Common Misperceptions about Modern Roundabouts
by Wes Butch, Stephen G. Metzer, AICP, and Charles R. Owens, ASLA

Introduction
Relatively new to the United States, modern roundabouts have been common throughout other portions of the world for several decades as an alternative to stop-controlled and signalized intersections. As interest in modern roundabouts has increased in the U.S. and transportation officials have considered their implementation, misperceptions have often arisen. During the course of numerous studies and designs involving roundabouts, DLZ has encountered many fallacies which come up with regularity. These opinions are typically voiced by members of the public, elected officials, transportation officials, and consultants who are unfamiliar with this type of intersection control. This article describes the most widespread misunderstandings that we have observed during projects involving more than 30 different roundabout intersections.

Misperception Number 1: Modern roundabouts are the same as traffic circles.
This is without a doubt the most common fallacy encountered, and it strongly influences people's opinions about roundabouts. At some point in their lives, most people have had bad experiences with large, old style traffic circles (also known as “rotaries”) such as DuPont Circle in Washington D.C. With their relatively large diameters, high circulating speeds, and merging/weaving requirements, traffic circles often exhibit poor traffic operations and high crash rates (not to mention that driving through them can be unnerving to uninitiated drivers). Those unfamiliar with modern roundabouts often assume that they will cause similar problems since they are also a circular intersection. Although entry conditions vary among traffic circles, they usually lack most or all of these characteristics.

Modern Roundabout at the Marsh Road – Hamilton Road Intersection in Okemos, Michigan (photo courtesy of Dave Sonnenberg, Ingham County Road Commission)

The main distinguishing factors are:
- Modern roundabouts have a smaller diameter than most traffic circles, resulting in lower speeds and safer conditions.
- Vehicles can enter modern roundabouts much more easily than traffic circles due to lower speeds on the circulating roadway, flared approaches, proper entry angles, and the fact that vehicles entering roundabouts always yield to circulating traffic. Although entry conditions vary among traffic circles, they usually lack most or all of these characteristics.
- Properly planned modern roundabouts are designed using rigorous standards based on specific traffic turning volumes, while traffic circles are typically sized based on how much land is available and/or road distances needed for accomplishing high speed weave movements.

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Misperception Number 2: Modern roundabouts are unsafe.

Often related to misperception number 1 is the belief that modern roundabouts are unsafe. Proponents of this view put forth two main arguments to support their claims. First, they point to old style traffic circles as an example of what would be expected in terms of automobile crashes. Second, they single out one highly publicized roundabout with a high number of crashes (located in Clearwater, Florida) and presume that all roundabouts will have the same problems. Having already addressed the first argument above, the focus here will be the second.

The roundabout in Clearwater, Florida, opened at midnight on December 31, 1999 at the intersection of Mandalay Street, Coronado Street, two other minor streets, and a causeway connecting the mainland with a barrier island. Since opening, there have been over 500 crashes at the roundabout, with close to 300 crashes in the first six months alone (the crashes have been relatively minor with few injuries). Over the last two years, the City of Clearwater has retained an outside roundabout expert to remedy these crash problems. After implementing the design and pavement markings changes recommended by this expert, the crash rate at the roundabout has been dramatically reduced. Nevertheless, critics have embraced the situation as an example of what to expect should roundabouts be constructed at other intersections in the U.S. The Clearwater roundabout has also received coverage in the national media, including an article in the Wall Street Journal which sensationalized the crash problem and implied that these problems are typical of roundabouts across the U.S.

Several important factors are ignored by roundabout critics who fear crash problems like those experienced in Clearwater. First, crash problems are the exception, not the rule, at U.S. roundabouts, and the problems at the Clearwater roundabout are not indicative of any fundamental problem with roundabouts in general. This is supported by the large reduction in crashes at the Clearwater roundabout since implementation of design and striping changes over the past two years. Additionally, the vast majority of U.S. roundabouts have excellent safety performance. Due to their small diameter (relative to traffic circles), low circulating speeds, flared approaches, deflection, and yield-controlled entrances, modern roundabouts are substantially safer than intersections controlled by traffic signals, traffic circles, and stop signs. Studies from around the world have clearly demonstrated that modern roundabouts typically reduce crashes by 40 to 60 percent compared to stop signs and traffic signals. They also typically reduce injury crashes by 35 to 80 percent and almost completely eliminate incapacitating injury and fatal crashes. Two recent U.S. studies (Persaud et al 2000; Retting et al 2001) are consistent with these results. Considering the massive costs to society related to traffic injuries and deaths, this is an extremely important benefit associated with modern roundabouts.

Misperception Number 3: Modern roundabouts cannot handle high traffic volumes.

Many people, including some in the transportation world, do not realize how many vehicles can be processed at a properly designed modern roundabout intersection. In fact, in most situations, modern roundabouts can accommodate higher traffic volumes with less delay than traffic signals. A good example that illustrates this situation is the Northwestern Connector study in the Detroit suburbs. Completed in 2001, this study compared upgraded traffic signals and modern roundabouts in detail at fourteen highly congested intersections. This comparison indicated that modern roundabouts would decrease motorists’ total annual delay by more than 50 percent compared to upgraded traffic signals. During the morning and afternoon rush hours, modern roundabouts would reduce motorists’ delays by about 70 percent on average compared to upgraded traffic signals. As a result of this study’s findings, nine high volume modern roundabouts are slated for construction by 2005. Additionally, in the United Kingdom, many of the 11,000 roundabout intersections process between 5,000 and 7,000 vehicles during peak hours with low delays. Beyond these examples, several U.S. communities that have replaced stop- and signal-controlled intersections with modern roundabouts have also seen notable reductions in motorist delays. A few illustrations of this situation are: Okemos,
Misperception Number 4: Any of the popular roundabout software programs can be used to analyze and design modern roundabouts with high capacities.

The software used to design a modern roundabout can make a major difference in its capacity. A number of popular software programs that are used for roundabout design are based on gap acceptance theory which does not account for all aspects of motorist behavior at roundabouts. As a result, these software programs can recommend incorrect roundabout geometry, incorrectly calculate capacity, and result in designs that provide poor traffic operations. The alternative to gap theory software is software based on empirical regression equations. These equations directly relate roundabout geometry to their capacity and were developed using extensive data collected in the United Kingdom for roundabouts operating at capacity. Rodel and ARCADY (both from the United Kingdom) are the most popular software programs based on these empirical equations. Both of these programs produce accurate, reliable estimates of capacity that are directly related to geometry. This is crucial when designing roundabouts.

Misperception Number 5: Modern roundabouts can be properly designed and constructed without special expertise by applying general information contained in guidebooks.

While the guidebooks and manuals available in the U.S. generally provide good information regarding modern roundabout design, some also contain guidance that is incorrect or that can easily be misapplied. Safety and traffic operations at a roundabout are influenced by design details to a greater extent than a signalized intersection, and seemingly minor differences in geometry can greatly affect safety and capacity. As an example, we have seen situations where increasing entry widths by as little as one meter changes the overall intersection delay from Level of Service (LOS) D to LOS A. The bottom line is that roundabout design should not be undertaken by those lacking experience in this area, especially at intersections with high traffic volumes where multilane roundabouts are needed.

Misperception Number 6: Modern roundabouts won’t provide downstream gaps for motorists turning out of side streets or driveways.

Except for rare situations, modern roundabouts do create sufficient gaps for motorists to turn out of driveways and side streets. Although the random gaps created by roundabouts are typically smaller than those between traffic platoons released from signals, they occur more frequently and are large enough to allow vehicles to enter the flow of traffic. The way that roundabouts process traffic causes these downstream gaps: traffic circulating within the roundabout has priority over entering traffic (i.e., they force entering motorists to yield/wait before entering), and this circulating traffic will depart from the roundabout using different exits. As a result, there is not a constant flow of traffic exiting in any one direction. When circulating traffic departs on a different roadway than the motorist waiting to turn out of a driveway or side street, a gap is present for that motorist to enter the flow of traffic on the main road. Further assisting the motorist turning from a driveway or side street is the fact that traffic leaving a roundabout is typically traveling about 20 miles per hour. It is possible that in rare cases, extremely high traffic volumes and certain turning patterns can create problems with downstream gaps. However, in these situations, it is also likely that similar problems would be experienced with a traffic signal since right and left turning traffic from the cross road tends to fill the gaps between large platoons of through traffic.

Misperception Number 7: Modern roundabouts are always more expensive than traffic signals.

In some situations, modern roundabouts require more right-of-way at intersections than traffic signals, resulting in higher initial costs. However, in other cases, traffic signals require numerous and lengthy turn lanes (for storage) to achieve acceptable delays. In these situations, traffic signals may require more total right-of-way than roundabouts.

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The ‘Pull’ of The Airport
By Larry Fabian

When railroads emerged as reliable, useful technologies in the late 19th century, the construction of terminals in cities presented many problems. Relative to the urbanism of those pre-automobile days, railroad terminals required large tracts of land. Trains were noisy and smoky. City centers were very densely built with few corridors available to bring railroads directly into them.

As a result, many rail termini were located at the periphery of the city center, remote from important buildings and hubs of commerce. There land was more readily available, and smoke and noise were less of a problem. Several decades later, however, these “remote” terminals were surrounded by hotels, offices and other commercial facilities. Boston’s North and South Stations, New York’s Penn and Grand Central, and Philadelphia’s 30th Street and Market Street stations are all illustrative of these tendencies. Clearer examples are seen in the constellations of stations that surround historic London, Paris and other European cities.

The term “railfront” never caught on for these rail-oriented commercial districts, probably because of the linearity of the rail itself. The “waterfront” district for the industrial, warehousing and commercial areas around port facilities, however, is quite familiar. Those who have studied the often vast areas being developed as hotels, park and ride lots, car rental facilities, offices, trade show facilities, manufacturing, shipping and freight-forwarders around airports can begin to see why the term “airfront” will gain adherents as we face the issues poised by aviation growth for the next few decades.

An airfront is bigger than its airport. Although a modern airport itself is an extensive collection of runways, fuel storage, hangars, terminals, parking, and other facilities surrounded by an ever-intensifying security fence, it is only the core of the airfront district. In part because of the accessibility provided by major highway and rail

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Additionally, modern roundabouts often solve traffic congestion problems without requiring road segments to be widened between intersections (known as the “wide nodes, narrow roads” philosophy), resulting in a net cost savings. Another factor worth consideration is costs associated with crashes. Because they result in far fewer injury and fatal crashes than traffic signals, modern roundabouts produce lower long-term costs to society as a result of crashes. Also, roundabouts do not require as much maintenance as signals and only require electricity for lighting at night. These factors result in long-term cost savings. Considering all of these items, modern roundabouts cost more than traffic signals in some situations, but in others, they are less expensive.

Misperception Number 8: Modern roundabouts might work in other locations, but they will not work with our aggressive drivers.
It is quite intriguing how every location in the U.S. where roundabouts are being considered can simultaneously have the most aggressive drivers in the world (at least according to the skeptics we invariably meet on every roundabout project). Nevertheless, this issue is important and requires consideration since aggressive driving does cause crashes. Aggressive driving affects other motorists regardless of what kind of traffic controls are in place. Aggressive drivers are less of a safety threat when intersections are controlled by modern roundabouts than traffic signals and stop signs because: (1) the potential for head-on and broadside crashes is almost completely eliminated with roundabouts, and (2) speeds are lower. Modern roundabouts have been implemented with success throughout the world and U.S. Many of these locations have drivers that are aggressive, and modern roundabouts have worked well.

Misperception Number 9: Modern roundabouts are confusing.
Modern roundabouts are different from traffic signals and will require drivers to learn how they operate. Experience in the U.S. has shown that motorists quickly adapt to this new type of intersection. Perhaps the best illustrations of this are Vail and Avon, Colorado, the location of numerous high capacity roundabouts. Both of these cities are major tourist destinations with many thousands of first time roundabout drivers using the roundabout intersections each year. A similar situation exists on the campus of Michigan State University where the modern roundabout at the intersection of Bogue Street and Shaw Lane sees an influx of new inexperienced drivers with each new freshman class. Despite large numbers of drivers who have not driven roundabouts previously, these intersections work well and do not confuse motorists. Additionally, proper use of signing and striping at roundabouts assists motorists and minimizes the potential for confusion.

Misperception Number 10: Older drivers will have a more difficult time negotiating modern roundabouts than traffic signals.
Two comprehensive studies of modern roundabouts in the United States (Retting et al 2001; Persaud et al 2000) have shown that the average age of drivers involved in crashes did not increase following replacement of traffic signals and stop signs with modern roundabouts. Although not conclusive, these results suggest that modern roundabouts do not pose a problem for older drivers.

Misperception Number 11: Modern roundabouts cannot safely accommodate high volumes of pedestrians and bicycles.
Properly designed modern roundabouts easily accommodate high pedestrian volumes. The roundabout at the intersection of Bogue Street and Shaw Lane on the campus of Michigan State University illustrates this point. Even with very heavy pedestrian volumes during class changes, both pedestrians and autos move efficiently through this intersection. Auto-pedestrian crash rates are usually also lower at modern roundabouts than traffic signals. Those pedestrian injuries that do occur tend to be less serious due to the relatively low speeds encountered at modern roundabouts. Legitimate concerns have been raised regarding the ability of blind pedestrians to negotiate roundabouts, and this topic is under consideration within the U.S. transportation community. At intersections which are used by blind pedestrians, other countries such as the United Kingdom have implemented design measures including signalized crosswalks with good success. Where
Evolution of Signage Science

By Brian Burton

Introduction


The Washington, D.C. downtown renewal project involved a site with an exceptionally high-density usage and illustrates environmental graphics at its best. In some respects, this installation also provided excellent examples of the evolution of signage science*. (*Signage science uses prediction and confirmation of prediction as well as systematic carefully planned experiments carried out either in the laboratory or studio or in model scale--an approach which is much more effective than “trial by error”)

The project involved a considerable amount of well-coordinated teamwork between the environmental graphic design (EGD) professionals and management, purchasing, interpretive writers and other professionals. In addition, the project involved close attention to what was termed “political navigation”. In simple terms, this means the environmental graphics team had to meet the requirements and expectations of all the stakeholders involved. According to the EGD professionals we interviewed, this takes time, patience and a willingness to modify or adapt to the comments and input received from stakeholders.

According to David Vanden-Eynden of Calori & Vanden-Eynden/Design Consultants of NYC, navigating downtown Washington D.C. will be a great deal easier in the future! Over the past months, the firm designed and coordinated installation of over 100 wayfinding signs and maps in downtown Washington and around the National Mall. The D.C. Department of Public Works, the General Services Administration and the Federal Highway Administration, among others, provided funding for the project.

Vanden-Eynden, who serves on the Board of Directors for the Society of Environmental Graphic Design (SEGD), points out that these newly installed signs will assist the 22 million people who visit Washington, D.C. every year find their way to popular destinations like the White House, Ford’s Theater, the FBI tour or Chinatown. “Over the next year,” David adds, “even more signs will be added including vehicular direction signs and signs highlighting the District’s series of Heritage Trails.”

The Downtown D.C. Business Improvement District (BID), worked closely with the city to implement a physical improvement program that included brighter and more

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The Discover DC signs provide information on neighborhood destinations. (photo courtesy of Judy Davis, Hoachland Davis Photographers, Washington, DC)

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infrastructure required by airports, locating commercial facilities near the airport becomes quite feasible. On the other hand, residential proximity is problematic due to noise and air emissions.

Although cities and suburbs typically lack zoning authority over airports in the U.S., they do have powers over the surrounding parcels. They can impose zoning restrictions and encourage economic development desired for the jobs and tax revenues they provide. Due to the recentness of airfront development, however, surprising little is known about them. There is little current and meaningful data, and not much available in the way of models and guidelines. Airfronts are largely unexplored terrain, but this is changing quickly.

Larry Fabian has worked as a land use and transportation planner in both public and private sectors, in the U.S. and overseas. He is best known for Trans.21 -- his “information clearinghouse” of planning information and technical publications on automated people mover (APM) developments. Larry currently serves as Secretary of APA’s Transportation Planning Division, and is coordinating the Division’s workshop on airport issues in Denver. See workshop announcement on page 10. Contact Larry at LFabian@compuserve.com.

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Reauthorization Task Force Update

By Whit Blanton, AICP

After a summer of meetings, conference calls and some serious writing under tight deadlines, the members of the APA’s TEA-21 Reauthorization Task Force have developed a draft position statement for Reauthorization. Working from a framework that the new law should promote Smart Growth by effectively linking transportation plans and programs with land use planning and meaningful public participation, the Task Force developed issue papers around seven functional Smart Growth areas relating to environmental stewardship, travel choices, connecting communities, economic competitiveness, governance, equity, and access to decision-making. Those draft issue papers were then reviewed by the group and combined into a statement of policy, which was adopted by APA’s Legislative & Policy Committee this fall. At least six TPD members served on the multi-disciplined Task Force.

Major elements include increasing funding for planning in metropolitan and rural areas, providing strong financial and time incentives for communities that effectively tie transportation, land use and resource conservation programs and plans together, enhancing funding flexibility, providing for research and analysis to develop effective land use–transportation tools for scenarios, and development of a national Safe Routes to Schools program. APA’s position was presented this fall as part of a panel discussion with APTA, AASHTO and AMPO at the 2002 Rail–Volution conference in Washington, D.C.

We anticipate soon having a full section of APA’s website devoted to this issue with resources, links, etc. so members can have one source for a full range of information as the debate gains energy next year. We expect the Reauthorization page will be accessible through both the homepage and the legislation page on APA’s site.

The position statement, which is undergoing final edits for clarity and style before posting on the website, will be accessible through both the homepage and the legislation page on APA’s site.

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attractive street lights, top quality signage and wayfinding systems, upgraded sidewalks, new street furniture, and landscaping. New streetscapes and uses for public places like markets and sidewalk cafes are being developed to make downtown Washington vibrant throughout the day -- and into the evening.

The original effort to formulate, design and organize the wayfinding system in downtown Washington actually began in 1973 in preparation for the 1976 bicentennial celebrations. If any factor could be considered remarkable about the project, reports Vanden-Eynden, it was the political navigation required in seeking the consent and approval of the many stakeholders in Washington. “The effort involved receiving input from close to 70 stakeholders and addressing their concerns”. The wayfinding project also involved many presentations about the various components and elements of the design and installation as well as aspects of purchasing, installation and maintenance.

The actual construction of the signs and wayfinding components involved work with a specialty metals fabricator, a foundry, various extrusions and subcomponents as well as the actual signage panel materials. “In terms of color, durability, size, delivery and quality, the graphic panels supplied by Folia Industries, Inc., are of exceptional quality,” reports Vanden-Eynden. “In fact, we conducted our own “scratch and burn”, tests that involved our best in-house efforts to destroy the panels.” (Simulating chemical exposure, attempts at vandalism, extreme temperatures etc.) “In addition to reviewing the products’ testing results and specifications, we also talked to our colleagues in design and manufacturing. Our attendance at the annual tradeshow of the Society of Environmental Graphic Design allowed us to view products in person and talk with the manufacturers”.

According to Anne-Marie Bairstow of the Washington, D.C. BID, creating new high quality streetscapes throughout Downtown is a top priority for the next five years. Upgraded streetscapes will send a pedestrian-friendly message by adding new lighting, trees, seating and other amenities. “Streetscape planning work in 1998 and 1999 has led to new streetscape standards guidelines, which were adopted as new city regulations in early 2000. Currently, at least 10 projects under construction in downtown Washington are incorporating some or all of the recommendations and elements of the new standards in their streetscapes. The estimated total cost of upgrading all of the targeted downtown sidewalks will be $41.5 million.” comments Bairstow.

Effectively Designed Outdoor Signage

Effectively designed outdoor signage, or environmental graphics, is important for identification, direction and traffic control and is an integral part of landscaped environments. According to Stephan Roy, Marketing Manager for Folia Industries, who supplied signage products for downtown Washington D.C., in addition to informing and orientating your audience, signage products also provide an opportunity to create, enhance and reinforce an image and theme. Signs communicate directly and indirectly using typography, character, pictures, color, and characters. Sign design and fabrication has evolved gradually into a form of creative expression and communication that are recognized as cultural and social artifacts, and technology advances in the second half of the 20th-century have led to a rapid and dramatic expansion of materials and
Waterborne Transportation: The “Forgotten Man”  

By Ralph Duncan

In 1980, the Department of Commerce commissioned a study of ferry systems in the US. The study highlighted the significance of navigable waterways throughout history and the dependence of nations upon those waterways. Although the study went on to dub water transportation as the “forgotten man” of urban transportation, it did highlight the more than 600 ferry operations in the U.S. and Canada.

That was more than twenty years ago, and in spite of studies such as this, water transportation usage has remained fairly constant during that time. Even in metropolitan areas where water transportation seems self-evident, it has been neglected in favor of bigger roads, more cars, and mega-sized rail and light rail transportation projects.

Nowhere is this more evident than in the Puget Sound area of Washington state, home of one of the largest ferry fleets in the world. Puget Sound is a place where a few residents can still tell stories of the famous Mosquito Fleet that sailed the waters of Puget Sound, carrying passengers and cargo to communities that would otherwise be isolated. Many of these communities grew and flourished around, and because of, the Mosquito Fleet and associated terminals. And yet, today, a true waterborne transit system is non-existent, and the Mosquito Fleet is a distant memory to most.

It does seem that waterborne transportation surely has been the forgotten man of transportation. In fact, transportation planners have apparently forgotten it completely. A perusal of the Transportation Track of the APA 2002 Convention in Chicago revealed not one discussion of waterborne transit as an alternative mode of transportation.

Now, our highways are packed beyond capacity. Most metropolitan areas can only hope to slow the rate of traffic volume growth, let alone alleviate the congestion. It is time for transportation planners to slow the rate of traffic volume growth, let alone alleviate the congestion. It is time for planners and community leaders to find ways to break up the commute hours often find packed highways running parallel to virtually unused waterways. Planners and community leaders struggle to find ways to break up the congestion through the use of HOV lanes, bus transit lanes, or billion-dollar light rail projects. Yet, right under our noses we have the ability to remove from the highway nearly 150 cars with each ferry, or, from another perspective, a single 149-passenger ferry carries the equivalent of three busloads of commuters. Such a vessel is relatively inexpensive (roughly $2.5 million these days) and small enough to be run into most modern marinas. This provides an extremely flexible system for startup routes. Routes can actually be tested and optimized as required prior to spending the money for new

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Join Us at TPD's Business Meeting and Reception at TRB

Each year the Transportation Planning Division (TPD) holds two business meetings and member receptions — one at the APA National Conference, and the other at the Transportation Research Board Annual Meeting in Washington, D.C. This year’s TRB Annual Meeting will be January 12-16, 2003. The TPD’s business meeting and reception offers an opportunity for members to renew acquaintances and help set the Division’s course for 2003, as we present a proposed budget and work plan for the year. We will also present additional details and status reports about our plans for the APA Conference, transportation reauthorization and other activities.

Please join us at TRB this January and take an active part in the Division.

Our meeting and reception will be held Monday, January 13th at 5:30 p.m. in the Exhibit Hall at the Hilton. See you there!
Attention: Students… Faculty…

Reward Good Student Work!

Faculty: The Transportation Planning Division is looking for outstanding student papers on current transportation planning or policy issues. Our purpose is to recognize and reward work completed for courses in accredited graduate and undergraduate planning programs. Please encourage your students to participate in APA’s student paper contest. Winner will be announced at the APA National Conference in Denver in March.

The Prizes:
Two awards will be presented: one for the best graduate student paper with a $600 prize and another for the best undergraduate paper with a $400 prize. [Winners who are not APA members will receive $37 less plus a one-year APA membership.] Winning papers (or summaries) will be published in the TPD’s quarterly newsletter; runners-up will be published as appropriate. The TPD will submit full versions of the winning paper for peer review and possible presentation at the Annual Meeting of the Transportation Research Board and for publication in APA’s Planning Magazine.

Eligibility:
1. Papers must have been originally written for a class in an accredited planning program in a US college or university during calendar years 2001 and 2002. A signed certification of this by the department chair or AICP liaison must accompany each paper submission.
2. A paper may be submitted only once; papers may not be revised and resubmitted a second time.
3. Each accredited program may submit only two graduate and two undergraduate papers.
4. Papers may be no more than 20 pages long, including references. Table, maps and other diagrams may supplement the 20 pages of text but not exceed 5 pages. Papers must be typed and double-spaced with margins of at least 1 inch and a font of at least 12 point. Title page should include student name, address, degree program, date when paper was originally submitted, and phone number; no name, program or other form of identification should be included on the pages with the text of the paper (e.g., the headers and footers should only include the page number).
5. The deadline for receipt of the papers is Monday, February 3, 2003. Only printed copies of papers will be accepted; papers will not be accepted via FAX or e-mail. No late papers will be accepted.

Selection Criteria:
A subcommittee of planning faculty and planning practitioners will read all papers using blind review. The papers will be judged on (1) Relevance to major current issue in transportation planning or policy; (2) Insight and significance of discussion; and (3) Quality of the writing, argument, and documentation.

Send submissions to:
Ruth L. Steiner, Department of Urban and Regional Planning, University of Florida, 431 Architecture Building, P. O. Box 115706, Gainesville, FL 32611-5706; Phone: (352) 392-0997, ext. 431; FAX: (352) 392-3308; e-mail: Rsteiner@ufl.edu
Updated APM Guide
Now Available

The growing call for livable, sustainable cities includes visions of congestion-free business and retail districts centers and healthful, pedestrian-oriented community centers. This is causing many planners to search for better ways to configure and manage densities of land use and congestion-prone districts. This planning is intimately tied to parking provision and public transport services. Automated People Movers (APMs) are an interesting new item on the menu of project planners seeking to substitute traffic and on-site parking with more environmentally friendly alternatives. What are their dimensions and costs? Now Trans.21’s directory of APM suppliers and consultants has been updated – the 6th edition of the Planner’s Guide to APMs.

With all due respect to the power of the Internet, it is sometimes handier to have paper in your hand. This is especially true for a document that is systematically filled with useful information and contacts, easily accessed by flipping pages of data and illustrations. The fifth edition of Planner’s Guide to APMs, issued in 2000, was a major improvement in graphic and printing quality over earlier Trans.21 editions. The 6th – just released this fall – is 30% larger and comes with a seminal Primer section that calls for new kinds of city-building as an alternative to the wistfulness of Neo-Traditionalism.

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Air travel has become an integral part of community life and an essential gear in the machinery of regional economies. Airports have grown to very large dimensions and increasingly take on the characteristics of a major employment center. Proximity to an airport and its extensive ground infrastructure offers locational benefits to a broad range of airport-oriented commercial activities, despite aircraft noise and emissions and undesirable activities that sometimes locate nearby. What are the dimensions, problems and prospects of our “airfront” districts?

These issues will be explored in a day-long workshop that TPD is organizing in cooperation with the Advanced Transit Association (ATRA, [www.advancedtransit.org](http://www.advancedtransit.org)). Overview presentations and materials will be prepared by well-informed experts, with a case study, panel discussions, and ample opportunity for Q&A.

The Workshop will take place Saturday, March 29, 2003 – the “training day” before the annual APA conference gets into full swing in Denver next spring. Watch for registration details in APA Annual Conference mailings. Spaces will be limited, so early registration is advised. Registration fee will be very reasonable and will include lunch, materials, and the following provisional program:

A. Regional Land Use Plans and Airports
- what is the status of MPO and APA policies?
- who owns, operates and secures the airport and airfront district?
- transport, parking and mode split policies
- rail and rubber-tired transit
- rationalized car rental facilities

B. Advanced Airfront Infrastructure
- local transit - ITS and APMs
- local silicon: tomorrow’s wired communications
- advanced baggage and cargo handling
- power, district heating/cooling

C. Zoning for Airport Districts
- runway dimensions and impacts
- allowed and disallowed land uses
- noise impacts/mitigation
- green building provisions
- air quality/ozone
- parking requirements
- security requirements

D. Densities, Massing and Height Restrictions
- trip generation and mode split
- FAR
- clustering and integration of transit and buildings
- relationship to economic development

The Workshop will take place 10am-6pm at the Denver Convention Center. For more information, contact TPD Secretary Larry Fabian at LFabian@compuserve.com.
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- Traffic Studies
- Traffic Signal Design
- Traffic Control Design
- Roundabout Studies/Design

Transportation Planner / NEPA Specialist:  DLZ Michigan, Inc., one of the Midwest’s leading transportation planning firms, is accepting resumes for an important position within our team. Candidates for this position should have the following qualifications: (1) At least three years of experience in transportation planning or related field, (2) very strong analytical ability and independent thinking skills, (3) exceptional writing skills, (4) knowledge and experience in preparing and writing NEPA and planning documents, (5) knowledge and experience related to land use planning, natural resources, and socio-economic issues, and (6) knowledge and experience related to road improvement concepts and traffic analyses. Responsibilities for this position will include: collecting and analyzing information, performing technical analyses for specific issues, writing and editing NEPA and planning documents, assisting project engineers in the development of conceptual transportation improvements, analyzing and incorporating traffic information into the planning process, assisting senior staff with management activities, and coordinating and meeting with clients and team members. Please send resume and cover letter to: DLZ Michigan, Attn: Human Resources, 1425 Keystone Avenue, Lansing, MI 48911 or, by e-mail, to jkercher@dlz.com.

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MODERN ROUNDABOUTS - continued from page 4

appropriate, these measures will promote safe conditions for blind pedestrians.

Properly designed roundabouts also safely accommodate bicycles. Studies and experience in Europe have shown that bicycles should not travel within the circulating roadway of multi-lane roundabouts. Instead, bicycles use the pedestrian crossings at a properly designed roundabout. Implementing these measures creates a safe situation for bicyclists.

Conclusion

Although they are not the best solution at all problem intersections, modern roundabouts offer substantial benefits in many situations, especially with regard to traffic operations and safety. Common misperceptions about roundabouts have prevented their implementation at some locations where they would be the best overall solution to address the problems at hand. Once transportation officials, elected representatives, and members of the public develop a better understanding of the benefits and limitations of modern roundabouts, their use will almost certainly increase across the U.S. with the result being a more efficient, safer transportation system.

References Cited:


Wes Butch is Manager of Transportation Planning and NEPA Services for DLZ, Stephen G. Metzer is Manager of Planning and Ecological Services for DLZ, and Charles R. Owens is Transportation Planning Division Manager for DLZ Michigan. Contact Mr. Owens at (517) 393-6800 or rowens@dlz.com.

SIGNAGE - continued from page 6

techniques for sign production, bringing with them bolder colors, enhanced graphics, new three-dimensional forms, and animation. The newest technology also brings sound and audio to environmental graphics.

Although the materials, construction and design of signs have changed dramatically over the years, the purpose of signs remains the same--to communicate quickly and effectively.

Objectives of Signage

Well-designed signage and wayfinding strategies assist in facilitating the design, construction, and management of sites. Well-conceived signage should reflect and enhance the nature and essence of a site and achieve convenience and safety. Signs can also provide a means to reinforce the site values and long-range goals.

At a primary level, indoor and outdoor signage should:

• Communicate effectively and concisely
• Create an appropriate graphic image and identity that is timeless and adaptable
• Provide a sense of place in an ever-changing environment
• Be attractive, durable and functional
• Create a welcoming environment in which people move in an orderly, logical, and safe manner throughout your site
• Assist in developing circulation patterns that improve the visitor’s ability to navigate and move comfortably within interior and exterior spaces
• Be attractive, durable and functional
• Provide a means of integration with the development of consistent design standards for site and landscape elements
• Achieve convenience and safety
• Create a new dimension of experience for the visitor
• Complement other elements in the landscape in an elegant and timeless way.

About the Author: Brian Burton is a Member of the Standing Committee for Technical Evaluations for the Canadian Construction Materials Commission and is a regular contributor to many leading landscaping and engineering publications. To contact Brian, E-mail him at: bburton@landscapeforum.ca or visit www.bba.on.ca.

Pardon Us In the Summer 2002 edition of this newsletter, we incorrectly listed Bill Siembieda as faculty advisor to Suzanne Drolet’s award-winning student paper, also printed in that issue. Suzanne’s advisor for the paper was actually Dr. Richard Lee, AICP, of the Department of City and Regional Planning at Cal Poly, San Luis Obispo. Our apologies to Dr. Lee.
You should have received information recently regarding the new slate of candidates for TPD officers. This year, we will be using electronic ballots. If you haven’t done so already, please go to www.apa-tpd.org/vote/election.htm and cast your ballot for the candidates of your choice. The roster of candidates appears to the left. Votes must be cast by December 9th. The new slate of officers will be announced in January at TRB and inaugurated at APA’s spring conference in Denver.

permanent terminal facilities. If the initial route selection proves inappropriate it can be easily altered. Clearly, this is something that is not possible with new roads or rail systems.

Improving Accessibility
What many planners are realizing is that the answer to traffic issues is not a volume or capacity issue, but an accessibility issue. Often the difficulty in accessing services and activities in large metropolitan areas rests with vehicle parking issues near the activity. Water transportation affords an additional opportunity to move the parking and intermodal connections to locations nearer the passenger point of origin and deliver passengers, literally, to the doorstep of their ultimate destination. One of the most successful examples is China Basin on the San Francisco waterfront. Baseball fans funnel in via ferries from all around the bay and are disembarked not 50 yards from the doorstep of Giants Stadium. Chicago, Boston, San Francisco, New York, Cleveland, and others all have specialty activity sites located on or near the waterfront with thousands of visitors funneling in from surrounding suburbs.

Transportation Demand Management
In most cases, the other name for this is van pooling. Commuters generally leave their own vehicles in a park and ride (and are lucky if it is near their home), jump in a van and drive to another parking spot near their work site.

Transit Oriented Developments and Intermodal Connectivity
Mostly popular with rail or bus transit systems we are now seeing some transit operations playing instrumental roles in advancing the development of adjacent communities. The newest terminals have made places for activities such as retail shops, coffee kiosks, and even childcare centers. Passengers can arrive on foot, by car, or bus and seamlessly connect with their waterborne mode of transportation. They may simply grab a cup of coffee on the run or they may have dropped their clothes off at the cleaners to pick up on their way home.

On Planning the Future
Transportation planners in major metropolitan areas today have virtually no hope of alleviating congestion on their local highways. New roads, bus lines and light rail systems can barely serve to relieve the growth of congestion. It becomes imperative that transportation plans be developed in the context of a regional transportation system. Many of the same rules apply, and the waterborne transit system provides a new dimension to transportation planning.

Ralph Duncan is Vice President of Water Transportation Planning at Art Anderson Associates, a 45 year old firm that specializes in waterborne transportation planning and system design. Contact him at (360) 479-5600 or rduncan@artanderson.com.

CHAIR - continued from page 1

We are working to finalize the program and confirm several prominent speakers who are leading experts in airport planning and land use issues.

This TPD workshop – to be held the Saturday the conference begins – will follow the example set by Don Steiger and Linda Howe, who organized the Division’s successful first workshop in Seattle at the 1998 APA Conference. This time, the event will be organized in cooperation with APA, which has reserved sufficient space for us at the conference venue, and will advertise and handle APA member registration for the workshop. This level of assistance from National APA should enable the Division to focus its resources and energy on making the workshop valuable, productive and enjoyable for those who attend. We would greatly appreciate help from members who can assist with the workshop, and from agencies and firms that will sponsor the program. Please contact Larry Fabian or me for details (see officer contact information on page 2).

The Airports Focus Group (AFG), led by Mike Callahan, is also participating in a forum with the Federal Aviation Administration on airport planning issues this December. The forum is to discuss follow-up actions for FAA’s initiative on airports and land use compatibility. For more information, go to [http://www.aee.faa.gov/Noise/LUPItoolKit.htm](http://www.aee.faa.gov/Noise/LUPItoolKit.htm). The AFG is working on development of a mission (purpose and need?) statement for its activities in 2003. Please get in touch with Mike Callahan (703/572-1250) or me if you would like to be involved.

Additionally, TPD members Doug Noble and Uri Avin have volunteered to represent the Division in recent federal transportation meetings. TPD has been invited to participate in the first of perhaps several forums related to President Bush’s executive order regarding the streamlining of environmental review of important transportation infrastructure projects. Doug agreed to accompany APA staff for the environmental streamlining meeting with USDOT; and, earlier this summer, Uri Avin represented the Division and APA in a meeting organized by FHWA for an assessment of its Metropolitan Capacity Building program.

Finally, I had the privilege of representing APA as a faculty advisor in a National Governors Association Policy Academy on Integrating Land Use and Transportation. The Policy Academy is intended to assist the six state teams (Illinois, Missouri, Pennsylvania, Tennessee, Utah and New Hampshire) with development of a vision, specific actions and process changes needed to promote smart growth principles within their respective states. Deanna Glosser, chair of APA’s Environmental Energy & Natural Resources Division, served on the Illinois team. The first two-day meeting occurred in July, and the follow-up meeting is being held this November.

One of my main observations after the first meeting is that states need help to improve the planning and programming process and tools, along with guidance on techniques and strategies for smart growth. Effective leadership and functional responsibilities are key issues for making smart growth a reality, but new tools are especially needed to evaluate alternative land use and transportation strategies, and to effectively convey options to the public and elected officials. Best practices, available models and measures of effectiveness are areas in which state officials expressed a keen interest. The states indicated a need for additional skills and expansion of professional capacity in GIS, travel modeling, multi-modal transportation project evaluation, land use scenario-testing, public involvement/consensus building, and indicators monitoring. The meeting underscored that the TPD and APA can have a strong role in providing that guidance to states and other levels of government and private sector. For more information, visit the National Governors Association at [http://www.nga.org/](http://www.nga.org/) and look for the Policy Academy on Integrating Land Use and Transportation.

We will continue our student paper competition in 2003 under the direction of Ruth Steiner, associate professor in urban and regional planning at the University of Florida. Volunteers are needed to serve on Ruth’s review committee. Beginning in January, reviewers will be needed to read the papers submitted by planning graduate students so awards can be given at the APA National Conference in late March. Please let me know if you’re interested in this committee, or if you have any ideas and feedback on the Division’s efforts.

Thanks, and please stay in touch.

Whit Blanton, AICP