4. Blue Stake/ Setback

Blue Stake is a free service that will physically locate underground utilities within the project boundary. Before calling Blue Stake you should lay out your planting plan on the ground with white marking paint. This will help the utility locators know what areas will be impacted. Call Blue Stake at 1-800-782-5348. You will need to give them an accurate location and the depth that you will be digging (usually not more that 24" for landscaping). Utilities should be marked within 48 hours.

Underground Utilities Required Setback

Water lines	5 ft.
Natural gas lines	3 ft.
Electrical lines (underground)	3 ft.
Telephone lines	3 ft.
Cable TV	3 ft.
Electric poles, Phone vault, and Pullboxes	10 ft.
Sanitary sewer lines	10 ft.
Sanitary sewer manholes	15 ft.

Manholes: Both visual and physical vehicular access to sewer manholes must be maintained. No vegetation, boulders, or swales may be placed within 3' of the manhole. A 12'-wide maintenance access path from the street to the manhole must be clear of large objects. The mature tree canopy must not overhang the manhole. Pima County Wastewater Management will remove landscaping if access to the utility is blocked.

Sewer Lines: Where sewer lines are deeper than 5', the setback may be reduced to 5' with the use of non-deep rooted trees, which are approved by Pima County Wastewater Management.

5. Landscape Installation

Once the Blue Stake marking is complete, you should call Permits and Codes (520) 791-5100 for an on-site ***pre-construction*** meeting with the Engineering Landscape Architect. This meeting will help to insure that planting locations are acceptable to insure safety and to promote a long life for landscape in the traffic circle. Planting of the circle may follow immediately after written approval and completion of this meeting. Upon completion of the landscaping project, you should call Permits and Codes again for a final inspection and closeout of the permit.

TRAFFIC CIRCLES

Facts About Controlling Traffic in Our Neighborhoods

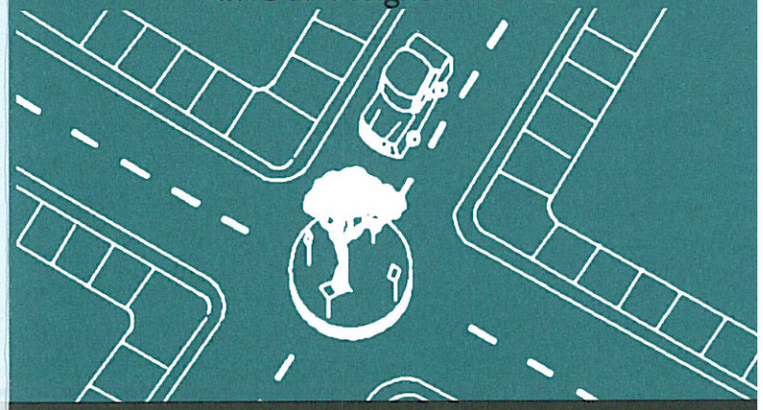
6. Maintenance Of Landscape

The neighborhood is fully responsible for maintenance of this landscape. This includes, but is not limited to, trash removal, weeding, pruning, plant replacement, and watering. Watering requirements will depend on the time of year, soil conditions, and the type of plants installed. The neighborhood should designate one or two individuals to perform maintenance, and develop a watering schedule. If the landscape of the traffic circle is not maintained in a safe and clean fashion, the City reserves the right to remove all landscaping. All maintenance requests will be deferred to the neighborhood representative. Maintenance questions can be referred to the City Engineering Landscape Architect at (520) 791-5100.

A community service of the
Tucson Department of Transportation

TRAFFIC CIRCLES

Facts About Controlling Traffic in Our Neighborhoods



City of Tucson
Department of Transportation
Traffic Engineering Division

What is the Purpose of a Traffic Circle?

The purpose of a traffic circle is to reduce the speed of vehicles on residential streets where speeding is occurring. They are not designed to change the volume of traffic on residential streets, and do not significantly reduce cut-through traffic.

How Effective Are Traffic Circles?

In The City of Tucson, traffic circles have been shown to be very effective in reducing the speed of vehicles traveling on residential streets. They can also be used for beautification on a residential street.

How Does a Citizen Have Traffic Circles Installed in Their Neighborhood?

The citizen or the neighborhood association contacts the Neighborhood Traffic Management Program (NTMP), City of Tucson Traffic Engineering Division at (520) 791-4259 for information. NTMP will mail information along with the petition forms for the neighborhood residents to sign. 60% of the area residents must approve the project and sign the petition before a study is performed. After a study is completed, a traffic circle could be a recommendation if speeding is a problem.

Who Pays for the Traffic Circle?

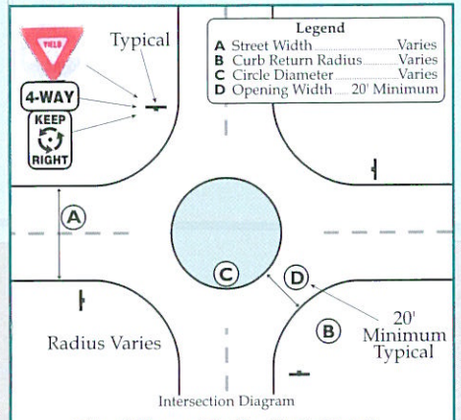
The installation of a traffic circle is paid for by the residents themselves. The residents can pay for the traffic circle either through contributions or through the Improvement District. (The Improvement District process can only be used on projects with five or more traffic circles.)

Disadvantages:

- A traffic circle may have limited impact on mid-block speeds.
- The cost for installation of a traffic circle is much higher than speed hump and speed table installation.
- Maintenance of the traffic circle becomes the responsibility of the residents. (A traffic circle may or may not include landscaping as part of the mitigation.)

Design of the Traffic Circle

At the beginning of the conceptual stage, it is important that the Traffic Advisory Committee understands the neighborhood commitment required for landscaping a traffic circle. **The neighborhood is required to provide the planting design, obtain the permit, install the planting, and fully maintain the landscaping including: watering, weeding, pruning, and litter control.** If the Traffic Advisory Committee decided to incorporate landscaping in the mitigation plan, it is important that the neighborhood is committed to the idea and is willing to provide the required maintenance.



City of Tucson Traffic Circle Detail
Typical Design for permanent device - Subject to modification by City Traffic Engineer or due to geometric/locational considerations and Agency Approvals.

Early Planning Consideration

Site conditions will play an important part in the feasibility of landscape of the traffic circle. An investigation of the existing site conditions will help to identify potential problems. The existing underground utilities are the most limiting site condition and must be identified. Sewer lines, sewer manholes, gas lines, and water lines all have required setbacks. See the Blue Stake/required setback section. An existing sewer manhole will eliminate the ability to plant trees in the circle. Shrubs may be planted with special considerations.

Items To Consider:

1. Approved Plant List

The Arizona Department of Water Resources requires the use of drought tolerant plants in all public rights of way. The approved plant list can be found in the City of Tucson Development Standard No. 9-06.0.0 in the Engineering Design Section at (520) 791-5100. When planting near sewer lines or manholes, Pima County Wastewater will review the plant selection for non-aggressive root structures. Example – Some Eucalyptus trees are on the approved drought tolerant plant list, but they are not a good choice near sewer lines.

2. Sight Visibility and Travel Lane Safety

Safety is a major concern for auto, bicycle, and pedestrian traffic. Sight visibility around the traffic circle must not be blocked with large dense shrubs. Shrubs should be set back accordingly so that mature growth will not extend past the curb edge. Tree selection and setback should be such that the mature tree branches do not extend into the travel lane below the 14' level around the traffic circle.

3. Obtaining a Permit

Any type of digging within the Right of Way (ROW) requires an "Excavation Permit". After receiving approval of NTMP, you will need to do the following to obtain a permit:

- Submit a scaled drawing that includes street names, north arrow, scale, traffic circle curb edges, quantity of materials, types of planting, and the location of underground utilities. Plants should be drawn at full maturity, show setbacks from the curb and existing utilities. See Blue Stake section.
- Submit plans to: City of Tucson, Department of Transportation Engineering Permits and Codes section, located at 201 North Stone Ave., fourth floor, (520) 791-5100
- Please call number above for cost of permit.
- After you obtain your permit, you are ready to call Blue Stake.