



MANITOU SPRINGS OPEN SPACE ADVISORY COMMITTEE REGULAR MEETING AGENDA

All upcoming OSAC meetings are scheduled to be remote, via Zoom. A link is provided on the City's Official Website at

<https://www.manitouspringsgov.com/544/All-Boards-and-Commissions>

February 24, 2025

6:00 PM

A. CALL TO ORDER & ANNOUNCEMENT OF MEMBER OPENINGS

1. Chair preface to the February 24, 2025 Packet (Please read this prior to reading the packet.)
2. Two openings for alternates
3. Upcoming term expiration for current members (Judy, Tim & TJ)

B. APPROVAL OF MINUTES

1. Revised Draft Minutes of September 23, 2024 (5 minutes)

C. AGENDA REVIEW and PUBLIC COMMENT ON NON-AGENDA ITEMS

D. REPORTS

1. PARKS AND RECREATION ADVISORY BOARD (PARAB)
 - a. No available approved minutes at this time

E. NEW BUSINESS

1. Fire readiness briefing from Lt. Mike Willie (20-30 minutes)
2. Rezoning Discussion with Planning Director, Fred Rollenhagen) (20-30 minutes)
3. Introduction of new alternate member applicant, Paul Arlinghaus (5-15 minutes)

F. OLD BUSINESS

1. Black Canyon Open Space (David, Tim, Josh Farmer)
 - a. BCOS MP Changes (Josh Farmer, Tim 10-20 minutes)
 - b. Status and next step (David, Josh Farmer 5 minutes)
2. Bill Bauer Trail development (Andrea, Robin)
 - a. Discuss and vote on survey questions (Tim, Robin, 10-15 minutes)

- b. Discuss and vote on Crystal Hills Blvd on-street trail question for the questionnaire (Tim, 5 minutes))
 - c. Next step? (Josh Farmer, Robin 5 minutes 5 minutes)
- 3. Existing trails development (Andrea, David)
 - a. Washout section at switchback above Wildcat Gulch (Andrea, 5 minute)
 - b. Signage on Creek Walk and Old Intemann Trail (David, 5 minutes)
- 4. Parks Supervisor's Comments (Josh Farmer 5-15 min) (Note Parks Supervisor Josh Farmer will be present in place of Parks & Recreation Director Gillian Rossi as she is out of the office)

G. FUTURE AGENDA ITEMS

H. ADJOURNMENT

Committee Members:

Tim Beeson, Chair (03/31/2025)
 David Conley, Vice Chair (03/31/2028)
 Judy Carnick, Committee Member (03/31/2029)
 Sheryl Cline, Committee Member (03/31/2026)
 Robin Kovats, Committee Member (3/31/2026)
 Anthony "TJ" Maltese, Committee Member (03/31/2025)
 Andrea Sutela, Committee Member (03/31/2028)
 Nancy Wilson, Alternate Member (03/31/2026)

Staff and Liaisons:

Judith Chandler, Council Liaison
 Gillian Rossi, Parks & Recreation Director
 Roy Chaney, Deputy City Administrator, and Public Services Director

2 alternate positions available

The City of Manitou Springs does not discriminate on the basis of disability in the admission to, access to, or operations of programs, services or activities. Reasonable accommodation will be provided to ensure equal access to all. Individuals who would like to request auxiliary aids or services should contact the ADA Coordinator at (719) 685-5481 or jfryer@manitouspringsco.gov. You may also contact the City Clerk's Office at cityclerk@manitouspringsco.gov or (719) 685-2554. Please provide a minimum of 3-5 days advance notice.

Interested citizens are invited to serve on any of the City's Boards or Commissions. Please contact the City Clerk's Office for more information or visit our website at: www.manitouspringsgov.com.

Chair preface to the February 24, 2025 Packet

1. Please note that topics are a little out of order tonight to accommodate Lt. Mike Willey, who we promised to have present first tonight, and Planning Director, Fred Rollenhagen, who will speak after Lt. Willey. We'll go through Section A as usual then skip to Section E. After Mr. Rollenhagen speaks we'll circle back around to Section B and continue on from there picking up our OSAC applicant, Paul Arlinghaus, when we get back to Section E. Mr. Arlinghaus is required to sit through an entire meeting as an OSAC applicant so the wait shouldn't be an issue for him.
2. The packet contains a copy of the BCOS Master Plan Final and a change sheet preceding it. All you need to review are the changes on the change sheet. The rest is the same document you all reviewed for the January meeting.



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September 23, 2024

6:00 PM

A. CALL TO ORDER & ANNOUNCEMENT OF MEMBER OPENINGS

A Regular Meeting of the Manitou Springs Open Space Advisory Committee was held via Zoom. The following Committee members attended:

Present: Tim Beeson - Chair
Sheryl Cline – Committee Member
Robin Kovats – Committee Member
Andrea Sutela – Committee Member
Anthony “TJ” Maltese – Committee Member
Judith Carnick – Committee Member

Absent: David Conley – Committee Member
Nancy Wilson – Alternate Member

Staff: Gillian Rossi– Parks and Rec Director
Judith Chandler – Council Liaison

1. Two openings for alternates.
2. Resignation of Vice Chair position by Nancy Wilson.
3. By request of member, demotion of Full Member Nancy Wilson to Alternate Member.
4. Promotion of Alternate Member, David Conley, to Full Member.
Motion to promote David Conley from Alternate Member to Committee Member made by Andrea Sutela with a second from Sheryl Cline.
Motion passes with 6 in favor and 0 opposed

B. APPROVAL OF MINUTES

1. No draft edits available for OSAC 08-26-2024 meeting minutes.
2. No draft available for OSAC 09-09-2024 meeting minutes.

C. AGENDA REVIEW and PUBLIC COMMENT ON NON-AGENDA ITEMS

Judy Carnick reports that she would like to receive packet information in a more timely manner when possible Chair Time Beeson will look into the possibility of sharing packet information earlier than when the entire packet is put together so the board has more time for reviewing an notations.

D. REPORTS

1. Parks and Recreation Advisory Board (PARAB)
 - a. No approved minutes available for PARAB 08-05-2024 regular meeting.

E. NEW BUSINESS

1. Draft 2025 Budget Presentation - OSAC
 - Tim shared a brief overview of the budget for 2025 including acquisition and construction goals.
2. Red Mountain Northern Escarpment open space donation (Tim)
 - Tim shared an overview of a parcel on Red Mountain that is being presented as a gift option to OSAC. Tim would like to discuss the property with City Council to see if it is viable option to add acreage to the exiting Red Mountain open space.
 - a. Vote on accepting gift if offered (Tim, 5 minutes)
Motion to accept the parcel from Lori Faber-Condren by Robin Kovats with a second from Judy Carnick. The Motion passes with 6 in favor and 0 opposed.

F. OLD BUSINESS - Note: (??? place holder for Nancy Wilson)

1. Creek Walk Phase 6 (Serpentine Drive) (Judy, ???)
 - a. Status (Judy, 5 minute)
2. Fields Park Creek Walk (Tim, ???)
 - a. Status (Tim, Gillian, 5 minutes)
Fence removal and disposal Peak Fencing - \$3400
Hazard tree pruning - \$6200

Discussion around putting off tree pruning for the city to do them when they are able

to save cost. Consensus is to hold off on pruning until a future date.

3. Bill Bauer Trail development (Andrea, Robin)

a. Status (Tim, Andrea, Robin)

Gillian was contacted by a concerned party about trail maintenance without neighborhood participation or notice. That has not been happening, but perhaps outreach needs to happen in the future.

There is a possible hiccup with the donation from Larry Rose since the planning department did not approve his lot separation for sale. More will be known in the future.

4. Black Canyon Open Space (???, Tim)

Updated the number of acres for a total of 38 acres.

a. Kimley-Horn's Concept Plan (Repeat 0 min)

b. Streamlined Master Plan (Tim, Gillian, 10-15 minutes)

Contracted with Kimley Horne. Next step is a stake holder meeting. First big workshop is scheduled for November 7th provided space can be found. This document will be an asset for future grant proposals.

c. Palmer Land Trust Q & A (Steve Harris, All, 20-30 minutes)

- Steve gave an overview of Palmer Land Conservancy and an explanation of conservation easements.
- Tim asks if the 4 acres from the new parcel should be added into the conservation easement over the larger parcel. Steve explains that while the new parcel could be added into the conservation easement, it is next to the road and doesn't hold the same conservation value as the original parcel. The concept planning (i.e. master planning) OSAC is doing now will tell how the new property should be used. It shouldn't be in the conservation easement unless it's really wildlife habitat.
- The largest part of the process is approving the Master Plan. There may be some comments after review, but essentially once it is in the master plan it is included.
- Walk at Black Canyon for OSAC Meeting. Kimley is supposed to plant flags but hasn't yet since the proposal has not been worked up yet. Tim Beeson will call Steen from Kimley Horne to see if a public walk-through can be set up.

5. Review OSAC POST Goals section 11 (???)

a. Review (???, 0 minutes)

6. Existing Trail Maintenance (Andrea, Tim)

- a. Iron Mountain (Andrea, Gillian, 10 minutes)
Andrea spoke with Shanti Toll. He is interested in collaborating in the Spring.
Traction Trailworks is going to work on the washout starting at the end of October.
- b. Red Mountain (Gillian, 5 minutes)
- c. Other trail maintenance issues (All, 5 minutes)
At the front of the trailhead on Bever's Lane there is a sign for invasive flower species. The signs are going to be removed from the trailheads.

7. Signage on Creek Walk and Old Intemann Trail (David)

- a. Status (David, 10 minutes)

8. Burns Road Parcel Donation (David)

- a. Status (David, 5 minutes)
City Council overruled and accepted the piece of property as a Manitou Springs Property. OSAC will not be liable.

Judith Chandler states her reasoning behind supporting the vote is because the City Attorney let them know that the city was not liable for some of the legal repercussions that OSAC was concerned about and she recommends having him come in and meet with OSAC at a future time to discuss legalities in parcel ownership.

9. Western Border Property

- a. (Tim, 5 minutes)
Tim spoke with David Jenkins about the parking lot. He sent a letter of intent to Jenkins expressing that OSAC is interested in obtaining the property if he is interested in selling it. He has not heard back from the letter.

10. Director's Comments (Gillian 5-15 min)

The GIS Tech has been formatting trails, and there are over 7 miles of trails than the website states. He has been doing a great job of mapping out the trails.

G. FUTURE AGENDA ITEMS

H. ADJOURNMENT

7:53pm

Committee Members:
Tim Beeson, Chair (03/31/2025)

Staff and Liaisons:
Judith Chandler, Council Liaison

Judy Carnick, Committee Member (03/31/2026)
Sheryl Cline, Committee Member (03/31/2026)
Robin Kovats, Committee Member (3/31/2026)
Anthony "TJ" Maltese, Committee Member (03/31/2025)
Andrea Sutela, Committee Member (03/31/2028)
David Conley, Committee Member (3/31/2028)
Nancy Wilson, Alternate Member (03/31/2026)

Gillian Rossi, Parks & Recreation Director
Roy Chaney, Deputy City Administrator, and Public Services
Director

2 alternate positions available

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OPEN SPACES:

Open Spaces are one of Manitou's most prized assets. They are sources of recreation and provide undeveloped spaces between denser areas of homes. Residents prize their open spaces, and the Manitou Springs places a high priority on their maintenance and stewardship.



The open spaces abut houses within the city and therefore, fuel mitigation is a high priority. Like most forests surrounding the city, wildfire risk is high due to fire exclusion.

Objectives for the open spaces are: 1) Maintain healthy wildfire adapted forest on the parcels. 2) protect vital infrastructure within the parcels, for example the water infrastructure. 3) use the areas as demonstrations of proper forest management and fuel reduction. Stewardship of lands by the city that the city is an active partner and a good steward of their properties. The city wishes to lead by example.

The open spaces in Manitou Springs included in this project are, Iron Mountain approx. 43 acres, Mesa Water tower approx. 27 acres, and the base of Red

Mountain approximately. 20 acres. All these areas are on the edge of the city and visible by the residents of Manitou Springs. One of the goals of the project is to engage residents to see the mitigation work with hope they become interested in mitigation. Aesthetics and public acceptance of the projects are critical

Mesa Water Tower



This 27-acre property is on the west edge of town and has one of the city's water towers on it and the city's lone water treatment plant just west of the parcel. Given the steep terrain and high fuel loadings, intense wildfires would be likely. Interruption of water would make the city nearly uninhabitable. Mitigation would make the water tower more resilient to wildfire and keep a major city infrastructure safer from the threat of wildfire and postfire problems.

The area is steep but there is access to the water tower and to the treatment

plant. The access road to the treatment plant is rough, but accessible to a low clearance vehicle. Dense shrubs line the road along the way to the treatment plant. Surprisingly Siberian elm is a large component of the shrub fuels. There is no fuel model for this situation, but the elm resembles a Gambel oak fuel model.

If a wildfire were burning in the area, it would be unsafe to try to protect the structures since firefighters could be suddenly trapped if access were cut off. Dense fuels adjoin the road and access to protect the treatment plant would be impossible during a wildfire.

Many acres of the open space can be masticated with a skid steer. This would be by far the most economical method of work. Steep parts could be done by hand crews and a tracked chipper although hand work is always more expensive than machine work.

Some areas can be hand cut with the slash lopped and scattered. The slash is unsightly until it decays in three to five years. Due to the unsightliness of the slash, try to use this method as little as possible. Mitigation should concentrate on breaking up the continuity of fuel by making openings in the continuous fuels. Remove as much Siberian elm as possible in the mitigation process. Siberian elm is a nonnative plant and has surely seeded in from trees planted around the city. Many plant authorities go so far as to call it an invasive species.

Black Canyon Open Space:

The 30-acre Black Canyon Open Space on the northeast side of the city is an undeveloped parcel that does not directly abut homes. Cedar Heights is about one-half mile from the northern boundary of the property although it does not directly adjoin it. Homes in that community could be at risk from firebrands should the property ever burn. Black Canyon also adjoins the Garden of the Gods, a park that the City of Colorado Springs considers a high priority and is in the process of mitigating. There is an opportunity to work cooperatively with Colorado Springs and Cedar Heights to jointly mitigate the hazards on a larger landscape level.

During a walk through the property, several long abandoned homeless camps were observed. It did not appear that there were any recent camps in the area.



Overall, wildfire hazard is high on the steep slopes adjoining the two canyons, but moderate along the ridgetops. Fuels are a mix of pinon pine, Rocky Mountain juniper and Gambel oak in openings between the trees. There are also a few ponderosa pines although they make up only a small portion of the trees. Pinyon, juniper and Gamble oak dominate the site. On the north facing slope above Black Canyon Road the trees are dense with smaller patches of oak in the openings. On the ridgetop the trees become more open. Openings between the trees are wider and filled with Gamble oak.

The prescription is to create openings and gaps in the continuous fuels to slow the rate of spread and intensity of wildfires moving through the property. Small masticating heads mounted on skid steers would be the ideal means of work along the ridge and where slopes are moderate with fewer rocks. Even though fires may burn up the slope mitigation along the ridge will slow and reduce the intensity of fires burning up the ridge

The steeper slopes where the terrain is rocky present a problem. This slope

has a high wildfire hazard, but the combination of steep, rocky terrain makes any work more difficult. Hand cutting and use of a tracked chipper may be the only practical and cost-effective—albeit expensive—way of working the slope, and some rocky areas may still be inaccessible. Work the areas that are accessible to the chipper. Some other areas can be mitigated using hand crews and lop and scatter for slash disposal. Lop and scatter should be used only in small areas.

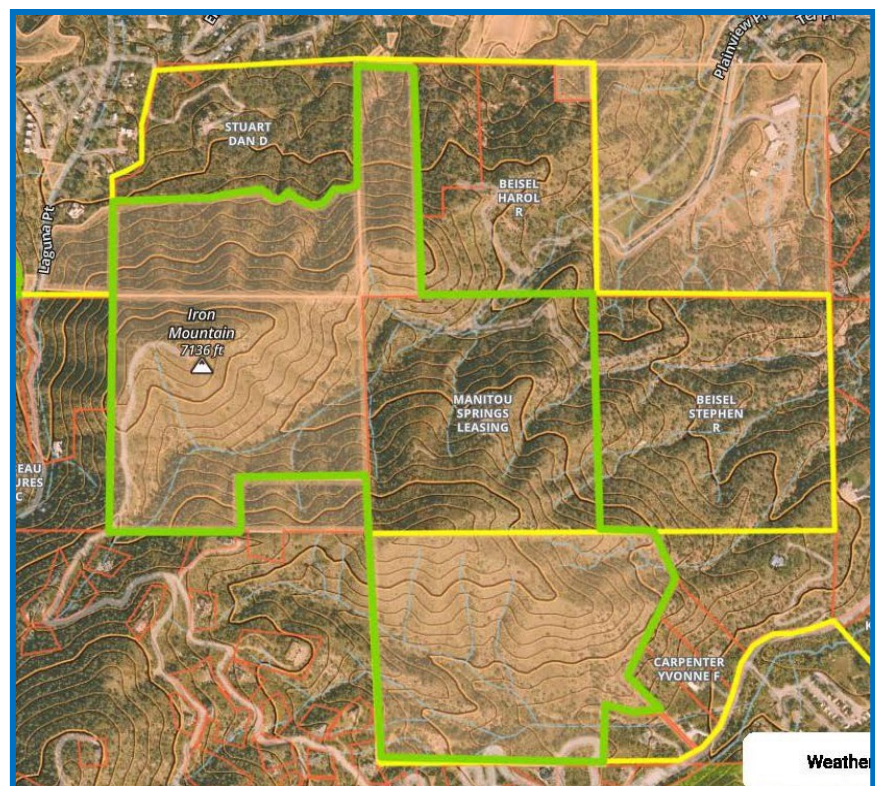
One difficulty in this open space is access. With no developed roads or trails it is difficult to access the site. There are some social trails that appear to be well used. The current social trail, running along the ridge from the northwest corner to Highway 24 appears to be an old, abandoned, road. The road is faint in some places. With only minor improvements, it would be accessible for tracked chippers or skid steer mounted masticator. However, a pickup truck could not traverse the old road without a great deal of improvement.

Judging from aerial photographs, this trail meets Black Canyon Road on private property near the old quarry, and it traverses private property before reaching the Manitou open space. Permission to access the property with equipment would be required to use this route.

Iron Mountain Open space:

Iron Mountain Open Space is on the southeast side of Manitou Springs, the area is approximately 43ac. The Intemann Trail (Ring the Peak Trail) traverses the open space. In many places the trail is an abandoned road that would provide access for small, motorized equipment or a pickup truck.

The area is bordered by the neighboring community of Crystal Park on the south, and some homes directly adjoin the open space. Parts of the open space are more easily



accessible through private properties in Crystal Park, if agreements for access can be negotiated with the landowners. As Crystal Park is a Firewise Site with mitigation programs of its own, the possibility of cooperation between the communities seems worth perusing.

Slopes are steep, sometimes 45 degrees, and cut by deep drainages with stands of ponderosa pine and Douglas-fir, usually on north facing slopes. The north facing slope of Iron Mountain is forested with ponderosa and Douglas-fir and Gambel oak. On south and west facing slopes, vegetation is usually scattered clumps pinyon and Rocky Mountain juniper with mountain mahogany and some oak between tree clumps. Some of the slopes could be mechanically masticated with skid steers, but others are too steep. As with other open spaces track chippers and hand crews could work most of the slopes.

Although high intensity fires are likely in the timber fingers, the surrounding mountain mahogany would support moderate intensity fires. The most effective mitigation would be to treat the shrubs above the draws on more accessible ridgetops by creating openings and breaking up the continuity of the fuel.

In the draws, terrain is too steep to permit motorized equipment, and any work would need to be done by hand. Larger trees tend to be in clumps with space in the canopy around the clumps. The greatest hazard is lower limbs, regeneration or shrubs in the understory that would act as ladder fuels. Wholesale forest thinning would not accomplish much and be prohibitively expensive. The prescription for timber stands in these areas would be to do pruning of lower branches, minor thinning regeneration and brush ladder fuels, and lop and scatter slash.

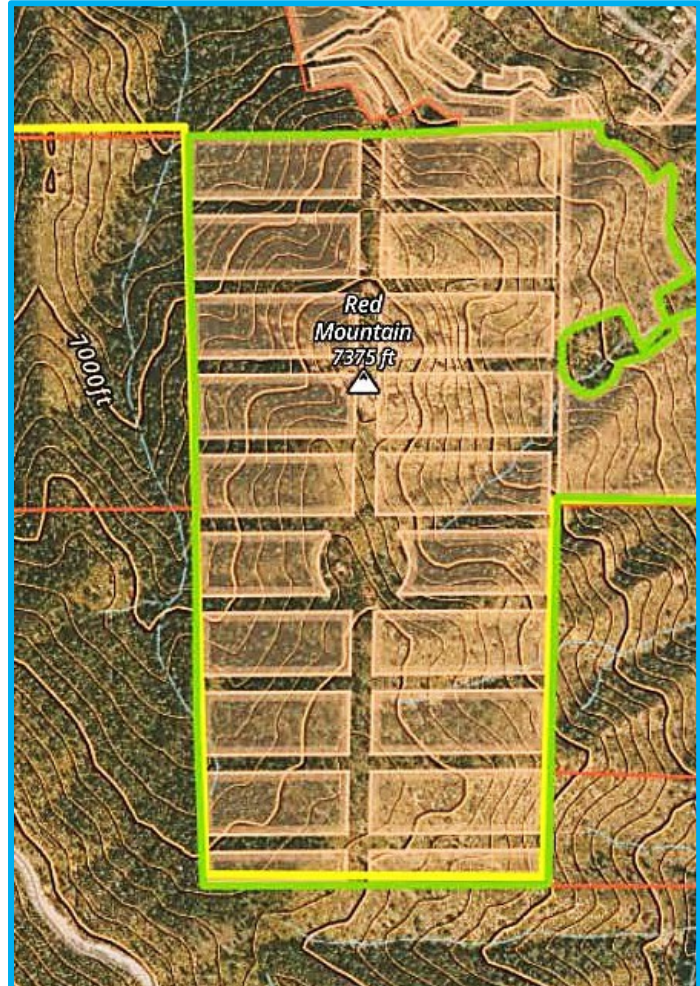
To avoid generating large quantities of unsightly slash, work can be done in smaller areas, probably by volunteers over longer periods, and in isolated clumps of piñon and juniper on the slope above the drainages. The timber is not so continuous as to present a severe fire hazard.

Red Mountain:

There are several parcels together that add up to about 20 acres, this acreage is also on the south side of Manitou Springs and is adjacent to the Iron Mountain Parcels that are part of the plan. This area is right on the edge of residential area and has the popular Intemann trail on it, that also access's the popular Red Mountain Trail. This area is also thick with Gamble oak, mountain mahogany, and some pine trees. The area would benefit from reducing

fuel in the area and breaking up the continuity of vegetation in the area. This area would also be a mix of mastication, hand work with lop and scatter and chipping capabilities.

All these areas mitigated would make the City more wildland fire resilient, meet goals that were set in the CWPP, build partnerships for further mitigation in the future and hope to raise awareness of the benefits of mitigation for the city of Manitou Springs and residents to take a more serious look into mitigating their properties. There has been mitigation done in a city open space and mitigation done at the City's Reservoir but the opportunity to take that work and use as public engagement was not used to the fullest ability. Also, more mitigation efforts of boots on the groundwork being done and using as a showcase will hopefully inspire residents to do mitigation more than offering our annual chipper days.



MAINTENANCE

Survivable space, fuel break thinning, or any type of forest management does not end when the initial project is finished. Continual maintenance is an essential part of any forest management program. Even in well managed forests trees will die, storms and wind will damage trees, and new trees will germinate.

Trees should be inspected every spring for any sign of damage from winter or spring snows or wind. Prune any broken branches if they are not too high in the tree, and trees bent by heavy winter snow should be removed. Check for any signs of insect activity or disease.

Late October is the best time to inspect trees for attack by mountain pine beetles. Beetles have finished attacking trees at this time, and there is adequate time to cut and treat the tree before the adult beetles fly the next July.

At five years check the canopy closure, especially in zones one and two. Remove any trees necessary to maintain openings in the canopy. Do any additional pruning or removal of trees and shrubs to eliminate ladder fuels.

After ten years, dense thickets of young trees (regeneration) may have become established, and these will need to be thinned. Not all regeneration should be cut since trees of various ages are important for forest diversity. Young trees in openings with adequate room to grow should remain. Regeneration that is likely to become ladder fuel or crowded by other trees should be cut. Depending on their objectives, landowners may want to consider removing some of the larger trees to make room for the younger ones.



City of Manitou Springs

Application for Board/Commission Membership

Please complete the following to express interest in board or commission membership.

[Click here for a list of all board and commission vacancies!](#)

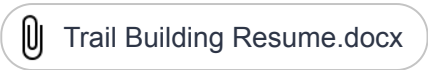
Which Board are you Applying For?	Open Space Advisory Committee
Membership Requested	• Alternate
Full Name	Paul Arlinghaus
Street Address	196 Chelten Rd, Manitou Springs, 80829
City	Manitou Springs
State	CO
Zip Code	80829
Phone	3177305046
Email	parlinghaus@msn.com
Do you have any special interests? If so, please briefly provide details below:	I moved to Manitou Springs in January 2024. I was involved in trail building/maintenance and trail advocacy for the past 25 years in Indiana. I worked with Local Parks, State Parks/Forests, as well as National Forests. I am interested in trail connectivity to Pikes Peak National Forest and a Cycling connection (paved/gravel) from Manitou to Woodland Park. There have been a couple of articles recently on the CPW Pikes Peak Partnership and the UTE Pass Regional Trail. I am interested in being involved with these efforts. I have experience with very long-term efforts/projects and would like to see how these projects can provide more recreation opportunities to the residents of Manitou Springs.

Per City Charter 9.3: The Council shall not appoint to any Board or Commission any member of the immediate family of any Council Member. Immediate family shall be defined as spouse, parents, brothers, sisters, and children.

(Amendment No. 8, adopted and approved January 14, 1975)

Do you have an immediate family member on City Council? No

Please attach a resume:



Date 02/06/2025

Paul Arlinghaus
196 Cheltenham Rd
Manitou Springs, CO 80829
317 730 5046

parlinghaus@msn.com

Paul's Trail's Resume

Background: My wife and I met at a mountain bike race and trail-based recreation is important to us. We are primarily mountain bikers but also hike and trail run. Our Vacations are based on trails and we have experienced trails all across the USA. In the early 2000's my cycling team began hosting events and helping with trail maintenance at my local trail (Town Run Trail, Indianapolis, IN). I enjoyed trail maintenance and in 2003 became the Town Run Trail Leader for the Hoosier Mountain Bike Association (HMBA). In 2005 HMBA received a \$150,000 Recreation Trail Grant for Brown County State Park. I stepped up to manage this grant. This grant project led to becoming President of HMBA in 2007 and working with the Indiana Department of Natural Resources. This was the first of many Grants. I wrote and/or managed 7 large grants totaling \$1,128,585, that built 68 miles of trail in City and State Parks. One of the requirements to build trails in Indiana was that volunteers needed to take on 100% of the responsibility for trail maintenance for any new trails. So as these trails were being built, we needed to recruit and train local volunteers to support the trails in an ongoing basis. In January of 2024 Allegion, my employer, had an engineering opening in our Colorado Springs location. My wife and I relocated to Colorado in large part to have access to better outdoor recreation opportunities.



Me, bench cutting at Brown County State Park

Primary Trail Systems that I have been involved with

Town Run Trail, Indianapolis, IN

- 7-mile trail that is primarily used by mountain bikers but is multiuse.
- Trail is along a river and much of it is in flood plains with creates extra challenges to maintenance and trail management.
- I led the redesign of many adopted trail sections that were not designed with sustainable trail design principles.
- I led the maintenance of the trail, including chain sawing down trees, recovering from floods, and correcting any general trail issues.

Brown County State Park / Yellowwood State Forest / Hoosier National Forest, Nashville, IN

- Managed three grants (wrote 2 of them), totaling \$400,000. These grants built 22 miles of trail.
- Fundraising to support the trail development and maintenance.
- Led the effort to build 12 miles of trail with volunteers.
- Worked with Park Staff and Profession Trail builders to design and approve trail corridors.
- Led and trained local volunteers to maintain the trails.
- Worked with Hoosier National Forest to redesign a trail and open it to bikes.
- The overall trail system connects to Hoosier National Forest and Yellowwood State Forest.
- The Mountain Bike Trails at Brown County State Park are Nationally recognized and draw riders from across the US.

O'Bannon Woods State Forest / Harrison Crawford State Forest, Corydon, IN

- Managed 2 grants (wrote 1 of them), totaling \$250,000. These grants built 12miles of trail.
- Lead the construction of 5 miles of volunteer-built trail.
- Trained and led local volunteers to maintain the trails.
- Designed 2 additional trails, one was built in 2024 and one will be built in 2025.

Versailles State Park, Versailles IN

- Managed 1 grant for \$75,000 and wrote another grant for \$200,000.
- Trained local volunteers and supported their effort to creat their own 501 c(3) group, which took over development and maintenance for this trail system.

Southwestway Park, Indianapolis

- Advocated for mountain bike access to this park.
- Built 1st trail with volunteers, while working on a trail master plan and grant.
- Wrote and managed a \$128,000 Grant that along with volunteer build trails completed the current trail system at SWW.
- The trails users at SWW are very diverse and include hikers, trail runners, mountain bikers and equestrians.

Areas of experience

- Leading volunteer trail sessions for new construction and maintenance.
- User management and resolving user conflict.
- Working with other user groups (Hikers, Trail Runners, Equestrians).
- Worked with a wide range of boards and groups.
 - Natural Resource Commission
 - Trails Advisory Board
 - Friends of Groups
 - State Forest Advisory Council
 - Indiana Forests Forever
 - City Parks boards
 - Tourism groups
 - Invasive Removal groups
 - Legislators and local government
 - Corporate Volunteer Days.
- Trail Design with sustainable trail principles.
 - Designed trails.
 - Worked with Professional Trail Builders.
 - Taught trail design and maintenance classes.
 - Training on Special Trail projects: Armoring, Back Channeling, Dealing with Seeps, trail hardening, building trail features on advanced trails, etc..
- Led HMBA's Specialized trail programs and features programs.
 - HMBA Chain Saw Certification Program
 - Design of construction of Bridges
- Formal Trail Approval Processes
 - Worked with Park / Forest Staff to develop trails to fit within the overall properties' goals.
 - Archeology and Ecology reviews.
 - Formal processes: NEPA, 106, US Waterways
- Insurance and Liability
 - Lead HMBA through 2 lawsuits.
 - Worked to insure HMBA after the IMBA trail insurance program ended.
- Running a 501(c) 3 Organization
 - Filled the following roles: President, Vice President, Treasure, and General Board Member.
 - Led efforts to ensure 501 (c) 3 status.
 - Long term Planning, including preparing organization for my exit.



Building a bridge 1 mile deep into Yellowwood State Forest

While I have needed to step back and focus on settling in at a new job and home, I have engaged in trails in Colorado.

- Attended volunteer trail days with Friends of Red Rock Canyon, Pikes Peak Trail Cats, Green Mountain Falls Trails, Rocky Mountain Field Institute, and Colorado Springs Parks.
- Completed the Colorado Springs Parks Trails Crew Leader training and program.
- Attended Friends of Red Rock Canyon Board meetings.

Summary of Grants I have Written/ Managed

Year	Grant	Amount	Location	Mile of Trail	Written	Managed
2005	Recreational Trail Program	\$150,000	Brown County State Park	12.3		X
2008	State Trail Grant	\$250,000	Versailles, O'Bannon Woods, and Harmonie State Parks	29.3		X
2009	Recreational Trail Program	\$128,585	Southwestway Park (Indy Parks)	5.0	X	X
2010	Recreational Trail Program	\$150,000	O'Bannon Woods State Park	6.0	X	X
2016	Indiana Destination Grant	\$50,000	Brown County State Park	3.5	X	X
2019	Next Level Trails Grant	\$200,000	Brown County State Park	6.5	X	X
2020	Next Level Trails Grant	\$200,000	Versailles State Park	5.5	X	
	Total	\$1,128,585	Total	68.1		



Armoring Project with Park Staff, Americrops, and local volunteers

Primary Trails I have been involved with building and maintaining												
Trail	Rating	Park	Build (Primary)	Miles	Volunteer Built (mi)	Pro Trail Built (mi)	Grant Writing	Grant Proj. Management	Lead Volunteer Construction	Lead Maintenance	Trail Design	Trail Approval
Town Run	intermediate	TRTP	Volunteer	6.5	7.0	0.2			X	X	X	X
Limekiln (West)	Beginner	BCSP	Professional	2.5	0.0	2.5	X	X		X		X
Pine Loop	Beginner	BCSP	Professional	2.2	0.0	2.2	X	X		X		X
Grandview Loop	expert	VSP	Professional	6.0	1.0	5	X	X				X
Sycamore	Beginner	HSP	Professional	4.5	0.0	4.5	X	X				
Walnut	intermediate	HSP	Professional	3.0	0.0	3	X	X				
Walnut	expert	BCSP	Professional	4.5	0.5	4	X	X	X	X		X
Schooner Trace	expert	BCSP	Professional	3.1	0.8	2.3	X	X		X		X
Cliffside	expert	VSP	Professional	2.5	0.0	2.5	X	X				X
Shawdow Run	Beginner	VSP	Professional	4.0	0.0	4	X	X				X
Rocky Ridge	expert	OWSP	Professional	2.5	0.0	2.5	X	X		X		X
Fire Tower	intermediate	OWSP	Professional	6.5	0.0	6.5	X	X		X		X
Lenape	intermediate	SWW	Professional	1.9	0.0	1.9			X	X	X	X
Cockrum	Beginner	SWW	Volunteer	1.3	1.3	0			X		X	X
Green Valley	intermediate	BCSP	Professional	4.5	0.0	4.5	X	X		X		X
Group Camp	intermediate	OWSP	Volunteer	3.5	3.5	0			X	X	X	X
Schoen Creek	expert	FHSP	Volunteer	3.5	3.5	0			X	X		
Lawrence Creek	intermediate	FHSP	Volunteer	4.0	3.5	0.5			X	X		
Camp Glen	Beginner	FHSP	Volunteer	1.0	1.0	0			X	X		
Big Fire South	intermediate	SWW	Professional	0.5	0.0	0.5	X	X				X
Big Fire North	Beginner	SWW	Professional	0.5	0.0	0.5	X	X				X
Mann Loop	Beginner	SWW	Professional	1.1	0.0	1.1	X	X				X
Mann Summit East	Beginner	SWW	Professional	0.3	0.0	0.3	X	X				X
Lower Cotton Wood	intermediate	SWW	Professional	0.5	0.0	0.5			X		X	X
Mann Summit North	intermediate	SWW	Professional	0.2	0.0	0.2	X	X				X
River/Mann Connector	intermediate	SWW	Professional	0.2	0.0	0.2			X		X	X
Bobcat	expert	BCSP	Volunteer	1.5	1.4	0.1	X	X	X	X	X	X
Aynes Connector	intermediate	BCSP	Volunteer	0.8	0.8	0			X		X	X
Lucas Hollow	intermediate	YSF	Volunteer	3.0	3.0	0			X	X	X	X
Potato Run	intermediate	OWSP	Volunteer	1.3	1.3	0			X			X
Power Line DH	Expert	SWW	Professional	0.5	0.0	0.5	X	X				X
Upper Cottonwood	intermediate	SWW	Professional	0.5	0.0	0.5	X	X				X
Riverview	intermediate	SWW	Professional	0.5	0.0	0.5	X	X				X
Breeden	Flow	OWSP	Professional	3.0	0.0	3	X	X				X
Crooked Creek	expert	YSF	Volunteer	5.6	5.6	0			X	X	X	X
Hobbs Hollow	flow	BCSP	Professional	3.5	0.0	3.5	X	X				X
Shelly	intermediate	BCSP	Volunteer	2.0	2.0	0			X	X		X
Weed Patch (office to B.C)	flow	BCSP	Professional	2.5	0.0	2.5	X	X	X	X		X
Limekiln (East)	flow	BCSP	Professional	2.0	0.0	2	X	X				X
Trail D	intermediate	HNF	Agency	3.0	0.0	0					X	X
AHT (Iron Bridge)	expert	OWSP	Volunteer	2.5	2.5	0					X	X
AHT (Pioneer)	expert	OWSP	Volunteer	2.5	2.5	0					X	X
West Gate	flow	BCSP	Professional	1.0	0.0	1	X	X				X
Gnawbone	flow	BCSP	Professional	1.0	0.0	1	X	X				X
				107.4	41.05	64						
KEY												
TRTP	Town Run Trail Park (Indy Parks)											
BCSP	Brown County State Park (Indiana State Parks)											
VSP	Versailles State Park (Indiana State Parks)											
HSP	Harmonie State Park (Indiana State Parks)											
OWSP	O'Bannon Woods State Park (Indiana State Parks)											
SWW	Southwestway Park (Indy Parks)											
FHSP	Fort Harrison State Park (Indiana State Parks)											
YSF	Yellowwood State Forest (Indiana State Forests)											
HNF	Hoosier National Forest											

BCOS MP Modifications to Final Version

2/20/25

Email from Stephen Myers, Kimley-Horne

Good morning BCOS Team,

I have attached the revised Master Plan with today's date here to this email. Gillian was going to reach out to David at the City of COS to discuss the naming of their open space at Snyder Quarry. Regarding trail building priority to local groups, we did not feel this was appropriate for inclusion into the Master Plan.

I have provided a summary of the changes to the document below:

- **Section 3.4 – Page 11**
 - Added to end of last paragraph: “OSAC and the Parks and Recreation Department are actively working with MSFD to update the Community Wildfire Protection Plan in early 2025 to include open space fire mitigation elements.”
- **Section 7.3 – Page 22**
 - Replaced last sentence with: “Connectivity to other trail systems was evaluated and is not recommended at this time. Due to the small size and sensitive nature of the site elements, it is recommended that no additional trail connections be incorporated into this site.”
- **Section 9.2 – Page 28**
 - Added to end of second paragraph: “It is recommended that all existing trail enhancements be constructed via hand-tool based construction methods. New trail segments requiring significant earthwork may require limited, machinery-based construction methods (i.e. mini excavator) and will need prior approval from OSAC.”

Please let me know if you have any questions.

Thanks,
Stephen

Stephen Myers, PWS | Environmental

Kimley-Horn | 2 North Nevada Avenue, Suite 900 | Colorado Springs, CO 80903

Direct: 719.581.7962 | Mobile: 813.765.8028 | www.kimley-horn.com

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City of MANITOU SPRINGS

PARKS & RECREATION DEPARTMENT

FINAL BLACK CANYON OPEN SPACE MASTER PLAN

FEBRUARY 20, 2025

PREPARED BY:

Kimley»Horn

Expect More. Experience Better.

PREPARED FOR:



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1. INTRODUCTION

1.1 BACKGROUND

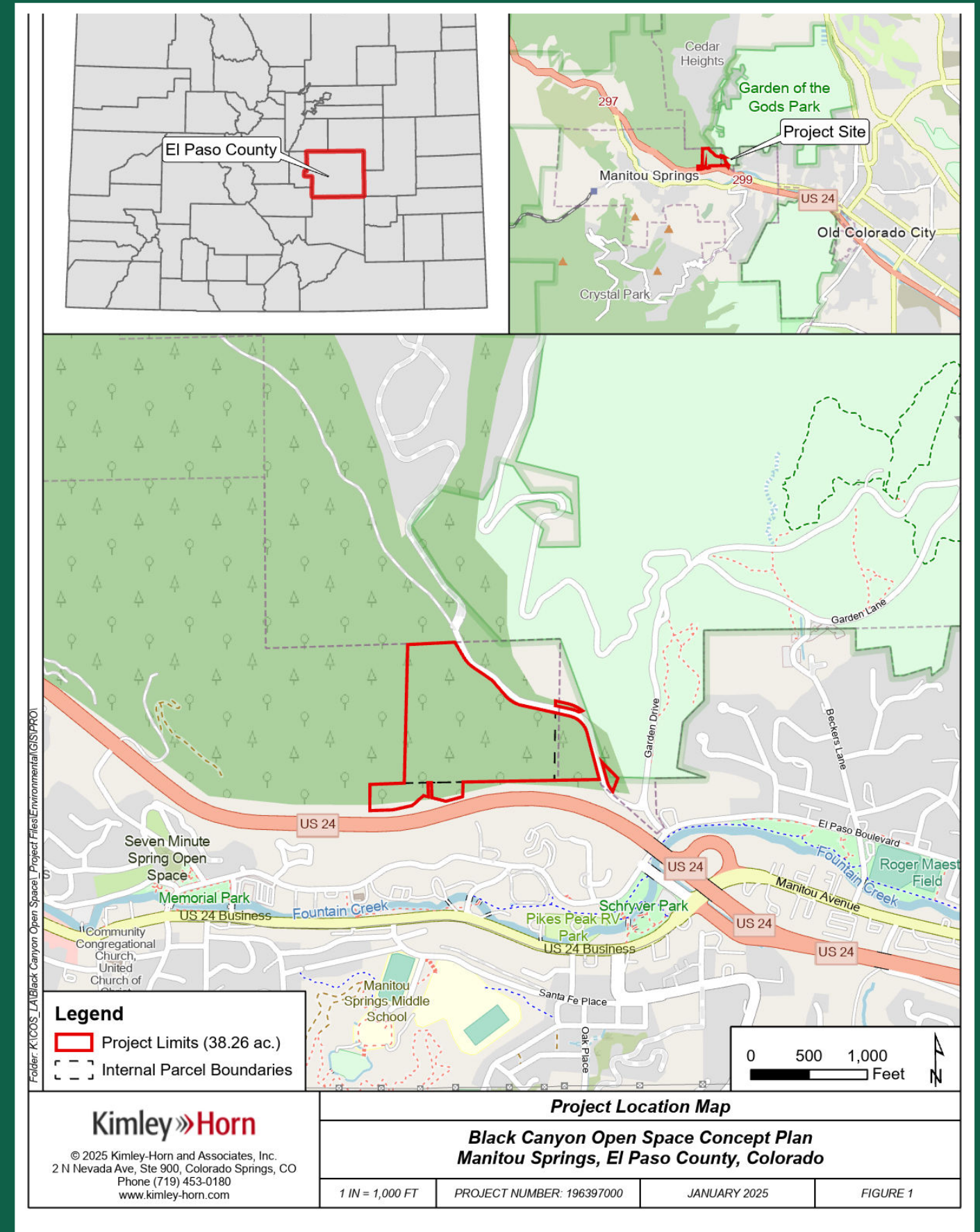
The Black Canyon Open Space (Property) includes three parcels, totaling approximately 38 acres, located north of the City of Manitou Springs between Highway 24 and Black Canyon Road in El Paso County, Colorado. A location map is attached as Figure 1. The Property is located in Section 4 of Township 14 South and Range 67 West, within El Paso County, Colorado. Two parcels were acquired by the City of Manitou Springs in the spring of 2016 from the Richard and Robert Craun Irrevocable Trust using Great Outdoors Colorado funds and City of Manitou Springs Open Space tax funds. Prior to acquisition by Manitou Springs, the Property was vacant land. There are minimal existing improvements on the Property other than fences along CDOT Right-of-Way and a small network of social trails. The Property was immediately enrolled in a conservation easement that is held by Palmer Land Conservancy as required by Great Outdoors Colorado. Subsequently, a Land Stewardship Plan was completed for the Property in 2016, which is referenced throughout this document. The goals established by the Land Stewardship Plan include the development of public access trails, maintenance of habitat, wildfire mitigation, and the preservation and dissemination to the community of the cultural legacy associated with the property. Due to limited access, recreation planning for the Property was limited following the 2016 purchase. In May 2024, the City of Manitou Springs acquired the easternmost 4-acre parcel from Westside LLC which greatly facilitates access to the Property.

1.2 PURPOSE

The Black Canyon Open Space Master Plan (Plan) includes a review of previous works completed by the City of Manitou Springs and is intended to take the next steps in designing property improvements to fulfill the proposed goals, uses of the Property and checking the boxes in an effort to provide the review for funding opportunities and grant proposals. The sections below include site-related historic context, existing conditions and site assessment, an overview of the community involvement process, recommendations, the Plan layout, trail system design intentions, trail system design guidelines and the references and resources used in the formation of this Plan.

This Plan was led by the Black Canyon Open Space Master Plan working group, comprised of the following parties:

- Tim Beeson, OSAC Chair
- David Conley, OSAC Vice Chair
- Gillian Rossi, Parks & Recreation Director
- Cassandra Hessel, City of Manitou Springs Public Information Officer
- Stephen Myers, Kimley-Horn
- Jim Houk, Kimley-Horn
- Aaron Vincent, Kimley-Horn

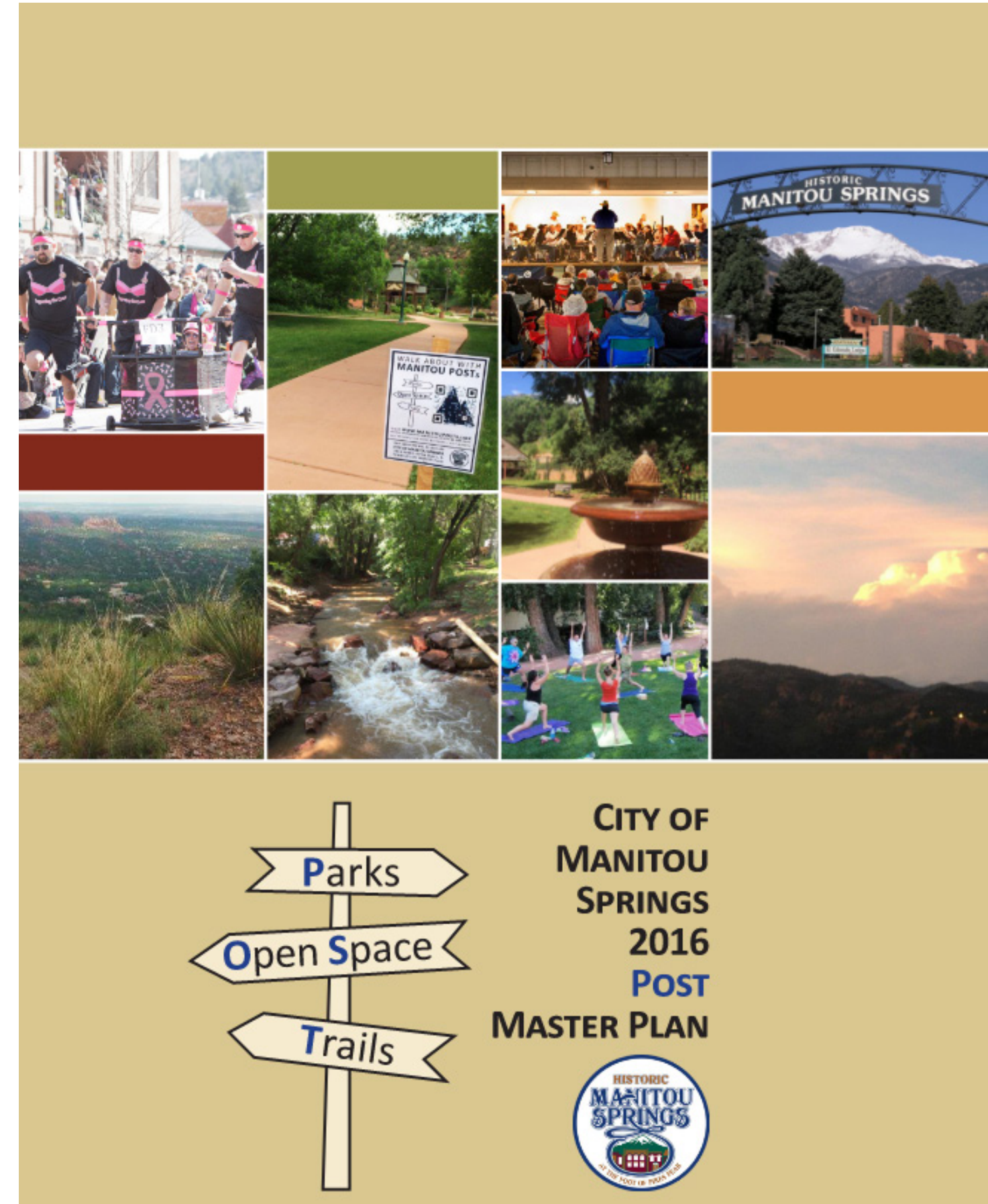


1.3 BASIS OF KNOWLEDGE

The following information represents non-negotiable responsibilities of the Manitou Springs Parks & Recreation Department, which served as parameters throughout the decision-making process:

**MANITOU SPRINGS 2016 PARKS, OPEN SPACE AND TRAILS MASTER
PLAN BASIS OF KNOWLEDGE**

- The planning process will respect the terms and conditions of all existing and future easements on City of Manitou Springs parks, open space properties and trails.
- The Manitou Springs 2016 Parks, Open Space and Trails Master Plan will inform the City's Master Plan and Hazardous Mitigation and Recovery Plan as well as this Black Canyon Open Space Master Plan.
- Everyone interested in Manitou Spring's parks, open spaces and trails is welcome and encouraged to participate in the process to develop the Master Plan; all voices will be equal in the decision-making process.
- Implementation of the Master Plan will occur as funding allows.
- This Black Canyon Open Space Master Plan will be submitted to the City of Manitou Springs Open Space Advisory Committee and the Parks and Recreation Department for review and to the Manitou Springs City Council for review and approval.



DEED OF CONSERVATION EASEMENT AND BCOS LAND STEWARDSHIP PLAN BASIS OF KNOWLEDGE

The following understanding applies only to those two parcels of the Black Canyon Open Space delineated in the 2016 Black Canyon Open Space Deed of Conservation Easement program. It is a requirement that the Palmer Land Conservancy team reviews and approve proposed Master Plan improvements and management decision for the approximately 33.48 acre Deeded land parcels and easement.

DEED OF CONSERVATION EASEMENT BASIS OF KNOWLEDGE

- Palmer Land Conservancy (Deed of Conservation Easement Grantee) is a publicly supported, tax-exempt non-profit organization qualified under Sections 501(c)(3) and 170(h) of the Internal Revenue Code, the primary purpose of which is the preservation, protection or enhancement of land in its natural, scenic, historical, agricultural, forested and/or open space condition.
- Palmer Land Conservancy is responsible for enforcing the terms of this Conservation Easement and upholding its conservation purposes forever and as such, is obligated to enter upon the Property at reasonable times in order to monitor and otherwise enforce the terms of this easement; as well as to observe, study and make educational and scientific observations on the Property.
- The limited development permitted under this Conservation Easement does not permit a degree of intrusion that threatens the Conservation Values of the Property.
- The “Conservation Values” of the Project are as follows:
 - The Property will provide community access for passive outdoor recreation and education, trail connections and associated recreational access for the use and enjoyment of the general public.
 - The Property qualifies as open space because it is being preserved for the scenic enjoyment of the general public and pursuant to clearly delineated governmental conservation policy and will yield significant community benefit.
 - Distinct uses are prohibited within the bounds of the conservation easement as provided in Section 3 of the Deed of Conservation Easement.

**BCOS LAND STEWARDSHIP PLAN BASIS OF KNOWLEDGE**

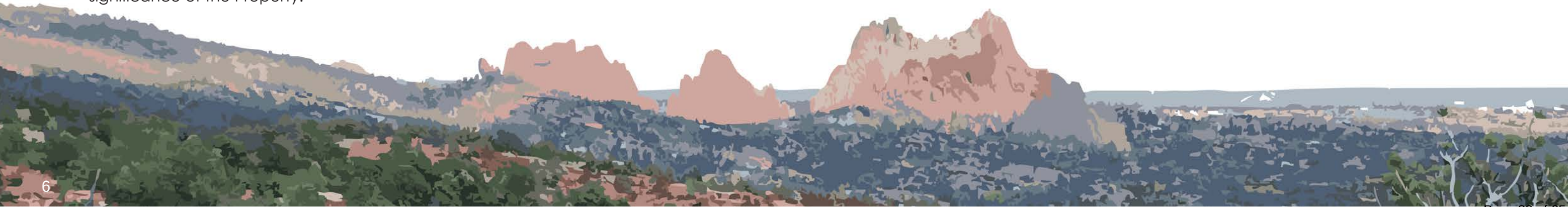
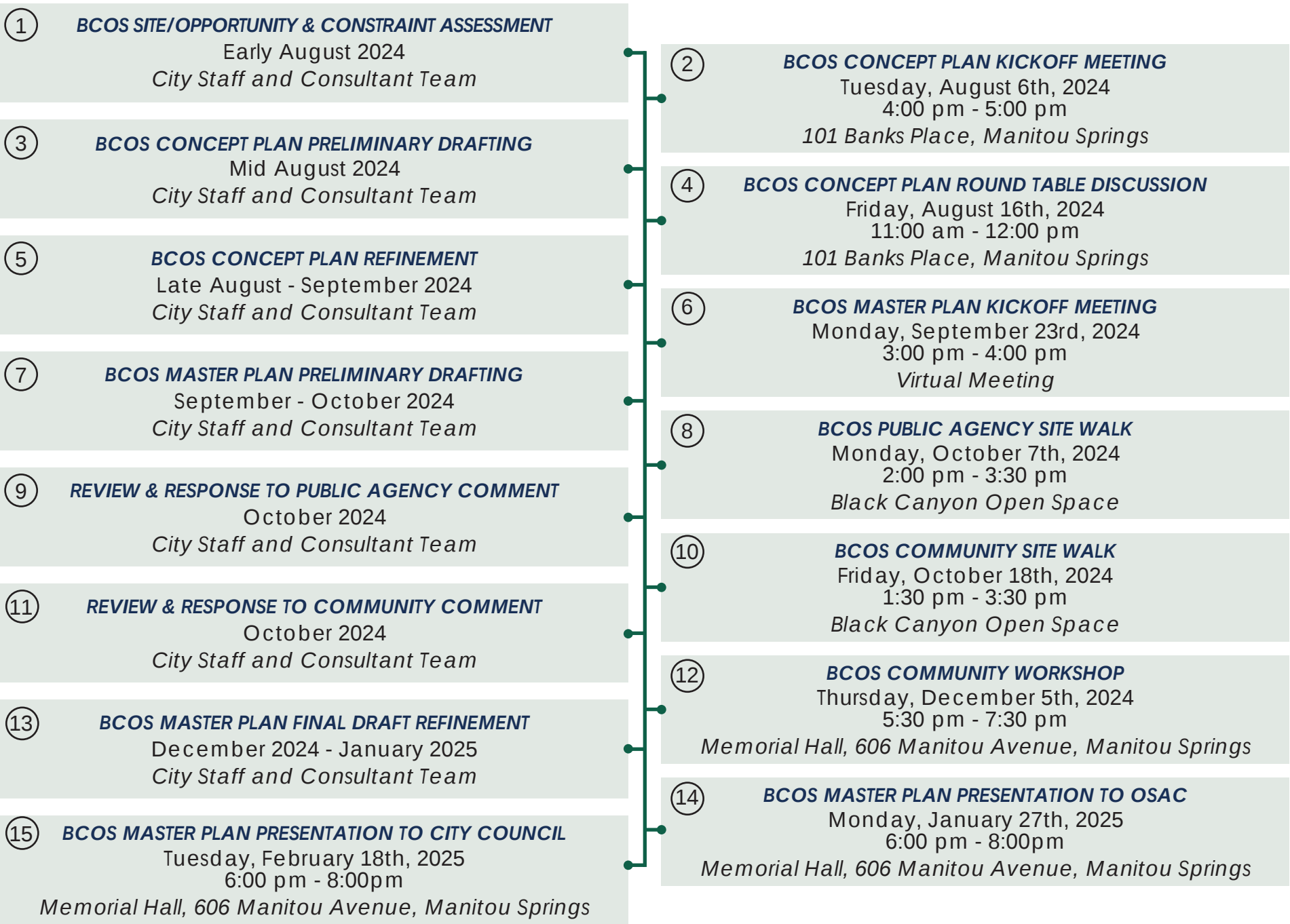
- Provide quality outdoor recreation and education opportunities to the community while maintaining the quality of the natural resource base.
- Accommodate visitor safety through digestible information dissemination and maintenance of physical safety measures for the community.
- Utilization of open space property to educate visitors about local and regional cultural history.
- Increase visitor understanding and awareness of natural resource management issues.
- Minimization of conflicts between recreational users through promotion of proper trail etiquette and encouragement of appropriate access and uses.
- Maintain and enhance the health, vigor and diversity of native ecological communities.
- Improve wildfire preparedness and mitigate the risk of wildfire.
- Maintenance or enhancement of wildlife habitat.
- Maintain and uphold open space and scenic conservation values defined in the Deed of Conservation Easement.
- Provide recreational opportunities and increase trail connectivity to surrounding areas.
- Maintain a positive relationship with adjacent landowners/land managers and agencies.
- Mitigate resource degradation, hazards and expenses associated with transient populations.
- Promote open space programs to the community.
- Preserve and maintain the cultural and historical significance of the Property.

1.4 GOALS

The working group, with guidance from the Black Canyon Open Space Land Stewardship Plan, established the following goals for the Master Planning effort:

- Provide quality recreation opportunities for multiple user groups while maintaining the resource base and adhering to the Deed of Conservation Easement.
- Provide local community, local government and NGO resource engagement.
- Accommodate visitor safety.
- Utilize open space properties to educate visitors about local and regional cultural history.
- Increase visitor understanding of natural resource management issues.
- Maintain or enhance the health, vigor and diversity of native ecological communities.
- Maintain or enhance wildlife habitat.
- Restore degraded ecological communities.
- Improve wildfire preparedness and mitigate the risk of wildfire.
- Showcase locally significant viewsheds.
- Provide natural and cultural resource context via interpretation.
- Positively influence ecosystem stewardship.
- Maintain and uphold open space and scenic conservation values defined in the Deed of Conservation Easement.
- Maintain a positive relationship with adjacent landowners, land managers and agencies.
- Mitigate resource degradation, hazards and expenses associated with transient populations.
- Preserve and maintain the cultural and historical significance of the Property.

1.5 MASTER PLANNING PROCESS STEPS



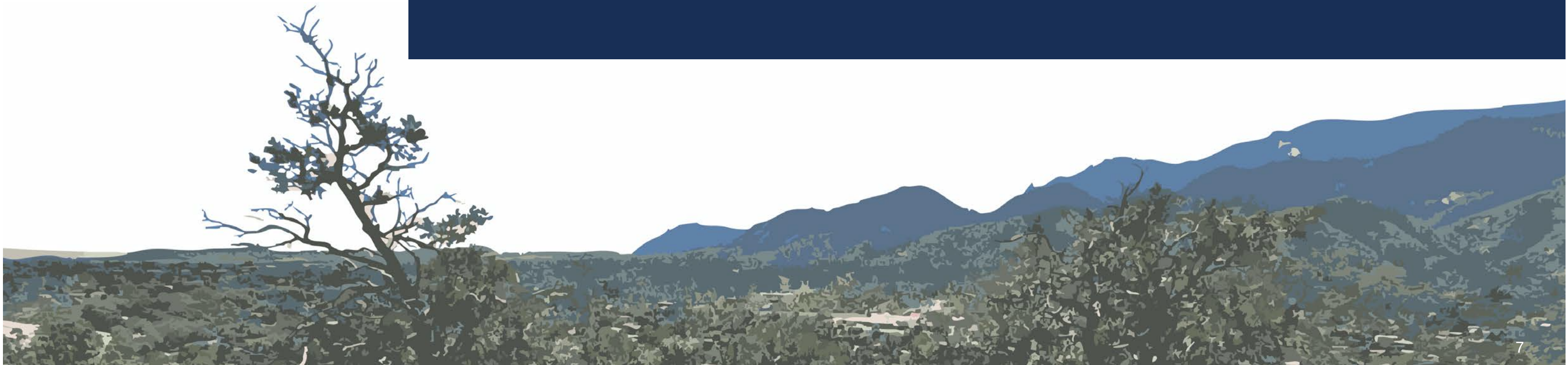
2. HISTORIC CONTEXT

2.1 PRE-COLONIAL HISTORY OF BLACK CANYON OPEN SPACE

The Property is situated along the Front Range of Colorado, north of the small community of Manitou Springs and proximal to Colorado Springs, the second largest city in Colorado. As detailed in Petit's (2016) description of the cultural history of the area, Manitou Springs has been visited and honored by Native American tribes for many thousands of years. These first people came for healing and revitalization, attracted by the mineral waters. These mineral springs result from an artesian process where water rises through layers of rock, picking up minerals and soda, or sodium bicarbonate. Each spring has a different mineral content, and because of that, a different taste. The slightly acidic water also seeps back into the ground through fractures and joints. Once underground, the water slowly dissolves soluble rocks into subterranean passages, caverns, and caves, creating formations like the nearby "Cave of the Winds" (Mineral Springs Foundation, 2015).

The Ute people were among the first groups to use the area. Forage, game and clear waters were plentiful, and the land was highly prized. The tribe followed a distinct seasonal pattern of hunting and gathering, interspersed with ceremonies designed to ensure success in these activities as well as to maintain harmony with the natural world. In autumn, several bands would travel together to Manitou Springs, where they made offerings to the spirits of the springs for good health and good hunting before continuing east in search of buffalo. The soothing effects of the mineral water on sour stomachs and dry skin attracted not only the Utes, but also the Cheyenne, Arapaho, and other Plains tribes.

The Property has cultural and historical significance, and the adjacent Garden of the Gods Park is known to have been a historic meeting place for numerous Native American tribes (City of Manitou Springs, 2015). Cultural significance may result from its direct alignment with Pikes Peak and Garden of the Gods Park, both of which are sacred spaces for Ute tribes (Petit, 2016). Proximity to the springs at Manitou Springs makes it likely that ancestral Utes and others traveled the area to access ceremonial areas. The Property is presently of interest to Ute Tribal Elders due to the potential for artifacts and other cultural resources (City of Manitou Springs, 2015). The undisturbed nature of the land and location of high ground directly between Pikes Peak and the Garden of the Gods Park makes preservation of this land vital for future study and documentation of cultural values.



3. EXISTING CONDITIONS AND SITE ASSESSMENT

3.1 PHYSICAL RESOURCES OF BLACK CANYON OPEN SPACE

Located in the foothills of Pikes Peak, the Property has many surprising features. Slopes exceed 45% in many places and there are two sandstone cliffs on site; one running northwest to southeast near the northeastern portion of the Property and a second extending north from the Property center towards the southern boundary. Elevation ranges between 6,540 feet near the northwestern corner sloping to 6,300 feet near Highway 24 along the southern boundary. A deep ravine is located near the southwest corner that collects runoff from ephemeral drainages.

The Property shares geologic features with Garden of the Gods Park (a National Natural Landmark) and Red Rocks Amphitheater outside Morrison, Colorado. According to the National Geologic Map Database hosted by the United States Geologic Service (<http://ngmdb.usgs.gov/maps/mapview/>), surficial geology is principally Paleozoic Rocks of the Fountain Formation from the Lower Permian and Pennsylvanian periods, which are about 290 million years old. There are also small inclusions of alluvium and colluvium from the Holocene to late Pleistocene.

Black Canyon Open Space offers a high degree of contrast, texture and variety within its view shed because it contains spectacular geologic formations, multi-colored sandstone slickrock, outcroppings and the two aforementioned cliffs that expose geologic layers. Pinyon-juniper woodlands, ponderosa pine trees, Gamble oak stands and piedmont grasslands intermingle with one another on its prominent hills providing additional color and texture to the scene. The Property can be viewed by the general public from a number of locations because it is situated on a hilltop between the two cites of Manitou Springs and Colorado Springs. It occupies the mid-ground when looking south from the adjacent Garden of the Gods Park and is a prominent component of the view shed when looking to the northeast from Manitou Springs. It also occupies the foreground views from the heavily traveled Highway 24. Even though there has been some difficulty planning and designing these open space elements based on these rugged conditions, these features make the Property a unique and desirable location for open space recreation.



Trail adjacent to proposed Pikes Peak viewpoint showcasing the unique geologic and vegetative features found throughout the Property.



View from proposed trail north towards Garden of the Gods Park, a place that has been of cultural significance for the local inhabitants of the area for thousands of years.

3.2 CULTURAL RESOURCES OF BLACK CANYON OPEN SPACE

Along with the well documented pre-colonial significance of the Property to the native peoples of the area, the Property has also been utilized by those who colonized the land; many of them gold prospectors. Additionally, people were drawn to the adjacent town of Manitou Springs’ mountain health resort seeking the therapeutic mineral springs and the clean, dry air. These gold miners along with those looking for an escape from the crowded urban areas out east certainly traversed the Property at times for various reasons. Evidence of this can be seen with the historic wagon road on the Property that was used for travel at the turn of the century and serves as one of the main proposed trail routes within this Master Plan. This derelict trail remains apparent today through its hand-placed boulders that serve to mark the path.

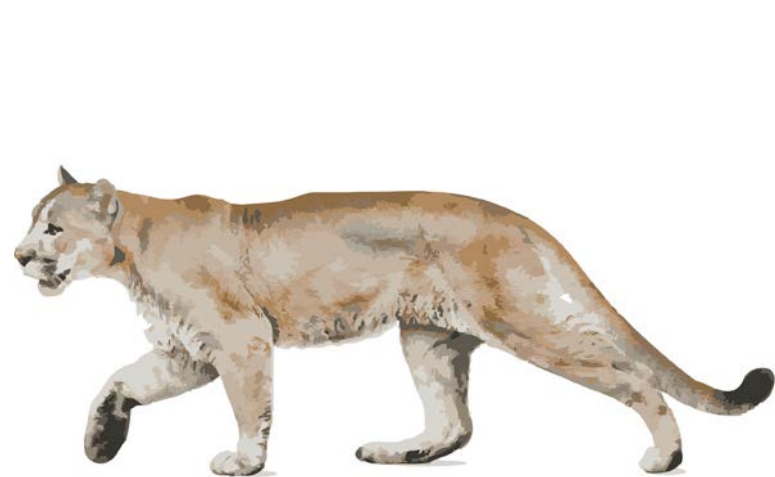
3.3 BIOLOGICAL RESOURCES OF BLACK CANYON OPEN SPACE

Black Canyon Open Space is considered a “relatively natural habitat” as a result of the undeveloped nature of the Property. This coupled with the relatively large contiguous area of the Property as well as its location within the landscape at the base of Rampart Ridge at the mouth of Ute Pass makes it a natural link in the migration corridor for multiple big and small game species as well as prime seasonal and year-round habitat for various species of migratory birds.

This property is comprised of four different land-cover types: southern Rocky Mountain pinyon-juniper woodland, Gambel oak shrublands, ponderosa pine woodlands and piedmont grasslands. Noxious weeds have not been observed on the vast majority of the Property, detrimental forest insects such as mountain pine bark beetles (*Dendroctonus ponderosae*) and common harmful ecosystem diseases have likewise not been observed on the Property. As a result, all of these communities continue to be in excellent condition and provide valuable habitat for a wide range of native species.

Mammals expected to utilize the Property include the Colorado chipmunk (*Neotamias quadrivittatus*), golden-mantled ground squirrel (*Callospermophilus lateralis*), red squirrel (*Sciurus vulgaris*), mountain cottontail (*Sylvilagus nuttalli*), striped skunk (*Mephitis mephitis*), mule deer (*Odocoileus hemionus*) and fox (*Vulpes vulpes*). Mammals with larger home ranges such as mountain lion (*Puma concolor*) and black bear (*Ursus americanus*) can also be expected.

While the mammal species listed above certainly utilize the Property at various times, the greatest wildlife value associated with the Property consists of the diverse range of avifauna that can be found on or adjacent to the Property. For reference, the adjacent Garden of the Gods Park has documented more than 130 bird species utilizing the park; the vast majority of which also occur within Black Canyon Open Space.



Cougar (*Puma concolor*)



Rocky Mountain Bighorn
Sheep (*Ovis canadensis*)



3.4 MANAGEMENT STRUCTURE

The following section gives an overview of the various guiding documents, managing agencies and formal processes that are connected with this Master Plan.

PALMER LAND CONSERVANCY AND THE DEED OF CONSERVATION EASEMENT

The Palmer Land Conservancy, is a non-profit organization dedicated to conserving and managing land throughout southern Colorado. Their mission statement is, “To protect land and water for the wellbeing of nature and people” and to that end, since their inception in 1977, the Palmer Land Conservancy has helped to protect and conserve over 138,000 acres of land; including 20 public parks and open spaces.

As referenced previously in this Master Plan, one of their most recent easement that has been granted is roughly 33.48 acres of what is to become the 38 acre total Black Canyon Open Space. This easement was granted to the Palmer Land Conservancy by the City of Manitou Springs, Colorado through a Conservation Easement on September 1st, 2016. Since that date, the Palmer Land Conservancy has been working to fulfill the requirements of this Conservation Easement; a legal document that, as described in greater detail above in the “Basis of Knowledge” section, requires that the land and open space be preserved through a Master Planning effort for outdoor recreational and educational opportunities benefiting the people of El Paso County and State of Colorado in perpetuity.

OSAC, PRD AND CITY COUNCIL

There are three governing bodies that must approve open space master plans in Manitou Springs: the Open Space Advisory Committee (OSAC), a volunteer group approved by and reporting to the City council; the Parks & Recreation Department, which is comprised of Manitou Springs employees; and the elected City council itself. OSAC advises City council on the disposition of the Manitou Springs open space fund, created and funded in response to a citizen initiative to purchase and maintain open spaces in Manitou Springs. City council is the elected body governing the city of Manitou Springs. Once all three governing bodies have approved of the master plan, it becomes a guiding management document for the City going forward.

OPEN SPACE MAINTENANCE

As was identified in the 2016 Manitou Springs Parks, Open Space and Trails Master Plan, current funding remains inadequate to accomplish all that is needs of parks maintenance throughout Manitou Springs community. Securing additional funding for all aspects operations is still sorely needed. As of the creation of this Master Plan, there are only three full time maintenance staff tasked with the day-to-day maintenance of the current 19 different sites, totaling over 300 acres of land with roughly 15 miles of trails; within the various parks, city lands, the urban forest, and open space.



3.4 MANAGEMENT STRUCTURE CONTINUED

LOCAL PERMITTING

Internal coordination with the City of Manitou Springs Mobility & Parking Department will be critical for the proposed crosswalk within City Right-of-Way. Per City Code Chapter 12.04, no alteration or change of any public street or its adjacent gutters, drains, driveways, sides, curbs or sidewalks shall be allowed without a permit being issued. Submitted excavation permit requests must be approved by the appropriate City staff and this process can take up to seven (7) business days.

As previously stated, coordination with Palmer Land Conservancy, the conservation easement holder for the property, will be required for their review and adoption of this plan to meet the requirements of the allowable uses for the open space. Reserved rights include:

- Vegetation management
- Education and recreation
- Specific improvements as approved by Palmer Land Conservancy in accordance with the Open Space Master Plan

STATE PERMITTING

Colorado Department of Transportation (CDOT) coordination will be required for any development located within their Right-of-Way. Coordination with CDOT on pedestrian improvements will be necessary for creating pedestrian connections between the trail network at the Black Canyon Open Space and the Creekwalk Trail. One potential avenue is to create a nexus with the state by tying this Project to one of their 10-year plan goals of Safety, Resilience, Fix It First, and Multi-modal. This Project would likely fit into the state's goals of safety as it would improve pedestrian protections along a corridor that already shows signs of pedestrian use despite the current lack of facilities. Further, including the Pike's Peak Area Council of Governments in the CDOT coordination process would be necessary as they are the recognized Transit Planning Agency for the region by CDOT.

UTILITY PROVIDERS

Most existing utility infrastructure in this area exists along adjacent right-of-way (ROW) and not within the Property. Century Link/Lumen has underground communication lines buried along Garden Drive and Black Canyon Road. Overhead communication lines cross over Garden Drive and connect on the other side of Highway 24. The City of Colorado Springs has stormwater infrastructure in this area discharging into the drainageway near the intersection of El Paso Boulevard and Garden Drive. Colorado Springs Utilities has overhead electric lines running along El Paso Boulevard to Garden Drive, where undergrounding begins. Underground electric lines exist on the south side of Garden Drive and continue along the south side of Black Canyon Road. The Property was marked clear of facilities by the City of Manitou Springs, CDOT Fiber and CCDOT Electric, per the 811 ticket locates. Coordination with utility providers will be required as design progresses for improvements within the El Paso Boulevard, Garden Drive, and Black Canyon Road corridors. These improvements include but are not limited to the proposed crosswalk on El Paso Boulevard, the soft surface trail along the south side of Garden Drive and Black Canyon Road, and the proposed pedestrian bridge crossing the drainageway to access the trailhead.

FIRE MANAGEMENT

In addition to the proposed trail and amenity development, it is the desire of both city managers as well as the local community to integrate wildfire mitigation into the development of this open space. Black Canyon Open Space is dominated by shade intolerant vegetation characteristic of the southern Rocky Mountain ecological system. The predominant vegetation is Pinyon-Juniper Woodland, which is characterized as Fuel Model 6 by "Aids to Determining Fuel Models for Estimating Fire Behavior" (Anderson, 1982). Fires that occur in this (vegetation) fuel type may carry through to the shrub layer where foliage is more flammable. Fire may drop to the ground at low wind speeds or within openings in the stand. It is likely that the Property has experienced fire in the past 100 to 150 years. The necessity of mitigation would best be determined in the context of a Community Wildfire Protection Plan. The Property is being actively evaluated by MSFD for potential fire mitigation. OSAC and the Parks and Recreation Department are actively working with MSFD to update the Community Wildfire Protection Plan in early 2025 to include open space fire mitigation elements.

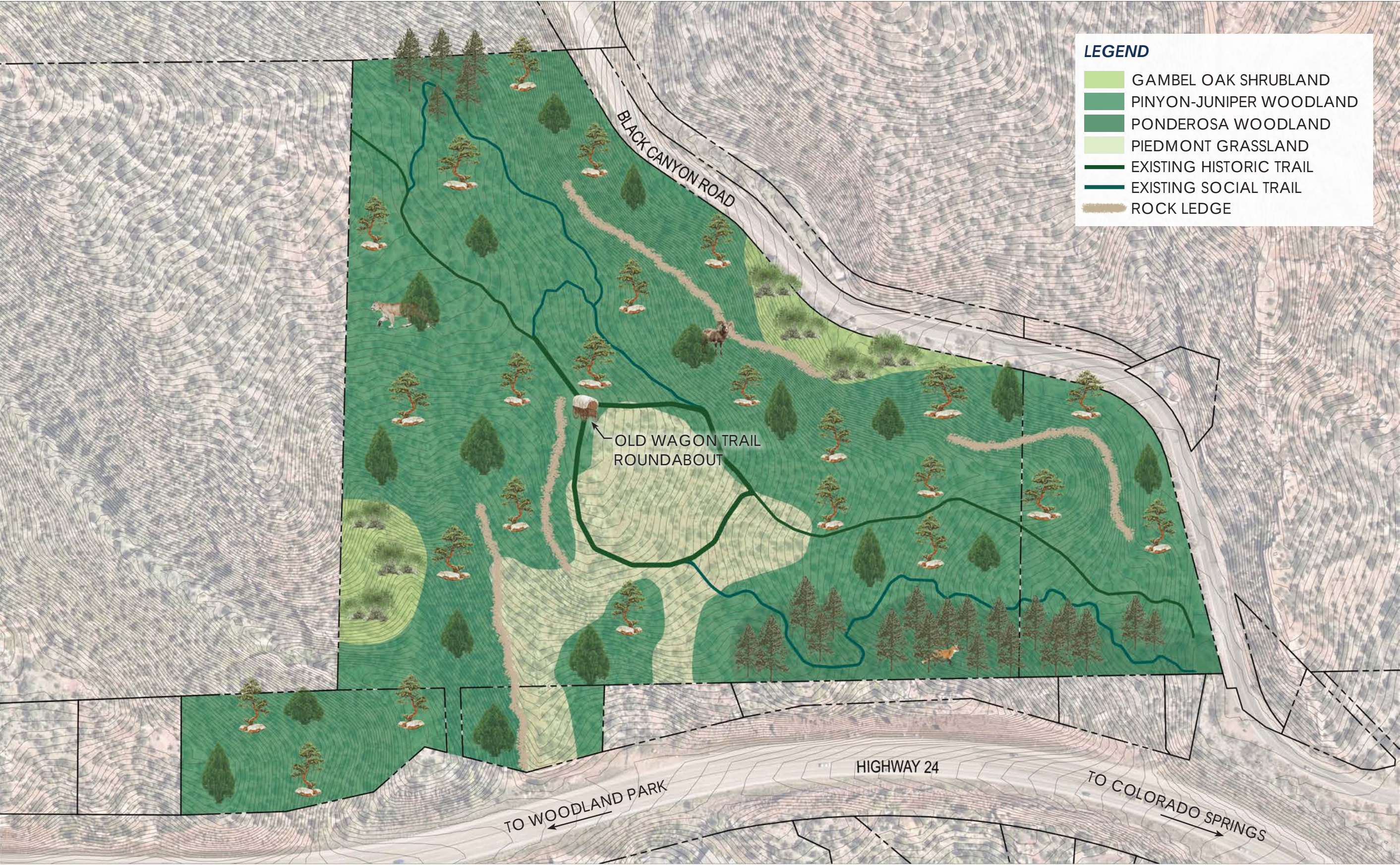


COLORADO
Department of Transportation

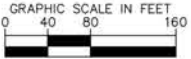


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3.5 BLACK CANYON OPEN SPACE EXISTING CONDITIONS MAP



3.6 SOCIAL INFLUENCES

EXISTING SOCIAL TRAILS

A defining feature of the Property is the network of social trails that traverse the open space. These trails have been established through in formal use by the community and are integral to understanding the current patterns of utilization. The trails are not formalized pathways but are clearly defined by disturbed and compacted soil.

HISTORIC AND CULTURAL RESOURCES

As discussed in previous sections, the Property has been used by various groups for thousands of years. These uses have left their mark on the Property and have been integrated and considered in this Master Planning effort. Most notably, the alignment of the existing wagon trail has been the basis for the main trail layout throughout the Property in an effort to highlight the significance the Property has maintained throughout the past and to be used as an educational opportunity going forward to immerse future users of the Property in its rich history. These proposed improvements identified in this Master Plan carefully avoid disturbance of any culturally sensitive sites and resources identified by stake holders.

LOCAL NEIGHBORS

The nearest residential development to Black Canyon Open Space, Cedar Heights, lies just to the north of the property. Members of the governing HOA have been consistently involved throughout the community outreach process and have voiced preferences for Property improvements relating to property delineation/separation, parking and anticipated use. For the long term feasibility of this Master Plan, the concerns of the nearest residents related to proposed uses, access, and parking must be addressed. These issues have been addressed in this plan.

RESIDENT UNHOUSED POPULATION

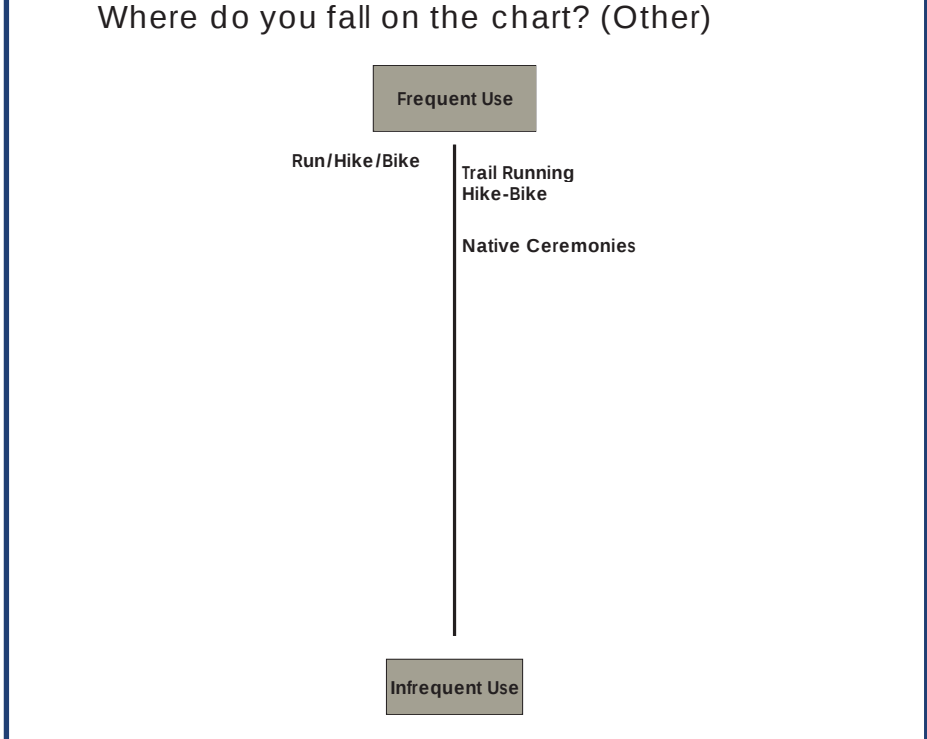
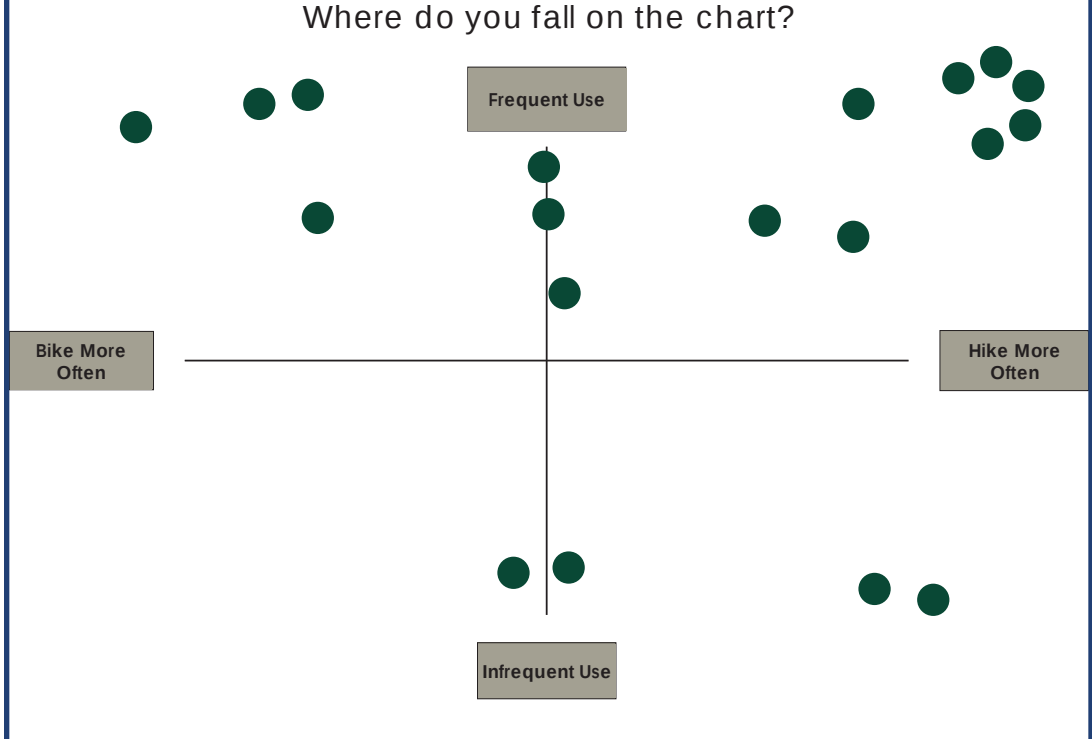
Multiple unhoused encampments can be found throughout the property. Debris associated with these habitation sites included tents, blankets, sleeping bags, domestic trash, and rubbish. Through the community outreach efforts of this Master Planning process, it has been determined camps are a major cause for concern for the City. Unhoused populations taking refuge on open space properties has led to natural resource degradation and wildfire incidents locally (Incline Fire, 2020) and around the state; most notably the Cold Springs fire in Boulder County in July 2015 which burned 528 acres (BOEM, 2016) and cost over 1.7 million dollars to fight (Shiff, 2016). According to the National Park Service, "As many as 90 percent of wildland fires in the United States are caused by humans" (NPS, 2017). Communities feel the same way about this issue all across the nation (Shiff, 2016).

In an article in the Colorado Springs Independent (Stanley, 2016), District Ranger Oscar Martinez for the U.S. Forest Service's Pikes Peak Ranger District explains that, "Each transient camp cleanup site is costing anywhere from \$700 to \$1,000 to restore, eating into a limited budget that could go to other priorities, like fire mitigation." He also explained that about four new transient camps had been found in the forest every week in the summer of 2016.

It should be noted that there are conflicting approaches to dealing with homelessness. The above information on homelessness in Colorado Springs and across the nation, was provided based on the proximity to Manitou Springs and relevance to the issue of transient camps on the Property. The Manitou Springs Police Department has a Standard Operating Procedure in place based on the department's Locate, Enforce, Eradicate and Prevent (LEEP) program that includes four components: locate, enforce, eradicate, and prevent homeless camps in conjunction with volunteers for Keep Colorado Springs Beautiful (Sun, 2016).



Part of the main proposed multi-use trail alignment looking downhill to the east.



After learning about BCOS this evening, how often do you think you will use this open space?

Frequency	Count (Dots)
Every day	3
A few times per week	4
Once per week	5
A few times per month	3
Once per month	4
Less frequent than once per month	1

4.2 COMMUNITY WORKSHOP BREAKOUT RESULTS

TOP 5 PREFERENCES FROM EACH WORKSHOP:



4.3 COMMUNITY ENGAGEMENT SURVEY WORD CLOUDS

The word clouds presented here were generated based on the responses to the questions in the community survey. These word clouds are visual representations of text data where the size of each word indicates its frequency or importance within the text. There was a group of 24 diverse individuals that had given their input for the following word clouds. The word clouds presented here identify prominent themes or keywords by making more frequent words appear larger and bolder.

- Word cloud 1(mountain) is a representation of what excited the community about Black Canyon Open Space.
- Word cloud 2 (tree) is a representation of community preferences for amenities and improvements to Black Canyon Open Space



WHAT EXCITED THE COMMUNITY ABOUT BCOS

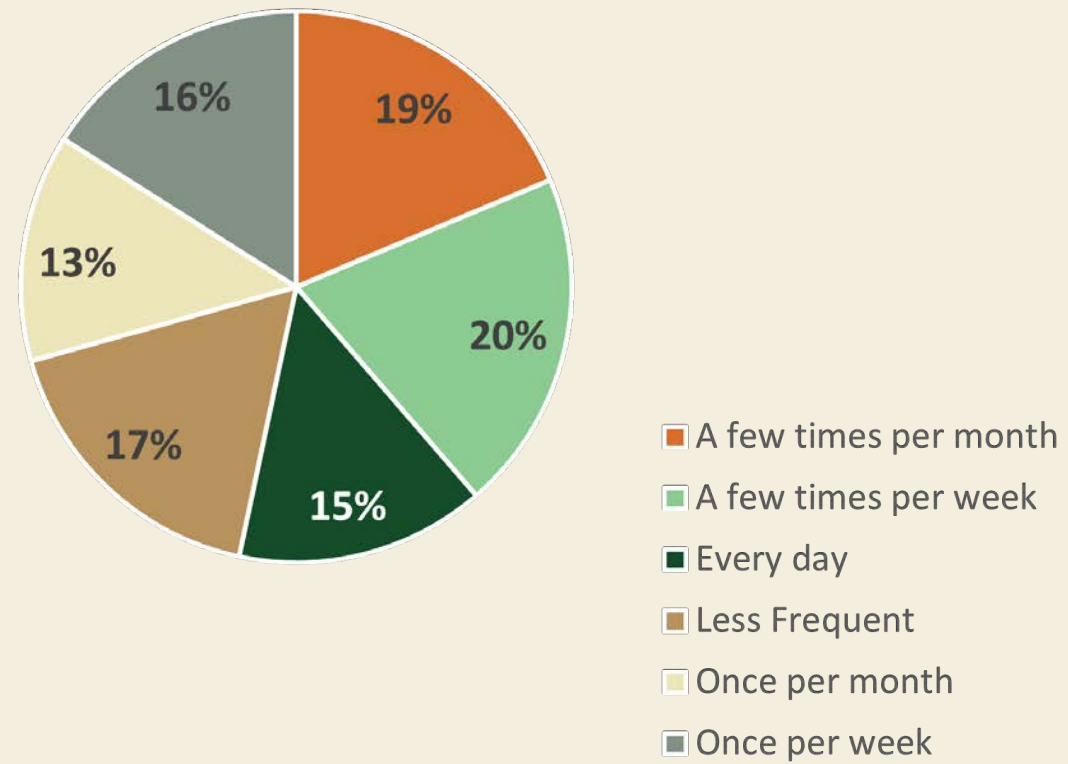


COMMUNITY PREFERENCES FOR AMENITIES AND IMPROVMENTS TO BCOS

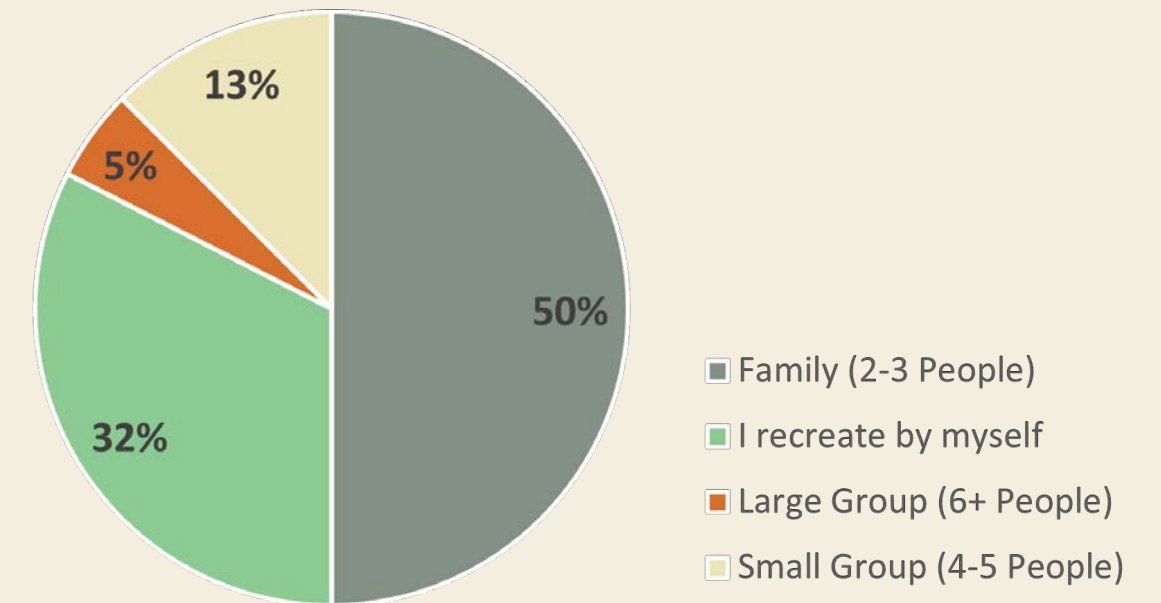
4.4 COMMUNITY ENGAGEMENT SURVEY RESULTS

The following pie charts anticipate the types of users and frequency of use for Black Canyon Open Space.

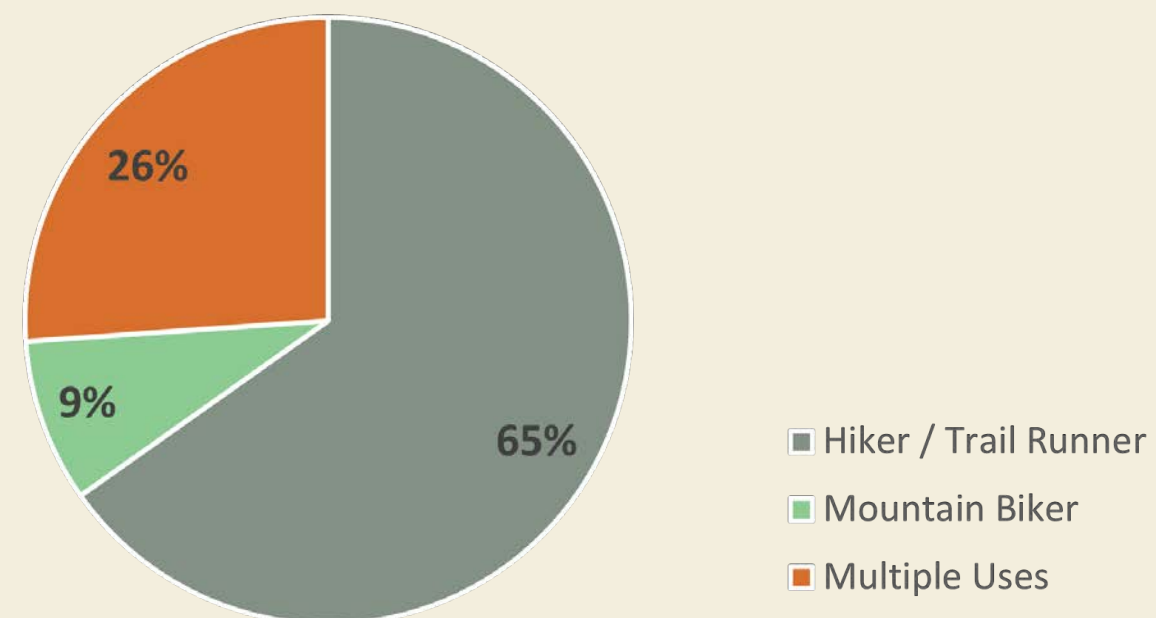
How often do you use open spaces?



With who do you use open spaces?



What type of open space user are you?



5. RECOMMENDATIONS

5.1 MASTER PLAN VISION

During the planning process, all participating stakeholder groups emphasized their shared desire to maintain the relatively undeveloped nature of the Property, as such, care has been taken to develop this Master Plan document with those concerns in mind. To that end, the vision of the Black Canyon Open Space Master Plan is to create a multi-use trail system that caters to a diverse array of activities, including hiking, biking, and wildlife observation, while showcasing the Property's stunning viewsheds and rich history via passive interpretive elements. This vision can be implemented by utilizing and enhancing existing disturbance and social trails within the Property. The Project aims to enhance the visitor experience by integrating educational elements that highlight the area's natural and cultural resource context, including the establishment of a remote and unique outdoor classroom and activity space for interactive learning. By incorporating sustainable design practices and fostering environmental stewardship, the Project will protect sensitive habitats and promote conservation efforts. The use of new technology, such as hiking apps, will improve accessibility and visibility, ensuring that a broader audience can discover and appreciate the open space while supporting responsible recreation and environmental stewardship.

5.2 SITE ACCESS AND SAFETY

As the trail system within Black Canyon Open Space is enhanced, it is vital to integrate and highlight the natural and cultural resources of the Property. This approach ensures that the trails not only provide recreational opportunities but also respect and celebrate the unique ecological and historical significance of the area.

NAVIGATION

Install clear, informative signage throughout the trail system to guide users, indicate trail names and difficulty levels, and provide information on points of interest and interpretation. Maps and wayfinding markers will help prevent users from getting lost and enhance user experience and overall navigation.



PARKING AND ACCESS TRAIL

The parking area on El Paso Boulevard will have new wayfinding signage and pedestrian crossing improvements implemented to clearly guide users from their vehicles to the soft-surface access trail that will run parallel to Black Canyon Road to the trailhead of Black Canyon Open Space. Additional opportunities for parking will be present at the Dillon Mobility Hub, once developed.

INTERACTIVE FEATURES

Incorporate interactive elements, such as public art installations and integration of QR codes or mobile app content with site elements, that allow visitors to access additional information and multimedia content related to the natural and cultural resources of the Property. These installations and additional technology will enhance engagement and learning opportunities.



INFORMATIVE SIGNAGE

Throughout the trail system, interpretive signs will provide information about the natural and cultural aspects of the Black Canyon Open Space. These signs will cover topics such as local flora and fauna, geological formations, historical events, and cultural practices, enriching the visitor experience.

5.3 TRAILS

TRAIL ENHANCEMENTS

Surface Improvement: Enhance trail surfaces to improve durability, safety, and user comfort. This may include resurfacing with gravel or other natural materials from the Property that will minimize erosion and provide stability. The improvement efforts will also consider site restoration and revegetation opportunities where significant disturbance is present adjacent to trail features.



TRAIL NETWORK DEVELOPMENT

Trail Development and Formalization: Design and construct new trails that connect existing paths, creating a loop network that spans Black Canyon Open Space. These formalized trails will enhance connectivity and accessibility, allowing for more diverse and extended hiking, biking, and wildlife viewing opportunities. A multi-directional trail system is the most efficient use of the Property considering the challenging conditions presented in site topography, soils, drainages, and environmental constraint features.

Trail Loop Integration: Develop loops of varying lengths and difficulty levels to accommodate different skill levels and interests. This will provide options for casual walkers, avid hikers, mountain bikers and more.

NATURAL RESOURCE CONTEXT

Property Size: Black Canyon Open Space is a small open space comprised of only 38 acres of land. To put that in perspective, that's equivalent to the area of a square less than 1,300 feet on a side, or 0.06 square miles. Because of the steep topography, gullies, and cliffs, only the middle of the Property is suitable for active uses. The proposed trail design takes maximum advantage of existing rock-based trails to provide access to the Property's multitude of unique features with minimum disruption of soils or crowding of trails.

Ecological Significance: Black Canyon Open Space is home to diverse ecosystems, including riparian zones, ponderosa pine forest, and rocky outcrops. The trail system will be designed to protect and showcase these natural habitats. Trails will be strategically placed to avoid sensitive areas, such as nesting sites or rare plant communities, and minimize ecological disruption.

Wildlife Observation: The trails will offer opportunities for wildlife observation while ensuring minimal disturbance to the animals. Information panels and guided trail markers will educate visitors about the local wildlife, including species such as mule deer, mountain lions, and various bird species, insodoing fostering appreciation and respect for their natural behaviors and habitats.

Geological Features: Black Canyon Open Space's unique geological formations, including its rugged canyons and striking rock outcrops, will be highlighted through interpretive signage and carefully planned trail routes that provide viewpoints and educational information about the area's geological history. These features will enhance the on-trail experience by connecting users with the area's natural history.



CULTURAL RESOURCE CONTEXT

The Black Canyon Open Space is recognized for a number of historical significance features, which including past use and impacts from Indigenous people and early settlers. The trail system will incorporate historical markers and interpretive signage where appropriate to provide context about the area's cultural heritage; including traditional uses, historical events, and early settlement activities. Additionally, the trail system will be designed to avoid areas of cultural significance, such as archaeological sites or traditional use areas. Careful planning and consultation with cultural resource experts help preserve these resources and ensure that trails do not inadvertently impact culturally sensitive sites.

5.4 AMENITIES

SHOWCASING VIEWSHEDS

To emphasize the importance of maintaining and enhancing the Property's viewsheds to Pikes Peak and Garden of the Gods Park, the following key aspects were considered:

Community Visibility: The Property's high visibility from key vantage points, including major highways, neighborhoods, and parks, underscores the importance of its preservation. Maintaining this land ensures that the scenic experience available to the community, in a relatively undeveloped and unspoiled condition will provide enjoyment for visitors.

Scenic Integrity: The preservation of this land is crucial to maintaining the visual appeal of the local landscape. By providing opportunities for scenic viewing, we ensure that the scenic character and panoramic views of the area remain intact and celebrate the open space.

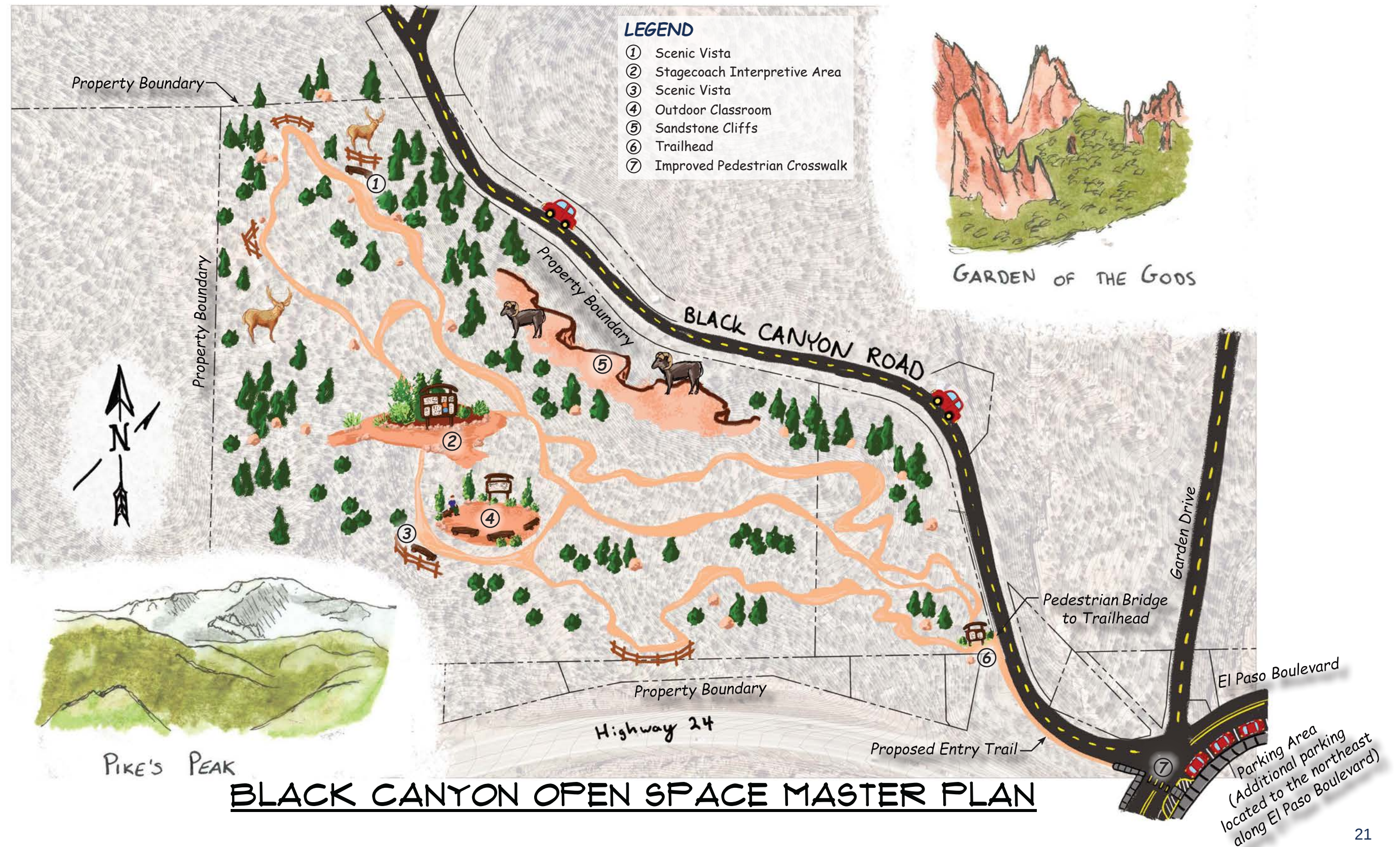
Amenity Spaces: The plan consider the design and construct of viewing location along existing paths, creating unique opportunities to admire the natural beauty of the Property and surrounding landscape. The plans considers benches or other seating in a few areas to offer resting places to allow visitors to rest and fully enjoy the views. These improvements aim to create a harmonious and inviting environment that maximizes the scenic value of the open space.

5.5 ECOSYSTEM STEWARDSHIP

The Master Plan for Black Canyon Open Space emphasizes environmental stewardship through sustainable design, habitat protection and active community engagement. The development process will employ erosion control measures and low-impact construction techniques to protect sensitive areas and restore damaged habitats. To enhance environmental education, an outdoor classroom and activity space will be established along the trail system, offering interactive learning opportunities about local ecosystems, conservation practices, and the importance of sustainable recreation. Waste management will be supported by strategically placed stations and educational signage, while riparian buffers will safeguard water resources. This space could be used for stewardship efforts such as trail maintenance, cleanups, and programming. Community involvement will be fostered through volunteer programs and educational outreach, reinforcing a culture of conservation. Regular monitoring and adaptive management will ensure that our practices effectively balance recreational use with ecosystem health, providing both an enriching visitor experience and long-term environmental benefits.



6. MASTER PLAN LAYOUT



7. CONNECTING TO THE COMMUNITY VISION

The following trail system design guidelines were developed through iterative consultation with OSAC members and Parks & Recreation staff, as well as with the guidance of the 2016 Manitou Springs Parks, Open Space and Trails Master Plan. To that end, the purpose of the Black Canyon Open Space trail system is to preserve the natural qualities of the land while providing varied access opportunities through a network of non-motorized trails. Furthermore, trails within Black Canyon Open Space will:

- Provide a variety of trail experiences.
- Integrate interpretive opportunities.
- Exhibit sustainable and maintenance minded design.
- Retain access for natural resource and forest management.
- Obstruct access to existing “social trails” and discourage their future creation.
- Provide a balance and broad range opportunities to serve the visitor’s oopen space interest.
- Preserve and protect the natural qualities and cultural resources of the land.
- Integrate fire mitigation practices into the design to protect the Property and its surroundings.

7.1 COMMUNITY GATEWAY AND WAYFINDING NODE

As outlined in the 2016 Manitou Springs Parks, Open Space and Trails Master Plan, the designated parking area for Black Canyon Open Space (El Paso Boulevard) also serves as one of four identified community gateways that facilitate the daily entry and exit of the Manitou Springs trail system. Wayfinding and informational signage directing and informing users to both Manitou Springs’ and Colorado Springs’ parks, open spaces and trails will be appropriate adjacent to the parking area along El Paso Boulevard. Although these elements will be on Manitou Springs’ owned and operated Fields Park, they will be designed to match those already place throughout the city.

7.2 TRAILS

Trails throughout Black Canyon Open Space have been laid out to align with the opportunities, constraints, desires and mandates identified throughout the site inventory and analysis, stakeholder input, and guiding documents discussed earlier in this document. The multi-use trail system proposed in this Master Plan will serve as a recreational and educational amenity with the ability to add future connections that will facilitate unbroken access to the network of adjacent local and regional trail systems. The trail system in Black Canyon Open Space, as outlined in this Master Plan, aims to serve a wide range of users through a thoughtfully designed layout. It features sustainable trails, well-defined intersections, and transition zones that enhance public health, safety, and welfare. Inclusivewayfindingandeducationalopportunitiesareincorporated,whilecarefullypreservingthe Property’s culturual and natural treasures that have made it a cherished destination for millennia.



7.3 REGIONAL CONNECTIONS AND ADVOCACY

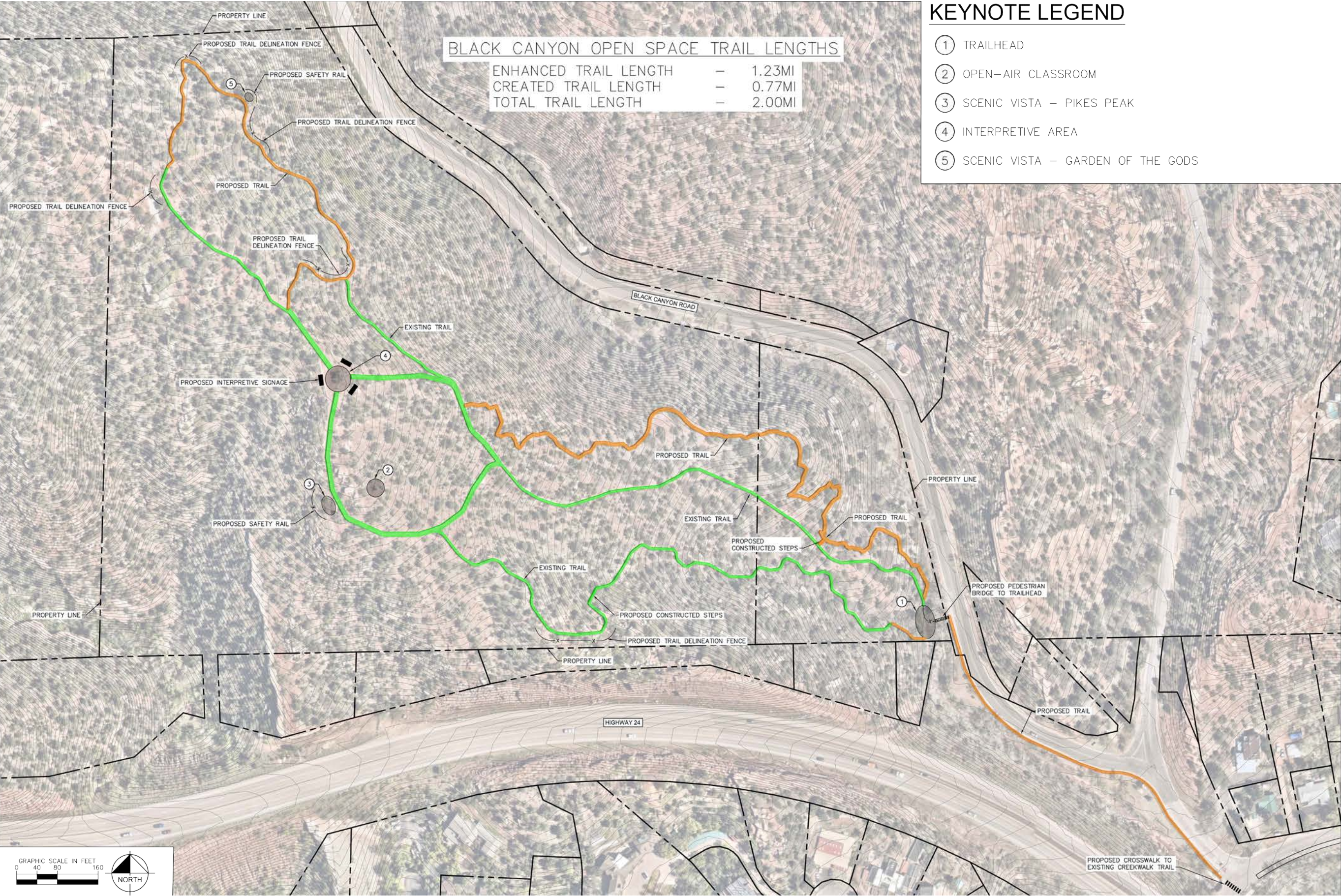
The 2016 Manitou Springs, Parks, Open Space and Trails Master Plan goals seek to facilitate connectivity between city managed trails with the adjacent trail systems of Colorado Springs, El Paso County, and the Pike National Forest. Manitou Springs is in an excellent position to be a valued connection point to many local and regional trails, in which it will serve as an essential hub linking local and regional trails into a continuous trail system. Connectivity to other trail systems was evaluated and is not recommended at this time. Due to the small size and sensitive nature of the site elements, it is recommended that no additional trail connections be incorporated into this site.

7.4 TRAILHEAD

The trailhead at the base of Black Canyon Open Space off of Black Canyon Road is currently the only planned trailhead for the Project. As this trailhead will serve as the sole point of ingress and egress to the Property and is directly adjacent to Colorado Springs’ Garden of the Gods Park, it will require wayfinding and informational signage that serves to invite and guide users through the openspace as well as visually identify it as part of the Manitou Springs trail system. With its unique topography, geology, and stunning views, the Property will undoubtedly encourage a variety of user groups to coexist with one another on the trail. Thus, the trailhead will be designed to support the various user groups and their needs.

KEYNOTE LEGEND

- ① TRAILHEAD
- ② OPEN-AIR CLASSROOM
- ③ SCENIC VISTA – PIKES PEAK
- ④ INTERPRETIVE AREA
- ⑤ SCENIC VISTA – GARDEN OF THE GODS



7.5 BLACK CANYON OPEN SPACE TRAILS PLAN

8. OPEN SPACE DESIGN GUIDELINES

8.1 SITE AMENITY GUIDELINES

COMMUNITY GATEWAY AND THEME

The signage within Black Canyon Open Space will embrace the image and character of the iron mountain trailhead information board. The improvements will also include supplemental native plantings and landscaping in support of the open space setting and gateway experience.

SIGNAGE

Signage for the Black Canyon Open Space will take the form of wayfinding signage, interpretive signage and regulatory signage. Each of these types will be designed to mimic the appearance of signage already found throughout the Manitou Springs parks, open spaces and trails. As noted previously, signage for Iron Mountain Trail, Red Mountain, and the Intemann Trail have already been installed and are aesthetically pleasing; therefore, all signage within Black Canyon Open Space will take guidance from it to maintain a cohesive theme throughout the city. These three signage categories will be located within Black Canyon Open Space at the parking area, trailhead, outdoor classroom and activity space, scenic vistas, interpretive areas and trail intersections. All signage will be designed and installed in accordance with environmentally friendly design principles including:

- Stormwater consideration and mitigation
- Protection and incorporation of native plantings and natural features
- Utilization of proportions, scales and colors that blend into the surrounding context

Along with incorporation of environmentally minded design particular attention will be taken when deciding sign messaging and placement. Key points to consider during this process are:

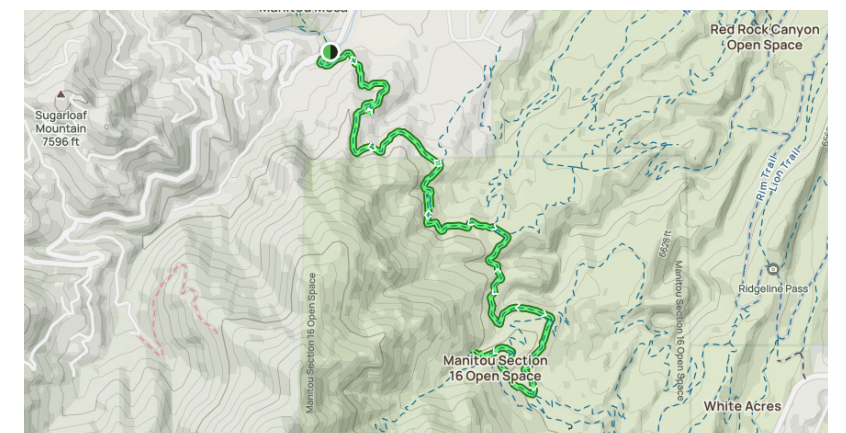
- Identification of the most appropriate places for wayfinding nodes that include trail maps: trailhead, trail intersections, etc.
- How best to minimize signage in order to not mar the relatively natural habitat that makes up the Property.
- Design of low impact interpretive, educational and safety as well as trail identification, location and relative distance signage
- Incorporation of inclusive methods of information dissemination and messaging to reach as broad a range of users as possible. Including, but not limited to, written text, repetition of information in multiple languages, use of universal symbols, QR codes that lead to geospatially referenced information and or the use of 3D modeling or braille for the visually impaired.



TRAILHEAD SIGNAGE



INTERPRETIVE SIGNAGE



APP-BASED TRAIL MAP

8.2 SPECIFIC AREA STANDARDS

PARKING AREA AND CROSSWALK UPGRADES

The designated parking area from which users are intended to access the Property is the currently existing on-street parking along El Paso Boulevard on the northern side of the Fields Park. Currently, from this parking area there are no enhanced safety measures implemented to help protect users as they cross the street to begin the roughly 300 yard path to the trailhead of Black Canyon Open Space. To remedy this, a new crosswalk with curb “bump outs” and associated signage will be implemented across El Paso Boulevard and will serve to both protect users and further slow down traffic on the 25 mph roadway.



BLACK CANYON ROAD ENTRY TRAIL NARROWING

Along the planned alignment of the entry path along Black Canyon Road there is a short, roughly 100 foot, section where over time the adjacent creek has created a cut bank that limits the walkable path to roughly 2-1/2 feet in width. Unfortunately, due to multiple compounding factors, the widening of this portion of the path is not practical. Below is a short list of the largest hurdles that would together be insurmountable with the current budget and timeline for the Project:

- U.S. Corps of Engineers Waters of the United States (WOTUS) Permitting process.
- CDOT Permitting process to tie into the roadway base
- Engineering design to shift the creek and stabilize the bank.
- Construction cost for installation of mitigation measures.
- Limited space between the roadway and the hillside - necessitating a more complex and expensive design to solve the issue.

While this situation is not ideal, the Project team, in coordination with city planning and CDOT, plans to implement flexible, fluorescent safety posts along the curb throughout the length of this area. These posts will serve as an explicit visual barrier alerting drivers to take extra care when traveling next to any users of the Property as they enter or exit from the Open Space. Likewise, these will serve as a visual barrier to the users of the pathway to keep them from straying into the roadway and becoming a hazard.

TRAIL PINCH POINTS WITHIN BLACK CANYON OPEN SPACE

Pinch points (also referred to as choke points) are trail corridor constriction that align directly with the trail edge. Pinch points are an effective and natural-looking trail design tool to minimize excessive trail widening and to manage trail travel speeds. The high-use, erosive soils and naturally sparse vegetation have contributed to ever widening trails in Manitou Springs foothills, with some existing trails having widened to 30 feet. As a speed and conflict management tool, pinch points encourage users to slow down to navigate a tight or more challenging-looking feature. Pinch points are effective only when they occur regularly along the trail alignment. As the entirety of the planned trail system within Black Canyon Open Space will consist of multi-use trails, proper implementation of these measures will be of paramount importance for the health, safety and welfare of all users. The following guidelines will be followed during the final design, installation and future maintenance process:

- Pinch points should be installed at strategic locations where trail widening or excessive speeds are a known or potential problem.
- Pinch points should be located every 100-300 linear feet in these areas to deter side-by-side walking and keep all trail users on the designated trail.
- Large boulders set in the earth, standing trees, thick shrubs, large tree trunks and fencing are effective pinch point materials.
- Branches, mulch, small rocks and medium size dead fall are not effective for use in pinch points and do not keep users on the trail.
- Pinch points should be constructed of natural materials and in proportions that blend into the surrounding context.
- Trail corridor clearing should be carefully planned to retain trees, branches and features that serve as pinch points.



8.2 SPECIFIC AREA STANDARDS CONTINUED

TRAILHEAD

The single trailhead at the base of Black Canyon Open Space will serve as the only point of ingress and egress to the Property and therefore should incorporate adequate wayfinding, regulatory and warning signage that addresses the entirety of the Property. Additionally, as this Property is intended to accommodate multiple user groups at a time the trailhead area should have enough room to fit multiple groups. At least four natural-material seating options can be considered to allow users to rest and gather on site.

BRIDGE CROSSING

An engineered bridge will be necessary to provide easy access to the Property. This bridge should be wide enough to accommodate the various user groups that are expected to use the Property simultaneously. Although it will be an engineered structure, efforts should be made to match the design intent of the Property through use of similar materials and colors as will be used in site signage and amenities.

INTERPRETIVE AREA

The designated interpretive area for the Property is centered around the historic wagon trail round-about that occurs midway through the Property. Being that this is a site of historic significance, this large area is to be as minimally impacted as possible; both visually and physically. That being said, as it is one of the major intersections of the Property, in addition to the interpretive signage, it will require adequate wayfinding and possible fencing to direct and manage users while protecting the historic resource. Seating in this area should consist of strategically selected and placed boulders, as they will fit more seamlessly into the area than wooden benches.

OUTDOOR CLASSROOM AND ACTIVITY SPACE

The natural outdoor classroom and activity space is located in the interior of the Property and away from any designated important viewsheds or areas of historic importance. This allows for a bit more intensive of a design. Seating for a moderate sized group should be provided in addition to various interactive and informative interpretive signs. The outdoor classroom and activity space could be a resource for stewardship efforts such as trail maintenance, cleanups, and programming. Coordination between OSAC, Parks & Recreation, and the Manitou Springs School District 14 is recommended during the design process to ensure this resource can be properly designed, utilized, and maintained. Fencing to delineate the bounds of this space may also be deemed appropriate in this area to protect the surrounding natural resources.

SCENIC VISTAS

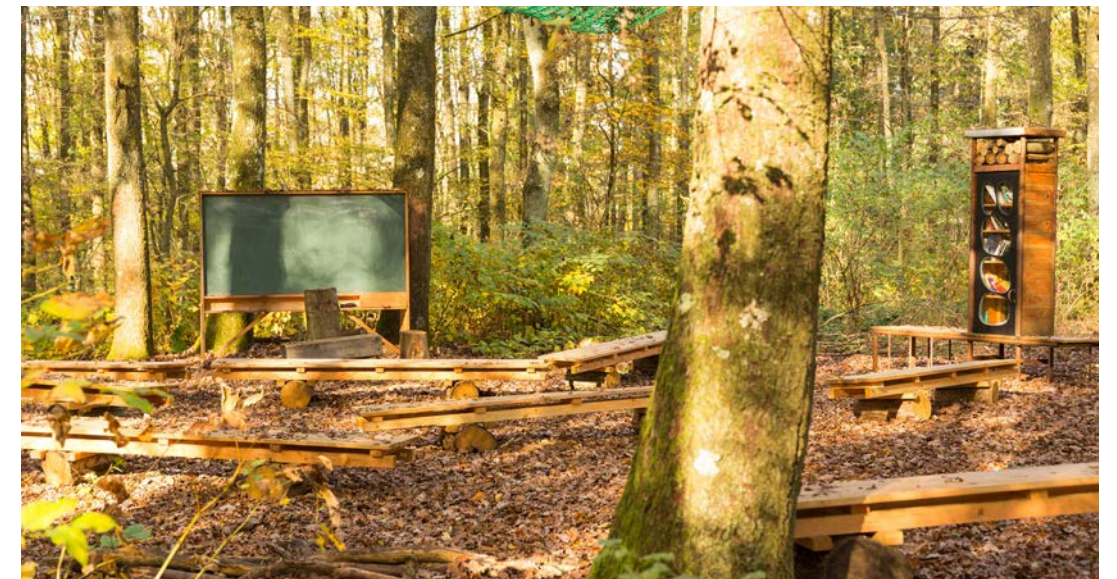
There are multiple planned scenic vistas located throughout the Property. These are intended to be small areas for quiet contemplation and enjoyment of the beautiful viewsheds found within the Property. As such, all signage and amenities in these areas should be low-impact and strategically placed so as to not mar the intended view. A maximum of two backless benches should be provided and signage should be kept to a minimum. These areas should be designed to accommodate single users and small groups of up to 6 people at a time to keep them in line with the intent of this Master Plan. Fencing will almost certainly also be needed in these sites for safety and natural resource protection.



PEDESTRIAN BRIDGE TO TRAILHEAD



HISTORIC WAGON TRAIL INTERPRETIVE AREA



OUTDOOR CLASSROOM

9. TRAIL SYSTEM DESIGN GUIDELINES

9.1 TRAIL AMENITY GUIDELINES

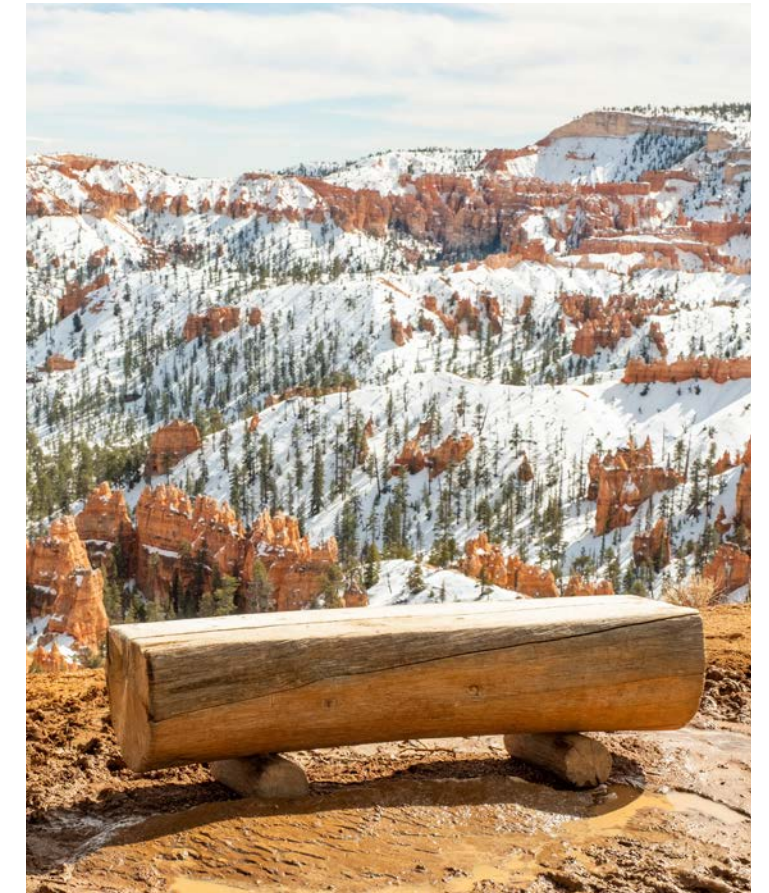
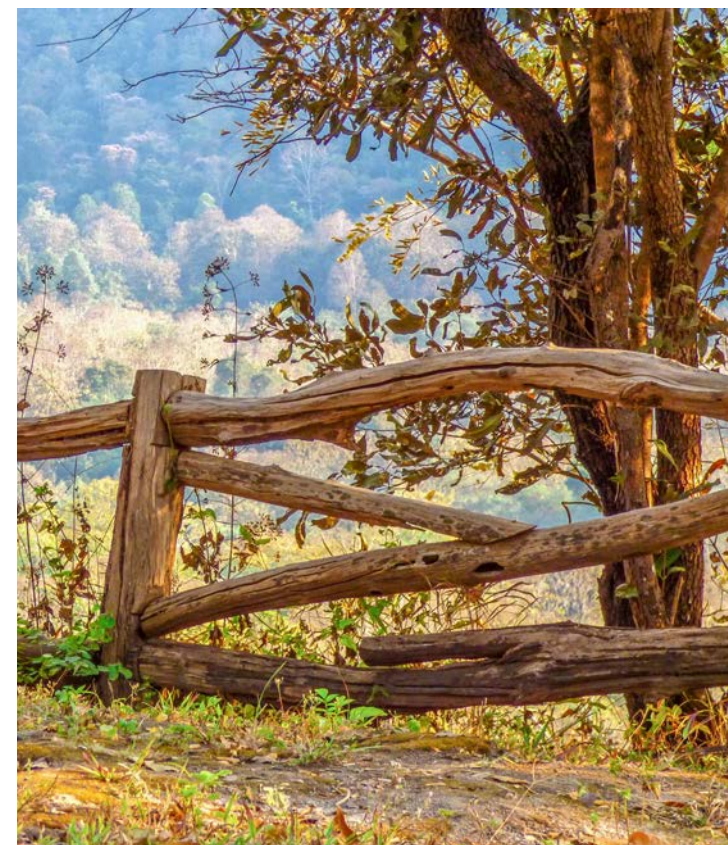
TRAIL FURNISHINGS

Seating: Seating throughout Black Canyon Open Space should be designed to blend in with its surroundings, consist mainly of natural materials and as such, should vary throughout the Property. For example: seating around rock formations should either be informal in nature (strategically placed boulders) or of concrete formed and colored to match the rock that surrounds it, in forested areas stripped and treated log benches would be appropriate, and in areas centered around scenic vistas benches should not have backs and should maintain as low a profile as is practical, etc. Therefore, all seating should range between 16"-20" in height when built without backs, those with backs should be 34"-38" in height and all seating should have a depth of 18"-24". All furnishings should either have concrete footings or be otherwise made immovable, both to prevent theft as well as to prevent damage to the surrounding area as a result of their movement. The amount of seating provided at each location should be commensurate to the Property's intended use. Any memorial benches must be approved by OSAC and the City based on its existing policies

Distance Markers: If distance markers are implemented, they should either be wooden or stone posts, whichever blends in more naturally with their surroundings. These should contain minimal information and be limited to a distance indication, a directional arrow or two to inform about pathing options and possibly a safety-related posting.

Maintenance Related Furnishings: These are comprised of fixtures such as trash receptacles and dog waste stations. They should be implemented sparsely and near areas easy access so they can be maintained by City staff. As with other furnishing elements, they should be individually designed to mimic the textures and materials around them. Additionally, care should be taken to place them only in areas that will be easily accessible by the limited maintenance staff for ease of day-to-day caretaking activities. Lastly, all the above guidelines shall also pertain to donated furnishings.

Fencing: Fencing may be required in certain areas of the Property to obstruct access to existing social trails, implement and maintain property perimeter controls, for safety and to otherwise manage users. Fencing should adhere to the previously stated guidelines in that they should be designed so as to minimize their effect on the visual aspects of the location in which they are placed. Where possible, natural-material options are preferred including: post and rail, buck-and-rail or strategically placed large boulders. In areas in which these options are impractical, barbless high tensile wire fencing is acceptable; provided the top wire is less than 42" from the ground to maintain ease of passage for wildlife. Chain link and barbed wire fencing should not be used under any circumstances.



9.2 TRAIL DESIGN STANDARDS

While the trail system throughout Manitou Springs employs a variety of trail surfacing types, only one trail surfacing type will be used throughout the entire Black Canyon Open Space trail system: **Off-Street Natural Surface Trails.**

OFF-STREET NATURAL SURFACE TRAIL DESIGN

Throughout this iterative and collaborative Master Planning process, specific attention has continually been paid to ensuring the proposed multi-use trail system for Black Canyon Open Space is as inclusive as is possible given the constraints associated with the Property itself as well as with the legally binding documents governing acceptable uses and improvements that may lawfully occur within the Property. To that end, it has been decided that all trail improvements comprising the Black Canyon Open Space trail system shall be of an off-street natural surface; be that through incorporation of exposed bedrock, in-situ or relocated native boulders, timber or stone steps and or crushed granite matching the coloration of gravel that naturally occurs throughout the Property. It is recommended that all existing trail enhancements be constructed via hand-tool based construction methods. New trail segments requiring significant earthwork may require limited, machinery-based construction methods (i.e. mini excavator) and will need prior approval from OSAC.

The trails proposed in this Master Plan are intentionally narrower than most paved trails; typically only being 3' or 6' wide. Due to the steep, rocky nature of the Property, they also incorporate a variety of challenges along their extents. Trails may contain obstacles such as runoff water diversions, switchbacks and roots or exposed rocks on their surface. Certain areas are steep enough that they will require timber or stone steps to ensure safe ascent and descent of users; these areas will be kept to a minimum and as of the time of this Master Plan only two such areas are planned.

Difficult sections of trails will include signage recommending bikers dismount and alternative routes have been identified to allow for users to avoid these areas all together and still be able to fully experience all the Property has to offer. Qualifiers (obstacles that demonstrate the level of difficulty that will be encountered along the trail segment and are consistent with the trail segment's inherent challenges) will be designed into the trails at every connection where the difficulties of the intersecting trails varies. The trails throughout the Black Canyon Open Space, while accessible for a wide variety of users, consist of the following features and will still require attentiveness on the part of the users to negotiate:

- Sustained trail slopes range from 0-12 percent, except for short distances of up to 15 percent and always less than 33 percent of the existing cross-slope.
- Alignments always follow the "One-Third Rule"; traversing less than 33 percent of the existing cross-slope.
- Typical widths will either be 3' or 6' throughout and will widen slightly within 50' of a trailhead.
- Rough to variable surface - Frequent obstacles will include water diversions, roots, rocks, etc.
- The implementation of timber or stone steps has been minimized to the greatest extent possible and bump-out paths will be designed and installed to more easily facilitate two-way traffic.

9.3 TYPICAL TRAIL SECTIONS



10. RECOMMENDED MANAGEMENT ACTIONS

10.1 SOCIAL TRAIL CLOSURES

While the majority of the planned trail alignments follow the historic trails within the Property, some minor sections of the existing social trails located throughout the Property are in direct conflict with objectives identified through the community input process, as well as with the goals of both the 2016 Manitou Springs Parks, Open Space and Trails Master Plan and Deed of Conservation Easement. These objectives require protection and proper management of the physical, natural and cultural resources of the Property. Therefore, social trails that are currently found on the Property as well as those that might appear in the future, will all be managed according to the following overarching guidelines in addition to the active and passive closure techniques:

- Observe and collect information about why the rogue trail is occurring. If it is found that conditions on the alternative approved routes are the cause, correct those issues.
- When appropriate and within the purview of this Master Plan and the governing Deed of Conservation, strategically plan and construct reroutes concurrent with the closing of the social trail in question.
- When rerouting social trails, endeavor to solve the problem that facilitated the creation of the trail in the first place. For the closure of the social trail to be successful in the long term, it is essential to provide a smooth transition between existing and new trail alignments.
- Strive to create alignments that effectively discourage creation and use of new and existing social trails.



ACTIVE SOCIAL TRAIL CLOSURES

Due to the substantial use currently occurring throughout the Property by members of the unhoused community, there exist a multitude of social trails throughout the Property. These trails currently contribute to excess erosion and environmental degradation and, as such, will need to be actively closed and ecologically restored to maintain the Property. This should be accomplished through:

- Removal and cleaning of the areas inhabited by the existing unhoused encampments and associated detritus.
- Creation of the trail system outlined in this Master Plan document to provide alternative and approved routes through the Property.
- Installation of fencing or other obstructive materials to divert or otherwise prohibit users from continuing to use existing social trails.
- Regularly monitor approved trail system once installed for signs of continued or novel use of social trails and if or when discovered, implement trail closure techniques described herein.



PASSIVE SOCIAL TRAIL CLOSURES

Many social trails originate as game trails and are faint, sparsely used and do not cause substantial erosion or resource management concerns. In these cases, most users will easily adapt to new trails providing desired experiences are accommodated and the implemented passive closure is appropriate. As long as it does not conflict with the design intent of this Master Plan or the governing Deed of Conservation Easement, in these instances it is recommended that managers:

- Construct new trails to provide the desired access and experiences.
- Lightly scarify the tread surface of the social trail in question to reduce compaction and facilitate revegetation.
- Randomly place rocks, woody plant material and other natural-looking materials in the trail to subtly obstruct and discourage travel, promote revegetation and hide it from users.
- Allow natural revegetation to re-establish over time.

10.2 RESTORATION STANDARDS

Restoration activities will center around two main themes: Existing trail restoration and habitat restoration and revegetation of closed trails and areas. The following outlines the guidelines that will need to be followed in each instance.

EXISTING TRAIL RESTORATION

The trail system proposed in this Master Plan document relies on already established trails that exist throughout the Property. These include historic trails like the old wagon route which forms the backbone of the proposed trail system as well as various social trails that have been deemed worthy for continued use as part of the approved trail system. It was decided that use of existing trails would lead to the least amount of further site disturbance and would contribute to maintaining the relatively natural state of the Property. Some of these trails will undoubtedly require improvements to ensure their long-term functionality and sustainability. These measures will likely include the following:

- Restoration and maintenance activities to bring them up to the standards outlined in this Master Plan.
- Installation of drainage dips in strategic locations.
- Excavation of the lower/outer berm along the trail in question to ensure adequate width, sheet flow and cross-trail drainage.
- Construction of short reroutes and/or reconstruction of existing tread to fix steep or otherwise problematic segments.
- Installation of check dams and drains to shed and slow water, reduce erosion and accumulate topsoil.

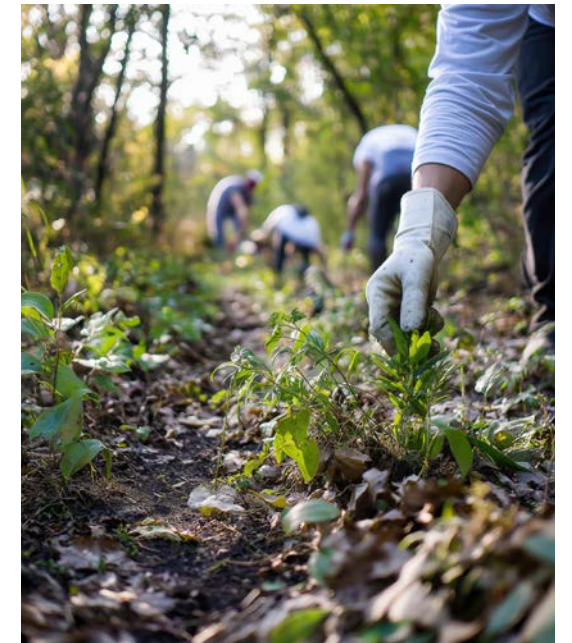
HABITAT RESTORATION AND REVEGETATION

Along the paths of closed social trails, as well as in areas that have seen habitat degradation as a result of unhoused encampments or other factors, habitat restoration and revegetation efforts will be necessary. It is recommended that an evaluation of habitat degradation be completed post-construction to determine which areas will benefit from these efforts. Restoration and revegetation efforts in these areas should adhere to the following guidelines:

- Stabilize existing surface with constructed check dams and drains to shed and slow water, reduce erosion and accumulate topsoil.
- Obliterate closed trail tread and areas of prior use and degradation to soften the soil, discourage continued further use and promote revegetation.
- Cover the obliterated tread and areas of prior use and degradation with biodegradable erosion control measures (in select locations to be determined upon final design) and natural materials such as rocks and woody debris.
- Reseed the area with native grasses, forbs and shrubs to promote revegetation.
- Regularly monitor the closed trails and areas for erosion, vegetation establishment and noxious weed growth and/or continued or recurrence of use.

PLANTING IN DISTURBED AREAS

All planting associated with the Project shall be comprised of only native species. Particular attention should be given to recognizing and planting for the site-specific soils and micro-climates. This will be beneficial for multiple reasons including ease of establishment, resilience and maintenance as well as to maintain the visual and ecological character of the Property. The best management practices (BMPs) found in the 2016 Manitou Springs Parks, Open Space and Trails Master Plan shall be used as a guide for weed, erosion and planting management for the Project.



WALLS, CULVERTS AND EROSION CONTROL STRUCTURES

Soil retaining structures made of rock and boulders will be needed in areas of steep slope or where erosion problems may occur throughout the Property. Walls, culverts and erosion control structures may consist of mortared or dry-set pieces of randomly sized stone. Structures may terminate at end/slab boulders or in a stepped-down form. Stone color should reflect the adjacent in-situ rock; this may vary from red, rusty-brown, grey, cream/gold or dark grey/brown depending on the specific location of the erosion control measure. The use of stone representing the nearest in-situ rock whether in large slabs or laid up in walls, is encouraged. Horizontal elements should be in the earth-tone rust or brown color.

11. REFERENCES

- Boulder Office of Emergency Management, 2016. Cold Springs Fire Update – Saturday, July 16th, 7 p.m., <http://www.boulderoem.com/cold-springs-fire-update-saturday-july-16th-7-p-m/>
- City of Manitou Springs, 2015. Black Canyon Road/Voth Acquisition Grant Application to Great Outdoors Colorado. Board Decision: December 10, 2015. 78 pp.
- Harrison, D. 2016. “Colorado’s First Resort Destination.” Historic Manitou Springs. <http://manitousprings.org/history/>
- Mineral Springs Foundation. “The Ground Beneath.” <http://manitoumineralsprings.org/index.html>
- National Park Service, 2017. Wildfire Causes. Fire and Aviation Management, U.S. Department of the Interior. <https://www.nps.gov/fire/wildland-fire/learning-center/fire-in-depth/wildfire-causes.cfm>
- Petit, J., 2016. “Ute Indians of Colorado.” Experience the Colorado Springs Pioneers Museum. <http://www.cspm.org/learn/regional-history/native-americans/ute-indians-of-colorado/>
- Shiff, B., 2016. “5 homes destroyed in Cold Springs Fire.” 9News KUSA. N.p., <http://www.9news.com/news/local/wildfires/cold-springs-fire-spreads-slightly/269660233>
- Stanley, J. A., 2016. “5 surprising facts about homeless camps.” Colorado Springs Independent. N.p., <http://www.csindy.com/IndyBlog/archives/2016/06/30/5-surprising-facts-about-homeless-camps>
- Sun, C., 2016. “Manitou Springs police working to eliminate illegal campsites.” The Gazette, <http://gazette.com/manitou-springs-police-working-to-eliminate-illegal-campsites/article/1586415>

11.1 TRAIL DESIGN AND CONSTRUCTION RESOURCES

FOR MORE INFORMATION ON MANY OF THE TOPICS DISCUSSED IN THIS MASTER PLAN, THE FOLLOWING TECHNICAL RESOURCES ARE RECOMMENDED:

- Trail Construction and Maintenance Notebook. 2007 Edition. USDA Forest Service Technology and Development Program in cooperation with the Federal Highway Administration. <http://www.fhwa.dot.gov/environment/fspubs/07232806/index.htm>.
- Equestrian Design Guidebook for Trails, Trailheads, and Campgrounds, USFS & USDOT. <http://www.fhwa.dot.gov/environment/fspubs/07232816/index.htm>
- Volunteers for Outdoor Colorado (VOC) Trail Design Handbook, most recent edition.
- U.S. Forest Service Trail Accessibility Guidelines (FSTAG), most recent edition. <http://www.fs.fed.us/recreation/programs/accessibility/>

Bill Bauers Open Space Questionnaire

The Open Space Advisory Committee (OSAC) is seeking your valuable input regarding a proposed trail development in the Bill Bauers Open Space. Your responses will help shape decisions about this project. The survey will take about 5 minutes to complete. Thank you.

* Indicates required question

1. Email *

2. Would you support the development of a trail through the Bill Bauers Open Space? *

Mark only one oval.

☐

Yes

☐

No

☐

Other:

3. If a trail is developed, how likely are you to use it? *

Mark only one oval.

☐

Very likely

☐

Somewhat likely

☐

Neutral

☐

Unlikely

☐

Very unlikely

4. What concerns, if any, do you have about the potential trail development? (Check all that apply) *

Check all that apply.

- ☐ Impact on wildlife
- ☐ Increased foot traffic in the area
- ☐ Safety concerns
- ☐ Parking or access issues
- ☐ Environmental impact (erosion, vegetation, etc.)
- ☐ Other: _____

5. Do you think a wildlife impact study should be conducted before moving forward with the trail development? *

Mark only one oval.

- ☐ Yes
- ☐ No
- ☐ Other: _____

6. How close do you live to the Bill Bauers Open Space? *

Mark only one oval.

- ☐ Adjacent (within 1 block)
- ☐ Nearby (within the Crystal Hills neighborhood)
- ☐ Elsewhere in Manitou Springs
- ☐ Outside of Manitou Springs

7. If the trail is developed, what features or amenities would you like to see included? (Check all that apply) *

Check all that apply.

- ☐ Trail signage
- ☐ Benches/rest areas
- ☐ Trash or recycling receptacles
- ☐ Dog waste stations
- ☐ Other: _____

8. How important is it to you that the open space retains its natural characteristics while incorporating a trail? (5 meaning it is the most important, 1 meaning it is not important) *

1	2	3	4	5
☆	☆	☆	☆	☆

9. What type of trail would you like to see: *

Mark only one oval.

- ☐ none
- ☐ seasonal path (narrow width, walking near creek, maintained yearly)
- ☐ hiking trail (permanent, slightly above creek)
- ☐ multiuse (mountain biking and hiking, well above creek)
- ☐ Other: _____

10. If a trail is not developed, how would you prefer the Bill Bauers Open Space be used? *

Mark only one oval.

- ☐ Left as is, with no public access
- ☐ Open for wildlife observation only
- ☐ Other: _____

11. Would you like to participate in future community discussions about the Bill Bauers Open Space? *

Mark only one oval.

☐ Yes

☐ no

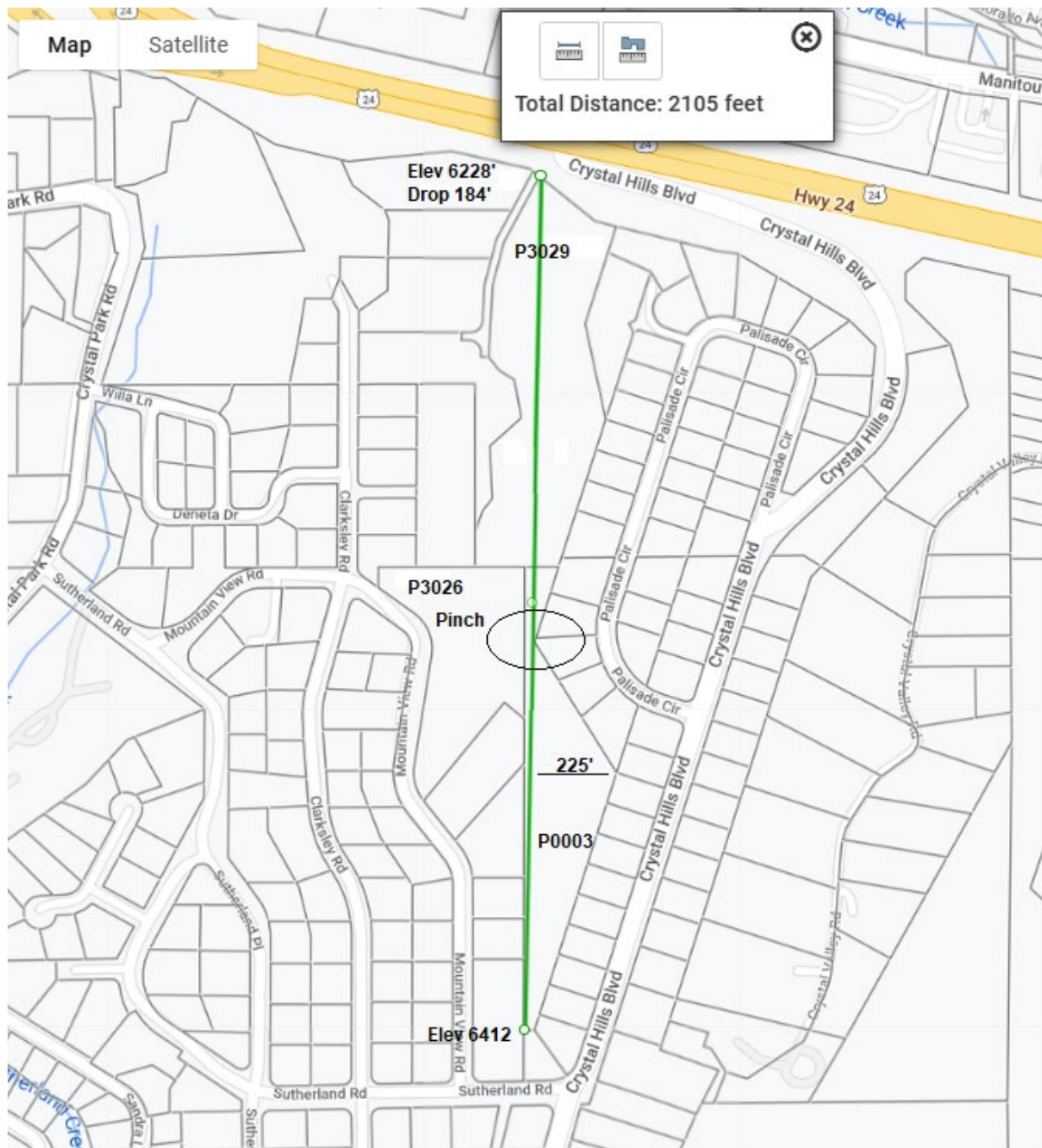
If you answered "No" to the above question, you will not be contacted for future input on this initiative. If you change your mind, please email pio@manitouspringsco.gov to be added to communications.

12. Please share any additional thoughts or suggestions regarding the proposed trail development:

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BBP Trail Detailed Location:



Possible BBT questionnaire addition:

Would you support completion of the Crystal Hills Blvd (CHB) multi user roadway by lining a safe pedestrian/bike lane on the west side of CHB from Palisades Circle to the Hwy 24 overpass?

Yes ☐

No ☐

No opinion ☐