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FINAL REPORT
THE EFFECTIVENESS OF HIGHWAY SIGNS PROMOTING RIDESHARING

by

Michael A. Perfater
Research Scientist

and

Todd Collier
Research Scientist Assistant

(The opinions, findings, and conclusions expressed in this report are those of the authors and not necessarily those of the sponsoring agencies.)

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SUMMARY AND CONCLUSIONS

One task of ridesharing agencies throughout the Commonwealth is to induce commuters to use their services--one of which is the formation of ridesharing opportunities. One method of promoting this particular service that has become popular on both a statewide and a nationwide basis is use of the highway sign. With the increasing number of requests for signs by the state's regional ridesharing agencies, it became apparent to the staff of the Virginia Department of Highway and Transportation's Rail and Public Transportation Division, which administers to these agencies, that a study was needed to help determine the most effective sign message for providing ridesharing assistance for commuters. In addition, an evaluation of locational criteria and other factors associated with effective sign usage was sought.

To make the determinations sought by the Division, representatives of 12 of Virginia's 16 regional ridesharing agencies were interviewed. Also, a questionnaire was sent to ridesharing or public transportation divisions in the transportation agencies of 35 other states and responses were received from 19.

At the time the study was conducted, 63 ridesharing signs had been erected by the Department and requests continued to pour in. At this writing, there are more than 130 of these signs in Virginia. An inventory of these signs revealed that eight different messages were being used to promote ridesharing. While the majority of the signs are located on the shoulder, overhead locations appear desirable for multilane highways.

Interviews with ridesharing agency coordinators revealed that the preferred procedure for requesting sign fabrication and erection was the submission of sites and messages by the coordinator directly to the Department's district highway and traffic safety engineer. Any disagreement between the coordinators and the district highway and traffic safety engineers usually had to do with sign location, which is subject to approval by the engineers. One of the reasons for such consequences is the absence of any established procedure on the part of the ridesharing agencies for locating signs. Since the consensus among the coordinators was that sign location is critical, a procedure for determining location appears needed. The most critical criteria to be included in this procedure appear to be the average daily traffic, peak-hour volume, and commuter routes. In heavily populated areas, it seems desirable to locate signs on major highways serving downtown-oriented travel. These include interstate highways--both main lines and ramps. Overhead signs on interstates also appear to be acceptable.

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The size of ridesharing signs is fairly standardized in the Manual on Uniform Traffic Control Devices. Enlarging the standard lettering was found to enhance the promotional capability of signs in one instance.

It appears that additional signs will be requested by most of the regional ridesharing agencies. These signs will advertise the service offered by the agencies and, according to agency representatives, impress upon commuters the importance which local and state agencies attach to ridesharing. Signs are looked upon by many agencies, then, as a sort of low-key endorsement by government.

While several different messages are used in Virginia, the most common is the 3-line variety containing CARPOOL on the first line, INFO on the second line, and a telephone number on the third. Several agency representatives thought that the first line should read CAR/VAN if both services were offered. The second line would then read POOL INFO. The word RIDESHARE was used only in two instances, the consensus among agencies being that the public is not familiar with the term as yet. There was also evidence that when the word RIDESHARING is used, the sign has to be enlarged to accommodate its length. The cost of the enlargement is between \$10 and \$70, depending upon the size of the sign.

The use of an alphanumeric or easy-to-remember telephone number was desired by all agency representatives. The most commonly used arrangement is XXX POOL, although there is a possibility that callers may confuse the letter "O" and the number zero. RIDE is also acceptable, as the alpha part and its use would likely eliminate the aforementioned possibility of confusion. All agency representatives agreed that an easy-to-remember number, be it alphanumeric or not, was desirable.

At present, logos are not used on Virginia's ridesharing signs. Eight of the persons interviewed thought that a logo would enhance the efficacy of the signs. Of the various logos available, and in the interest of standardization and minimizing expense, it appears that the carpool logo found in the U.S. DOT publication Standard Highway Signs should be used, if it is decided that a logo should be included in the sign. There are no data showing that signs containing logos are more effective than those that do not.

Other message variations were also discussed with coordinators and were generally found not to be necessary. These included use of the terms FREE, CALL, and a toll-free number. While the toll-free number was not deemed to be cost-effective for each ridesharing agency, it was suggested that a statewide toll-free number might be of value as an information station to inform the public about ridesharing services in all areas of the state. Such a station could be answered in the Department's Rail and Public Transportation Division office.

Highway signs were deemed by seven of the coordinators to be the best tool for advertising ridesharing. All but one said the signs were one of the three top promotional tools. Some reported that 80% of their callers had found out about their services via a highway sign. Cost-effectiveness was cited as one important aspect of highway signs.

A survey of the ridesharing practices of other states revealed that the most commonly used message is CARPOOL INFO XXX-POOL. Inclusion of the word VAN also is fairly common. The word RIDESHARE is seldom used. Eleven of the states use logos on their signs, and when asked why, representatives from those states generally said that logos had about the same effectiveness as alphanumeric telephone designations. The latter were used by 12 of the 19 states--the most commonly used being XXX-POOL. Toll-free services were found in 4 states, all but 1 of which were small in area.

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BACKGROUND

Perhaps the most difficult task of ridesharing agencies is to induce commuters to use their services. The difficulty is that, unlike most other types of promotional efforts, it is not aimed at convincing people to buy a product, but at convincing them to change their behavior--to participate in an activity that will benefit them and their community, but that may be an inconvenience. This promotion includes the areawide introduction and reinforcement of the concept of ridesharing as well as the technical support required for ride-share programs. The promotional effort has first to make the commuter aware of the service offered by the agency, then target potential users and follow through on introducing them to the service.

While literally hundreds of promotional techniques are being tried for many services across the nation, one of the more successful means used in Virginia has been the highway signs first installed in the late 1970s. These signs, called "trailblazers," were authorized by the Virginia Highway and Transportation Commission in 1958 for use on highway rights-of-way at locations where they would be of service in directing traffic to special facilities. All costs, including those of the purchase, installation, and maintenance of the signs, are borne by the promoters, which include the Commonwealth's ridesharing agencies. The signs are fabricated and erected by personnel in the various district offices of the Virginia Department of Highways and Transportation (herein referred to as the Department).

Ridesharing agencies report that since their inception these signs have provided a steady stream of requests for rideshare matching. The Department has erected more than 130 of these signs, and requests for additional ones are being received at an increasing rate. As many as 19 other states also report an increase in the use of signs to promote

ridesharing. At present, no fewer than eight different messages are displayed on these signs throughout the Commonwealth. Many of the requests being received suggest that more variance in the message, location, and size of the signs is being sought. There has even been one request to substitute a logo sign for the traditional worded sign.

In view of the lack of standardization of the location and messages of these signs, the Department's Rail and Public Transportation Division requested that the Council conduct a study to determine which message is the most effective for providing ridesharing assistance to commuters. In addition, they requested that the study include an evaluation of locational criteria and other factors associated with the effectiveness of the signs. This report presents the results of that study.

PURPOSE AND SCOPE

The objective of the study was to determine the most effective sign message for informing commuters of the ridesharing services available to them. While the study was concerned predominantly with the content of the messages, it also investigated the size and shape of the signs, and the criteria for their location.

To achieve the purpose, persons involved in the location of these signs on Virginia's highways were queried. Included were the Department's district highway and traffic safety engineers, Central Office traffic and public transportation personnel, and personnel from the Commonwealth's regional ridesharing organizations. In addition, other state highway agencies were contacted for information on their practices.

METHODOLOGY

In order to achieve the objectives of the study, the three tasks described below were planned and completed.

1. Inventory of Ridesharing Signs in Virginia. The Department's nine district highway and traffic safety engineers were asked to submit the location and characteristics for all road signs containing ridesharing information in their districts. Once this information was received, most of the signs were photographed.
2. Survey of Ridesharing Organizations in Other States. A questionnaire (Appendix A) aimed at determining the degree to which signs promoting ridesharing are used nationwide was sent to

ridesharing public transportation divisions in 35 other state transportation agencies. Respondents were asked questions regarding sign placement, wording, size, etc. Photos, graphs, specifications, and any other written information available were requested. Responses were received from 19 states.

3. Interviews with Virginia Ridesharing Agency Personnel. There are 16 agencies in Virginia and Washington, D.C., which have the responsibility of administering a ridesharing program (Appendix B). Interviews with representatives of 12 of these agencies were conducted and written information was received from 3. These interviews were aimed at determining the attitudes and practices of these agency representatives regarding roadside ridesharing signs. A copy of the interview form can be found in Appendix C.

STUDY RESULTS

Sign Inventory

As can be seen by the typical installations shown in Figure 1, the signs used in Virginia vary in size and content, but all carry the standard white lettering on a blue background. At the time the inventory was made, the Department had erected 63 signs on the interstate, primary, and secondary systems. The majority of the signs are located on the shoulder, with a few being located on interstate exit ramps and on overhead structures. In Virginia, five basic sign sizes are utilized as prescribed in the Manual on Uniform Traffic Control Devices (MUTCD). Table 1 shows sizes used for specific applications. All signs are fabricated and erected by the Department. Payment for fabrication and maintenance of the signs is the responsibility of the local ridesharing agency requesting them.

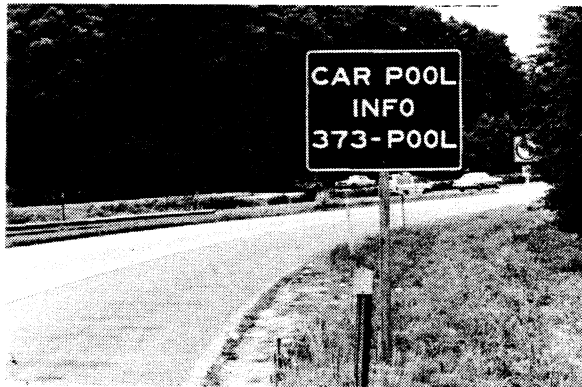


Figure 1. Typical ridesharing signs used in Virginia.

Table 1

Characteristics of Ridesharing Signs in Virginia

<u>Sign Size (inches)</u>	<u>Lettering Size (inches)</u>	<u>Color</u>	<u>Application</u>
42 x 54	6	Blue & White	Primaries & Inter- state Ramps
42 x 84	6	Blue & White	Primaries, Secondaries, and Urban Systems
54 x 72	8	Blue & White	Interstates
54 x 114	8	Blue & White	Interstates
60 x 96	10	Blue & White	Interstates

Ridesharing Agency Interviews

Representatives from 12 of Virginia's local ridesharing agencies were interviewed--8 in person and 4 by telephone. Additional written information was received from 3. Also, though they were not personally interviewed, district highway and traffic safety engineers provided a great deal of information from their files which track the evolution of the use of ridesharing signs in their districts. This information proved useful in educating the authors as to the relationship between the ridesharing agencies and the district traffic unit as well as the various policies on sign size, placement, etc. This same information provided the basis for most of the questions contained in the agency interviews.

The interview questions can be grouped into four basic categories: the logistics of sign erection, including procedures for requesting and locating signs, engineering specifications (size, shape, etc.) and frequency (questions 1, 2, 8, and 9); sign content--i.e., the message (questions 3 through 7); promotional value (questions 10 and 11); and respondent commentary. A discussion of the responses to each of these groups of questions follows.

Logistics and Engineering Aspects

Requests for Installation

In Virginia, ridesharing signs are fabricated, erected, and maintained by the Department. All costs involved are borne by the ridesharing agencies. The responses to the question regarding the procedure used by each agency to request signs revealed that at least three methods are used. Six of the ridesharing coordinators make such requests directly to

the appropriate district highway and traffic safety engineer. The coordinator specifies where he thinks the sign(s) should be located and the message to be used. It is up to the district highway and traffic safety engineer to approve or disapprove the location. In the latter case, an alternate location is usually suggested. The engineer also provides the coordinator with a projected cost for sign fabrication and erection. Once the location, cost, and message are agreed upon, the Department proceeds with the fabrication and installation.

In Northern Virginia, orders for signs can be placed through the Council of Governments' (COG) Commuter Club office. These requests are subsequently passed on to the district highway and traffic safety engineer. One ridesharing coordinator reported requesting signs directly through the Department's Rail and Public Transportation Division in Richmond. Four coordinators had not had occasion to request any signs, and one was not at all sure about the procedure for making such requests.

While the procedure for requesting signs appears to run smoothly in some areas, in several others there is some question as to how such requests are made. The authors also suspect that for some of those coordinators who have never made sign requests, the procedure for doing so may not be clear.

Sign Location

In general, the relationship between the district highway and traffic safety engineers and the ridesharing coordinators appears to be a positive one. Any disagreement between the two usually has to do with choosing sign locations. As was mentioned earlier, the coordinator requests locations for the signs and these locations are subject to approval by the engineer. The interviews revealed that the criteria used by coordinators for selecting sign sites vary a great deal. Most coordinators really have no specific procedure other than to determine where the largest volumes of commuters travel. The most commonly used criterion is the average daily traffic volume. One coordinator reported that sign locations were requested in areas which have the heaviest traffic congestion--where traffic is moving slowly and thus causing motorists to become annoyed. Another said that "common sense and traffic volume" are the only criteria to use. A few others said that they really didn't have a procedure for determining location and merely left it up to the engineer.

The ridesharing coordinators had one comment in common regarding the location of the signs--they all agreed that the location is critical. Given this consensus, perhaps the procedure for determining location followed by Richmond's Ridefinders is worthy of mention here. This agency chooses sites that meet the following five criteria:

1. High average daily traffic volume (Virginia passenger cars)
2. High peak-hour volume
3. Near key James River bridges
4. Near both blue- and white-collar employment centers
5. Absence of any sight distance problems (i.e., safety)

They specify one sign per commuter route, concentrating on routes to the downtown, and at most locations have the signs face commuters inbound to the central business district.

Similarly, the COGs' Commuter Club has determined that it has been extremely successful in forming pools among persons commuting to Washington's downtown area. Thus, signs are located on major highways serving downtown-oriented travel. Candidate sites are located through a survey of transportation professionals living in Northern Virginia and working downtown, conversations with 'sky watch' traffic reporters for local radio stations, and professional judgement. Locations are finalized during a driving tour conducted with the Department's district highway and traffic safety engineer.

Two other items regarding sign location are worthy of mention. First, there was confusion in some of the districts as to the policy regarding locating the signs on main line interstate highways. The MUTCD states that the D12-2 sign can be located on all types of highways, and the authors know of no Department policy restricting the use of such signs on any system. There is evidence that ridesharing signs located at or near interstate ramps may be more effective than those on the main line as a function of vehicle speed. Of the 63 signs photographed during the study, 16 are located on interstate highways, 5 on interstate ramps, and the remaining 42 on primaries, secondaries, and urban streets. Seven of the signs photographed on interstate highways were located on overhead structures, which leads to the final item to be discussed regarding location.

The ridesharing coordinators were asked their opinion regarding the use of overhead signs. Although all were not qualified to answer, since some had no overhead signs, all but one of those who did stated that an overhead location was acceptable. In fact, there was some agreement that the overhead sign actually "stands out" because it is blue and the other signs on the structure are green.

Sign Size

Although numerous sizes can be used, the Department uses five sizes for the roadside signs depending upon their location. Table 1, given earlier, shows the sizes used for specific applications. In general, the larger signs are used on interstates. The most common size is 42" x 54", which is used on primary routes and interstate ramps. The 42" x 84" sign

is used only when the word RIDESHARING appears in the message. Similarly, the one most commonly used on interstates is the 54" x 72" sign, except that the 54" x 114" size is used when the word RIDESHARING appears in the message.

Ridesharing coordinators were generally satisfied with the size of the signs. In Northern Virginia the Commuter Club, which recently added 20 new signs on high-speed facilities, determined that the lettering on the existing signs was too small to command motorists' attention. The Northern Virginia district highway and traffic safety engineer was requested to consider 10" letters for freeways and other high-speed facilities, 8" letters for principal arterials, and 6" letters for minor arterials. Previously, 6" letters had been used for all the signs in Northern Virginia. The request was granted and the Commuter Club believes that the new, larger letters have greatly enhanced the promotional capability of the signs.

Number in Use

Eight of the 12 agency representatives interviewed expressed a need for additional signs, and the remaining 4 thought they had an adequate number. All of the agencies serving parts of Northern Virginia were of the opinion that more signs were needed. Although no exact count of signs was taken, the authors estimate the number of ridesharing signs in Virginia to be 130 at this writing. On a national scale, based on information received from 19 other states, Virginia ranks third in the number of signs used to promote ridesharing. Given the fact that the Northern Virginia/Washington, D.C., area has often been referred to as the "carpool capital of the world" by transportation professionals, the use of such signs in Virginia will likely continue to increase.

Sign Content--The Message

Ridesharing agencies throughout the Commonwealth use a variety of messages on signs, but all of these can be categorized into three basic groups:

<u>Type 1</u>	<u>Type 2</u>	<u>Type 3</u>
CARPOOL INFO 928-7916	RIDESHARE(ING) INFO 287 POOL	CAR/VAN or CAR-VAN POOL INFO 797-RIDE

The messages are categorized by the top line--that is, CARPOOL, RIDESHARE(ING), or CAR/VAN. The three message types are generalized from eight original messages which may have contained a different number of message lines as well as distinct telephone numbers. Six of the agencies

use some form of the Type 1 message, two use the Type 2 message, and four use the Type 3 message.

Perhaps the greatest debate among ridesharing agency representatives involves the first and third lines of the signs. Although the word CARPOOL is the most often used first line, two coordinators using it expressed a desire to change to CAR/VAN POOL or CAR-VAN POOL. This preference is based mainly on the fact that the combination more accurately portrays what most of the agencies do. A few signs containing the word FOR preceding the CAR/VAN POOL message were also noticed. All coordinators thought that this word serves no useful purpose and thus should not be used. The word RIDESHARE, or RIDESHARING, was used by two agencies and the consensus among the other ten agency representatives was that neither word should be used, principally because the public does not have as good an understanding of the term RIDESHARE as it does of the term CARPOOL. While several said they preferred the word RIDESHARE, all admitted that the public simply isn't ready for it. It should also be pointed out that signs containing the word RIDESHARING require a larger surface to accommodate its length and are thus \$10 to \$70 more expensive than those containing the terms CAR POOL or CAR/VAN. It should be noted that if the term CAR/VAN POOL is used in the first line, a sign the size of the one listed to accommodate RIDESHARING is necessary.

Line two generally contains the term INFO, which appears to be acceptable in lieu of the entire word INFORMATION. If the term CAR/VAN is used on the first line, the second line contains the words POOL INFO.

Line three on the three sign types contains the telephone number of the ridesharing agency. Table 2 shows the five types of telephone numbers used. Three of these are alphanumeric designations--that is, combinations of numbers and letters that can be dialed to reach the sponsoring agencies. The fourth type of number is one having easy-to-remember or successive digits. The fifth type is the use of any telephone number available in the local telephone company's number bank.

Table 2

Types of Ridesharing Sign Telephone Numbers

<u>Type</u>	<u>No. of Agencies Using</u>	<u>Examples</u>
Alphanumeric	7	643-RIDE; 783-POOL; 758-4VIP
Easy-to-Remember	1	982-2222; 838-3800; 691-2323
Random	4	295-6165; 236-7131

Of the 12 agencies interviewed, 7 use an alphanumeric designation, 1 uses an easy-to-remember number, and the remainder use random numbers. When asked if they would prefer the alphanumeric type, 8 of 12 said they would and the remainder said the number simply needed to be easy to remember. Two of the coordinators indicated that some confusion can be created by the use of the alphanumeric XXX-POOL, since the telephone dial contains both the number zero and the letter "O." These individuals thought that XXX-RIDE would be a better alphanumeric choice. This was not the consensus of the remaining coordinators; thus, XXX-POOL continues to be the preferred alphanumeric designation. It is interesting to note that one agency representative thought that POOL has a negative connotation in many areas and should not be used. He said that people want a ride not a pool, and that the message should stress the service of providing a ride rather than a pool.

Since several states employ a logo on ridesharing signs, the interviewers included this subject in their questioning, even though it does not appear on the interview form in Appendix C. Eight of those interviewed supported the use of a logo. Most said a logo would have to be accompanied by verbiage, and that it would simply be used as an "eye-catcher." If logos are to be used on the signs in Virginia, three available ones seem to warrant consideration. Figure 2 is the carpool logo shown in Standard Highway Signs, a publication of the Federal Highway Administration. It is used in several states. Figure 3 is the Department's "It Pays to Ride With A Friend" logo, which has been used on bumper stickers, in various publications, and in conjunction with promotional programs in the state. It has not, however, been used on highway signs. Figure 4 is a logo developed and used by one of Virginia's regional ridesharing agencies on all its stationary, newsletters, brochures, etc. It also has not been used on highway signs.

Most of the coordinators in favor of a logo indicated that a standard logo should be used statewide. If a logo is to be used, the one depicted in Figure 2 is probably the most logical choice, given the fact that it is an international symbol sign and specifications for it are already available.

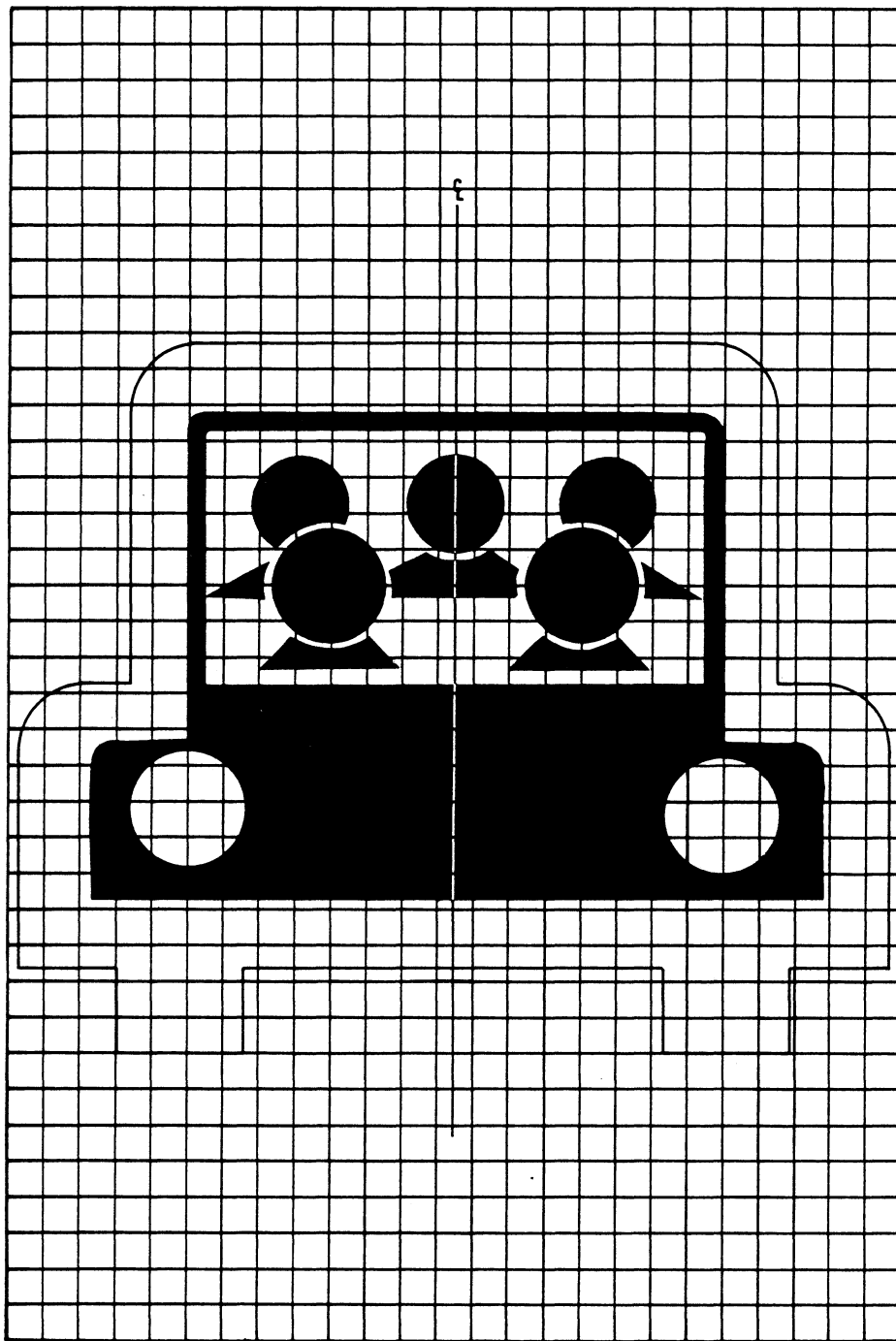


Figure 2. Carpool symbol sign. U.S. DOT Standard.

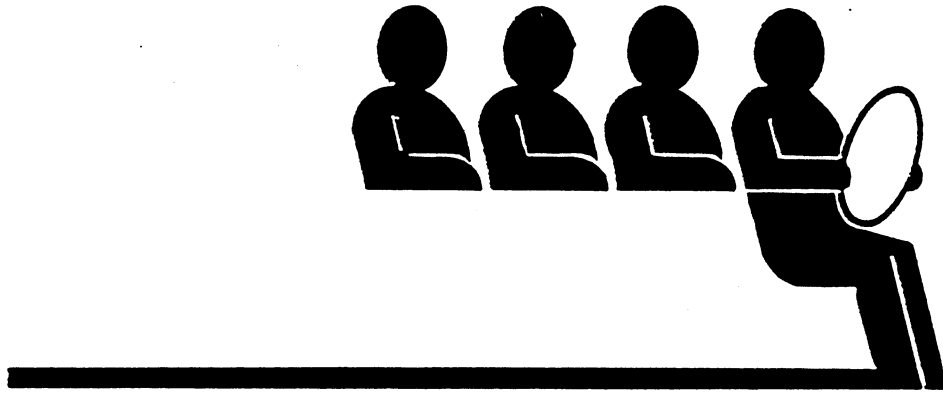


Figure 3. Virginia Department of Highways and Transportation's "It Pays to Ride With A Friend" logo.

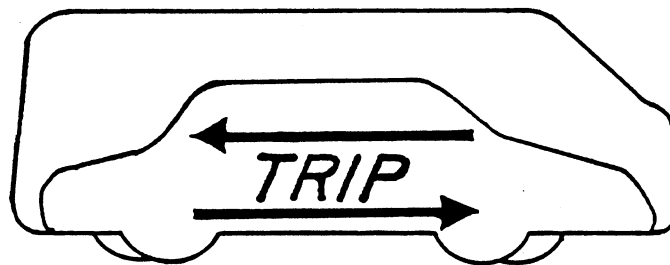


Figure 4. Example of local ridesharing agency logo.

Other possible candidates for inclusion in ridesharing sign messages were also discussed with the coordinators. There has been some speculation that use of the words YOU, FREE, and CALL would be beneficial. Messages such as YOU CAN CARPOOL CALL XXXXXX or FREE CARPOOL INFO CALL XXXXXX have been used elsewhere. Some marketing and advertising people think that the latter message better communicates the feature of the free service and that use of the word CALL reinforces the telephone number. Although a few of the ridesharing coordinators agreed that use of the word FREE might be beneficial, most thought it was extra verbiage and not necessary. One coordinator said that use of the message FREE CARPOOL INFO says that the information is free but not necessarily the service. Some said that many callers inquired as to how much the ridesharing matching service cost, while others said that most callers expect the service to be free.

Coordinators were also asked whether or not a toll-free number (to be included on the sign) would be of value in their operation. While the coordinators were divided on this question, there was a suggestion that a statewide toll-free number might be of value as an information station to inform the public about ridesharing services in all areas of the state. Such a number would be answered in the Department's Rail and Public Transportation Division office or, quite possibly, at the COG office in Washington, D.C. The establishment of a toll-free number for each individual ridesharing agency was not deemed to be cost-effective.

In summary, while several suggestions for sign configurations were suggested by the ridesharing coordinators, there are configurations which seem to fit the needs of most. The sign most widely accepted by the 12 coordinators reads as follows:

CAR/VAN
POOL INFO
XXX-RIDE
or
XXX-POOL
or
XXX-ZZZZ

The slash between CAR and VAN can be substituted with a dash, but the slash is the most commonly used. Use of the word RIDE instead of POOL is acceptable, as is the use of an easy-to-remember number such as 982-2222. Since there is some evidence that the zeros in POOL can be confused with zeros, the term RIDE appears to be preferable. One agency uses 643 RIDE to ensure easy recall. The prefix 643 was chosen as the 3 rhymes with the "E" in RIDE when a radio or television announcer spells the telephone number. The use of a logo is favored by many of the ridesharing coordinators, and a standard one for use statewide was the preference.

Promotional Value

A report published in 1985 by S. G. Associates, Inc., et al., entitled Public Transit and Ridesharing Marketing Management Plan for the Virginia Department of Highways and Transportation Rail and Public Transportation Division, included a chapter on the marketing activities being conducted by ridesharing agencies in Virginia. Regarding highway signs, the report states:

Highway signs have proven to be one of the most effective tools for areawide advertising of ridesharing services. They are low in cost and effective at placing the ridesharing contact number before commuters along congested sections of highway. Road signs repeatedly convey the message but only need to be installed once. Ridesharing signs are in place in all ridesharing districts that have a coordinator. . . . Road signs are an essential advertising tool for most ridesharing agencies operating in cities with heavy commuting corridors. . . . Road signs should be maintained as a consistent element of ridesharing programs.(1)

Most of the ridesharing agencies in Virginia ask their callers how they found out about their services. Table 3 is extracted from the aforementioned report and shows a summary of the responses of these callers for five ridesharing agencies. The information was compiled from application forms received by the agencies.

In an attempt to update and expand the information in Table 3, ridesharing coordinators were asked to estimate the percentage of callers who had found out about their service by a highway sign. Table 4 shows the estimations for ten of those agencies. The agencies reporting a low percentage of callers listing highway signs as their information source all have a large employer-based ridesharing program.

(1) S. G. Associates, Inc., Manuel Padron and Associates/
Dr. Peter B. Everett, June 1985

Table 3

Requests for Information by Marketing Medium

Marketing Medium	COG		Fairfax County	JAUNT	COMPOOL	Rappahannock/ Rapidan
	Commuter 1984	Club 1983				
Employer	29.0%	31.0%	24.1%	43.8%	62.6%	NA
Friend	17.0%	18.0%	9.0%	6.8%	6.1%	9.0%
Highway Sign	17.0%	28.0%	5.0%	15.3%	9.1%	75.0%
Newspaper	6.0%	5.0%	0.9%	2.1%	0.7%	6.0%
Television	0.5%	0.2%	0.1%	0.4%	1.7%	NA
Radio	0.6%	0.8%	0.5%	3.5%	3.5%	5.0%
Literature	11.0%	7.0%	25.0%	NA	NA	NA
Poster	4.0%	3.0%	NA	7.3%	3.7%	NA
Phone Book	NA	NA	4.0%	1.8%	1.1%	1.0%
Referrals	NA	NA	14.6%	9.9%	NA	2.0%
Others	15.0%	7.0%	16.8%	9.1%	11.5%	2.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 4

Percentage of Callers Informed by Road Signs

Agency	Percentage
Easyride	80%
TRIP	80%
Rappahannock-Rapidan	80%
RADCO	43%
James City Transit	75%
Fairfax County Rideservices	15%
RRIDES	11%
JAUNT	11%
Ridefinders (formerly COMPOOL)	6%
Prince William	11%

Finally, the coordinators were asked to give their assessment of highway signs as a means of promotion. Seven said signs are the best means, two that they are second best, two that they are third best, and one wasn't sure. Cost-effectiveness was cited by several as being one of the positive aspects of highway signs versus other types of promotional techniques. Recently, Rappahannock-Rapidan Commuter Services conducted a detailed analysis of the effectiveness of various advertising techniques for its program. They concluded:

In reviewing the promotional and advertising elements that are being used by the Commuter Services Program, the use of highway road signs must be considered the most effective form of advertising and overall promotion for the ridesharing program.

Several of the agencies also promote the erection of highway signs by coordinating with the district traffic engineer the scheduling of the installation of them during an hour convenient for members of the media to be present. Appendix D shows a typical press release informing interested parties of sign installations.

Additional Respondent Comments

The most frequently made additional comments had to do with the cost of the highway signs. The average cost of ridesharing signs is about \$200. Many agencies saw a need for additional signs but were having difficulty finding enough money in their budgets to cover the expense of erecting them. One agency had contacted other sign fabrication companies and found that those fabricated by the Department were the least expensive.

Some also inquired as to the feasibility of using a CALL COLLECT message on the signs. They believed that allowing potential rideshare clients living in outlying areas to call the agency at the agency's expense might increase the number of calls received, and thus provide additional rideshare matches.

Survey of Other States

A questionnaire was sent to the ridesharing or public transportation divisions in 35 state transportation agencies, and responses were received from 19. In addition, each agency was asked to submit photographs, specifications, or any other published information on the subject of highway ridesharing signs. Responses were received from the 19 states listed in Table 5. The table shows that the most popular location for ridesharing signs is on the shoulder. Only 5 states use overhead or median locations. Eleven of the 19 use logos on their signs, but most of the respondents indicated that logos were about the same as or less effective than the use of words only or alphanumeric telephone designations. Alphanumeric designations are used by 12 of the 19 agencies answering the survey, the two most commonly cited being POOL (9 times) and RIDE (5 times). As is the case in Virginia, some states use both RIDE and POOL. Only 4 of the states--Vermont, New Hampshire, Delaware, and Florida--have implemented a toll-free number system. Three of these were personally contacted and it was learned that their toll-free numbers are based at the state ridesharing office. The numbers

are used for matching as well as to provide callers with general information. It should be noted that 3 of these states are probably small enough in size that matching services can be provided rather easily from a central office.

Table 5
 Characteristics of Ridesharing Signs in 19 States

State	Sign Placement			Toll-Free No. Used	Logo Used	Alphanumeric Desig. Used	No. of Signs
	Shoulder	Overhead	Median				
California	X				X	X	100
Connecticut	X		X			X	140
Delaware		X	X	X		X	30
Florida	X			X	X	X	100
Georgia	X	X			X	X	3
Idaho	X				X	X	13
Illinois	X					X	80
Iowa	X						25
Kentucky	X					X	63
Maryland	X		X		X		45
Massachusetts	X				X	X	100
Michigan	X					X	80
New Hampshire	X			X	X		50
Oklahoma	X					X	unknown
Oregon	X				X		55
Tennessee	X				X		48
Texas	X				X		unknown
Vermont	X			X			25
Washington	X				X	X	unknown
Total	18	2	3	4	11	12	

A variety of sign messages were received from the states. They can be categorized into the following three groups.

<u>Type 1</u>	<u>Type 2</u>	<u>Type 3</u>
RIDESHARE INFO 428-RIDE	CARPPOOL INFO 879-POOL	CAR/VAN POOL INFO XXXXXXX

The three message types shown are variable by the number of lines, alphanumeric designation, or both. Six of the 19 states use the Type 1 sign, 12 use the Type 2, and 5 use the Type 3. A few states had unique sign messages as follows:

Florida uses

SHARE-A-RIDE
FOR INFO CALL
1(800)234-POOL

Massachusetts uses

COMMUTER INFO
SERVICES
227 POOL

Kentucky has as one of
its three sign messages--

YOU CAN CARPOOL
VAN POOL
CALL 233-POOL

It is also interesting to note that, unlike Virginia, several states use the word CALL in their sign messages.

Nationwide, it appears that the most commonly used ridesharing sign message is the Type 2 message, even though it does not encompass vanpooling. If the agency's service encompasses vanpooling, the inclusion of the word VAN in the message appears to be a fairly common practice. The word RIDESHARE is used by only 6 states, indicating that there is generally the belief that, as is the case in Virginia, the public in other states has yet to become comfortable with the word.

RECOMMENDATIONS

The findings and conclusions from the study have led to the following recommendations.

1. It is recommended that the Rail and Public Transportation Division issue to each regional ridesharing agency guidelines containing the procedure to be followed for requesting location approval, fabrication, and installation of ridesharing signs. A copy of this memorandum should be sent to each of the Department's district highway and traffic safety engineers.
2. So as to limit sign proliferation and assist the district highway and traffic safety engineer, criteria for locating ridesharing signs should be developed by either the Rail and Public Transportation Division or each individual ridesharing agency. Such items as traffic volume, commuter patterns, downtown feeder patterns, employment center locations, safety, and sight distance should be included in those criteria. Since location approval rests ultimately with the district highway and traffic safety engineer, requests for sign location need to be based on definite criteria to provide uniformity throughout the state.
3. The size of the sign to be used for displaying ridesharing messages depends on the type of facility and the prevailing speed of traffic. It is recommended that the district highway and traffic safety engineer follow these design standards for the highway systems when fabricating and locating the signs. If there is a question about the size of the sign or lettering from the regional ridesharing coordinator, adherence to these standards should be pointed out by the district highway and traffic safety engineer.
4. It is recommended that the two basic message configurations used on Virginia's ridesharing signs be as follows:

CARPPOOL	CAR/VAN
INFO	POOL INFO
XXX-XXXX	XXX-XXXX
5. Since the public does not seem to fully understand the term RIDESHARE, and since signs using the term RIDESHARING appear to be more costly than those using the messages in recommendation 4, it is recommended that neither of these terms be used on Virginia's signs.
6. Whenever possible, an alphanumeric designation or easy-to-remember telephone number should be used in the sign message. The combinations XXX-RIDE and XXX-POOL are both acceptable, but the

former is preferred because of the possibility of the letters O in POOL being taken as zeros.

7. Although there is insufficient evidence to show that the use of a logo enhances the promotional capability of the highway signs, there is sufficient interest among the ridesharing coordinators for its use to warrant further investigation by the Rail and Public Transportation Division. It is recommended that if a logo is used, it be the carpool logo found in the U.S. DOT Standard Signs Manual and that it be adopted for use statewide. The use of individual regional agency logos is not recommended.

ACKNOWLEDGEMENTS

Gratitude is extended to the ridesharing agency representatives who took the time to provide a great deal of information--both written and oral--for this study. Also, appreciation is extended to the district highway and traffic safety engineers, who supplied sign locations and file information.

Finally, thanks are extended to several members of the Research Council staff. In particular to Steve Blackwell, who helped compile the sign inventory, to Susan Kane, Jan Kennedy, and Linda Runnett, who typed letters, questionnaires, and all drafts of this report, and to Harry Craft who edited the final report.

APPENDIX A

RIDESHARING SIGN QUESTIONNAIRE

1. Do you have responsibility for erecting signs promoting the use of ridesharing agencies in highway rights-of-way in your state?

- a) Yes b) No

If no, please return questionnaire unanswered.

2. Does your agency assist ridesharing agencies in the placement or upkeep of these signs?

- a) Yes b) No Please explain your answer.

3. What procedure does a ridesharing agency follow to have signs erected?

4. Where are these signs placed?

- a) Overhead b) Near the shoulder c) In the median
- d) (a) and (b) e) (a) and (c) f) (b) and (c)
- g) (a), (b) and (c) h) Other _____

5. What color scheme is used for the signs?

Background _____ Lettering _____

6. Please list the sign sizes that are used. If they vary by highway system, please indicate.

a) _____ c) _____

b) _____ d) _____

7. Virginia currently uses 8 messages to inform motorists about ridesharing services. Please list the various messages used in your state.

a) _____ d) _____

b) _____ e) _____

c) _____ f) _____

8. Which of these messages is generally preferred?

9. Are logos ever used to promote ridesharing in your state?

- a) Yes b) No

(over)

10. How effective have logos proven to be as opposed to worded messages or alphameric designations (e.g., 295-POOL)?
- a) Logos are better than words or alphameric designation
 - b) Words or alphameric are better than logos
 - c) About the same
 - d) Don't use both, therefore comparison can't be made
11. Approximately how many signs promoting ridesharing do you have located in your highway system?

-
12. Check here if you would like to receive a copy of the final report.

Please feel free to add any additional comments you might have on the bottom of this sheet. Any photos, specifications, criteria for placement, studies which may have been conducted by either your agency or individual ridesharing agencies, or other information you have relative to the use of these signs would be greatly appreciated.

Please return to Todd Collier, Virginia Highway and Transportation Research Council, Box 3817 University Station, Charlottesville, Virginia, 22903.

Thank you for your time and effort.

APPENDIX B

RIDESHARING AGENCIES

Alexandria Ridesharing Service
P. O. Box 178, City Hall
Alexandria, Virginia
Ridesharing Coordinator: Ms. Sandy Modell

Charles City County Vanpool Program
P. O. Box 128
Charles City, Virginia 23030
Vanpool Manager: Mr. O'June Bailey

Commuter Club
Metropolitan Washington Council of Governments
1875 Eye Street, N.W., Suite 200
Washington, D.C. 20006
Project Manager: Mr. Jon Williams

Ridefinders
P. O. Box 12182
Richmond, Virginia 23241
President: Mr. Phil Winters

Easyride
Peninsula Transportation District Commission
3400 Victoria Boulevard
Hampton, Virginia 23661
Director of Brokerage and Development: Mr. Bruce Campbell

Fairfax County Ridesources
4100 Chain Bridge Road
Fairfax, Virginia 23030
Ridesharing Coordinator: Ms. Dottie Cousineau

James City Share-A-Ride
P. O. Box JC
Williamsburg, Virginia 23187
Ridesharing Coordinator: Ms. Gerri Robertson

Jaunt Rideshare, Inc.
1138 E. High Street
Charlottesville, Virginia 22903
Ridesharing Coordinator: Mr. Jim Hill

Middle Peninsula Rideshare
P. O. Box 286
Saluda, Virginia 23149
Ridesharing Coordinator: Ms. Barbara Zimmerman

Prince William County Ridesharing Program
9258 Lee Avenue
Manassas, Virginia 22110
Ridesharing Coordinator: Ms. Laretta Ruest

Radco Rideshare
P. O. Box 863
Fredericksburg, Virginia 22404
Ridesharing Coordinator: Ms. Jean Satterwhite

Rappahannock-Rapidan Commuter Services
121 W. Locust Street
Culpeper, Virginia 22701
Ridesharing Coordinator: Mr. Gary Fuller

Tidewater Transportation District Commission Ridesharing
Program
P. O. Box 2096
Norfolk, Virginia 23501
Ridesharing/Marketing Coordinator: Ms. Carol Russel

TRIP
103 East Sixth Street
Front Royal, Virginia 22630
Planning and Ridesharing Coordinator: Mr. Rob Kinsley

RIDESHARING AGENCY INTERVIEW

1. Please describe briefly the procedure you use to request that ridesharing signs be erected? _____

2. How do you decide where the signs should be placed? _____

3. What are the messages you use on the signs (list)? _____

4. Which message do you prefer? (If it is none of the messages listed in item 3, please indicate the message you would like to use.)

5. Do you feel it is important for the telephone number to have an alphanumeric designation such as 296 RIDE? ____ yes ____ no
 Comments? _____

6. Do you think that adoption of a statewide standard number such as (your exchange) RIDE or (your exchange) POOL is a good idea? ____ yes ____ no
 Comments? _____

7. Some states have a toll free (800) number for promoting ridesharing. Do you think that establishing a toll free number would be of benefit to you?
 ____ yes ____ no Explain _____

8. How many signs do you have at present? _____
9. Do you think that you have too many, too few, about the right number of ridesharing signs? (circle one) Comment? _____

10. What is your assessment of ridesharing signs as a means of promotion? Please include personal anecdotal observations as well as statistical information you have compiled. _____

11. What percentage of your clients would you say found out about your service as a result of the signs? _____%

We would appreciate any further comments you might have (enter on back).
 If none, thank you very much for your time and the information; you've been a great help.

Agency _____
 Respondent _____

NEWS RELEASE

For Immediate Release
May 24, 1984

Planning District Gets Car/Vanpool Roadsigns

The Rappahannock-Rapidan Commuter Services program would like to announce that we will be installing our first ridesharing roadsigns displaying our ridesharing telephone number at four key locations in the Planning District.

As you are aware, we are currently operating a ridesharing match program as a public service for the residents of Culpeper, Fauquier, Madison, Orange, and Rappahannock Counties.

These new roadsigns are part of our expanded ridesharing marketing and promotional efforts to encourage commuters that are traveling daily to the Washington, D.C., Charlottesville and Fredericksburg metropolitan areas to call our ridesharing phone number. Commuters interested in car and vanpooling can call the commuter services program to find out more about our services and to have their name entered into our match list files to be matched with other workers traveling in the same direction.

The counties receiving roadsigns are Culpeper, Fauquier, Madison, and Orange. They are expected to be installed by the 1st of June. For further details, please call 825-2739.

Gary H. Fuller
Ridesharing Coordinator

RAPPAHANNOCK-RAPIDAN PLANNING DISTRICT COMMISSION

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