sites</b>	<b>45</b>	<b>52.9%</b>	<b>40</b>	<b>47.1%</b>	<b>85</b>	<b>100.0%</b>

More than half of all traffic sites take advantage of the point-and-click tool as described above, which often makes getting the desired information clearer and quicker than if this tool is not available. Since private sites are overwhelmingly more likely to use this feature, these sites might be more attractive than sites that don't have it.

### Traffic Sites: Question #7

Does the site present estimated real-time travel times between markers?

	Yes		No		Total	
	# Sites	%	# Sites	%	# Sites	%
Public Sites	3	6.7%	42	93.3%	45	100.0%
Private Sites	9	22.5%	31	77.5%	40	100.0%
<b>All Sites</b>	<b>12</b>	<b>14.1%</b>	<b>73</b>	<b>85.9%</b>	<b>85</b>	<b>100.0%</b>

For the sake of clarity, "between markers," as stated in the above question, does not mean to imply that the site must give the user the ability to input trip origin and destination in order to have received a "yes." A site that presented real-time travel times between any two site-selected markers was also given a "yes." Having said that, this information is scarce, with only 14.1% of all sites having this feature. However, private sites are significantly more likely to have this information than public sites thanks to Smart Route Systems and Transmart Technology, both of which are responsible for nearly all of the private sites with this feature.

### Traffic Sites: Question #9

Does the site offer any special services, such as route guidance or personalized traffic alerts?

	Yes		No		Total	
	# Sites	%	# Sites	%	# Sites	%
Public Sites	1	2.2%	44	97.8%	45	100.0%
Private Sites	9	22.5%	31	77.5%	40	100.0%
<b>All Sites</b>	<b>10</b>	<b>11.8%</b>	<b>75</b>	<b>88.2%</b>	<b>85</b>	<b>100.0%</b>

Only 11.8% of all sites offer special services, and those that do are almost always private.

Traffic Sites: Question #10								
How often is the site updated?								
	Frequency Of Updates						Total	
	Every 5 Minutes Or Less	Between 6 And 10 Minutes	Between 11 And 15 Minutes	16 Minutes Or More	Updated, But Frequency Not Specified	Not Updated		
	%	%	%	%	%	%	# Sites	%
Public Sites	42.2%	2.2%	2.2%	11.1%	35.6%	6.7%	45	100.0%
Private Sites	80.0%	15.0%	0.0%	0.0%	5.0%	0.0%	40	100.0%
<b>All Sites</b>	<b>60.0%</b>	<b>8.2%</b>	<b>1.2%</b>	<b>5.9%</b>	<b>21.2%</b>	<b>3.5%</b>	<b>85</b>	<b>100.0%</b>

The above chart shows that over two-thirds of all traffic sites are updated at least every ten minutes. However, 95% of private sites are updated within this timeframe, compared to only 44.4% of public sites. As a result, the information on the average private site is more timely, and presumably more accurate and helpful, than that which the average public site provides. The high number of public sites that are updated at an unknown frequency is largely comprised of sites that post almost exclusively construction notices.

Traffic Sites: Question #1						
Does the site contain a map of the metro area, and if so is it in one piece, cut up in regions, or cut up into segments of individual roads?						
	Yes; Map Is In One Piece	Yes; Map Is Cut Up Into Regions	Yes; Map Is In Route Segments	No Map	Total	
	%	%	%	%	# Sites	%
Public Sites	42.2%	20.0%	4.4%	33.3%	45	100.0%
Private Sites	85.0%	2.5%	0.0%	12.5%	40	100.0%
<b>All Sites</b>	<b>62.4%</b>	<b>11.8%</b>	<b>2.4%</b>	<b>23.5%</b>	<b>85</b>	<b>100.0%</b>

The above chart shows that over 75% of all sites contain a map of the metro area. However, private sites contain maps more often than public sites, and their maps are in one piece 85% of the time compared to only 42.2% of the time for public sites. One-piece maps are more advantageous than maps that are cut up into regions because they show a continuous view of the area with no breaks, whereas regional maps may omit some areas and/or require matching up if the user's route traverses more than one map. Segmented maps, which show only a segment of one road, are the least useful because they don't help a user whose route either contains more than just that one given road or doesn't contain that road at all.

### 3.3 Transit Sites

There are many more public sector sites providing transit information than private sector sites. Most of the features are more common on public sites as follows:

More common on public sites

- The presence of a system map
- The presence of a system map clearly showing transfer points
- The presence of a system map supporting point-and-click inquiries
- Links/information for the other transit authorities in the metro area
- Schedule and fare information
- Itinerary planning services
- Links to information about other modes of transportation
- Telephone number for customer feedback

More common on private sites

- Real-time information
- Email link/address for customer feedback

The following sub-sections discuss both groups of features in greater detail.

### 3.3.1 Transit Sites: Public Is Generally Better Than Private

In almost every transit information category examined, the public sites provided more features than the private sites as this sub-section will show.

Transit Sites: Question #1						
Does the site offer a system map that shows, at a minimum, the rail lines and/or major bus routes in the metro area?						
	Yes; Map Is In One Piece	Yes; Map Is Cut Up Into Regions	Yes; Map Is In Route Segments	No Map	Total	
	%	%	%	%	# Sites	%
Public Sites	48.5%	11.1%	18.2%	22.2%	99	100.0%
Private Sites	47.6%	0.0%	9.5%	42.9%	21	100.0%
<b>All Sites</b>	<b>48.3%</b>	<b>9.2%</b>	<b>16.7%</b>	<b>25.8%</b>	<b>120</b>	<b>100.0%</b>

The above table shows that roughly 75% of all sites do have such a system map in one form or another. While both public and private share similar percentages of maps in one piece (48.5% and 47.6%, respectively) private sites are virtually limited to this category, whereas some public sites do include segmented or regional maps. For this reason, a public site is more likely to have some sort of system map than a private site.

### Transit Sites: Question #2

If there is an area-wide system map that shows, at a minimum, the rail lines and/or major bus routes in the metro area, are all modes of transit and transfer points clearly presented on the map sufficiently so that the viewer can see on the map at precisely which stop(s) the transit lines and/or bus routes intersect?

	Yes		No		Total	
	# Sites	%	# Sites	%	# Sites	%
Public Sites	21	21.2%	78	78.8%	99	100.0%
Private Sites	0	0.0%	21	100.0%	21	100.0%
<b>All Sites</b>	<b>21</b>	<b>17.5%</b>	<b>99</b>	<b>82.5%</b>	<b>120</b>	<b>100.0%</b>

As the above table shows, over 82% of sites do not have a system map that clearly shows transfer points. From a user's perspective, especially someone unfamiliar with the system, this makes planning a trip difficult, even more so if the travel includes a private line, none of which show transfer points on their maps.

### Transit Sites: Question #3

If there is an area-wide system map that shows, at a minimum, the rail lines and/or major bus routes in the metro area, does it support point-and-click inquiries that offer zoom in/out features and/or detailed information on stations in the selected area, such as name, address, incidents and/or construction notices, schedules, wheelchair accessibility, or transfer points?

	Yes		No		Total	
	# Sites	%	# Sites	%	# Sites	%
Public Sites	38	38.4%	61	61.6%	99	100.0%
Private Sites	2	9.5%	19	90.5%	21	100.0%
<b>All Sites</b>	<b>40</b>	<b>33.3%</b>	<b>80</b>	<b>66.7%</b>	<b>120</b>	<b>100.0%</b>

One-third of sites make use of a point-and-click tool, but public sites make up the vast majority of this group.

### Transit Sites: Question #8

Does the site provide links to information on other modes of transportation, such as commercial train, airplane, or bus companies, or traffic information for the metro area?

	Yes		No		Total	
	# Sites	%	# Sites	%	# Sites	%
Public Sites	66	66.7%	33	33.3%	99	100.0%
Private Sites	8	38.1%	13	61.9%	21	100.0%
<b>All Sites</b>	<b>74</b>	<b>61.7%</b>	<b>46</b>	<b>38.3%</b>	<b>120</b>	<b>100.0%</b>

As discussed earlier in the traffic section, the public sites have links/information to other modes of transportation much more frequently than private sites.

### Transit Sites: Question #6

Does the site include comprehensive schedule and fare information for the transit routes and/or bus routes listed?

	Yes		No		Total	
	# Sites	%	# Sites	%	# Sites	%
Public Sites	89	89.9%	10	10.1%	99	100.0%
Private Sites	17	81.0%	4	19.0%	21	100.0%
<b>All Sites</b>	<b>106</b>	<b>88.3%</b>	<b>14</b>	<b>11.7%</b>	<b>120</b>	<b>100.0%</b>

88% of all sites feature schedule and fare information, which makes this information widely-available to site users. Public sites do include this information more often, but not significantly so. Given the small sample size of private sites, if only one more site had included this information then the frequency would be nearly identical.

### Transit Sites: Question #4

Do all other transit authorities for the given metro area, as listed by the National Transit Database, have links or information on the site?

	Percentage Of Authorities							Total	
	No Other Authorities	0%	1% to 25%	26% to 50%	51% to 75%	76% to 99%	100%		
	%	%	%	%	%	%	%	# Sites	%
Public Sites	10.1%	58.6%	21.2%	5.1%	2.0%	0.0%	3.0%	99	100.0%
Private Sites	0.0%	76.2%	14.3%	9.5%	0.0%	0.0%	0.0%	21	100.0%
<b>All Sites</b>	<b>8.3%</b>	<b>61.7%</b>	<b>20.0%</b>	<b>5.8%</b>	<b>1.7%</b>	<b>0.0%</b>	<b>2.5%</b>	<b>120</b>	<b>100.0%</b>

The majority of sites (61.7%) list no other existing transit authorities at all, while a total of 81.7% list less than a quarter of their neighboring metro authorities. From the user's perspective, this makes it harder to plan a complete trip involving a given metro area. The private sites are especially poor in listing links/information for other transit authorities with 76.2% listing no authorities at all. Given that none of the examined metro areas had a private transit system as its only system, every single private site therefore had an opportunity to list another authority, which was not the case with nearly 90% of the public sites. Still, public sites disseminated this information much more often than private sites.

### Transit Sites: Question #7

Does the site provide itinerary planning services?

	Yes		No		Total	
	# Sites	%	# Sites	%	# Sites	%
Public Sites	8	8.1%	91	91.9%	99	100.0%
Private Sites	0	0.0%	21	100.0%	21	100.0%
<b>All Sites</b>	<b>8</b>	<b>6.7%</b>	<b>112</b>	<b>93.3%</b>	<b>120</b>	<b>100.0%</b>

The above numbers show that very few sites (only 6.7%) have itinerary planning services, and all of them are public sites.

Transit Sites: Question #10							
Does the site provide a telephone number for customer inquiries about the site or transit services?							
	Yes; Site Feedback Only	Yes; Transit Questions / Feedback Only	Yes; Both Transit and Site Feedback	Yes; Unspecified / General Feedback	No Link	Total	
	%	%	%	%	%	# Sites	%
Public Sites	0.0%	15.2%	11.1%	38.4%	35.4%	99	100.0%
Private Sites	0.0%	4.8%	0.0%	42.9%	52.4%	21	100.0%
<b>All Sites</b>	<b>0.0%</b>	<b>13.3%</b>	<b>9.2%</b>	<b>39.2%</b>	<b>38.3%</b>	<b>120</b>	<b>100.0%</b>

Nearly 65% of public sites provide a telephone number for customer inquiries compared to only approximately 48% for private sites. Overall, roughly 60% of sites make a telephone feedback number available for their users.

### 3.3.2 Transit Sites: Features For Which Public Sites And Private Sites Are Comparable

Public and private sites are relatively similar for the following two features.

Transit Sites: Question #5						
Is real-time information (such as transit vehicle locations, incident information, re-routing notices, etc.) available on the site?						
	Yes		No		Total	
	# Sites	%	# Sites	%	# Sites	%
Public Sites	3	3.0%	96	97.0%	99	100.0%
Private Sites	1	4.8%	20	95.2%	21	100.0%
<b>All Sites</b>	<b>4</b>	<b>3.3%</b>	<b>116</b>	<b>96.7%</b>	<b>120</b>	<b>100.0%</b>

Even though private sites have a higher percentage for this feature than public sites, both groups have incidences of this information so rarely available that they are relatively even. Users will be hard pressed to find real-time transit information anywhere.

### Transit Sites: Question #9

Does the site have an email link or email address for customer inquiries about the site or transit services?

	Yes; Site Feedback Only	Yes; Transit Questions / Feedback Only	Yes; Both Transit and Site Feedback	Yes; Unspecified / General Feedback	No Link	Total	
	%	%	%	%	%	# Sites	%
Public Sites	9.1%	1.0%	23.2%	37.4%	29.3%	99	100.0%
Private Sites	9.5%	0.0%	4.8%	57.1%	28.6%	21	100.0%
<b>All Sites</b>	<b>9.2%</b>	<b>0.8%</b>	<b>20.0%</b>	<b>40.8%</b>	<b>29.2%</b>	<b>120</b>	<b>100.0%</b>

Roughly 70% of each group of sites, public and private, have an email link or address available for some type of feedback or questions. Approximately 60% of each group is for either general feedback or both transit and site feedback, with private sites favoring the former and public sites favoring the latter. Whichever way it is labeled, an email link for broad feedback categories is available for users in roughly 60% of each group of sites. 9.2% of all sites have no email service set up for transit questions/feedback.

## IV. CONCLUSIONS

After reviewing the presented data, two overall trends appear. The first section shows that the most sought-after traffic information, for the most part, is not available in most metropolitan areas of the country. The second section shows that for traffic information, private sites have more features than public sites, but that for transit system information the opposite is true.

## APPENDIX A. WEB SITE QUESTIONS AND EVALUATION KEY

### A.1 Traffic Site Questions

1. Does the site contain a map of the metro area, and if so is it in one piece, cut up in regions, or cut up into segments of individual roads?

- 0 = no map
- 1 = yes; map is in one piece
- 2 = yes; map is cut up into regions
- 3 = yes; map is in road segments

2. Does the site contain real-time traffic information (such as congestion, traffic cameras, average speed, road conditions, incident information, etc.) beyond the metro area?

- 1 = yes
- 0 = no

3. Does the site offer incident information, such as accidents or construction notices?

- 1 = yes
- 0 = no

4. Does the site have real-time camera views available?

- 1 = yes
- 0 = no

5. Can the user click on, or move the cursor to, a segment of the highway map and receive more detailed information describing conditions (such as average speed, incidents, weather, etc.) on that segment of road?

- 1 = yes
- 0 = no

6. Does the site present prevailing speeds for any segments of highways or roads?

- 1 = yes
- 0 = no

7. Does the site present estimated real-time travel times between markers?

- 1 = yes
- 0 = no

8. Does the site provide links to information about other modes of transportation or programs such as paratransit, carpooling, or transit services?

- 1 = yes
- 0 = no



9. Does the site offer any special services, such as route guidance or personalized traffic alerts?

- 1 = yes
- 0 = no

10. How often is the site updated?

- 1 = 5 minutes or less
- 2 = between 6 and 10 minutes
- 3 = between 11 and 15 minutes
- 4 = 16 minutes or more
- 5 = unspecified
- 6 = not updated

## A.2 Transit Site Questions

1. Does the site offer a system map that shows, at a minimum, the rail lines and/or major bus routes in the metro area?

- 0 = no map
- 1 = yes; map is in one piece
- 2 = yes; map is cut up into regions
- 3 = yes; map is in route segments

2. If there is an area-wide system map as detailed in (1), are all modes of transit and transfer points clearly presented on the map sufficiently so that the viewer can see on the map at precisely which stop(s) the transit lines and/or bus routes intersect?

- 1 = yes
- 0 = no

3. If there is an area-wide system map as detailed in (1), does it support point-and-click inquiries that offer zoom in/out features and/or detailed information on stations in the selected area, such as name, address, incidents and/or construction notices, schedules, wheelchair accessibility, or transfer points?

- 1 = yes
- 0 = no

4. Do all other transit authorities for the given metro area, as listed by the National Transit Database, have links or information on this site?

$$\% = (\# \text{ of authorities from list on site}) / (\# \text{ of authorities in NTB})$$

5. Is real-time information (such as transit vehicle locations, incident information, re-routing notices, etc.) available on the site?

- 1 = yes
- 0 = no

6. Does the site include comprehensive schedule and fare information for the transit routes and/or bus routes listed?

1 = yes

0 = no

7. Does the site provide itinerary planning services?

1 = yes

0 = no

8. Does the site provide links to information on other modes of transportation, such as commercial train, airplane, or bus companies, or traffic information for the metro area?

1 = yes

0 = no

9. Does the site have an email link or email address for customer inquiries about the site or transit services?

0 = no

1 = site feedback only

2 = transit questions/feedback only

3 = both transit and site feedback

4 = unspecified/general feedback

10. Does the site provide a telephone number for customer inquiries about the site or transit services?

0 = no

1 = site feedback only

2 = transit questions/feedback only

3 = both transit and site feedback

4 = unspecified/general feedback

APPENDIX B. SITES AND INDIVIDUAL EVALUATION RESULTS

Transit Internet Sites and Question Responses for Each													
Metro Area	Agency Name	Internet Address	Public Site?	Question Responses									
				#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Albany, Schenectady, Troy	Capital District Transit Authority (CDTA)	www.cdta.org	1	1	0	0	100%	0	1	0	1	0	3
Albuquerque	Sun Tran	www.cabq.gov/transit/suntran.html	1	1	0	0	NA	0	1	0	0	4	4
Atlanta	Metropolitan Atlanta Rapid Transit Authority MARTA	www.itsmarta.com	1	1	1	1	50%	0	1	0	0	3	3
Boston, Lawrence, Salem	Massachusetts Bay Transportation Authority	www.smartraveler.com	0	0	0	0	50%	1	0	0	1	4	0
Boston, Lawrence, Salem	Massachusetts Bay Lines	http://www.massbaylines.com/	0	0	0	0	0%	0	1	0	0	4	0
Boston, Lawrence, Salem	Merrimack Valley Regional Transit	www.mvrta.com	1	2	0	0	0%	0	1	0	1	4	0
Boston, Lawrence, Salem	Airport Water Shuttle	http://www.massport.com/logan/getti_typeo_w ater.html	1	0	0	0	50%	1	1	0	1	4	0
Boston, Lawrence, Salem	Massachusetts Bay Transportation Authority	www.mbta.com	1	1	1	1	0%	0	1	0	0	4	0
Buffalo, Niagara Falls	Niagara Frontier Transportation Authority	www.nfta.com	1	1	0	0	0%	0	1	0	1	4	0
Chicago, Gary, Lake County	Northeast Illinois Regional Commuter RR Corporation	www.metrarail.com	0	1	0	0	18%	0	1	0	1	0	4
Chicago, Gary, Lake County	Northern Indiana Commuter	www.nictd.com	1	1	0	0	9%	0	1	0	1	1	4
Chicago, Gary, Lake County	Chicago Transit Authority (CTA)	www.transitchicago.com	1	2	0	0	0%	0	1	0	0	4	0
Chicago, Gary, Lake County	Hammond Transit System	www.ci.hammond.in.us	1	3	0	0	0%	0	0	0	0	4	4
Chicago, Gary, Lake County	PACE	www.pacebus.com	1	3	1	0	18%	0	1	0	1	3	0
Cincinnati, Hamilton	SORTA	www.sorta.com	1	2	0	1	0%	0	1	0	0	3	3
Cleveland, Akron, Lorain	Metro Regional Transit Authority	www.akronmetro.org	1	3	0	0	20%	0	1	0	1	4	0

Metro Area	Agency Name	Internet Address	Public Site?	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Cleveland, Akron, Lorain	Greater Cleveland Regional Transit	http://little.nhlink.net/~rta	1	1	0	1	0%	0	1	0	0	3	3
Dallas, Fort Worth	McKinney Avenue Transit Authority	www.mata.org	0	1	0	0	0%	0	1	0	0	4	4
Dallas, Fort Worth	Lewisville Dial-A-Ride	www.bus-stop.org	1	0	0	0	25%	0	0	1	1	4	0
Dallas, Fort Worth	Dallas Area Rapid Transit Authority	www.dart.org	1	1	0	0	0%	0	1	0	0	3	3
Dallas, Fort Worth	Fort Worth Transportation Authority	www.the-t.com	1	1	0	0	0%	0	1	0	0	4	4
Dayton, Springfield	Miami Valley Regional Transit	www.mvrta.org	site not able to be examined for this criteria										
Denver, Boulder	Regional Transportation District (RTD)	www.rtd-denver.com	1	3	0	0	0%	0	1	0	0	3	0
Detroit, Ann Arbor	Ann Arbor Transportation Authority	www.theride.org	1	1	0	3	0%	0	1	1	1	4	0
Detroit, Ann Arbor	Detroit Department of Transportation	http://www.ci.detroit.mi.us/ddot/default.htm	1	0	0	0	0%	0	1	0	1	0	3
Detroit, Ann Arbor	Detroit Downtown Trolley	http://www.ci.detroit.mi.us/ddot/TROLLEY.htm	1	0	0	0	0%	0	1	0	1	0	3
Detroit, Ann Arbor	Detroit Transportation Corporation	http://www.ci.detroit.mi.us/dettransport/Default.htm	1	1	0	0	0%	0	1	0	1	0	3
Detroit, Ann Arbor	University of Michigan Transportation Services	http://www.plant.bf.umich.edu/transport/	site not able to be examined for this criteria										
Fresno	Fresno Area Express	www.ci.fresno.ca.us/index.html	1	3	1	1	NA	0	1	0	0	4	4
Fresno	Fresno County Rural Transit Agency	www.ruraltransit.org	1	1	0	0	0%	0	1	0	1	4	4
Fresno	Visalia City Coach	www.ci.visalia.ca.us	1	0	0	0	0%	0	1	0	1	0	4
Honolulu	Oahu Transit Services (The Bus)	www.thebus.org	1	3	0	1	NA	0	1	0	0	3	4
Houston, Galveston, Brazoria	Metro Transit Authority	www.hou-metro.harris.tx.us	1	2	0	1	0%	0	1	0	1	1	0
Indianapolis	Indianapolis Public Transportation Corporation	www.indygov.org/indygo	1	1	0	1	NA	0	1	0	1	1	0
Jacksonville	Jacksonville Transportation Authority	www.jtaonthemove.com	1	3	0	0	NA	0	1	0	0	0	0
Knoxville	Knoxville Transportation Authority	www.ci.knoxville.tn.us/kat	1	0	0	0	NA	0	1	0	1	4	4
Little Rock, North Little Rock	Central Arkansas Transit Authority	www.cat.org	1	2	0	0	NA	0	0	0	1	4	4

Metro Area	Agency Name	Internet Address	Public Site?	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Los Angeles, Anaheim, Riverside	University of California at Los Angeles Transportation Services	<a href="http://www.transportation.ucla.edu/">http://www.transportation.ucla.edu/</a>	0	1	0	1	0%	0	1	0	1	3	0
Los Angeles, Anaheim, Riverside	Angels Flight Railway	<a href="http://www.westworld.com/~elson/larail/angelsflight.html">http://www.westworld.com/~elson/larail/angelsflight.html</a>	0	0	0	0	5%	0	0	0	1	0	0
Los Angeles, Anaheim, Riverside	Corona City Dial-A-Ride	<a href="http://www.scag.ca.gov/transit">www.scag.ca.gov/transit</a>	1	0	0	0	0%	0	0	1	0	4	0
Los Angeles, Anaheim, Riverside	Inland Empire Connection (IEC)	<a href="http://socaltip.lerctr.org/cgi-bin/index.cgi?IEC">http://socaltip.lerctr.org/cgi-bin/index.cgi?IEC</a>	1	3	0	0	18%	0	1	0	1	0	0
Los Angeles, Anaheim, Riverside	Riverside Transit Agency	<a href="http://www.rta.com">www.rta.com</a>	1	3	1	0	0%	0	1	0	0	2	4
Los Angeles, Anaheim, Riverside	Southern California Regional Rail Authority	<a href="http://www.metroinktrains.com">www.metroinktrains.com</a>	1	1	1	1	14%	0	1	0	1	4	2
Los Angeles, Anaheim, Riverside	SMART Shuttle	<a href="http://socaltip.lerctr.org/cgi-bin/index.cgi?LASS">http://socaltip.lerctr.org/cgi-bin/index.cgi?LASS</a>	1	0	0	0	5%	0	1	0	1	1	2
Los Angeles, Anaheim, Riverside	Los Angeles County Metropolitan Transportation Authority (MTA)	<a href="http://www.mta.net/">http://www.mta.net/</a>	1	1	1	0	0%	0	1	1	0	3	3
Los Angeles, Anaheim, Riverside	City of Los Angeles Department of Transportation	<a href="http://www.cityofla.org/LADOT/index.htm">http://www.cityofla.org/LADOT/index.htm</a>	1	1	1	1	0%	0	1	0	1	0	3
Los Angeles, Anaheim, Riverside	Orange County Transportation Authority	<a href="http://www.octa.net">www.octa.net</a>	1	2	0	1	5%	0	1	1	1	3	0
Los Angeles, Anaheim, Riverside	Torrance City Transit System	<a href="http://www.tornet.com">www.tornet.com</a>	1	3	1	0	0%	0	1	0	1	1	2
Los Angeles, Anaheim, Riverside	California State University-Northridge Circulator	<a href="http://socaltip.lerctr.org/cgi-bin/index.cgi?CSUN">http://socaltip.lerctr.org/cgi-bin/index.cgi?CSUN</a>	site not able to be examined for this criteria										
Memphis	Memphis Area Transit Authority	<a href="http://www.matatransit.com">www.matatransit.com</a>	1	0	0	0	NA	0	1	0	0	0	0
Miami, Fort Lauderdale	Downtown Fort Lauderdale Transportation Management Association (TMAX)	<a href="http://www.co.broward.fl.us/tpi00800.htm">http://www.co.broward.fl.us/tpi00800.htm</a>	0	1	0	0	0%	0	1	0	0	4	4
Miami, Fort Lauderdale	Water Taxi	<a href="http://www.watertaxi.com/map-ftl.html">http://www.watertaxi.com/map-ftl.html</a>	0	1	0	0	0%	0	1	0	0	4	0
Miami, Fort Lauderdale	Miami-Dade Transit Agency (MDTA)	<a href="http://www.co.miami-dade.fl.us/mdta/">http://www.co.miami-dade.fl.us/mdta/</a>	1	1	1	1	0%	0	1	0	0	4	0
Miami, Fort Lauderdale	Broward County Division of Mass Transit (Broward County Transit)	<a href="http://www.co.broward.fl.us/bct/welcome.htm">http://www.co.broward.fl.us/bct/welcome.htm</a>	1	2	0	0	67%	0	1	0	1	0	2
Milwaukee, Racine	Belle Urban System (BUS)	<a href="http://www.racinecounty.com/thebus/index.html">http://www.racinecounty.com/thebus/index.html</a>	1	0	0	0	0%	0	1	0	1	0	2
Minneapolis, St. Paul	Metro Transit	<a href="http://www.metrotransit.org">www.metrotransit.org</a>	1	2	0	0	NA	0	1	0	1	1	0
New Orleans	Regional Transit Authority	<a href="http://www.regionaltransit.org">www.regionaltransit.org</a>	1	2	0	0	0%	0	1	0	1	0	2
New York, Northern New Jersey, Southwestern Connecticut	New York Waterway	<a href="http://www.nywaterway.com/commuter/commuter.htm">http://www.nywaterway.com/commuter/commuter.htm</a>	0	1	0	0	0%	0	1	0	1	4	0

Metro Area	Agency Name	Internet Address	Public Site?	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
New York, Northern New Jersey, Southwestern Connecticut	Water Taxi	<a href="http://www.watertaxi.com/map-ny.html">http://www.watertaxi.com/map-ny.html</a>	0	1	0	0	0%	0	1	0	0	4	0
New York, Northern New Jersey, Southwestern Connecticut	New York Bus Service	<a href="http://www.nybus.com/">http://www.nybus.com/</a>	0	0	0	0	0%	0	1	0	0	1	0
New York, Northern New Jersey, Southwestern Connecticut	Express Navigation	<a href="http://www.expressnav.com/">http://www.expressnav.com/</a>	0	0	0	0	10%	0	1	0	1	0	0
New York, Northern New Jersey, Southwestern Connecticut	Jamaica Buses	<a href="http://www.jamaicabus.com">www.jamaicabus.com</a>	0	3	0	1	0%	0	1	0	1	0	4
New York, Northern New Jersey, Southwestern Connecticut	New Jersey Transit Corporation(NJ)	<a href="http://www.njtransit.state.nj.us">www.njtransit.state.nj.us</a>	1	1	0	1	7%	1	1	0	1	3	0
New York, Northern New Jersey, Southwestern Connecticut	New York City Transit Authority	<a href="http://www.mta.nyc.ny.us/nyct/index.html">http://www.mta.nyc.ny.us/nyct/index.html</a>	1	1	1	1	11%	0	1	0	1	0	2
New York, Northern New Jersey, Southwestern Connecticut	MTA Long Island Rail Road (LIRR)	<a href="http://www.mta.nyc.ny.us/lirr/index.html">http://www.mta.nyc.ny.us/lirr/index.html</a>	1	1	1	1	11%	0	1	0	1	0	2
New York, Northern New Jersey, Southwestern Connecticut	MTA Staten Island Railway (SIR)	<a href="http://www.mta.nyc.ny.us/nyct/sir/index.html">http://www.mta.nyc.ny.us/nyct/sir/index.html</a>	1	1	0	0	11%	0	1	0	1	0	2
New York, Northern New Jersey, Southwestern Connecticut	Port Authority Trans Hudson (PATH)	<a href="http://www.panynj.gov/path/">http://www.panynj.gov/path/</a>	1	1	1	0	0%	0	1	0	1	4	0
New York, Northern New Jersey, Southwestern Connecticut	Port Authority Trans Hudson (PATH)	<a href="http://www.nj.com/njtransit/path.html">http://www.nj.com/njtransit/path.html</a>	1	1	0	0	0%	0	1	0	1	4	0
New York, Northern New Jersey, Southwestern Connecticut	Roosevelt Island Operating Corporation (Roosevelt Island Aerial Tramway)	<a href="http://www.rioc.com/">http://www.rioc.com/</a>	1	1	0	0	0%	0	0	0	1	4	4
New York, Northern New Jersey, Southwestern Connecticut	Roosevelt Island Operating Corporation (Roosevelt Island Aerial Tramway)	<a href="http://www.ny.com/transportation/ri_tramway.html">http://www.ny.com/transportation/ri_tramway.html</a>	1	0	0	0	0%	0	0	0	1	4	4
New York, Northern New Jersey, Southwestern Connecticut	Staten Island Ferry	<a href="http://www.ci.nyc.ny.us/html/serdir/html/xdot09.html">http://www.ci.nyc.ny.us/html/serdir/html/xdot09.html</a>	1	0	0	0	0%	0	1	0	1	0	2
New York, Northern New Jersey, Southwestern Connecticut	Staten Island Ferry	<a href="http://www.ny.com/transportation/si_ferry.html">http://www.ny.com/transportation/si_ferry.html</a>	1	0	0	0	0%	0	0	0	1	4	2
New York, Northern New Jersey, Southwestern Connecticut	New York City Department of Transportation	<a href="http://www.ci.nyc.ny.us/html/dot/html/arndtown/busframe.html">http://www.ci.nyc.ny.us/html/dot/html/arndtown/busframe.html</a>	1	0	0	0	7%	0	1	0	1	0	4
New York, Northern New Jersey, Southwestern Connecticut	MTA Metro-North Railroad (MNRR)	<a href="http://www.mta.nyc.ny.us/mnrr/">http://www.mta.nyc.ny.us/mnrr/</a>	1	1	0	1	11%	0	1	0	1	0	4
New York, Northern New Jersey, Southwestern Connecticut	MTA Long Island Bus	<a href="http://www.mta.nyc.ny.us">www.mta.nyc.ny.us</a>	1	0	0	0	11%	0	1	0	1	0	4
New York, Northern New Jersey, Southwestern Connecticut	Command Bus Company	<a href="http://www.commandbus.com/">http://www.commandbus.com/</a>	site not able to be examined for this criteria										
New York, Northern New Jersey, Southwestern Connecticut	Triboro Coach Corporation	<a href="http://www.triborocoach.com/">http://www.triborocoach.com/</a>	site not able to be examined for this criteria										

Metro Area	Agency Name	Internet Address	Public Site?	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
New York, Northern New Jersey, Southwestern Connecticut	Westchester County Department of Transportation	www.westchestergov.com/beeline											
New York, Northern New Jersey, Southwestern Connecticut	Jamaica Buses	www.itravel.scog.ca.gov/itravel/											
New York, Northern New Jersey, Southwestern Connecticut	Green Bus Lines	www.greenbus.com											
Phoenix	Phoenix Transit System	WWW.VALLEYMETRO.MARICOPA.GOV	1	1	0	1	0%	0	1	0	1	4	4
Phoenix	Glendale Dial-A-Ride	www.rpta.maricopa.gov											
Phoenix	Glendale Dial-A-Ride	www.glendaale.gov.us.-transportation											
Raleigh-Durham	North Carolina State University Wolfline	http://www2.acs.ncsu.edu/trans/wolfline.htm	0	1	0	0	0%	0	1	0	0	4	4
Raleigh-Durham	Duke University Transit Operations	http://auxweb.duke.edu/transit/	0	3	0	0	0%	0	1	0	0	4	2
Raleigh-Durham	Capital Area Transit	www.raleigh-nc.org/transit	1	1	1	0	0%	0	1	0	1	0	4
Raleigh-Durham	Triangle Transit Authority	www.ridetta.org	1	1	0	0	0%	0	1	0	1	1	0
Sacramento	California State University Hornet Express	http://norcalltip.lerctr.org/cgi-bin/index.cgi?Hornet	0	0	0	0	0%	0	1	0	0	1	0
Sacramento	Paratransit	http://www.paratransit.org/	0	0	0	0	33%	0	0	0	1	4	4
Sacramento	Sacramento Regional Transit District (RT)	www.sacrt.com	1	1	0	1	100%	0	1	0	1	0	3
Salt Lake City, Ogden	Utah Transit Authority	www.utabus.com	1	1	0	0	NA	0	1	0	0	4	4
San Diego	San Diego Trolley Incorporated	www.sdcommute.com/sdmts	1	3	1	0	0%	0	1	1	1	3	0
San Diego	San Diego County Transit System (SDCTS)	http://www.co.san-diego.ca.us/cts/	1	3	0	0	0%	0	1	0	1	0	4
San Diego	San Diego Transit Corporation (SDTC)	http://www.sandag.cog.ca.us/sdmts/sdt.htm	1	3	1	0	0%	0	1	0	1	4	2
San Diego	San Diego Trolley (SDT)	http://www.sandag.cog.ca.us/sdmts/trolleypage.htm	1	3	1	0	0%	0	1	0	1	4	2
San Diego	North San Diego County Transit Development Board	www.sdcommute.com	1	0	0	0	33%	0	0	0	1	1	0
San Francisco, Oakland, San Jose	Outreach and Escort	http://www.outreach1.org/p_home/paratran.htm	0	0	0	0	0%	0	1	0	0	0	0
San Francisco, Oakland, San Jose	Blue and Gold Fleet	http://www.blueandgoldfleet.com/	0	1	0	0	0%	0	1	0	0	4	4

Metro Area	Agency Name	Internet Address	Public Site?	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
San Francisco, Oakland, San Jose	Santa Cruz Metropolitan Transit	www.scmtd.com	1	3	0	0	8%	0	1	0	1	1	4
San Francisco, Oakland, San Jose	Golden Gate Bridge, Highway and Transportation District (GGT)	http://www.goldengate.org/	1	0	0	0	15%	0	1	0	1	4	4
San Francisco, Oakland, San Jose	San Francisco Municipal Railway (Muni)	http://www.ci.sf.ca.us/muni/index.htm	1	1	0	1	0%	0	1	0	0	3	4
San Francisco, Oakland, San Jose	CalTrain	www.caltrain.com	1	1	0	1	0%	0	1	1	0	4	0
San Francisco, Oakland, San Jose	Broadway Shuttle	http://www.transitinfo.org/Broadway/	1	1	0	0	0%	0	1	0	0	3	0
San Francisco, Oakland, San Jose	East Bay Paratransit Consortium	http://www.bart.org/riding/access/paratran.htm	1	0	0	0	8%	0	1	0	1	4	4
San Francisco, Oakland, San Jose	Alameda/Oakland Ferry Service	http://www.transitinfo.org/AlaOakFerry/	1	1	0	1	0%	0	1	0	0	3	2
San Francisco, Oakland, San Jose	Sonoma County Transit	www.sctransit.com	1	1	0	1	0%	0	1	0	0	4	4
San Francisco, Oakland, San Jose	Santa Clara County Transit	www.vta.org	1	1	0	1	15%	0	1	0	1	3	4
San Francisco, Oakland, San Jose	Bay Area Rapid Transit District	www.bart.gov	1	1	0	1	0%	0	1	1	0	3	4
San Francisco, Oakland, San Jose	AC Transit	http://www.actransit.dst.ca.us/	1	1	0	1	0%	0	1	0	0	3	0
San Francisco, Oakland, San Jose	AC Transit	www.transitinfo.org	1	1	0	1	0%	0	1	0	0	3	4
San Francisco, Oakland, San Jose	Fairfield City, Fairfield Transit System	www.e-v.com/fairfiled/government/publi-works/traffic.htm	site not able to be examined for this criteria										
San Juan	Metropolitan Bus Authority	http://www.dtop.gov.pr/ENGLISH/AMA/AMAHOMPG.HTM	1	0	0	0	0%	0	1	0	0	0	0
Seattle, Tacoma	Central Puget Sound Regional Transit Authority (Sound Transit)	http://www.soundtransit.org/	1	1	0	1	0%	0	0	0	1	3	4
Seattle, Tacoma	King County Department of Transportation (Metro)	http://transit.metrokc.gov/	1	2	0	1	43%	0	1	0	1	3	0
Seattle, Tacoma	Seattle Center Monorail	http://www.seattlemonorail.com/	1	0	0	0	0%	0	1	0	0	0	4
Seattle, Tacoma	Seattle Center Monorail	http://www.seattlecenter.com/transportation/monorail.htm	1	1	0	0	0%	0	1	0	1	0	4
Seattle, Tacoma	Washington State Ferries	http://www.wsdot.wa.gov/ferries/	1	1	0	1	0%	1	1	0	1	3	0
Seattle, Tacoma	Pierce Transit	http://www.ptbus.pierce.wa.us/	1	2	1	1	0%	0	1	0	1	0	4
Seattle, Tacoma	Snohomish County Public Transportation	www.commtrans.org	site not able to be examined for this criteria										



Metro Area	Agency Name	Internet Address	Public Site?	Question Responses									
				#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Springfield	Pioneer Valley Transit Authority	www.pvta.com	1	3	1	0	0%	0	1	0	0	4	4
St. Louis	Bi-State Development Agency (Bi-State Transit)	http://www.bi-state.org/	1	1	0	0	100%	0	1	0	1	3	0
Tampa, St. Petersburg, Clearwater	University of South Florida Parking and Transportation Services Shuttle Service	http://usfweb.usf.edu/parking_services/shuttle_service.htm	0	1	0	0	0%	0	1	0	0	4	4
Tampa, St. Petersburg, Clearwater	Pasco County Public Transportation (PCPT)	www.pascocounty.com/govt/	1	3	0	0	0%	0	1	0	1	4	2
Tampa, St. Petersburg, Clearwater	Hillsborough Area Regional Transit Authority (Hartline)	http://www.hartline.org/	1	1	0	1	0%	0	1	0	1	4	0
Tampa, St. Petersburg, Clearwater	Pinellas Suncoast Transit Authority	www.co.pinellas.fl.us/mpo	1	0	0	0	0%	0	0	0	0	4	0
Tucson	VanTran	WWW.vantran.org	0	0	0	0	0%	0	0	0	0	0	4
Tucson	Sun Tran	WWW.SUNTRAN.COM	1	1	0	1	0%	0	1	0	0	0	4
Tucson	Pima County Department of Transportation & Flood Control District Rural Bus Route Information	http://www.dot.co.pima.az.us/transsys/bus/	1	3	0	0	0%	0	1	0	0	0	4
Washington	Montgomery County - Ride On	www.dpwt.com/rideon	1	1	0	1	25%	0	1	0	1	3	4
Washington	Fairfax Connector Bus System	www.co.fairfax.va.us/comm/trans/connect.htm	1	0	0	0	60%	0	1	0	1	0	4
Washington	Washington Metropolitan Area Transit Authority	www.wmata.com	1	1	1	1	50%	0	1	0	1	4	4
Washington	Northern Virginia Transportation Commission (NVTC)	www.vre.org	1	1	1	1	25%	0	1	0	1	4	0

Traffic Internet Sites and Question Responses for Each													
Metro Area	Agency Name	Internet Address	Public Site?	Question Responses									
				#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Albany, Schenectady, Troy	New York State Department of Transportation	www.troopers.state.ny.us/tmc/tmcindex.html		site not able to be examined for this criteria									
Atlanta	Clayton County	http://www.georgianavigator.com/traffic/	1	1	1	1	1	1	1	0	1	0	1
Atlanta	Traffic Station	www.trafficstation.com		site not able to be examined for this criteria									

Metro Area	Agency Name	Internet Address	Public Site?	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Bakersfield	Caltrans District 6	www.dot.ca.gov	1	2	1	1	0	1	1	0	1	0	5
Bakersfield	Bakersfield City	www.ci.bakersfield.ca.us	site not able to be examined for this criteria										
Baltimore	Maryland State Highway Administration	www.chart.state.md.us	1	1	0	1	1	0	1	0	0	0	3
Boston	Smart Route Systems	www.smartraveler.com	0	1	1	1	1	1	0	1	1	0	1
Boston	ARINC	www.travtips.net	0	1	1	1	0	1	0	0	1	1	2
Charlotte, Gastonia, Rock Hill	North Carolina Department of Transportation	http://www.dot.state.nc.us/	1	3	0	0	1	0	0	0	0	0	1
Chicago, Gary, Lake County	Traffic Station	www.trafficstation.com	0	1	1	1	0	1	0	0	0	1	1
Chicago, Gary, Lake County	Transmart Technology	www.trafficonline.com	0	1	0	1	0	0	1	1	1	0	1
Chicago, Gary, Lake County	Porter County	www.porterco.org	1	0	0	0	0	0	0	0	0	0	5
Chicago, Gary, Lake County	Illinois Department of Transportation	www.dot.state.il.us	1	1	0	1	0	0	0	0	1	0	4
Chicago, Gary, Lake County	Gary-Chicago-Milwaukee Corridor Transportation Information Center	www.travelinfo.org	1	1	1	1	1	1	1	1	1	0	1
Cincinnati, Hamilton	TRW/ARTIMIS OCC for Ohio Department of Transportation	WWW.SMARTTRAVELER.COM/CIN	0	1	0	1	0	1	0	1	1	0	1
Cincinnati, Hamilton	TRW/ARTIMIS OCC for Ohio Department of Transportation	www.artimis.org	1	1	0	1	0	1	1	1	1	0	1
Cleveland, Akron, Lorain	Ohio Department of Transportation District 4	www.dot.state.oh.us	1	1	1	1	0	1	0	0	1	0	1
Cleveland, Akron, Lorain	Ohio Turnpike Commission	www.ohioturnpike.org	1	1	0	1	0	1	0	0	0	0	4
Columbus	Columbus City	www.pavingtheway.org	1	1	0	1	0	1	0	0	1	0	5
Dallas, Fort Worth	Etak	www.etaktraffic.com	0	1	0	1	0	0	0	0	0	0	1
Dallas, Fort Worth	Texas Department of Transportation Fort Worth District	www.dfwtraffic.dot.state.tx.us	site not able to be examined for this criteria										
Denver, Boulder	Etak	www.etaktraffic.com	0	1	0	1	0	0	0	0	0	0	1
Denver, Boulder	Colorado Department of Transportation	www.cotrip.org	1	1	1	1	0	1	0	0	1	0	4
Denver, Boulder	Denver City	www.kcncnews4.com/prd1	site not able to be examined for this criteria										

Metro Area	Agency Name	Internet Address	Public Site?	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Detroit, Ann Arbor	Etak	www.etaktraffic.com	0	1	0	1	0	0	0	0	0	0	1
Detroit, Ann Arbor	Oakland County Road Commission (RCOC)	WWW.RCOCWEB.ORG	site not able to be examined for this criteria										
Detroit, Ann Arbor	Michigan Department of Transportation	campus.merit.net/mdot	site not able to be examined for this criteria										
Fresno	Caltrans District 6	www.dot.ca.gov	1	2	1	1	0	1	1	0	1	0	5
Greensboro, Winston-Salem, High Point	High Point City	http://www.dot.state.nc.us/	1	3	0	0	1	0	0	0	0	0	1
Hampton Roads	Virginia Department of Transportation	www.gohamptonroads.com	0	1	0	0	1	1	1	0	0	0	5
Hampton Roads	Virginia Department of Transportation	www.vdot.state.va.us/traf/traf.html	1	1	0	1	0	0	0	0	1	0	1
Hampton Roads	Virginia Department of Transportation	www.hamptonroads.com	1	1	0	1	1	1	0	0	0	0	1
Hartford, New Britain, Middletown	ARINC	www.travtips.net	0	1	1	1	0	1	0	0	1	1	2
Hartford, New Britain, Middletown	Hartford City	www.ci.hartford.ct.us	site not able to be examined for this criteria										
Honolulu	University of Hawaii and Honolulu's Traffic Control Center	www.eng.hawaii.edu/~csp/Trafficam	0	0	0	0	1	0	0	0	1	0	1
Houston, Galveston, Brazoria	Accuttraffic	www.accuttraffic.com	0	0	1	1	0	0	0	0	0	0	2
Houston, Galveston, Brazoria	Transmart Technology	www.trafficonline.com	0	1	0	0	0	0	1	0	1	0	1
Houston, Galveston, Brazoria	Traffic Station	www.trafficstation.com	0	1	0	1	0	1	0	0	0	1	1
Houston, Galveston, Brazoria	Texas Department of Transportation-Houston District	www.traffic.tamu.edu	site not able to be examined for this criteria										
Indianapolis	Etak	www.etaktraffic.com	0	1	0	1	0	1	0	0	0	0	1
Jacksonville	Florida Department of Transportation	http://www.dot.state.fl.us/	1	2	0	1	0	0	0	0	0	0	6
Kansas City	Olathe City	http://www.olatheks.org/Default.htm	1	0	0	1	0	0	0	0	0	0	5
Knoxville	Knoxville City	www.lamarket.com	0	1	0	0	1	1	0	0	0	0	1
Knoxville	Knoxville City	www.knoxtrans.org	1	0	0	1	0	0	0	0	1	0	4

Metro Area	Agency Name	Internet Address	Public Site?	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Los Angeles, Anaheim, Riverside	Maxwell Technologies	traffic.maxwell.com/la	0	1	1	1	0	1	1	0	1	0	1
Los Angeles, Anaheim, Riverside	Etak	www.etaktraffic.com	0	1	0	1	0	1	0	0	0	0	1
Los Angeles, Anaheim, Riverside	Traffic Station	www.trafficstation.com	0	1	0	1	0	1	0	0	0	1	1
Los Angeles, Anaheim, Riverside	Anaheim City	www.anaheim.net	1	2	0	0	0	0	0	0	0	0	1
Los Angeles, Anaheim, Riverside	Caltrans District 12	www.dot.ca.gov	1	2	1	1	0	1	1	0	1	0	5
Louisville	Clark County	trimarc.vprlnk.net	1	0	0	0	1	0	0	0	0	0	1
Miami, Fort Lauderdale	Florida Department of Transportation-District 6	http://www.dot.state.fl.us/	1	2	0	1	0	0	0	0	0	0	6
Milwaukee, Racine	Transmart Technology	www.trafficonline.com	0	1	0	1	0	0	1	1	1	0	1
Milwaukee, Racine	Maxwell Technologies	traffic.maxwell.com/mil	0	1	0	1	0	1	1	0	1	0	1
Milwaukee, Racine	Wisconsin Department of Transportation	www.dot.state.wi.us/dtd/hdist2/monitor.html	1	1	0	0	1	0	0	1	1	0	1
Milwaukee, Racine	Wisconsin Department of Transportation	www.ai.eecs.uic.edu/gcm/milwaukee.html	1	1	1	1	0	1	0	0	0	0	1
Milwaukee, Racine	Gary-Chicago-Milwaukee Corridor Transportation Information Center	www.travelinfo.org/milwaukee.html	site not able to be examined for this criteria										
Minneapolis, St. Paul	Etak	www.etaktraffic.com	0	1	0	1	0	1	0	0	0	0	1
Minneapolis, St. Paul	Smart Route Systems	www.smarttraveler.com	0	1	1	1	0	1	0	1	1	0	1
Minneapolis, St. Paul	Hennepin County	http://www.state.mn.us/	1	0	0	0	0	0	0	0	1	0	6
Minneapolis, St. Paul	Streamline Data Solutions	www.twincitiesexpress.com	1	0	0	1	0	0	0	0	0	1	1
Minneapolis, St. Paul	Brooklyn Park City	http://www.brooklynpark.org/index.html	site not able to be examined for this criteria										
Minneapolis, St. Paul	Microsoft	www.twincities.sidewalk.com	site has been discontinued										
Minneapolis, St. Paul	Microsoft	trafficview.twincities.sidewalk3.com	site has been discontinued										
Minneapolis, St. Paul	Star Tribune	www.startribune.com/stonline/traffic	site not able to be examined for this criteria										
New York, Northern New Jersey, Southwestern Connecticut	ARINC	www.travtips.net	0	1	1	1	0	1	0	0	1	1	2

Metro Area	Agency Name	Internet Address	Public Site?	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
New York, Northern New Jersey, Southwestern Connecticut	New York State DOT-Long Island Region 10	www.metrocommute.com	0	1	1	1	0	1	0	0	1	0	1
New York, Northern New Jersey, Southwestern Connecticut	Westchester County	www.co.westchester.ny.us/dpw	1	0	0	1	0	0	0	0	1	0	5
New York, Northern New Jersey, Southwestern Connecticut	New York State DOT-Hudson Valley Region 8	www.hudsonvalleytraveler.com	1	1	0	1	0	0	0	0	1	0	5
New York, Northern New Jersey, Southwestern Connecticut	New York State DOT-Hudson Valley Region 8	www.dot.state.ny.us	1	0	0	1	0	0	0	0	1	0	5
New York, Northern New Jersey, Southwestern Connecticut	New Jersey Turnpike Authority(NJ)	www.state.nj.us/turmpike	1	0	0	1	0	0	0	0	0	0	5
New York, Northern New Jersey, Southwestern Connecticut	Somerset County	www.co.somerset.nj.us	site not able to be examined for this criteria										
New York, Northern New Jersey, Southwestern Connecticut	Smart Route Systems	www.smartraveler.com	site not able to be examined for this criteria										
Philadelphia, Wilmington, Trenton	Pennsylvania Department of Transportation District 6-0	www.smartraveler.com	0	1	1	1	0	1	0	1	1	0	1
Philadelphia, Wilmington, Trenton	New Jersey Department of Transportation Traffic Operations Center South	www.state.nj.us/transportation/	1	0	0	1	0	0	0	0	1	0	5
Phoenix	Etak	www.etaktraffic.com	0	1	0	1	0	1	0	0	0	0	1
Phoenix	Arizona Department of Transportation	www.azfms.com	1	1	1	1	1	1	1	0	1	0	1
Phoenix	Tempe City	etak.pax.com	site not able to be examined for this criteria										
Portland, Vancouver	Oregon Department of Transportation	www.odot.state.or.us	1	1	1	1	1	0	0	0	1	0	1
Portland, Vancouver	Clackamas County	www.co.clackamas.or.us	site not able to be examined for this criteria										
Sacramento	Transierra Traveler Information Services	www.transierra.com/sacto.htm	0	2	1	1	0	1	0	0	0	0	1
Sacramento	Caltrans District 3	www.dot.ca.gov/hq/roadinfo/index.htm	1	2	1	1	0	1	1	0	1	0	5
Sacramento	Caltrans District 3	cad.chp.ca.gov	1	0	1	1	0	0	0	0	0	0	1
San Antonio	Texas Department of Transportation	http://www.dot.state.tx.us/	1	0	1	1	0	0	0	0	1	0	1
San Diego	Maxwell Technologies	traffic.maxwell.com/sd	0	1	0	1	0	1	1	0	1	0	2
San Diego	Traffic Station	www.trafficstation.com	0	1	0	1	0	1	0	0	0	1	1

Metro Area	Agency Name	Internet Address	Public Site?	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
San Diego	San Diego City	www.dot.ca.gov	1	2	1	1	0	1	1	0	1	0	5
San Francisco, Oakland, San Jose	Traffic Station	www.trafficstation.com	0	1	0	1	0	1	0	0	0	1	1
San Francisco, Oakland, San Jose	Caltrans District 4	www.kpix.com	0	0	0	1	1	0	0	0	0	1	1
San Francisco, Oakland, San Jose	Maxwell Technologies	traffic.maxwell.com/sf	0	1	0	1	0	1	1	0	1	0	2
San Francisco, Oakland, San Jose	Caltrans District 4	www.bayinsider.com	0	0	0	1	0	0	0	0	0	0	1
San Francisco, Oakland, San Jose	Transmart Technology	www.trafficonline.com	0	1	0	1	0	0	1	1	1	0	1
San Francisco, Oakland, San Jose	Etak	www.etaktraffic.com	0	1	0	1	0	1	0	0	0	0	1
San Francisco, Oakland, San Jose	Caltrans District 4	www.hiway17.com	0	0	0	0	1	0	0	0	0	0	5
San Francisco, Oakland, San Jose	San Jose City	www.ci.san-jose.ca.us/traffic/	site not able to be examined for this criteria										
San Francisco, Oakland, San Jose	San Jose City	www.ci.san-jose.ca.us/signalcontrol/	site not able to be examined for this criteria										
San Francisco, Oakland, San Jose	KPIX	web2.kpix.com/traffic	site not able to be examined for this criteria										
San Francisco, Oakland, San Jose	Caltrans District 4	www.video.dot.ca.gov/cttv_2	site not able to be examined for this criteria										
San Francisco, Oakland, San Jose	Caltrans District 4	chp.ca.gov	site not able to be examined for this criteria										
San Francisco, Oakland, San Jose	Caltrans District 4	travinfo.org	site not able to be examined for this criteria										
Seattle, Tacoma	Transmart Technology	www.trafficonline.com	0	1	0	1	0	0	1	1	1	0	1
Seattle, Tacoma	Seattle City	http://www.wsdot.wa.gov/	1	2	0	1	1	1	0	0	0	0	1
Seattle, Tacoma	Microsoft Sidewalk	trafficview.seattle.sidewalk1.com	site not able to be examined for this criteria										
Seattle, Tacoma	University of Washington	www.ivhs.washington.edu/trafmet	site not able to be examined for this criteria										
St. Louis	Illinois Department of Transportation	www.dot.state.il.us	1	1	0	1	0	0	0	0	1	0	4
Tampa, St. Petersburg, Clearwater	Hillsborough County	www.hillsboroughcounty.org	1	0	1	0	0	0	0	0	1	0	5
Toledo	Ohio Department of Transportation District 2	http://webapp1.dot.state.oh.us/otis/otis_search.asp	1	0	0	1	0	0	0	0	0	0	5

Metro Area	Agency Name	Internet Address	Public Site?	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Tucson	Tucson City	transview.org	1	0	0	1	0	0	0	0	1	0	5
Washington	Etak	www.etaktraffic.com	0	1	0	1	0	1	0	0	0	0	1
Washington	Montgomery County	www.smarttraveler.com	0	1	1	1	0	1	0	1	1	0	1
Washington	Montgomery County	www.dpwt.com	1	1	0	1	1	1	0	0	1	0	2
Youngstown, Warren	Ohio Department of Transportation-District 4	www.dot.state.oh.us	1	1	1	1	0	1	0	0	1	0	1

Please note that the above lists of sites are composites of already-existing lists from Intelligent Transportation Society of America, the American Public Transportation Association (APTA,) and the 1999 metropolitan ITS deployment tracking data base. As a result, the "Agency Name" listed for each site is sometimes the site operator, and other times it is the agency listed in the 1999 metropolitan ITS deployment tracking data base that supplied the site address.

