



The 'Sock Puppet' and other Lessons Learned in Grand Junction, CO

How to involve, inform and educate the public and elected officials when building roundabouts

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Topic: Public Involvement and Outreach When Building Roundabouts

The Sock Puppet and Other Lessons Learned in Grand Junction, Colorado

By the time Sock Puppet came to town, Grand Junction was celebrating the grand opening of its third roundabout. Sock Puppet made a short debut to assist in the education of motorists who had not already mastered the art of navigating a single-lane roundabout. The public seems to be about equally divided in their emotions toward roundabouts – they either love them or hate them and neither side is shy about sharing their opinion.



Grand Junction's approach to public participation in the consideration of roundabouts is founded upon the principles taught by Hans and Annemarie Bleiker in their "Systematic Development of Informed Consent" (SDIC) and uses a variety of tools for getting the message out to affected interests.¹

This paper outlines the development of informed consent and the public participation process as it has been applied to the design and construction of roundabouts, and describes the hits, the misses and the lessons learned on our circuitous journey.

The SDIC Approach

Based on the understanding that politics is how we, as a community, make community decisions, the development of informed consent begins with identifying the roots of conflict. People generally will oppose a project where their perception is different from yours or your project is in conflicts with their values. Consent-building is defined as the grudging willingness of an opponent to go along with your project. One of the first steps to take in the process is identifying anyone who may have an interest or feel affected by your project. A brainstorming session to identify each "potentially affected interest" and their concerns is held prior to the start of major projects. The Grand Junction Public Works Department does this as an integral part of their planning process.

The Bleikers have four "laws" in the art of consent-building. The first premise is that there is a problem that must be solved. As a public agency, we must not only define the problem but articulate what will happen if we do not solve the problem. We must argue convincingly that failure to solve the problem will reduce someone's quality of life below what it is or what it could be. For Grand Junction's roundabouts, we defined our problem as addressing safety and capacity concerns for intersection users, as well as an enhancement to one of the city's gateways. Our first roundabout was designed for an intersection where roads intersected at an acute angle. Traffic volumes continue to grow and the existing four-way stop was inadequate for the demands. Safety problems at the intersection were well-documented by accident reports as well as public perception that

¹ For more information visit www.ipmp.com

there was a problem that needed to be solved. Opinions on the solution, of course, differed. The intersection was part of a larger capital project to improve a street from a rural, two-lane cross-section to a more urban cross-section with curb, gutter, sidewalks, medians and turn lanes.

The second “law” is that we, as the public agency, have a duty to solve the problem. Based on our mission to design, build and maintain streets for our residents, we have to design an intersection that is safe, efficient, improves the quality of life for our citizens, and is the best solution for the problem. Given our mission as a public agency, it would be irresponsible of us not to address this problem.

The third “law” is that the analysis and decision-making processes are appropriate, adequate and fair and that the appropriate constraints and limitations are considered. People need to know that the full range of alternatives was considered and that the technical analyses have been done correctly.

Finally, the fourth “law” requires us to evaluate the impacts of our project from the point of view of the potentially affected interests, to sincerely demonstrate that we do care and we are listening to people who are affected or have an opinion.

Following these principles has led us to implement several successful roundabout projects. However, we have also stumbled and had some unsuccessful ventures.

The Hits – Successful Roundabouts

12th and Horizon

The idea for a roundabout germinated with the successful implementation of a traffic-calming street project. Fueled by the success of one project, the city engineering team evaluated alternatives for the control of a skewed intersection that had been operating as a four-way stop for a number of years. The community expected that when the street and the intersection were improved, a traffic signal would be installed. In 1997, three different control types were evaluated – the four-way stop, a signalized intersection and a single-lane roundabout. Based on the calculated delay and intersection level of service, a roundabout appeared to be a reasonable choice. The intersection was part of a larger street improvement project which envisioned the project as enhancing the City gateway, improving the intersection safety and efficiency, utilizing existing right-of-way and improving pedestrian and bicycle facilities.

Public Involvement

Since this was the first roundabout that had been considered for construction in Grand Junction, the public works staff involved the City’s Public



Information Coordinator on this project. After checking with other cities that had constructed roundabouts, we learned that educating the public was crucial in getting the public to accept this new concept. Residents were quite skeptical, and the local papers were filled with letters to the editor either praising or dunning the idea. The City's message was simple—roundabouts can save lives and have a much lower incidence of accidents.

The City brought in Michael Wallwork, a roundabout expert, to confirm staff's analyses and to assist in educating the public, the city council and other staff. During a two-day visit, Mr. Wallwork made presentations on roundabouts at a public information meeting, to the city council and to invited staff of the city, county and state as well as local engineering consultants. His presentation to council was videotaped and re-broadcast on the public information television station. He also conducted field visits and made recommendations.

City staff prepared a computer-enhanced photo of what the intersection would look like with a roundabout. The photo was used in press releases, the city newsletter and a large format photo was displayed in the lobby of City Hall. This helped citizens see what the intersection would look like with a roundabout. A photo of the existing intersection was also displayed for comparison. Press releases, direct mail to the immediate neighborhoods, posting of signs at the intersection alerting drivers to the public meeting, advertisements in the local newspapers, a neighborhood meeting, and articles in the city newsletter were all part of the public involvement strategy.

City Council received several presentations on the project and the proposed roundabout as well as being kept up-to-date on the public input before they were ever asked to make a decision on the construction of the roundabout. This approach served to increase the Councils' level of comfort and knowledge about the project.

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THE DAILY SENTINEL

GRAND JUNCTION, COLORADO ■ APRIL 6, 1998

Roundabout town

Unique design to alleviate traffic woes

By CHRIS BARKER
The Daily Sentinel

A street reconstruction project this summer aims to improve safety and efficiency at a critical link between downtown Grand Junction and Horizon Drive. And it comes with a twist.

"We all know that anything new always meets with some opposition, but as my opinion we ought to try it," said Mike Sathelstad, a Grand Junction city commissioner. He's talking about a traffic-control device called a roundabout, which will be installed at North 12th Street and Horizon Drive as part of a \$800,000 reconstruction project set to begin this summer. The project, which will reconstruct 12th street from Horizon to Benita Avenue, will start in June or July and be completed in the fall.

The Grand Junction City Council last week unanimously approved the installation of the roundabout, which is a method for slowing traffic down and reducing accidents, officials said.

Roundabouts direct traffic into a one-way circle and funnel cars out through right-turn exits. Motorists simply yield on entering the roundabout and then they have the right of way and can turn right at any street.

In addition to the roundabout, side walks, bike lanes and a middle turn lane between by medians in spots are planned for the area, said project manager Kent Harbert. Right-turn lanes to handle traffic from high-use driveways at the Airiana senior housing project, Lakeside apartments and at the intersection of 12th and P Street will also be built.

"There will be times when it will need to be closed, but generally it will remain open," Harbert said of a stretch of 12th Street that sees 10,000 vehicles per day. "It may bother people to avoid it at times." Detours during times when 12th is closed will likely be to 27th Road and North Seventh Street, Harbert said.

Mark Ralph, the city's director of public works, said statistics show that the roundabout will decrease the average traffic delay at the intersection from nine seconds to three seconds.

In addition, the device typically dramatically reduces accidents when they replace four-way stop or signalized intersections, Ralph said.

The city undertakes a massive public-relations campaign to educate neighbors and other city residents about the roundabout.

SPECIAL TO THE SENTINEL
A COMPUTER-ENHANCED IMAGE, ABOVE, shows the intersection at 12th Street and Horizon Drive after installation of the roundabout. At right, the current four-way stop setup.





Once the City Council decided to proceed with a roundabout, staff began an aggressive educational campaign to help users of the roundabout understand how it works. Several meetings were held with senior groups to explain how to drive a roundabout.

A brochure with “Tips for Driving Our New Roundabout” was developed and sent out in utility bills and a public service announcement ran on the local television stations. Roundabouts continued to be a hot topic in letters to the local newspaper and editorial cartoons.



The most important thing to remember in a roundabout is to **SLOW DOWN**. If everyone takes it slow and easy, traffic moves through safely and efficiently. After driving it a few times, you'll wonder what all the fuss was about.



• **SLOW DOWN** upon entry. Speeds of 15 mph or less are adequate.



• **YIELD** to your left before you enter the Roundabout. Be prepared to stop if a car is approaching.



• **ENTER** the roundabout. Once inside, do not stop. You have the right-of-way.



• **LOOK** for your destination sign.



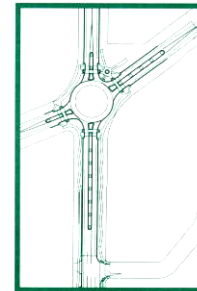
• **EXIT** the Roundabout toward your destination. Use your turn signal.



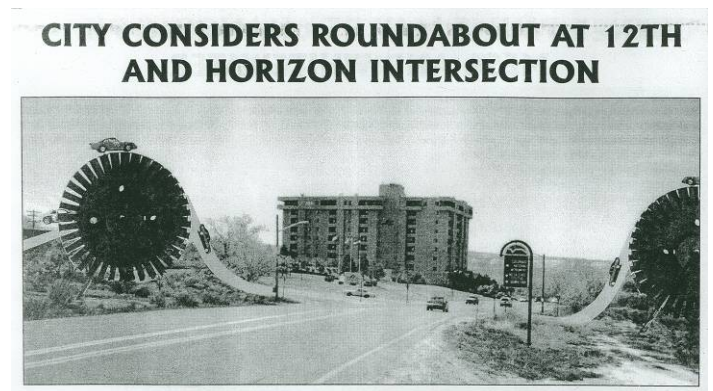
• **MISS YOUR EXIT?** No problem. Just go roundabout one more time.



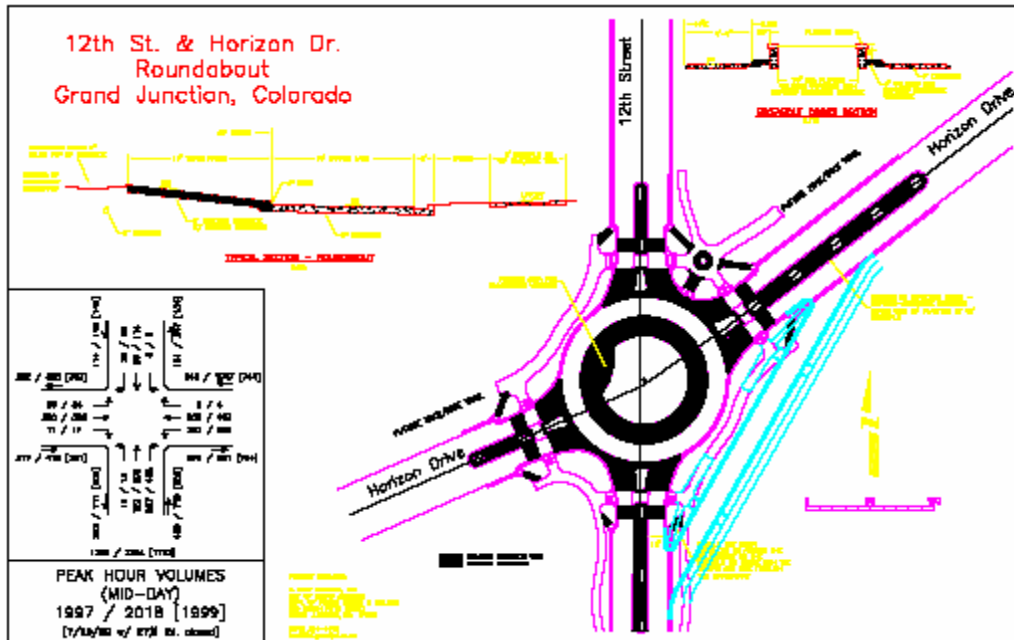
• **ON A BICYCLE?** Use the same vehicular movements, or dismount and use the sidewalks and crosswalks.



For more information, please call the Department of Public Works at 970-244-1554



A wonderful spoof even appeared in the local tongue-in-cheek “Barbed Wire” newspaper depicting the roundabout as a giant ferris wheel shooting cars through the intersection.



The roundabout was completed and opened to the public in December, 1998. A local TV station invited a trucker who arrived driving a 70 foot double trailer. His deliberately cautious maneuvering of the roundabout unfortunately created the impression that it was difficult for trucks to get through, a misperception that took a long time to dispel. The lively exchange of articles and letters to the editor advocating both for and against roundabouts continued. One year after the opening, the local newspaper had a front page article touting the safety benefits of the roundabout and an editorial praising the city.

Two Rivers Convention Center

When the City-owned convention center in downtown was scheduled for a facelift, a roundabout was proposed as an entrance feature to the center. The more controversial issue was not the roundabout, but the closure of two streets that intersected where the roundabout was constructed. The parking for the center was inadequate and had been bisected by the two streets. Closure of the streets allowed for better parking and for a pedestrian plaza that adjoined a newly constructed hotel. However, business owners to the east were concerned



that the street closure would adversely affect their business.

The project manager and members of the Downtown Development Authority went door-to-door to visit with the affected businesses. Armed with data from our first roundabout experience for safety, efficiency and landscaping effects as well as the local traffic data, they were able to convince business owners to grudgingly go along with the project. Today, the entry to the Two Rivers Convention Center is enhanced by the roundabout at the front door.

Sam's Club Parking Lot

Development of more than 600,000 square feet of retail space across the highway from an existing Sam's Club spurred the need for improvements to a problem intersection. The Sam's Club had developed more than a decade ago without addressing the closely spaced frontage road between the development and the highway. A number of intersection controls had been tried and changed over the years. A signal was installed with the development; it was removed a year later because it caused more problems on the highway than it solved. Several different stop sign controls were implemented; the latest was a three-way stop at a four-way intersection where inbound traffic to Sam's did not stop. The development of a Walmart, Lowe's and other retail site across the highway were certain to exacerbate the existing intersection as a significant amount of traffic was

projected to enter and exit from Sam's Club.



The developer brought in his consultants, a consultant for the Sam's Club and a representative from the Golden Corral Restaurant located within the Sam's shopping center to work with city staff to find a solution that would allow the intersection to work. The group looked at more than 20 different proposals before reluctantly agreeing that

the street network had to be moved north into the parking lot and that a roundabout was the least intrusive intersection control.

An adjacent property owner to Sam's appealed the site plan approval for the shopping center because he did not like the roundabout solution. A local engineering consultant who is a tenant in the property located next to Sam's Club had his landlord contract with a traffic consultant to study the proposed roundabout. In front of planning commission,

the local consultant presented the results of his traffic consultant's study and accused the City of having less than the best and brightest minds work on the project. His traffic report contained some erroneous assumptions about surrounding land use that made the roundabout operations in the future look substantially worse. The original developer jumped on the bandwagon at Planning Commission, complaining that the City had forced him to design the roundabout when he felt he shouldn't be burdened with the responsibility. After considerable testimony from all sides, the Planning Commissioners decided to stay with the plan as presented. All of them had driven the intersection and agreed that it needed to be fixed before additional traffic was introduced.

Because it was not a City-constructed project, the public involvement and information was not as extensive as it would have been. The property and business owners in the immediate vicinity had been involved as the project developed, but the general public was not informed until construction began, other than through the public hearings at Planning Commission and City Council. This particular roundabout was the subject of numerous letters to the editor and submissions to the "You Said It" column in the local paper, where anonymous email comments are printed each week. A local band wrote a song about the "You Said It" column and had an entire verse dedicated to the Sam's Club roundabout. After numerous inquiries, the City posted a web page with an explanation of why the roundabout was chosen for that particular location, who was building it and paying for it, and how it made the signalized intersection at the highway function better. With the roundabout and the other improvements in place, there is now more than 300' of storage for the southbound traffic at the signal where previously there had been less than 80'. The access to the Golden Corral Restaurant and the pedestrian accessibility of the leased parking spaces for the restaurant were both dramatically improved by the roundabout.

25 Road and G Road

Sock Puppet came to the grand opening of this roundabout. The intersection of rural two collector roads was being impacted by development in the area. The existing four-way stop had been analyzed by several developers' consultants and several had recommended adding turn lanes to the intersection. The City's Capital Improvement Program had an improvement project scheduled for the intersection.

The City's project engineer evaluated the alternatives for the intersection improvement. There is a major drainage channel that crosses 25 Road just south of the intersection. Preliminary estimates showed a savings of about \$150,000 in pipe costs to construct a roundabout rather than turn lane improvements. A roundabout also fit better in the available right-of-way.



Adjacent property owners were contacted individually to discuss the project and a public open house was held for area residents to view the options for improvement. Opinions at the open house were split fairly evenly over the roundabout. Neighbors adjacent to the intersection expressed preference for a roundabout because of noise issues with the four-way stop. They felt the roundabout would be a quieter alternative. The residents of the northwest corner had landscaped the road right-of-way. The roundabout alternative not only preserved the landscaping, but the project was able to provide water for the landscaping.

Four years had passed since the first roundabout was built in Grand Junction. The city had fallen into two camps—those that loved roundabouts, and those that hated them. The two camps also seemed split along age lines—older drivers still seemed confused by the roundabouts, and younger drivers couldn't understand what the fuss was all about. Just prior to the opening of the 25 Road roundabout, a local newspaper reporter created an article, complete with pictures, by Sock Puppet—"educator and expert." The article explained, in a tongue-in-cheek manner, how to drive a roundabout. The article generated several anonymous "You Said It" comments where people were alternately insulted or amused. Strangely enough, after the Sock Puppet article the issue finally began to die down.



24 1/2 Road and G Road
Half a mile down the road from the previous roundabout, this two-way stop intersection has had a number of accidents, including one fatality and several injury accidents. Staff successfully applied for Federal Hazard Elimination funds and the new roundabout is under construction (or will be shortly). A new large church and the City's largest park lie to the north

of the intersection and traffic delays on Sundays can be a problem at the two-way stop sign.

24 Road and I70 Interchange

Although this is a CDOT project, the City is participating financially and contributing to extensive landscaping for this gateway to the city. CDOT had originally anticipated replacement of the signals at the north ramp and the addition of signals to the south ramp for this rural diamond interchange. Faced with significant costs for replacement of the existing bridge to widen it to five lanes, CDOT traffic engineers took a close look at the

projected operational analysis. They determined that roundabouts rather than signals could save the project significant costs by reducing the width of the bridge over the interstate as well as improve intersection operations. Roundabouts were selected as the preferred alternative and the interchange will be under construction spring/summer 2005.

The Misses – Intersections that Might Have Been Roundabouts

Once we had a successful roundabout in operation, consideration of a roundabout as a legitimate form of intersection control increasingly became an idea that was often proposed by citizens as well as staff. Roundabouts were not, however, universally accepted as the answer.

G Road and Horizon Drive

An adjacent street improvement project that was under construction the summer following the installation of Grand Junction's first roundabout also called for improving an intersection located one-half mile from the roundabout. Because the planning for the project was concurrent with the 12th Street project, a roundabout had not been initially considered. A realignment of G Road was designed as part of the intersection improvement with Horizon Drive to eliminate the skew angle. The intersection was and still is controlled by a traffic signal.



Just before the project was awarded, the City Manager asked staff to consider the intersection for a roundabout. The analysis was done in a matter of days; there was no public input sought prior to a discussion at a City Council meeting. The main street to the north is a five-lane cross-section that narrows south of the intersection to the three-lane section that was under construction.

The intersecting roadway being constructed was two lanes in each direction with turn lanes at the intersection, (this is tough to understand—needs a map) so consideration of a roundabout was complicated by varying numbers of lanes in each direction. The existing intersection had been controlled by a signal for a number of years and operated at a high level of service with few problems or complaints.



24 Road and F Road

The 24 Road corridor was in the midst of a planning process to decide on land uses in the area when development plans for several large parcels began pouring into the Community Development office. Both streets were designated as principal arterials on the adopted circulation plan. The 24 Road Corridor plan guidelines call for the road to be an entry into the city, with landscaped medians and limited access. Traffic studies for the intersection of the two arterial streets, 24 Road and F Road, indicated that future traffic volumes would cause congestion. A major drainage channel runs parallel to the east side of 24 Road. Widening the northbound side of the intersection for a right turn lane will require considerable investment to construct a culvert. The projected traffic volumes show that a right turn lane is required in addition to two through lanes.



Several City staff members and a planning commissioner thought a multi-lane roundabout should be considered to handle future traffic volumes. Staff analysis showed that a two-lane roundabout could decrease delays and shorten queues based on the projected future traffic. The planning commissioner drew up his own drawing with a roundabout at this intersection and another roundabout where a proposed signal was located 1/8 mile east for the commercial

development. Considerable debate ensued among city staff not only about considering a roundabout, but also whether the developer should be required to construct it, or dedicate right-of-way for a future roundabout, or if one should even be considered. Eventually, the immediate development plans were approved with a future signal 1/8 mile east. To date, the new signal has not been constructed nor has the existing signal been modified.

5th Street (Highway 50) and Riverside Parkway Interchange

Part of the technical analysis for the interchange included looking at all reasonable alternatives. At two open houses, the public was asked for feedback on interchange designs and on intersection controls at the interchange. The vote was evenly split between roundabouts and signalized



intersections. The project team did not believe the vote was a mandate for roundabouts and has designed signals for the control. The analysis indicated that the signalized intersections would operate well in the future.

Lessons Learned

In Grand Junction, we regularly hold public meetings when planning major street improvement projects. In cases where we did this far in advance, the roundabouts were built. For those intersections where we did not start discussing roundabouts early in the planning stages, public and City Council acceptance was not as high and traffic signals were installed instead.

Elected officials appreciate having the opportunity to watch both the technical analysis and the public consent-building develop before they have to make a decision. Following the SDIC “laws” and keeping the elected officials apprised of progress as the roundabout projects developed were key in our successful projects. Treating affected property owners fairly, listening and addressing when possible their concerns goes a long toward building consent for roundabout projects.

We used as many tools as we have in our communications arsenal to educate the public, including public open houses, brochures, articles in our City newsletter, press releases, information on the City’s web site, PDF files on the web of our roundabout brochure, televising public meetings about the roundabout, Public Service Announcements, presentations to senior groups, advertisements in the newspaper, and discussions with reporters.

One interesting lesson learned was that people behave very poorly at public meetings if they cannot hear what is going on. Our first public meeting with Michael Wallwork was scheduled in a church basement with hard surfaces and no sound system. When the crowd became unruly because they could not hear, we made a quick call to the pastor to ask if we could meet in the larger sanctuary. The crowd filed into the quiet sanctuary, we used their sound system from the pulpit, and the entire tone of the meeting changed. People were respectful and listened politely. Whether that was due to the improved sound in the room or the presence of a higher power is up for debate, but it was very effective.

Patience is very crucial throughout this process. People are skeptical and some are actually fearful of driving a roundabout. Give them clear instructions and don’t forget to address what to do if emergency vehicles are behind them. Some drivers have come to a complete stop in the roundabout in a panic, not knowing what to do. Instruct them to exit the roundabout before pulling over to the side of the road.

For communities that are considering a roundabout for the first time, public education is crucial to gain public acceptance. The best way to gain the public trust is to emphasize the added safety of roundabouts. Eliminating the T-bone accidents and fatalities that result with running red lights is a significant issue in most communities. Eventually the

public recognizes that these are safer intersections. After several years when the landscaping begins to mature, they also realize the aesthetic value of roundabouts. In the meantime, it helps to develop thick skin and a sense of humor, while continuing to emphasize the safety of roundabouts.

In fact, our Public Works Director has been the subject of continuing ribbing, particularly during his year as president of the local Kiwanis Club. Nicknamed “President Roundabout” throughout the year, he also endured roundabout jokes, presents of calendars showing roundabouts, and a joke that his next job would be as greeter at the new Walmart that was built near the roundabout. He managed to endure it all with a smile.

Regardless of the trials and tribulations of tackling a roundabout project, the added safety of these intersections and the aesthetic value they add in your community make them very worthwhile projects. Just remember to keep a stiff upper lip and keep on smiling.