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
Roundabouts: Love’ em or hate ‘em

Politics – how we as a community make community decisions

- Identify the roots of conflict
- People oppose a project if their perception is different from yours or in conflict with their values
- Consent-building – the grudging willingness of an opponent to go along with your project
SDIC--Systematic Development of Informed Consent

- Hans and Annamarie Bleiker
- Institute for Participatory Management and Planning
- [www.consentbuilding.com](http://www.consentbuilding.com)
The Art of Consent-Building: Bleikers’ Four Laws

1. There is a serious problem that must be solved.
   - Articulate the null alternative
   - Failure to solve the problem will reduce quality of life
   - We address safety and capacity concerns for intersection users, enhancement to city’s gateways
2. We as the public agency have a duty to solve the problem.
   - Based on our mission to design, build, maintain streets
   - Design an intersection that is safe, efficient, improves quality of life for citizens
   - Best solution for the problem. We would be irresponsible not to address it.
The Art of Consent-Building: Bleikers’ Four Laws

3. The analysis and decision-making processes are appropriate, adequate and fair.
   - Technical analyses must be done correctly
   - Full range of alternatives must be considered
   - Do assumptions make sense?

**Technical Problem Solving**
- What type of Intersection Control?
- Capacity, # Lanes
- Other Design Issues

**Decision-Making**
- Choices
- Values
The Art of Consent-Building:
Bleikers’ Four Laws

4. We must evaluate the impacts from others’ point of view – we do care, we are listening.
   - Identify potentially affected interests
   - Ask for understanding, patience
   - Identify issues, ask if there are any that have not been thought of
   - Must be both responsive and responsible
The Hits: Successful Roundabouts
12th Street and Horizon Dr.
Roundabout town

Unique design to alleviate traffic woes

By CHRIS BAKER
The Daily Sentinel

A street reconstruction project this summer aims to improve safety and efficiency at a critical link between downtown Grand Junction and Western Drive.

And Forever will it rear.

"We all knew that anything new always meets with some opposition, but in my opinion we ought to do it," said Bill Schade, an engineer in Grand Junction. It's unknown what a traffic control device called a roundabout, which will be installed at North 15th Street and Horizon Drive as part of a $2.5 million reconstruction project set to begin this summer. The project, which will reconstruct 15th Street from Horizon to Telegraph 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 alleviating traffic flow and reducing accidents, officials said.

Roundabouts move traffic as a one-way circle and allow cars to turnover without waiting for the crosswalk to end, and then they have the right of way and can turn right or left at any street.

In addition, the roundabout, with its low center, blue lines, and a middle turn lane, can be built by medium in spots are added for the area, said project manager Scott McAffert. Right turns from Horizon Drive at the American visitor-landing project, Lakewood and Teasdale at the intersection of 15th and Fox, will also be included.

"There will be times when it will need to be closed, but generally it will remain open," McAffert said of a stretch at 12th Street that sees 7,000 vehicles per day. "It may have people avoid it sometimes." Detours during times when 12th is closed will likely be to 15th, Road and North 7th West streets. McAffert said.

With the installation of the roundabout, the city's director of transportation and administration said that the reconstruction will decrease the average traffic delay at the intersections from five seconds to three seconds.

In addition, the devices typically dramatically reduce accidents when they replace four-way stops with all directions travelling.
City Considers Roundabout at 12th and Horizon Intersection

The Public Works Department will reconstruct 12th Street from Bonita Avenue north to Horizon Drive this summer and is considering a roundabout to replace the four-way stop at the intersection of 12th and Horizon. According to Mark Relph, Public Works Manager, “Traffic volume and accidents at that intersection have exceeded the capacity of a four-way stop. Typically, Public Works would replace this four-way stop with a traffic signal. In this case, we want to look for a safer alternative.”

The City is consulting with Michael Wallwork, Senior Transportation Engineer for the Genesis Group in Jacksonville, Florida. Wallwork has 25 years of experience in roundabouts, road design and traffic calming. He is currently working on the design and construction of roundabouts in eight states. He is originally from Australia, where over 13,000 roundabouts are currently in use.

According to Wallwork, “Roundabouts are the safest form of traffic control in the world. One needs to keep in mind they are not the high-speed traffic circles of old. Roundabouts are smaller, slower, safer and prettier than traffic circles of yesteryear. A roundabout slows the traffic down and makes it easier to see the intersection. They are cheaper to operate than a signalized intersection. One of the main reasons they are built across the country is fewer crashes.”

Wallwork adds, “Injury crashes at roundabouts are relatively few. Fatalities are almost unheard of. Drivers cannot drive 40 miles an hour through a red light and kill someone.”

Since the City is developing a pedestrian and bike trail system adjacent to Horizon Drive, safety is a primary concern. As part of the 12th Street project, the City will be constructing a trail system along Horizon Drive from 7th Street to the airport. Future phases of the “Horizon Trail” will connect this section with the Riverfront trail system.

The modern roundabout proposed for 12th and Horizon is not a traffic circle. Traffic circles, such as those back East or even the one in Fruita, are designed for higher speeds. A roundabout is designed for speeds of 25 mph or less, and these lower speeds result in fewer accidents than a signalized intersection. A Federal Highway Administration Research study shows roundabouts in the US have 90 to 95% fewer accidents than signalized intersections. Studies from other nations show roundabouts are safer for bicyclists and pedestrians, as well.

Roundabouts have been shown to move vehicles through an intersection more efficiently than traffic signals or other traffic control devices. As a result, the average delay for a motorist at the intersection is less than other forms of traffic control. Specifically, at 12th and Horizon the average delay has been calculated for a traffic signal at about nine seconds, a four-way stop at four seconds and a roundabout at three seconds.

Preliminary plans for 12th Street call for a three-lane road section with landscaped medians and left turn lanes. Utilities will be buried underground from Bonita Avenue north to Horizon Drive, with bicycle lanes and sidewalks added to the street. A roundabout at 12th and Horizon would also allow for landscaping and public art at this important gateway to the community.

The City will broadcast a videotaped presentation by Michael Wallwork so citizens can learn more about roundabouts. The 15-minute presentation will be broadcast on TCI cable on Monday, March 16, 9 AM and 7 PM; Friday, March 20, 9 AM and 7 PM.

Although fairly new to the United States, roundabouts are used worldwide to move traffic safely through intersections. They keep traffic moving, but their slower speeds make them safer for bicyclists and pedestrians. A Federal Highway Administration Research study shows roundabouts in the US have 90 to 95% fewer accidents than signalized intersections.
Utility Bill Stuffer

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.
TV spot
The “Barbed Wire” story

The Public Works Department of the City of Grand Junction will reconstruct 12th Street from Bonita Avenue north to Horizon Drive this summer and is considering a roundabout to replace the four-way stop at the intersection of 12th and Horizon.

According to Mark Relph, Public Works Manager, “Traffic volume and accidents at that intersection have exceeded the capacity of a four-way stop. Typically, Public Works would replace this four-way stop with a traffic signal. In this case, we want to look for a safer alternative.”

The City is consulting with Philip Malsmott, Senior Transportation Consultant for The Walt Disney Corporation in Florida. Malsmott has 25 years of experience in amusement park rides, stroking city officials, and a new road design called a roundabout. He is currently designing a new Magic Kingdom Wild Mountain Ride and a number of roundabouts in eight states. He is originally from Poland, where roundabouts were first conceived shortly after the invention of the thumbtack in 1977.

According to Malsmott, "Roundabouts are the most unique intersection. One needs to keep in mind they are not the slow moving traffic circles of old, but rather a near light speed jump into the future of transportation. Roundabouts are bigger and faster than traffic circles of yesteryear. A roundabout speeds the traffic up, and makes what would normally be just a quick stop at the intersection into an exciting adventure that you will remember for months. Although expensive to operate due to the maintenance on the equipment, a fee can be charged the curious onlookers who will come for miles in hopes of seeing a crash at the roundabout and Malmsmott explains, “Vehicle crashes, mundane in a normal intersection, can be so spectacular that they can actually be a tourist draw to the area around the roundabout. With nearness of the motel district on Horizon Drive and St. Mary’s Hospital just south of the intersection, I think the City of Grand Junction can capitalize on the roundabout and become a year round tourist destination.”

The roundabout uses an acceleration principle discovered in Poland only a few years ago. According to Malsmott, the Poles found out by chance that an object dropped from a high place accelerates as it falls. If this principle is applied to cars just before they pass through an intersection, the cars can be accelerated and forced through the intersection at an astounding high velocity.

Roundabouts have been shown to move vehicles through an intersection more quickly and efficiently than traffic signals or other traffic control devices. As a result, the average time in the intersection for a motorist is less than other forms of traffic control. Specifically, at 12th and Horizon the average time in the intersection has been calculated for a traffic signal at about four seconds, a four way stop sign at nine seconds, objects in one car have ended up in a different car on the other side of the intersection, leaving researchers to speculate that the molecules of the first car actually passed through the empty spaces between the molecules of the second car while they were both in the intersection.

"The only problem we’ve encountered," Malsmott added, "is that vehicles can’t change direction once they’ve entered the roundabout. It is not a large problem as the Horizon Drive and 12th Street intersection is surrounded on all sides by intersections that will allow turns. Vehicles desiring to turn can be directed to any of a number of other intersections, allowing vehicles to utilize the roundabout only if they desire to go straight through the intersection. This inconvenience will probably be alleviated in future roundabout designs. We had a number of problems in the early 70’s with the thumbtack until we designed a head on it. It’s just trial and error on most new inventions such as the roundabout, but I’m certain that the roundabout can be at least as successful as the thumbtack, and more exciting to use."
The City is consulting with Phillip Malsmort, Senior Transportation Consultant for The Walt Disney Corporation in Florida. Malsmort has 25 years of experience in amusement park rides, stroking city officials, and a new road design called a roundabout. He is currently designing a new Magic Kingdom Wild Mountain Ride and a number of roundabouts in eight states. He is originally from Poland, where roundabouts were first conceived shortly after the invention of the thumbtack in 1977.
The “Barbed Wire”

CITY CONSIDERS ROUNDBOUT AT 12TH AND HORIZON INTERSECTION
COMMENTARY

HOW LONG'S THE WAIT?

ROUNDABOUT AN HOUR

HOT ISN'T IT?

ROUNDABOUT A HUNDRED

HOW CAN I GET TO THE AIRPORT?

WAY WAY ROUNDABOUT THAT WAY

WHEN'LL THEY BE DONE?

ROUNDABOUT NEXT FALL

IS THIS REALLY GONNA HELP TRAFFIC FLOW?

IN A ROUNDABOUT WAY

12TH ST & HORIZON DR IMPROVEMENT

THE DAILY SENTINEL
Roundabout Grand Opening

- Public perceptions
- Creating the impression that trucks cannot negotiate a roundabout
The Hits:
Two Rivers Convention Center
The Hits:
Sam’s Club
Controversy continues

**Roundabout fever seems to have set in at City Hall**

**Author:** Gary Harmon, The Daily Sentinel

Bureaucracy has an accidental way of supplying the metaphors that can crystallize a moment. In the case of Grand Junction, the city and its bureaucracy have come through in stunning, if unintended, fashion. It is giving us roundabouts. Roundabouts at prominent intersections, roundabouts on back roads, downtown roundabouts and, in a greedy lunge toward the apex of the art, a roundabout in a parking lot.
The controversy continues

Rather than install roundabout, widen 12th Street and Horizon

Editor:
The April 6 edition of The Daily Sentinel made front-page news of the proposed (cut and dried?) traffic circle for 12th and Horizon. When the First Street “improvement” ended up with speed bumps, we hoped the city would clean house on civic engineers and hire a 5-year-old and his Erector set as professional improvement.

We have a traffic circle in Fruita. Take a couple hundred cars out there and see what happens. I've lived in two other cities with traffic circles and they are universally hated — second only to the idiots who built them.

Here's one idea: Widen both streets to four lanes with yield turn-arounds and traffic lights with exactly the same go-stop timing in each direction. It seems to work pretty well elsewhere.

ROBERT E. MYERS
Clifton

European traveler finds roundabouts are effective

Editor:
I think the City Council is making a very smart move in regard to introducing roundabouts at heavily-traveled intersections. With the growing community, it should be taken into consideration when other road improvements are being planned. As one who has traveled extensively through Europe where the roundabout system has been in use for many years, it is an excellent means of keeping traffic moving. There are never any tie-ups with traffic and accidents are kept to a minimum.

Once installed, it will not take the driving public long to become acclimated to it. The main rule is that the car in the roundabout always has the right of way. Let us hope the community will be behind the council in this undertaking.

HENRY A. WHEELER
Grand Junction

Does city need roundabout because Vail, Avon have them?

Editor:
Regarding the proposed roundabout at 12th Street and Horizon Drive, it is another one of those “got to have one” things. After all, Vail and Avon have them. It will only cost $690,000, or at least a substantial part of the $690,000 to build.

I have been through that intersection on innumerable occasions from three different directions and can remember seeing one fender-bender there in 12 years. Surely there have been more than I haven't seen or read about. However, I don't believe it's a "killer" intersection. Mike Sutherland says "We ought to try it." Looks like we will in fact try it.

It has already been determined that it will be closed at times and people will be "bewitched" to avoid it at times, but what the heck, it's only $690,000. Wouldn't it an overview in one or the other direction do just as well?

THEO R. CLIFF
city planner

Traffic roundabouts are usually frustrating, confusing, dangerous

Editor:
I am appalled at our city's idea of creating a roundabout at the intersection of 12th Street and Horizon Drive. I want to know how much sensible consideration was given to this whimsical proposal. Characteristically, roundabouts are frustrating, confusing, dangerous and wasteful. Ask the Europeans who've had to fight their way through one.

The city tells us that the construction of a roundabout would be less expensive than installing a traffic signal. I would like to see the facts supporting that rationale. First, the purchase price of the surrounding land required to build an adequately sized roundabout is excessive, as it is a prime development area. Secondly, the costs for design, soil studies, earth work, paving and contractors do not justify the frivolous expenditure of taxpayer money.

Power at the intersection currently exists to install a timed traffic signal which would be more effective, less costly and much less dangerous. Consider this: Would you want to bicycle through a roundabout among lost tourists, or allow your child to?

If the city of Grand Junction has a surplus of tax money, couldn't it be better spent on paving alleys (which adjacent property owners currently pay for), upgrading city streets and sidewalks, or building another connecting thoroughfare to Orchard Mesa? Grand Junction already has its fair share of traffic problems. Let's not add to it.

DAVID E. ZULIAN
Grand Junction

Tolerance should be accorded to 'neo-Druids' in Lilac Park fight

Editor:
In his column of April 5, George Orsborne generously allowed that no one involved in the Lilac Park debate "deserves to be cast in the role of the black hat." In the process of arriving at that marvelously tolerant position, however, Mr. Orsborne make it clear that anyone who might be on the “green” side of this or any other such debate is on the wrong side.

These “neo-Druids” are utterly lacking in the ability to engage in “dispassionate, deductive reasoning,” but rather they “raise all manner of noisy lamentations” in their best-efforted, uninformed attempts to preserve something historic, scenic or natural when there is a buck to be made by some “public spirit” fat cat on the “right” side of the issue — Ker and Barb Smith — in the debate. It goes without saying that no neo-Druid would ever devote time, energy or money to a worthy cause.

So, what color hats do neo-Druids wear?

GARY WHITLOCK
Metcro
More letters to the editor

**Roundabouts work efficiently only if properly constructed**

*Editor:*

I hope that before our city fathers build another roundabout in our city they do their homework a little better than they did for the first one. After having spent considerable time in British countries in the last four years, I am convinced the roundabout is one of the most efficient means of traffic control that exists, but only if it is built correctly. I recently spent three weeks on the island of Barbados, where not only do they drive on the left side of the road, but the major means of traffic control is the roundabout.

However, the roundabouts there are at least twice as large as the one on 12th Street and Horizon Drive. They are two lanes wide, even for a single-lane road or highway, and they are well-marked from each approach as to the options for each exit off the roundabout.

With these things in mind, I would definitely vote for the second roundabout and, while we are at it and since Horizon Drive is already closed, let's rebuild the first one to these standards. Then, and only then, will we have an entrance to our city we can be proud of and one which will offer worry-free driving.

*MYRON STANLEY*  
*Grand Junction*

**City can learn from first effort and build a better roundabout**

*Editor:*

Accolades are in order to Public Works Director Mark Ralph for having the foresight and courage to recommend a larger roundabout at the Horizon Drive and G Road intersection. Clearly, roundabouts speed up traffic flow. Vail’s reconstructed intersections utilizing two-lane roundabouts have solved longstanding traffic flow problems in that tourist area. Here in Grand Junction, a two-lane roundabout greeting tourists at Horizon and G Road would certainly symbolize a progressive attitude among Grand Junction residents.

Instead, City Councilman Reford Theobald cites concerns that a two-lane roundabout would increase traffic accidents. Additionally, he states that a larger roundabout at Horizon and G Road would remind us that the roundabout at 12th Street and Horizon was constructed in a limiting fashion. I think Theobald is underestimating the learning capacity of our citizens in their ability to function properly in a two-lane roundabout.

He is absolutely right when stating that a correctly constructed two-lane roundabout at Horizon and G Road would remind us of the limited mindset that went into the design and construction of the 12th Street and Horizon roundabout.

There is nothing wrong in my estimation when we as humans make mistakes, admit them and move forward by evolving our efforts to create win-win situations. The City Council’s approach feels quite the opposite. Their “foresight” feels restrictive, self-servicing and defensive.

*KENT A. TOMPKINS*  
*Grand Junction*

**City’s traffic priorities may lead to gridlock**

*Editor:*

Relatedly, someone realized the Horizon-G Road intersection was going to be a traffic-control nightmare. Was the newly proposed alternative to modify the current project and block the only current direct route into town off Interstate 70? Or was it proposed to finish what had been started and completely redo it sometime in the future? No waste there.

Roundabouts, properly designed, work well. There was criticism over the original roundabout for a variety of reasons. Mine was mainly the cost and the prioritization of the project relative to other needs. It’s obvious now it works, but the radius is too narrow, and the distance between intersections is too short. Very soon, it will be overwhelmed with increasing traffic.

With all of the above circumstances, how can we believe in the competencies of our elected and hired public servants, at least as it relates to traffic engineering, planning, prioritization of projects and communication with the public? What, exactly, is their vision regarding our road system and how does it correlate with that of the citizenry? Why are the very worst sources of traffic congestion in town not on any planned projects for the future? Will we ever have the money for needed projects if we keep spending it on poorly planned, nice-to-have, but what ought to be lower-priority considerations?

*JOHN BORGEN*  
*Grand Junction*
The Hits:
25 & G Road
The Sock Puppet

SOCK PUPPET explains driving in a roundabout

Photos by CHRISTOPHER TOMLINSON

Introducing Sock Puppet — educator and expert.

Sock Puppet recently joined The Daily Sentinel as a roundabout and educator. His important capacity, Sock Puppet will make occasional appearances on the pages of this newspaper to enlighten readers on various topics of interest.

Today, Sock Puppet will explain how to drive in a roundabout.

Sock Puppet has noticed that people still express concern about Grand Junction’s two roundabouts. With a third proposed for the intersection of 25th and Horizon Drive, and Colorado Avenue and Second Street, Sock Puppet says that driving through a roundabout can be fun and easy!

The first thing Sock Puppet wants to remind people is to drive responsibly — with a valid driver’s license, correct vehicle registration, auto insurance and proper lighting (in case of an accident).

When approaching the roundabout, slow down to 10-15 mph. Then look to the left to check for oncoming traffic. Drivers have the right-of-way once inside the roundabout. If no vehicles are coming, slowly enter the roundabout.

Remember: Drivers only have the option of driving to their right (counter-clockwise) in a roundabout. Therefore, it is not necessary to signal going into the roundabout. It drives Sock Puppet nuts, however, when drivers don’t signal exiting the roundabout. ALWAYS use your right turn signal to indicate your intention of leaving the roundabout.

Sock Puppet believes it is a matter of courtesy.

Sock Puppet hopes drivers will watch for bicyclists and pedestrians. He also wants to emphasize the importance of not stopping in the roundabout. If an emergency vehicle is coming, proceed out of the roundabout then pull over.

Otherwise, have fun! Sock Puppet thinks driving in western Colorado is a pleasure.

Do you have a question or something you would like explained? E-mail Sock Puppet at sockpuppet@jcsds.com.
The Hits:
24 ½ Road & G Road
The Misses: G Road & Horizon Drive

Before

After

National Roundabout Conference 2005
Misses: 24 Road & F Road
The Misses: Riverside Parkway Interchange
What goes around...

Comes around safely on roundabout

By ZACK BARNETT
The Daily Sentinel

Carl Coonce has pulled his tractor trailer through the roundabout at North 12th Street and Horizon Drive.

It’s too narrow, he said.

"I like roundabouts, though."

And so do Grand Junction police and traffic engineers.

There have been only three accidents reported since the much-maligned traffic circle opened in December 1998, according to city data. One of those three was a minor spin-out on snow and ice.

Compare that to the seven that occurred at the intersection in the four months preceding construction of the roundabout and the 24 from 1996 to 1998 and you get a resounding thumbs-up from police and engineers.

"It works well," said Sgt. Paul Frey, head of the Grand Junction Police Department’s traffic unit. "But people hate it because they don’t know what they hate most — slow down.

Last summer, when construction closed 27th Road a half mile east of 12th Street, the roundabout handled the additional traffic with no hassle.

"That was real telling," said city traffic engineer Jordy Klika.

Some aspects of the roundabout are still being evaluated. City transportation technician Greg Scott plans to videotape traffic there to look for ways to improve it.

The city is also taking input from truckers’ groups. School District 51 and the Grand Junction Fire Department And Coonce doesn’t have anything to worry about, Klika said.

"It’s made for trucks to go up on it," Klika said. "I’ve seen an 18 wheeler go through it with no problem. Of course, he was only going about 10 miles an hour."

Zack Barnett can be reached at 243-3671 or zbarnett@daily-sentinel.com

THE ROUNDABOUT AT 12TH STREET and Horizon Drive has had only three accidents reported since its opening in December 1998, according to city data.

Christopher Tomlinson/The Daily Sentinel
Laurel for the roundabout

A waste of money, people said. A boon to body shops because of all the fender-benders it would cause. The four-way stop signs in place before the roundabout worked just fine. The lanes are too narrow, the turning radius too tight.

But the roundabout at 12th and Horizon hasn’t lived up to the dour predictions of its cranky critics.

City traffic figures show there were only three accidents at the roundabout during its first year of use. Compare that with 24 at the intersection from 1996 through the first half of 1998, when construction began on the roundabout.

Additionally, the intersection is far more attractive than before, with its wide concrete aprons and planter in the middle. It is clearly a marked aesthetic improvement over the old four-way stop it replaced.

And it has handled traffic with few problems, even when additional traffic was added because of the temporary closure of 27½ Road.

In short, the roundabout works, safely and efficiently. City traffic officials deserve kudos for that.
Not having turn signals on his sleigh, Santa could not courteously exit the roundabout!
Lessons Learned

- Keep elected officials apprised throughout
- Listen
- Treat affected property owners fairly
- Use all the tools you need
- Patience
- Emphasize safety
- Value of Aesthetics
- Keep Smiling!
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