

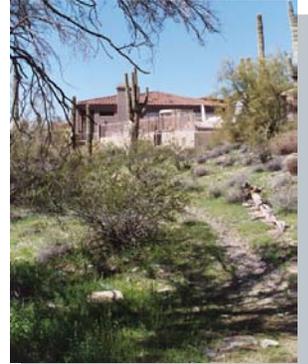
II. EXISTING CONDITIONS



A. TRAIL TRENDS

GREEN INFRASTRUCTURE

Communities of every size throughout the United States and the world are preparing plans and building trails because they believe trails improve their community and their citizen’s lives. Increasingly, trails are being seen as an integral part of a City’s infrastructure, sometimes referred to as a “green infrastructure”. This way of thinking places trails on par with a City’s transportation system and utility distribution; and as fundamental to the health and well being of the community as these two more recognized city-building components. A speaker at the 2002 National Trails Symposium held in Orlando, Florida, went so far as to say that trails = hope. He observed that when the atrocities of September 11 nearly paralyzed New York City and all other infrastructure failed, people walked! Trails are perhaps more important than most people recognize. The same speaker stated that many people define themselves by their recreation. It’s fair to say that many communities define themselves by their trails, greenways and open spaces.



The “Green Infrastructure” in McDowell Mountain Ranch

TRAIL RESEARCH

More research is being published that provides factual information about many of the common points of opposition to trails. These studies report how trails typically have no impact or improve property values. Other studies show the negligible impact trails have upon crime. Trails done with proper planning and design most typically help a community. Websites provided by the Rails to Trails Conservancy and American Trails provide links to many of these on-going studies.



Mountain bicyclists enjoy a trail at Stongate Equestrian Park

TRAILS/HEALTH LINK

There is strong scientific evidence that regular physical activity promotes health and reduces risk of premature death and many chronic diseases. The U.S. Surgeon General and the Center for Disease Control have recently recommended that adults obtain a daily minimum of 30 minutes of moderate intense physical activity and the Task Force on Community Preventative Services strongly recommends creating or enhancing access to trails and other community locations for physical activity. In fact, trends across the nation strongly support community action and leadership in providing trails and trails systems to the public.

TEA 3 FUNDING

National interest in the benefits of trails in providing transportation alternatives and promoting cleaner air in communities has increased the trend to fund community trails programs that link neighborhoods and destinations through public access to a community’s trails system. The US Department of Transportation has recently recommended reauthorization of the Transportation Equity Act for the 21st Century to Congress for 2003 (TEA 3) in an effort to continue the support of the trails programs across America. The Recreational Trails Program, which is only one phase of TEA 3, is slated to grant \$50 million in 2003 to the states for the enhancement of their trails systems.



Pinnacle Peak Park and trail are major Scottsdale landmarks



The Arizona Canal provides a trail link through the heart of Scottsdale

TRAIL PLANNING

Trail plans being prepared around the world are now incorporating some of these trends. They are moving beyond simply physical plans and are giving direction and guidance to future operations, maintenance and public relations. The most successful plans have a strong vision that speaks of the community's desires. Citizens are involved in the planning process, and are kept engaged as the trails are built and used. The plans recognize a community's varied users and differing ability levels. They are built upon the specific cultural and geographic characteristics of the community. Most importantly, the plans provide specific actions that will assist citizens and staff to build, maintain and promote a trail system that will become truly integral to the City's infrastructure and to a person's daily life.

B. STAFFING & FUNDING

STAFFING

The Parks/Trails Planning Office is located within the Parks, Recreation & Facilities Division of the Community Services Department. There are currently two full-time staff in this office, the Parks/Trails Planning Manager and the Trails Planner; and one part-time staff, the Parks/Trails Technician. Only the Trails Planner focuses exclusively on trails, which are defined by the City of Scottsdale as unpaved, non-motorized, and multi-use. The Trails Planner and the Parks/Trails Planning Technician report to the Parks/Trails Planning Manager.

VOLUNTEERISM/CITIZEN SUPPORT

Currently there is no formal trails volunteer program in the non-preserve portions of the City, and the Trails Planner coordinates trail volunteer projects on an as-requested basis. Several trail user groups and neighborhoods organizations have performed trail maintenance and sign installation under the direction of the Trails Planner. For example, during the planning stages for Pinnacle Peak Park, the Trails Planner coordinated volunteer trail building projects at the Park. Now that the park is open and operating, volunteers are coordinated by the Pinnacle Peak Park Manager. In addition, the City currently pays the Scottsdale Saddle Club a nominal fee for trails inspection that can later be addressed by the City or volunteers.

Historically, there has usually been a trail advocate appointed to the Parks & Recreation Commission. Commissioners are often a direct conduit to the City Council and Mayor on key trail issues. Previous and current commissioners actively participate in and provide support to trail planning and construction projects and National Trails Day events.

MAINTENANCE & OPERATIONS

The Parks and Trails Planning Office currently oversees a maintenance and operations budget of approximately \$42,000 annually. This fund typically goes toward such things as trail weed abatement, pruning, sign installation, general trail clean-up, fencing and vehicle barriers, and tread improvements. This maintenance budget was first established in 1997 and has continued at this level through the preparation of this plan. The fund covers both in-house work as well as private contractual work.

CAPITAL IMPROVEMENT PROGRAMS

COMMUNITY SERVICES DEPARTMENT

The Parks/Trails Planning Office has overseen the expenditure of approximately \$680,000 in trail capital improvement project funds since 1999. The majority of these funds went towards construction of trails and security fencing along the Pima Freeway, trail connections over the Central Arizona Project Canal between WestWorld and Horizon Park, fabrication and installation of trail signs, and to the trails master planning effort. In 2000, Scottsdale voters approved a \$2.5 million capital improvement program specifically for trail development and improvements. These funds will go towards detailed trail planning, construction, acquisition of ROW/easements, signage and other improvements. Chapter IV of this Master Plan, the Action Plan, provides prioritized project recommendations for the expenditure of this \$2.5 million as well as projects to be funded in the future by other means.

TRANSPORTATION DEPARTMENT

The Scottsdale Transportation Department has played a significant role in the implementation of the City's trails infrastructure. Trails have been built or improved in conjunction with a variety of street improvement projects. Trails have been constructed within rights-of-way along arterial streets and trails have been included within grade-separated crossings along major arterials usually associated with drainage improvements. Other transportation related improvements include trail-crossing signs, fence installation between trails and roadways, improved crosswalks, and the installation of pedestrian/equestrian/bicyclist activated crosswalk signals at certain intersections. The Transportation Department has also been the key liaison with the Arizona Department of Transportation for a trail crossing of the 101 Freeway (at Sweetwater) and the joint use of the freeway's maintenance roads for trails. Upcoming street projects with substantial trails components include the Cactus Road improvements between the Pima Freeway and Frank Lloyd Wright Blvd., 96th Street between Shea Blvd. and Larkspur, and Scottsdale Road between Frank Lloyd Wright Blvd. and Thompson Peak Parkway.

Drainage improvements, managed by the Transportation Department, also have a major impact on the City's trail system as many trails follow drainage corridors. No significant trail corridor has yet been developed as a result of City-sponsored major drainageway improvements. However, potential drainage basins in areas north of the 101 Freeway provide potential trail development opportunities along the basin's perimeter.

PRESERVATION DIVISION

Though the Preservation Division expends no funds on trails outside of the preserve, the McDowell Sonoran Preserve and expanded preserve areas in Scottsdale's northern third are the primary destination point for many of the City's trails. An extensive network of trails and trailheads are planned within and at its perimeter. Between 1995-2000 Scottsdale citizens voted five times to support the preservation of desert lands in the City. Sales tax collections through November 2002 totaled \$99.2 million of which \$24.7 million have been expended for land acquisition. As of the same date, \$232 million in bonds have been issued. The City now owns 10,822 acres. The Preservation Division's Capital Improvement Program has identified \$2.2 million for improvements at the Gateway, the Preserve's primary access point roughly at the northeast corner of Bell Road and Thompson Peak Parkway. These funds are identified through fiscal year 2005/6. An additional \$500,000 is identified for trailhead and connecting trail improvements in the Hidden Hills area on the southeast corner of the McDowell Mountains. The Lost Dog Wash access area on the south



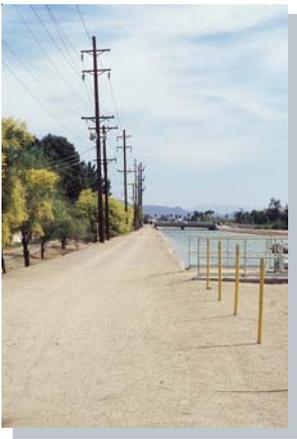
Trail signs installed by the Transportation Department

side of the McDowell Mountains at 124th Street has been identified to receive \$1.5 million for trail and trailhead improvements. The Parks/Trails Planning Office coordinates closely with the Preservation Division in trail and trailhead planning and development to ensure a connected system of trails throughout the City.

Others

Trail planning and development along several corridors is dependent upon the management policies and funding sources of non-city agencies. The Central Arizona Project (CAP) canal, which cuts diagonally across Scottsdale, is managed jointly by the Bureau of Reclamation (BOR) and the Central Arizona Water Conservation District (CAWCD). At the time of this writing, a trail/path feasibility study is underway for the portion of the canal that runs through Maricopa County, including Scottsdale. The corridor has been identified on Scottsdale's trail plans since the 1980's, and the BOR and CAWCD have worked cooperatively with the City in addressing trail-related issues within (outside the security fence) or adjacent to the canal's right-of-way. This cooperation has resulted in appropriate signage and access control in needed locations. The BOR has funds available nationwide through a cost sharing program to provide recreational improvements on their facilities.

The Salt River Project is the primary managing agency for the Arizona Canal, which bisects the southern third of Scottsdale. This canal is home to the Sun Circle Trail, a 110-mile regional trail that exists through a multiple-use agreement between the Salt River Project, Maricopa County and local jurisdictions. Scottsdale has not yet been a beneficiary of unpaved trail improvements along the canal paid for by either the County or the Salt River Project, though other Valley communities have been successful in improving trail conditions along the Arizona Canal and other canals through interjurisdictional agreements.



The regional "Sun Circle Trail" follows SRP managed Arizona Canal

C. POLICIES AND PROCEDURES

MANAGEMENT FOCUS

Historically, the oversight of the General Plan for Trails has fallen within the Parks/Trails Planning Office. The General Plan, last updated in 1991, includes trails of citywide and regional significance. The focus of City staff was to apply resources only to those trails shown on the City's General Plan. The work of the Parks and Trails Planning Office focuses primarily on:

- ◆ Coordination with other City staff in stipulating development improvements from private development
- ◆ Inspection and coordination of private development trail construction
- ◆ Oversight of a trail maintenance and operations budget
- ◆ Oversight of the Trails Acquisition/Development Capital Improvement Program (CIP) account
- ◆ Design and installation of trail signs
- ◆ Project management for City sponsored (generally CIP funded) trail and trailhead improvements
- ◆ Trail inspections
- ◆ Coordination of National Trails Day events
- ◆ Writing and monitoring trail related grants
- ◆ Coordination with other City departments on trail issues relevant to transportation and land use planning
- ◆ Responding to citizen inquiries
- ◆ Volunteer oversight
- ◆ Production of trail maps
- ◆ Presentations to the various commissions and City Council on trail related issues

There are however, numerous existing trail, equestrian, and public access easements throughout the City that serve a primarily neighborhood purpose that were not previously included in the City's General Plan. This fact did not however, keep issues from arising on these existing easements. Neighborhoods rallied either for or against these types of trails throughout the City, causing a crisis of responsibility in the Parks/Trails Planning Office. As a result of citizen need, some small projects have been coordinated along non-General Plan trails, usually with citizen volunteers. The current planning process is aimed at eliminating this conflict by considering all potential and existing corridors throughout the City for possible inclusion in a multi-level citywide Trails Plan.

MAINTENANCE STANDARDS

The City of Scottsdale does not currently have a formal set of trail maintenance standards, and trail maintenance is performed primarily on an as-needed basis, although some trail corridors are on a regular weed-abatement schedule. Maintenance responsibilities typically fall either with the City or with individual Homeowners' Associations (HOAs). Maintenance done by HOAs is done per standards of the association, not the City.

Other maintenance issues are largely dependent upon the specific character and location of a trail. Typically, characteristics that determine differences in the maintenance approach are, 1) whether the trail is in a natural or built setting, 2) variation of slope, 3) proximity to homes, and 4) level and type of use.

TRAIL DESIGN AND POLICIES STANDARDS

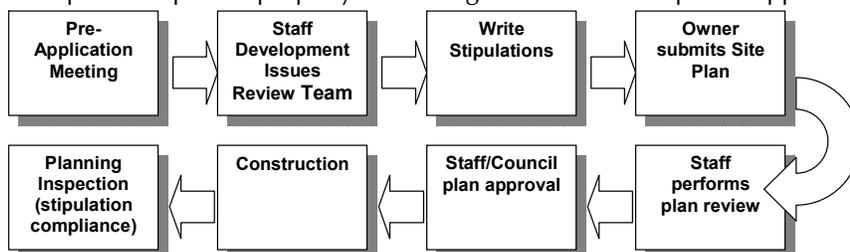
Non-paved trails in Scottsdale are developed according to standards and policies outlined in Section 7.3 of the City's Design Standards and Policies Manual. This section was last updated in October 1999. The document consists of a combination of written and graphic standards. Sections include goals and purpose, design objectives and considerations, identification of trail classifications, specifications per trail classification, trail construction techniques, trail signs and markers, and trail maintenance. The classifications cover all types of trail conditions in Scottsdale from heavily developed areas to mountainous areas. The current trail classifications are:

- ◆ Urban
- ◆ Rural
- ◆ Backcountry Primary
- ◆ Backcountry Secondary
- ◆ Interpretive
- ◆ Barrier Free

PLANNING PROCESS CONTEXT

PRIVATE DEVELOPMENT PLAN REVIEW PROCESS

The vast majority of trails within Scottsdale (outside of the Preserves) resulted from the development of private property. Rezoning and other development applications



Picnic amenities along a trail



A developer installed trail

have and continue to provide a crucial opportunity for the City to request trail easement dedications and trail improvements. This process is managed by City staff, from the initial review of proposed projects to the inspection of construction sites to ensure compliance with City Council approved plans. The following diagram briefly illustrates the planning and development process.

The City's Trails Planner is actively involved in this process by reviewing plans, attending meetings and talking with other City staff project coordinators and plan reviewers regarding a project's trail needs. The 1991 Trails Master Plan map has been the primary documentation tool available for city staff reviewers and decision makers. While the map identifies trail corridors, insufficient detail has created implementation problems. Issues with developers and property owners have resulted from a lack of definition on exact trail placement relative to the side of a street or a wash. Section 7.2 of the City's Design Standards and Policies Manual provides detailed trail design standards, however the range of trail standards presented there have not been linked to specific trail corridors on the map.

The most significant problems though, occur in the Construction and Planning Inspection phases of a project. In general, City inspectors lack the specific procedures, tools, documentation and training to sufficiently enforce the proper construction of trails required by a new development.

Lack of a coordinated focus on trails throughout the plan review process has allowed unfortunate conflicts during construction. For instance, though trails are often placed on a landscape plan, they are not consistently cross-referenced to drainage and grading plans. As a result, a trail is sometimes installed on a 4:1 side slope of a detention basin or impossibly shares a rip rap channel. Occasionally, in spite of detailed plans, a constructed trail simply disappears into a landscape area and effectively becomes unusable. Without diligent monitoring during construction, a trail can be compromised to the point of ineffectiveness in spite of inclusion in approved plans and written stipulations.

GENERAL PLANNING

The community visioning and goal setting exercises that have been conducted in Scottsdale were typically a precursor and/or component of an update of the general plan. In the past, general plans were only required to address land use and circulation. However, in 1998 new legislation was passed called "Growing Smarter" that required a more comprehensive approach to long-range planning for larger communities in Arizona. In 2000, additional legislation was passed called "Growing Smarter Plus." This act set forth time limits for completing general plan updates and established required elements for counties and municipalities in Arizona.

For cities and towns generally over 10,000 people, the following elements are required: land use, circulation, open space, growth areas, environmental planning, cost of development, and water resources. The open space element must include an inventory of open space areas, recreational resources and designations of access points to open space areas and resources; an analysis of forecasted needs, policies for managing and protecting open space areas and resources and implementation strategies to acquire additional open space areas and further establish recreational resources; and policies and implementation strategies designed to promote a regional system of integrated open space and recreational resources and a consideration of any existing regional open space plans.

The Open Space and Recreation Element of the Scottsdale General Plan was written and adopted in accordance with the provisions of “Growing Smarter/Plus.” It is important to emphasize the importance that the general plan goals and policies play in the original development, ongoing monitoring, and future refinement and modification of the Trails Master Plan. The Trails Master Plan goes into greater detail than is appropriate for a general plan, and is therefore a free standing document. Whenever any changes to the Trails Master Plan are being considered, the Scottsdale General Plan should always be referred to first in order to assure that consistency is maintained.

D. PHYSICAL CONDITIONS

REGIONAL CONTEXT

Scottsdale is situated adjacent to several other municipalities with trails, as well as large areas of open space, such as Maricopa County’s McDowell Mountain Regional Park to the east, and the Tonto National Forest to the north/northeast. Because of this regional connectivity, several regionally significant trails cross through the City of Scottsdale. Most of these trails run along canal and power line corridors. The Sun Circle Trail is a 110-mile regional trail that was established in the 1970s and operated by Maricopa County in partnership with the Salt River Project (SRP). It runs along the Arizona Canal and connects Phoenix to the west, and the Salt River Pima-Maricopa Indian Community to the east. The Central Arizona Project (CAP) canal, controlled the Bureau of Reclamation (BOR) runs through central Scottsdale and also acts as a regionally significant trail corridor.

In the early stages of the planning process, several meetings were held to coordinate between neighboring jurisdictions, which are in various stages of planning and implementation of their trail systems. Meetings with the City of Phoenix, Towns of Cave Creek/Carefree, Town of Fountain Hills, Salt River Pima-Maricopa Indian Community, Maricopa County, and the Tonto National Forest were held to identify issues and opportunities. The locations of potential or existing trail corridors were identified and mapped. The [Potential Trail Connections](#) map shows the locations where potential or existing City of Scottsdale trails connect with other trails outside the City.

SCOTTSDALE CONTEXT

CITYWIDE TRAIL STATUS

At the beginning of the planning process, an existing database of planned and existing trails was furnished by the City. This database was created in ArcView, a type of GIS (Geographic Information Systems) software. Existing and planned trails were mapped on the computer based on the 1991 General Plan alignments, and an extensive amount of information was previously collected. This information included legal status of trail, physical condition, maintenance responsibility, signs, location, length, classification, and trail type. See an example of the GIS trail database in Appendix B.

Additional data was collected, bringing the inventory of trails in the City of Scottsdale up-to-date. This inventory update was based on discussions with the Trails Coordinator, on-site inventory trips to field-check trail status, and research to check legal access issues. An accurate inventory is vital to identify gaps in the trail system and to identify projects and expenditures that will maximize the function of the overall system.



Powerline corridors provide connection opportunities



An example of a “substantially improved” trail



An example of a “Non GP existing easement” in the Mescal Park area

Upon completion of the trail inventory in ArcView, it was possible to identify and classify trails based upon their level of completion. In previous meetings and discussions, it was agreed that several requirements must be in place in order for a trail to be considered “existing.” These requirements are:

1. Legal Access: Permits legal public access to a trail, such as an easement, tract, or right-of-way.
2. Clearance: There must be a clear path, free of obstructions such as vegetation or other physical barriers.
3. Tread Definition: The trail must be physically identifiable on the ground.
4. Signage: The trail must have signs that identify it as a trail corridor.

Based on the GIS inventory, five categories were developed that describe the level of completion of any given trail segment. These categories run the continuum from **planned** to fully **existing**. The following table defines these five categories:

TRAIL CATEGORY	CHARACTERISTICS
Planned	<ul style="list-style-type: none"> ◆ shown on prior General Plan Trail Map ◆ no legal access ◆ no trail clearance ◆ no tread definition ◆ no signs
Unimproved	<ul style="list-style-type: none"> ◆ legal access ◆ no trail clearance ◆ no tread definition ◆ no signs
Partially Improved	<ul style="list-style-type: none"> ◆ legal access ◆ partial trail definition and/or clearance, needs work ◆ no signs or old signs
Substantially Improved	<ul style="list-style-type: none"> ◆ legal access ◆ trail definition and/or clearance ◆ no signs or old signs
Existing	<ul style="list-style-type: none"> ◆ legal access ◆ trail clearance ◆ improved trail or tread definition ◆ new signs

The existing trail plan (based on the 1991 General Plan) includes a total of 324 miles of trails. Of these trails, 100 miles are contained within the McDowell Sonoran Preserve study boundary, and the remaining 224 miles are located throughout the remainder of the City. An additional 33 miles of easements exist that are not identified on the General Plan (referred to as “Non-GP trails”). These easements are primarily located in neighborhoods. The following table lists the breakdown of trail mileage based on the 1991 General Plan.

**Total miles of planned trails in the City of Scottsdale
(Based on 1991 General Plan)**

Trail Type	Miles
City of Scottsdale General Plan	224
Preserve trails	100
Non GP existing easements	33
Total	357

Based on the GIS inventory, 168 miles of trails identified on the 1991 plan have public access, such as an easement, right-of-way, canal bank, or City-owned property. Of these trail corridors with public access, 121 miles are classified as existing or “soon-to-be-existing” (currently under development). In addition, of the 33 miles of existing Non-GP easements, 21 miles are actually existing, functional trails (See the following table).

Total miles of easements and existing trails (Based on trail inventory)

Trail Type	Miles
Public access in place (easement, etc.)	168
Trail is existing or under development	121
Trails on Non GP existing easements	21

Currently trails are located in several different settings. These **Trail Types** were also classified. They are: canal, desert, mountain, neighborhood, powerline corridor, roadside, and wash. The following table lists the breakdown of miles of trails based on trail type.

Trail Type (Based on trail inventory)

Trail Type	Miles
Canal	24
Desert	4
Mountain	13
Neighborhood	41
Powerline	3
Roadside	120
Wash	43

The majority of trails are located along roads, followed by neighborhood and wash trails. Desert, mountain, and powerline trails compose a minority of the trail mileage simply because the majority of these trails are located in the Preserve. Washes and canals present significant opportunities for long-range, continuous trail corridors, as do some roadside trails, such as those planned along scenic corridors.

Upon completion of the inventory, many issues with the current plan became apparent. The fragmented nature of the trail system and the difficulties in implementation can be, in part, attributed to the following factors:

- ◆ The 1991 General Plan trail map was printed in a way that made it very difficult to interpret the correct trail alignment. As a result, many trails were developed on the wrong side of the road. This has created numerous problems in implementing the original plan, and has contributed to fragmented and unusable corridors.
- ◆ Trail acquisition and development primarily occurs as part of the development process. Many trails are constructed in a “piecemeal” fashion as development occurs throughout the City.
- ◆ Many changes have occurred in the past, which have made planned trail alignments either impossible or obsolete.
- ◆ The original plan does not indicate a hierarchy, or varying levels of trails, which has made trail project prioritization very difficult.

The existing General Plan trails map is located in Appendix C.



The Pinnacle Peak Trail is a “Mountain Trail”



A typical trailhead and regulatory sign



A trail in the Desert Foothills Area



A natural surface trail in the Desert Foothills Area



An Equestrian Property in the East Cactus Corridor

SIGNAGE STATUS

Existing trails in the City of Scottsdale are signed based on the current sign standards outlined in Section 7.3 of the City’s Design Standards and Policies Manual. However, there are many miles of trails that currently have old and outdated signs of varying colors, styles, heights, etc. In 1998, new trail signage was designed with the goal of eventually signing all trails within the City consistently. There are several different types of signs, designed to communicate a variety of information.

Trailhead signs (12” x 18”) indicate the use of the trail, trail direction, and carry the Scottsdale Trails System logo. **Directional** signs (6” x 6”) are the least intrusive signs and serve to guide trail users to reinforce the direction of the trail, and are usually accompanied by, or interspersed with Scottsdale Trail System signs. These 6” x 6” signs carry the Scottsdale Trails System logo and their purpose is to identify the trail as a public access City trail. In addition, there are several **regulatory** signs, such as “No Dumping,” “No Motorized Vehicles,” and “Private Property” signs. Finally, since the trails are predominantly multi-use, **“Trail Courtesy”** signs (based on national standards) are also included in the signage program. These signs advise users as to the conventional system of right-of-way between different trail users: equestrians, hikers, and mountain bikers.

Currently, there are approximately 46 miles of existing trails in the City that have no signs, and 14 miles of existing trails that have old or outdated signs.

Signage Status (Based on trails inventory)

Description	Miles
Miles of trails with no signs	46
Miles of trails with old signs	14
Total miles of signs needed	60

NEIGHBORHOOD AND LOCALIZED TRAIL STATUS

In addition to looking at the citywide system of trails, the consultant team was asked to specifically evaluate four Scottsdale neighborhoods. These neighborhoods were chosen because together they represent the types of conditions and issues common to trails in neighborhood settings, or are very unique to that particular area. The Neighborhood Areas map indicates the boundaries of these four neighborhood areas. The following provides descriptions of these neighborhoods.

DESERT FOOTHILLS AREA

The area is a mix of large lot platted subdivisions and more typically, custom homes on a mix of lot sizes from an acre and larger. Native Sonoran Desert vegetation is the dominant visual character. Equestrian facilities and amenities are visible on many of the properties such as corrals, barns and pens. The area is bisected by three scenic corridors; Pima Road, Scottsdale Road and Dynamite Boulevard. Many residents have horses and live an “equestrian lifestyle.” Pinnacle Peak Park and the McDowell Sonoran Preserve provide major regional destinations for trail users. Trail users currently use many of the unpaved roads, some dedicated and developed trails, and a network of Government Land Office (GLO) easements that are a result of original Federal land platting that encouraged settlement in the area. The easements encircle many of the area’s lots.

EAST CACTUS CORRIDOR AREA

The area is a mix of primarily residential land uses. Built density varies from less than quarter acre lots in platted subdivisions to large lot custom homes and small horse ranches. Development and construction is active in the area. Cholla Park is located along the eastern edge of the neighborhood, but does not currently have trails or trail related amenities. To some, the Cactus Corridor is the epitome of “Old Scottsdale’s” equestrian lifestyle. The visual character is a mix of desert and Mediterranean landscaping, equestrian facilities and a mix of architectural styles, primarily southwestern in nature.

Cactus Road has historically been a major trail access point to the southwestern corner of the McDowell Mountains and the trails along the Central Arizona Project Canal, which is just east of Frank Lloyd Wright Boulevard. The Bent Tree Wash cuts diagonally from northeast to southwest providing an off-street trail corridor and separating two distinct development patterns from large lots to the north and smaller lots to the south. 96th Street provides a major north-south trail corridor. Trail use still occurs alongside roads with less traffic. A trail/drainage underpass exists at 100th Street/Shea.

EAST SHEA CORRIDOR AREA

The area is primarily residential, with a few other land uses located along Shea Boulevard. The area includes the large master planned community of Stonegate and other smaller platted subdivisions. Large lot custom homes and equestrian properties are located primarily east of 120th Street. Development and construction is still active in the area. The visual character is a combination of native desert, Mediterranean and drought-adapted landscaping, equestrian facilities and a mix of architectural styles. Stonegate Equestrian Park serves as a trail hub and provides small-scale neighborhood equestrian and other amenities at the southern end of 120th Street.

GLO easements are common in the area northeast of the CAP canal, and have provided opportunities for some trail dedications. The CAP canal and the 69KV power lines bisect the area at a diagonal running northwest to southeast. Both of these corridors provide trail opportunities. Other trails are scattered throughout the area that have been dedicated through the development process. Trail use occurs on formally dedicated trails as well as along low-traveled streets and along washes. Several washes have historically provided access to the southern end of the McDowell Mountains. Trail/drainage underpasses exist at just west of Frank Lloyd Wright/Shea, 124th Street/Shea, the 132nd St. Wash/Shea, and the 136th St. Wash/Shea. The 124th Street/Shea underpass requires exist and entry ramps to make it passable.

MESCAL PARK AREA

The area is a mix of land uses. Non-residential uses exist primarily along Scottsdale Road and Shea. Large lot single-family residential units are most common. The majority of these lots were platted with an interconnected system of equestrian trail easements between backyards, allowing for neighborhood riding. Many of these trails have recently been improved with a surfacing of decomposed granite and trail signs. There is a fairly consistent visual character to the area since most of the homes were built in a short span of time with a similar style on fairly consistent lot sizes. Vegetation is largely mature Mediterranean style. There are a significant number of home remodels occurring. Horses are still common, but less so in the neighborhood, along with their requisite outdoor facilities. Mescal Park, located at the northeast corner of 68th Street and Mescal Street, provides an equestrian hub for the neighborhood with an unlighted arena and a water trough.



The Stonegate Community in the East Shea Corridor provides many public trails



Mescal Park provides a significant destination



A newly built trail in the Pima Road Scenic Corridor



Trail users value the scenic quality along the trail



A "Great trail" along the Central Arizona Project Canal

This neighborhood is essentially cut off from regional trail destinations by adjacent development, though some trails attempt to provide these connections. An often-criticized trail exists along the south side of Cactus Road that leads towards Cactus Park at the northeast corner of Scottsdale Road and Cactus Road. There are no trail related uses or facilities internal to this park, however a trail connects across the southern edge of the park along Cactus Road. A trail exists along the east side of Scottsdale Road south of Cactus Road providing additional connections to the park. Also, a trail exists on the south side of Cactus Road from Scottsdale Road heading east where it connects to an existing neighborhood trail system.

E. ISSUES & NEEDS IDENTIFICATION

CITYWIDE

Many issues, needs and ideas were documented throughout the trail planning process through numerous public involvement activities, unsolicited emails and phone calls. Staff comments were gathered at two multi-department staff/consultant meetings and individual meetings with key staff. Using the City's GIS database, additional inventory information was documented and analyzed to identify the following issues and needs.

In early public and staff meetings, the consultant team asked a simple question that related directly to the already developed mission of creating a great trail system. Participants were asked, "What are the attributes of a great trail and a great trail system?" The following list summarizes the responses to this question.

ATTRIBUTES OF A GREAT TRAIL AND GREAT TRAIL SYSTEM

CONNECTIVITY: Citizens felt it important to have trails that connect neighborhoods and provide links to major trails and destinations such as the McDowell Sonoran Preserve, schools and employment areas. Loops of varying lengths were desired. Connectivity is also dependent upon the absence of obstructions. The multi-use aspect of the trail system was also emphasized.

DESIGN: Quality design was recognized as crucial to a great trail and system. This includes appropriately located and informative signage, provisions for a variety of difficulty levels, widths to accommodate more than one user, sufficient buffers from roads and adjacent properties and barrier/fences that restrict ATV use on trails. Trail surface material is critical to many types of users, with a preference for natural dirt as opposed to rocks. Trailheads with good access and natural surface parking, hitching posts and water stations were identified.

STREET/TRAIL SAFETY: One of the most significant issues identified was safety of trails adjacent to or crossing streets. Specific amenities were identified that would improve safety. These include non-skid cross walks, longer signal timing, and signal buttons located high enough to reach from a horse. Grade-separated crossings were identified, including both bridges and underpasses. In addition, greater setbacks from the roadway would improve safety as well as allow a more pleasant trail experience.

EXPERIENCE/AESTHETICS: There are many factors that affect the quality of the trail experience. Specific examples include the retention of natural flora and provisions for shade. Trails with views and opportunities for quiet spaces were highly valued. Also, a variety of character along a trail was also identified, recognizing that trails go through natural areas as well as within more developed areas.

AWARENESS & EDUCATION: There are other aspects to a great trail system that are not related to the quality of a trail on the ground. Recommendations were

made that address the availability of quality trail maps and other publicity for the City's trails. Other awareness programs might include wider promotion of the City's all terrain vehicle (ATV) use restriction on City's trails. Promotion of trail courtesy among all users was recognized as an important factor in creating a quality trail experience. Ongoing awareness and education of various trail issues could be fostered by the reestablishment of the Equestrian Safety Committee in coordination with the Police Department and a more coordinated collaboration with adjoining homeowners and neighborhood associations. One specific trail improvement program was the provision of and promotion of mutt mitts for dog droppings.

OPERATIONS & MAINTENANCE: Recognizing that a great trail system is dependent on long-term upkeep and care as well as proper infrastructure, specific items identified included the development of maintenance standards, cost-effective system operations, stewardship program for each trail area, and a more intensive use of adopt-a-trail programs. Illegal ATV use was also identified here as related to more aggressive programs to control their use on City trails.

POLICIES & PROCEDURES: Proper policies and procedures are essential to guiding the best trail operations, maintenance and development programs. These might include the inclusion of trail dedication requirements in the City's subdivision ordinances, improved city review and approval procedures for trail development, closer collaboration between various City departments that have roles in trail development, and enhanced design guidelines and standards for both trails and properties that border trails. The equestrian community spoke of encouraging equestrian amenities at destinations accessed by horseback.

NEIGHBORHOOD AND LOCALIZED TRAILS

As well as gathering information regarding trail issues citywide, special attention was given to the neighborhoods identified in section D. The process also highlighted other localized conditions. Two methods were employed to address issues specific to the Mescal Park area, Cactus/Shea Corridors and the Desert Foothills area: a statistically valid phone survey and focus groups with area residents.

PHONE SURVEY SUMMARY OF FINDINGS

The purpose of the brief statistically valid telephone survey was to gauge awareness of, and outlooks on, unpaved, multi-use, non-motorized trails among residents in four neighborhoods—Desert Foothills, Mescal Park, and the two-part Cactus/Shea Corridor. These areas were chosen because they had been the focus of other project research and outreach and represented a cross-section of issues related to neighborhood level trails. The survey contained 13 questions. See Appendix D for a copy of the survey and complete survey results.

Telephone interviews took place between May 30 and June 3, 2002 with residents 18 years of age or older who had lived in their current neighborhood for more than one year. This representative survey included 309 interviews. The survey has a margin of sampling error of plus or minus 5.7 percent.



Constructed barriers prohibit off road vehicles use in the Desert Foothills Area



This trail links directly to the equestrian facilities at Mescal Park



Trails border single family homes in the Stonegate Neighborhood

Covering a wide range of ages, nearly 60 percent of respondents described themselves as full-time residents of their neighborhoods, and more than half of these citizens had lived in their current areas for more than six years. In fact, one third of respondents had been residents of their areas for more than ten years.

SURVEY HIGHLIGHTS

- ◆ Awareness of unpaved, multi-use, non-motorized trails is high: Seventy-eight percent of respondents said they knew of such trails in their neighborhoods
- ◆ Trail use is notable as well: Nearly a third of trail users utilize a trail “more than once a week.”
- ◆ The quality of the trails is “very good” or “good” according to a significant majority of users: More than 80 percent of users said the trails were “very good” or “good.”
- ◆ Users value the trails in their areas: More than half of these respondents (57%) viewed trails as “very important” to them personally with just three percent admitting that the trails are “not very important” to them.
- ◆ Connecting neighborhood trails to more destinations would make many respondents even more likely to use them: Those who were aware of neighborhood trails were asked how more destinations and connections would affect their use of them. Sixty percent reported they would be more likely to use the trails if there were more destinations. However, nearly 40 percent said that expansion would make “no difference” in their use. These respondents also favored more trails throughout Scottsdale. As with more trails in their neighborhoods, over half (57%) of those surveyed said that expanding the trail system regionally would make them more likely to use the trails. However, again as with the local trails, more connections would make no difference to 40 percent of respondents.
- ◆ Residents tended to be more positive than negative about locating new trails next to homeowners’ property: Creating new trails might mean putting them close to residents’ property since that is where easements are, and land has become limited as Scottsdale has expanded. Because it would not be out of the ordinary for residents to say they value trails but not want them close to existing properties, this question was important for this planning effort. When asked how supportive they would be of expanding the trail system in their area, even if the trails were “on the edge of homeowners’ property in some places,” residents were more positive than negative. On a scale of 1 to 5 where 1 was “not at all supportive” of expanding the trail system and five was “very supportive,” the ratings averaged 3.43. Twice as many respondents put their support at “5” than at “1.”

Significant numbers of residents are aware of trails and report using them. In addition, a considerable number report that trails are important to them personally. As a result, trails appear to have solid support in these neighborhoods. However, the data also seem to point toward a division into two groups: 1) a core group where support is definite and strong and expansion would motivate even greater use; and 2) a second group where support and use are more casual. This second group may be less affected by trail expansion than the core group.

Trails seem to be a valuable amenity in these neighborhoods, according to the responses to this brief survey. Expansion appears to be favored, although those who said they were not supportive of further development represent a notable segment of residents. This survey reconfirms that outdoor recreation, in terms of trail use, is an integral part of the Arizona—and the Scottsdale—lifestyle.

FOCUS GROUP SUMMARY OF FINDINGS

This study had two purposes: 1) to determine if there is sufficient resident interest in neighborhood trails, and 2) to document the cost impacts to the City if it were to assume responsibility for planning, acquisition, development and maintenance of neighborhood trails.

Three focus groups were held in May 2002 with residents in the Desert Foothills, Mescal Park, and Cactus/Shea Corridors neighborhoods. The purpose of the meetings was to discuss issues, concerns, and desires for an unpaved multi-use, non-motorized neighborhood trail system. These meetings were not designed to be statistically valid but to solicit specific information from neighborhoods.

Interactive audience response technology was used to collect information from the focus group participants for the purpose of creating a rich discussion. The results portrayed in the data displays, while informative, should not be considered statistically representative of a larger group. Several perspectives were represented in all meetings: trail users and non-users, equestrians, bicyclists, hikers, joggers, and walkers. Specific discussion items and issues are first identified below by neighborhood. The following “Key Findings” are a summary of the interactive audience response technology results. Some of these findings are aggregated across all neighborhoods in some instances.

DESERT FOOTHILLS AREA ISSUES

- ◆ Requested abandonments of Government Land Office (GLO) easements that may restrict connectivity within a neighborhood trail network
- ◆ Some GLO's are blocked by property owners
- ◆ GLO's are becoming fragmented and disconnected
- ◆ Desire to maintain a desert character
- ◆ Lack of comprehensive and interconnected trail system feeding into the citywide and regional system
- ◆ Desire for privacy on private property
- ◆ Trail crossings of Dynamite, Pima and Scottsdale Roads
- ◆ Ability to use trails within neighborhood without crossing major streets
- ◆ Much trail use is currently on dirt roads, which is lost when pavement occurs
- ◆ County islands provide discontinuity of development and planning standards
- ◆ Trail connections into county and into the City of Phoenix
- ◆ Land ownership consolidation and conversion to large platted subdivisions, many gated, make trail connections difficult

CACTUS CORRIDOR ISSUES

- ◆ Traffic conflicts at Frank Lloyd Wright Boulevard and at 96th Street
- ◆ Cactus Road redesign to accommodate equestrians
- ◆ 96th Street redesign to accommodate equestrians
- ◆ Ability to use trails within neighborhood without crossing major streets
- ◆ Equestrian lifestyle compatibility with non-equestrian
- ◆ Maintenance of Bent Tree Wash and its safe use as a trail corridor
- ◆ Conditions of underpass at 100th Street/Bent Tree Wash/Shea Boulevard.
- ◆ Land ownership consolidation and conversion to large platted subdivisions, many gated, make trail connections difficult



Signs promote courtesy and respect



An imposing street crossing at Pima and Dynamite Blvd.



Trails along Cactus Road must cross Frank Lloyd Wright Blvd to get to the CAP Canal trail and the McDowell Mountains



Though the CAP trail provides great trail opportunities it is also a significant barrier between neighborhoods



Cactus Road provides a challenging trail location in a well established equestrian neighborhood



Maintenance of existing trails is a high citizen priority

SHEA CORRIDOR ISSUES

- ◆ Trail crossing conflicts at Shea Boulevard
- ◆ Traffic speeds on Mountain View and 124th Street where trail use is common
- ◆ Central Arizona Project (CAP) canal continued trail access and maintenance responsibilities
- ◆ CAP Trail provides barriers within neighborhood with few crossing points
- ◆ Requested abandonments of GLO easements that may restrict potential connected neighborhood trail network
- ◆ Maintaining the historic equestrian lifestyle
- ◆ Ability to use trails within neighborhood without crossing major streets
- ◆ Equestrian lifestyle compatibility with non-equestrian
- ◆ Continued local equestrian use of Stonegate Park
- ◆ Use of underpasses and completion of trails that lead to the McDowell Mountains
- ◆ Lack of maintenance of Los Diamantes wash trails
- ◆ Gap in trail south of Los Diamantes on Central Arizona Water Conservation District land
- ◆ ATV use in ditch along east side of CAP canal at Los Diamantes
- ◆ Land ownership consolidation and conversion to large platted subdivisions, many gated make trail connections difficult

MESCAL PARK AREA ISSUES

- ◆ Perceived safety problem for trail along south side of Cactus Road
- ◆ Though signs direct trail users at the intersection of Cactus and Scottsdale Roads, roadway widths, speed and traffic volume discourage trail use
- ◆ Scottsdale Road provides significant barrier between equestrian neighborhoods east and west of Scottsdale Road
- ◆ Removal of barriers along existing dedicated trail easements
- ◆ Maintaining the historic equestrian lifestyle
- ◆ Street crossing safety along Scottsdale Road, Cactus Road and Shea Boulevards
- ◆ Equestrian lifestyle compatibility with non-equestrian
- ◆ Isolation from regional trails and regional trail destinations

COMMON ISSUES

- ◆ *Safety:* Participants all expressed a concern for safety along streets, at street crossings and for personal safety along the trail
- ◆ *Opportunity Loss:* Continuing development of land as well as requested abandonments of rights-of-way and GLO easements limit the potential for future trail connectivity. Some residents fear that street improvements will eliminate trails of use if those corridors are not specifically included in the City's trail plan.
- ◆ *Trail Maintenance:* Existing trails are often not maintained. Maintenance standards are not developed. Responsibility for maintenance is not well documented and results in little to no maintenance of some trails. Without proper maintenance, dedicated trails often revert to simple landscaped areas, effectively eliminating them from the public's ability to use.
- ◆ *Enforcement:* Lack of enforcement of existing City ordinances, most specifically ATV's on City trails creates hardship for the trail user as well as those who live near dedicated trails. Enforcement also includes ensuring that trails are built and maintained per development stipulations.

KEY FINDINGS (SEE APPENDIX E FOR A COMPLETE SUMMARY)

- ◆ *Use:* Almost three-fourths of the participants use the trails. The transportation uses include traveling to work, going to school, or running errands. Most of those who use the trails either ride their horse or walk at least once a month.
- ◆ *Proximity to Trails:* Those Mescal Park and Cactus/Shea participants, who live adjacent to trails, are completely satisfied with their proximity. Most of the neighborhood users ride their horse or walk to the trail.
- ◆ *Property Value Impacts:* Many of the Mescal Park and Cactus/Shea neighbors believe a well-maintained trail system has a positive impact on property values. Desert Foothills neighbors are less certain. Most feel trail access would be a key factor in their purchasing a new or different home. Slightly more than one-third of the participants said they would pay a lot premium for a new home with trail access. Half of those neighbors with Government Land Office (GLO) easements would allow their property to be dedicated as a trail easement.
- ◆ *Importance of Trail Attributes and Current Levels of Satisfaction:* Mescal Park and Cactus/Shea neighbors feel safety is most important followed by adequate maintenance and lack of trail obstructions. Desert Foothills neighbors are quite satisfied with their most important attribute – retaining the natural environment. Trail maintenance is second in importance to all neighborhoods and their level of satisfaction is very low. Connections and crossings are very important to the Desert Foothills trail users, and they are very dissatisfied with the current conditions. Signage is least important to all three neighborhoods. Mescal Park and Cactus/Shea neighborhoods rate lifestyle, walker, horse, and bicycle friendliness, adjacency, buffers, and proximity as very important to their quality of life. Desert Foothills participants rate horse friendliness relatively high.
- ◆ *Willingness to Support Trail Enhancements:* Two-thirds of all participants would be willing to consider paying a nominal fee to enhance or maintain a network of trails in their neighborhoods. Amounts for those willing to pay range up to \$250. One-third of all participants are members of organized groups that use trails. Three-fourths would consider joining a new Scottsdale trails advocacy group.

The above attributes of a great trail and trail system and the issues related to more localized trails set the framework for the next level of analysis of the City's trails; opportunities and constraints.

F. OPPORTUNITIES & CONSTRAINTS

At every public involvement and outreach opportunity and at staff and consultant meetings throughout the process, the City's existing and potential trail system was evaluated for opportunities and constraints that would enhance the overall functionality of the system. Appendix F provides a complete listing of recorded opportunities and constraints. The following provides a summary of the typical topics and themes:

LINKAGES & DESTINATIONS

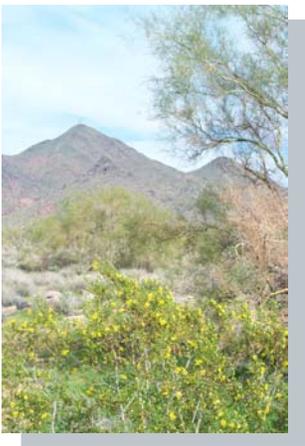
Respondents recognized linkage opportunities to the major destinations that are within or surround Scottsdale, as well as more localized linkages to neighborhood schools and parks. Regional destinations identified included the Tonto National Forest, the McDowell Sonoran Preserve, the CAP Canal, Sun Circle Trail/Arizona Canal, Phoenix' Reach 11 Recreation Area, and the Phoenix Mountains Preserve.



Desert Foothills area residents highly value their natural desert environment



Two-thirds of Focus Group participants are willing to pay a nominal



Scottsdale's scenic corridors were seen as an opportunity to provide long distance trails in a desert environment that may also provide non-vehicular transportation corridors. A trail along Dynamite Boulevard was recognized as a potential link east to the Arizona Trail, which runs north/south through the Tonto National Forest, connecting Utah with Mexico. Western destinations along a Dynamite Blvd. trail would include the Phoenix Sonoran Preserve and the Cave Buttes Recreation Area along Cave Creek Wash. Trails along the Scenic Corridors of Scottsdale and Pima Roads provide part of the corridors that could link the Tonto National Forest to the Rio Salado. These corridors intersect the CAP Canal, a corridor that may eventually link the Colorado River to Tucson while passing alongside the major equestrian and trailhead facilities located at Westworld.

Opportunities were seen in more localized areas such as in the yet unbuilt detention basin north of the Pima Freeway adjacent to the Scottsdale Water Campus. This site could become a major connection point along the diagonally cutting power line corridor. There may be opportunities to better link established equestrian neighborhoods to local or regional destinations such as from Paradise Valley Farms to the Indian Bend Wash; the Cactus Road corridor to Bent Tree Wash, the McDowell Sonoran Preserve and Cholla Park; neighborhoods near Stonegate Park to the southern end of the McDowell Sonoran Preserve and Desert Mountain High School; the Desert Foothills area to the McDowell Sonoran Preserve and the Scottsdale and Pima Road Scenic Corridors.

In the decades that a trail plan has been in place in Scottsdale, many corridors have been developed, some modified and others made extremely difficult to implement. Trail corridors, established with well-intended compromises during the development process, often compromise the effectiveness of the corridor. Trail corridors have often wrongly been combined with drainage solutions and landscaped areas, with specific trail user needs being ignored. Examples of this situation exist along the Sweetwater corridor between approximately 92nd and 94th Street; along the north side of Via Linda in the Ancala subdivision; along Alma School Road in Desert Highlands; and along Doubletree Ranch Road east of Scottsdale Road.

Other constraints to trail continuity exist due to barriers caused by private ownership or private development. Some examples include a potential trail alignment blocked by new construction along Pinnacle Vista east of the Hayden alignment and the power line corridor south of Via Linda and west of Frank Lloyd Wright Blvd. Other large-scale barriers to trails within Scottsdale include the Scottsdale Airpark, the 101/Pima Freeway and the Core North area proposed on the south side of the Grayhawk development. Natural physical barriers exist along corridors where proposed trail routes were not overlaid on topography maps. Severe slope barriers are present along existing trail easements in the Scottsdale Mountain development. Other physical conditions such as soil material may make some trail uses less desirable than others.

Other jurisdictional decisions affect the nature of Scottsdale's trails. Currently, the Salt River Pima-Maricopa Indian Community does not provide trails along the Arizona Canal or the CAP Canal. Fountain Hills is restricting equestrian use on their trails and do not intend to link to Scottsdale's trail planned along Via Linda. Phoenix does not show a trail along Dynamite Boulevard.

Some master planned community developments aggressively planned for and built their own integrated system of unpaved trails. Often, these trails link to the City's trail system. Though the intentions were good, this mix of private and public trails

has caused problems, both for the City and the homeowner associations of these developments because the distinction between public and private trails is invisible to the public. The Stonegate community has worked closely with the City to alleviate this problem, which resulted in the City installing private property signs at the points where private trails connect to public trails. A similar situation exists in the Terravita community that has not yet been addressed by the City.

TRAILHEADS

Existing and already proposed trailheads were seen as a means to gain access into the City's many natural resources. Many of these trailheads are at the edge of the McDowell Sonoran Preserve, and provide the interface between trails inside and outside the Preserve. Other trailheads are located in relative close proximity to the Preserve, but not along its edge, again providing access to the preserve and other City trails and destinations. The trailheads in DC Ranch, Westworld and McDowell Mountain Ranch are examples of this. Other trailheads in City parks provide opportunities to access more localized trail networks and local destinations like the Stonegate Equestrian Park. The trailhead at Pinnacle Peak Park provides direct access to the Pinnacle Peak Trail as well as to trails in all directions from the Peak. A proposed trailhead in Grayhawk Community Park would provide trail access opportunities along the power line corridor and west to Scottsdale Road.

The Sun Circle Trail along the Arizona Canal in the southern third of Scottsdale currently has no City designated trailheads. Trailheads exist in Phoenix to the west at Herberger Park, and to the south along the Cross-Cut Canal in Papago Park. Although the Sun Circle is considered a major regional trail, use in Scottsdale is most likely limited to those who live, work or visit in relatively close proximity to the trail as well as long distance users coming from elsewhere in the metropolitan region.

It is likely that some Sun Circle Trail users park in private parking lots in the downtown area. This situation is both an opportunity and a constraint. Space is currently very limited or simply unavailable to provide a new trailhead. But, opportunities exist for shared parking, or incorporation of trailhead facilities in new development along the Canal's edge.

SUPPORT/OPPOSITION

Scottsdale residents see trails as both friend and foe. Many residents participate in trail steward programs in the McDowell Sonoran Preserve. Several neighborhoods and neighborhood activists have organized to plan, promote and develop trails in their own neighborhoods and to ensure connections from their neighborhoods to the City's many destinations. The four neighborhoods that received in-depth analysis during this study have produced the vast majority of the City's neighborhood trail supporters.

The Master Plan public involvement process and prior discussions between staff and citizens have identified opposition to specific trail corridors in several neighborhoods. Most residents identify similar issues when elaborating upon their opposition; crime, vandalism, horse droppings, and a desire for privacy. This opposition has been expressed through petitions, letters and emails to staff, elected and appointed officials, and through comment sheets at public meetings. Sweetwater Ranch neighbors expressed their opposition to the continuation of a trail along 96th



The existing trailhead in McDowell Mountain Ranch



Hundreds of residents expressed their opinion during the planning process



A typical street crossing challenge

Street from Cactus Road to Frank Lloyd Wright Blvd. The Pinnacle Vistas neighborhood near 98th Street south of Pinnacle Peak Road is opposed to the continuation of a trail coming north out of DC Ranch and heading towards Pinnacle Peak Park. Residents in Desert Mountain have expressed their wish to not extend the trail system through their neighborhood.

Similar concerns were expressed for trails within and adjoining Pinnacle Peak Park. Upon completion of the trails there, problems have not materialized.

CROSSINGS/TRAFFIC CONFLICTS

In every public outreach activity conducted during the planning process, the safety of the trail user was stressed, particularly as the trail relates to roadways. Opportunities were identified throughout Scottsdale that would improve the interface between the trail user and traffic conditions. Additional or improved grade-separated crossings were identified along Pima Road and Shea Blvd., most of which are associated with drainage structures. Improvements include construction of underpass approach ramps and modifications to corrugated metal structures that are not equestrian-friendly. The linkage benefits of existing bridges were highlighted, such as the bridge over the Pima Freeway and Sweetwater and the bridge over the CAP Canal connecting Horizon Park and Westworld.

Some significant barriers to connectivity exist along major streets and freeways. The Pima Freeway creates a nearly solid trail barrier between the Salt River Pima-Maricopa Indian community and the bridge at Sweetwater. Thompson Peak Parkway and McDowell Mountain Ranch Road sever the historic Verde Canal corridor trail in the McDowell Mountain Ranch community. The Cactus Road/Scottsdale Road intersection is often identified as a major trail barrier due to the amount of traffic and the constricted space for waiting at corners. Shea Boulevard, particularly at the Pima Freeway also creates a very challenging trail experience.

In most situations, paved pathways and unpaved trails coexist in a mutually beneficial way. However, in the Terravita development along Scottsdale Road, the paved path and the unpaved trail criss-cross each other, creating an uncomfortable situation, particularly for the unpaved trail user.

G. THEMES

The previously discussed issues, opportunities, and constraints identified by the various means in the initial planning process were compiled, along with a list of issues identified by the consultant team and the Trails Planner. This list includes issues of connectivity, street crossing safety, budget, mapping, and aesthetics. Initially, these items fell within several distinct categories, such as *function, comfort and safety, identity, experience, and planning, management and operations*. These categories were further refined into the following five **themes**, which ultimately became the basis for the Trails Master Plan Goals.

FUNCTION

This theme addresses issues of functionality, at the broad citywide scale, as well as the small scale. It deals with issues such as continuity and connectivity, access, multi-modal linkages, signage, transportation and recreation, trail visibility, trail standard application, and trail hierarchy. The primary sub-categories are:

- ◆ Linkage and access
- ◆ Transportation and recreation integration
- ◆ Regionalism
- ◆ Trail signage

DISCOVERY & EXPERIENCE

This theme addresses the needs and experience of the trail users. It includes trail organization, accurate mapping, environmental impact of trails, aesthetics, adjacent land uses, regionally significant trails, multiple user needs, and neighborhood trail systems. The sub-categories are:

- ◆ Clarity
- ◆ Compatibility
- ◆ Quality experience
- ◆ Healthy lifestyle

SAFETY

The biggest safety concerns relate to either personal trail safety, to minimize the risks inherent in any physical activity, and to safety from vehicular conflict when a trail either crosses or runs parallel to a street. Thus, the two sub-categories are:

- ◆ Trail user (personal)
- ◆ Street/Trail Interface

IMPLEMENTATION

Since the most significant component of this trail plan is its implementation, there are several issues related to developing a fully functional, on-the-ground trail system. The sub-categories are:

- ◆ Development
- ◆ Improvement
- ◆ Partnerships
- ◆ Maintenance
- ◆ Process
- ◆ Enforcement

AWARENESS & EDUCATION

Awareness and education related issues deal with trail user education, promotion of the multiple benefits and uses of trails, and the promotion of volunteer programs and other partnerships. The sub-categories are:

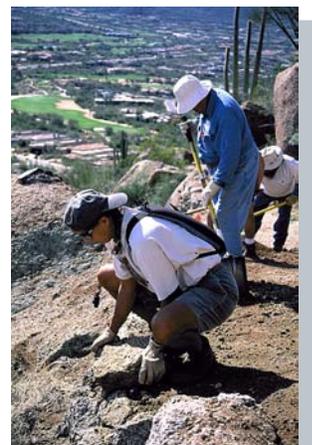
- ◆ Promotion
- ◆ Safety Education
- ◆ User/Non-user Education
- ◆ Partnerships

H. SUITABILITY ANALYSIS

Upon identification of the issues, opportunities, and constraints, a trail corridor suitability analysis was performed. This analysis was carried out on every potential trail corridor in the City of Scottsdale. The purpose of the suitability analysis was simply to identify trail corridors that are the most and least suitable for trails. This became a critical step in the planning process because it bridged the issues/opportunities/constraints and the development of the final master plan. The suitability



Bus stops, bike lanes and trails integrate transportation modes



“Partnerships” a key implementation strategy



A sign helps to educate the user on rules, history and destinations



Adjacent land use relationships weigh in during suitability analysis

analysis is the step that most greatly influenced the outcome of the overall master plan. The overall suitability analysis process was taken in the following six steps:

1. Identify several attributes that define the most suitable trail corridor
2. Assign weights to attributes
3. Define corridors to be analyzed
4. Analyze each corridor using trail attributes and assign appropriate score
5. Analyze breakdown of numerical scores and divide into suitability levels
6. Map all corridors by suitability level

CRITERIA DEVELOPMENT

In order to determine suitability, a set of criteria had to be identified. A list was developed that was a compilation of public comments from the first two rounds of focus groups and the first open house. It was these ten characteristics, or criteria, that were used to perform a segment-by-segment analysis of every potential and existing trail corridor in Scottsdale. The ten criteria are defined as follows:

LOCAL LINK

A trail corridor that links to a local destination (i.e. neighborhood park, equestrian center, neighborhood school, local open space corridor, neighborhood commercial center) in a direct way.

REGIONAL LINK

A trail corridor that links to a regional destination (i.e. regional park or trail, regional open space, major equestrian center, place of commerce or employment, high schools, etc.) in a direct way, or is a regional trail itself.

LOOP LINK

A trail corridor that completes a portion of 1 or more loops.

MULTI-MODAL LINKAGE

A trail corridor that provides existing or potential link to a larger network of sidewalks, paved pathways and/or to transit stops and stations.

ADJACENT LAND USE RELATIONSHIP

A trail corridor that complements adjacent land use. For example, a trail corridor running through a natural desert setting, such as along a wash corridor.

EXPERIENCE

A trail corridor that is defined by positive features such as scenic vistas, proximity to historic or cultural sites and/or natural features.

USE/DEMAND

A trail corridor that is expected to have heavy use or demand.

NEGOTIABILITY/USABILITY

A trail corridor that flows easily along a logical course and has numerous access points.

SAFETY

A trail corridor that is free of hazards and fosters a sense of personal safety and security.

TRAIL/TRAFFIC RELATIONSHIP

A trail corridor with minimal existing or potential conflict along or crossing a roadway.

The intent was that each corridor would receive a score of 0, 1, or 2 for each of the ten criteria, based on how well it satisfied each criteria. For example, a trail corridor might receive a zero for “Safety” if it has numerous hazards, or a trail corridor might receive a score of 1 for “Adjacent Land Use Relationship” if it has a negligible impact on adjacent land use. For a detailed list of each criteria and scoring definitions, see Appendix G.

However, it was recognized that some trail attributes are more important than others and should be given a heavier weight when being scored. For example, many people feel that safety is much more important than multi-modal linkages. Because of this, the consultant team participated in an exercise to determine the relative importance of each trail attribute in relation to the others. This was done using a computer technology called Option Finder, which was used in several of the public meetings and focus groups.

The final result was that different criteria received different weights, and that the trail corridor scoring would vary based on how each attribute was weighted. For example, some criteria received a weighting factor of 1, some received a weighting factor of 1.5 (thus a score of 1 would become a 1.5, a score of 2 would become a 3), and some received a weighting factor of 2 (a score of 2 would become 4). The following table summarizes the relative weights and subsequent scoring ranges for each attribute.

Suitability Analysis Criteria Weighting

Attribute	Weight Factor	Total Point Range
Safety	2	0 - 4
Regional Link	1.5	0 - 3
Experience	1.5	0 - 3
Use/Demand	1.5	0 - 3
Negotiability/Usability	1.5	0 - 3
Trail/Traffic Relationship	1.5	0 - 3
Local Link	1	0 - 2
Loop Link	1	0 - 2
Multi-Modal Linkage	1	0 - 2
Adjacent Land Use Relationship	1	0 - 2



The best trails go where people want to go



Hikers enjoying the Jomax Road trail

CORRIDOR ANALYSIS

Based on this scoring method, each trail corridor in the City was given a score based on how well it satisfied each of the criteria. A total of 250 corridors were analyzed and scored. The highest possible score for any trail corridor was 27. From this data, the scores and their frequency were broken down into three levels: highest suitability, moderate suitability, and lowest suitability. The scoring breakdown is as follows:

Corridor Suitability Breakdown

Suitability Rating	Suitability Score Range
Highest suitability	8.0 - 16.5
Moderate suitability	17.0 – 19.5
Lowest suitability	20.0 – 26.0

The results of the analysis were input into the ArcView GIS mapping program, and overlaid onto the existing trails inventory. From this, a suitability map was developed that showed a range of corridor suitability (see [Suitability Analysis Map](#)). This map became an essential tool that guided decisions about where the best possible trail alignments were located and also helped identify where unnecessary and unsuitable trail alignments exist that would be best removed from the plan. In addition, the suitability map guided the development of a hierarchy of trails that can best suit the needs of trail users.

FINDINGS

There was a wide variation in suitability scores that ranged all across the City. In general, wash corridors, power line corridors, canals, and scenic corridors received the highest suitability scores, especially those with a more regional significance. Corridors that received lower scores included smaller trail segments that are limited in terms of connectivity, or are in conflict with heavy traffic areas. Overall, the least suitable trail corridors account for approximately 60 miles; moderately suitable trails account for 78 miles; and there are 156 miles of trail corridors that fall within the most suitable category.

MOST SUITABLE TRAILS

The corridor that received the highest score (26) was Cactus Road from 96th Street to Frank Lloyd Wright. Other examples of most suitable trail corridors are the Arizona and Crosscut canal trails, the CAP canal (in several places), Scottsdale Road from Bell Road northward, Pima Road from Union Hills northward, Dynamite Blvd., Reata Wash trail corridor from WestWorld to Pinnacle Peak Park, Beardsley Wash, the Quartz trail running through McDowell Mountain Ranch, the Taliesin trail, the Pinnacle Peak trail, and the Lost Dog Wash trail.

MODERATELY SUITABLE TRAILS

In general, moderately suitable trails are located along roadsides throughout Scottsdale or are more locally oriented in terms of connectivity. Trail corridors representing moderate suitability include 84th St. from Shea to Thunderbird, the Gainey Loop trail connecting Paradise Valley Farms to Shea, portions of Shea Blvd., Happy Valley from Pima to Alma School Parkway, and the trails along Lone Mountain and within the Whisper Rock development.

LEAST SUITABLE TRAILS

The two trail corridors that received the lowest score (8), were trails in the Stonegate neighborhood and in Scottsdale Mountain. In both cases, they are trail corridors that were previously on the General Plan, but have become impassable due to heavy vegetation and topographical constraints. In addition, potential trail use and/or demand were determined to be limited, and other alternative routes exist. Other low-scoring trail corridors are 96th Street north of Sweetwater, the south side of the CAP canal from Scottsdale Road to Pima, and Scottsdale Road from Cholla to Cactus.

Finally, the information from the suitability map was combined with other specific information gained from the public input and firsthand knowledge of the trails. Several steps of overlaying the suitability map on the existing trail maps and database resulted in the final trail system plan, which is discussed in detail in the following chapter.



Equestrians on one of Scottsdale's Secondary Trails

