



PARKS AND RECREATION COMPREHENSIVE PLAN 2024

ACKNOWLEDGMENTS

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ADOPTED JUNE 28, 2022

ACKNOWLEDGMENTS

COYOTE RIDGE PARK AND SOARING HAWK PARK CONCEPT PLANS- APPENDIX B

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ADOPTED AUGUST 27, 2024

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APPENDIX B - AUGUST 2024 COYOTE RIDGE PARK AND SOARING HAWK PARK CONCEPT PLANS

THE 2022 PLAN AT A GLANCE

- The 2022 PaRC Plan Update refines community priorities originally garnered through robust public outreach including statistically valid survey results that are in the 2017 PaRC Plan.
- This Plan is an update to focus on emerging trends. It provides recommendations and implementation steps based on current conditions, recent developments, and emerging recreation trends.
- The recommendations represent the community’s vision for the next 10 years, which can only be achieved with adequate funding, suitable lands, and partnerships.
- This Plan should be used by anyone who desires to promote the community’s health, safety, and welfare – not just for City of Castle Pines staff and elected officials.
- The Castle Pines community treasures scenic beauty and active lifestyles made possible by a connected system of trails, open space, and quality parks.
- This Plan reinforces the vision established in the 2021 Comprehensive Plan Update to increase park and recreation amenities, define additional acres of open space, improve pedestrian and bike connectivity.
- The PaRC Plan outlines strategies to accomplish these community priorities.



CHAPTER ONE

INTRODUCTION

PURPOSE OF THE PLAN

The 2022 Parks and Recreation Comprehensive Plan Update (PaRC Plan Update):

- Provides an opportunity for community leaders and agencies to review implementation efforts between 2017-2021 and changes in park and open space dedications of new developments.
- Addresses emerging trends and community-driven needs and desires for recreational facilities, trails, open spaces, and recreation programs throughout Castle Pines.
- Updates the action plan for potential future projects that identifies conceptual designs, potential costs, and future management considerations.

PLAN OBJECTIVES

COMPREHENSIVE PLAN UPDATE (2021)

The City of Castle Pines Comprehensive Plan, adopted in April 2016 and then updated in 2021, presents the City's efforts to build and maintain a balanced, unified, and sustainable community (see Figure 1). The 2021 Plan Update provided an opportunity to review policy guidance based on what had changed over the previous 5 years and other community accomplishments. It sets forth the vision for the future of the community, identifies goals and objectives to help guide development decisions, and proposes implementation strategies to bridge the gap.

This PaRC Plan Update reinforces the community's deep value in quality natural and recreation opportunities. It outlines the intent to expand the trail system, provide adequate public park land, and it assesses the needs, potential programs, and locations for a recreation center that would serve City residents and a secondary service area (see Figure 2).

CITY COUNCIL VISION

Castle Pines is an inclusive and unified Colorado community that embraces our unique neighborhood character, creates outdoor and active lifestyle living amenities, and supports conscientious development where we live, work, play, and shop.

2022 CITY COUNCIL PRIORITIES

At their annual retreat, City Council provided clear direction to City staff on 2021 focuses that reflected community priorities.

Roads and Long-term Transportation Funding

The Council acknowledges that our City roads have aged and investing in our existing infrastructure must be a top priority.

Economic Development

The success of our local business community is key to the success of the overall community. Council believes economic development should be a key focus in 2021.

Communications Strategy

Council would like to continue to improve communications and engagement in 2021. As an initial commitment to meeting this priority, Council approved a full-time, in-house Communications & Engagement Manager for hire in 2021.

Municipal Facility

Council acknowledged the need for municipal and civic space within the community.

Gateway Project

Establishing gateways in and out of the City contributes to creating a sense of place and community.

Creating a sense of Place that is Castle Pines

Council supports work that continues to build the community of Castle Pines. Creating a place where residents – new and existing – can live, work and play.

The following vision, goals and policies in the Comprehensive Plan Update (2021) provided guidance for the planning process, analyses and recommendations contained in this document.

Parks, Recreation and Amenities Vision

PARKS, RECREATION AND AMENITIES THAT ENCOMPASS NEW RECREATIONAL FACILITIES, A VARIETY OF PARK TYPES, NATURAL AREAS, HIGH-QUALITY SCHOOLS, AND REGIONAL RECREATIONAL AMENITIES THROUGH AN INTEGRATED CITY-WIDE NETWORK OF OPEN SPACE, GREENWAYS, PARKS, AND TRAILS THAT ARE ACCESSIBLE TO ALL RESIDENTS OF THE CITY.

Parks, Recreation, and Amenities Goals and Policies

Goal 1: Provide recreation, community, and educational facilities that serve the City's population and support a healthy and active community.

- 1.1 Support the creation of a recreation or community center to connect residents with recreation opportunities, holistic wellness, and education and to provide a community gathering place for residents of all ages.
- 1.2 Locate any future recreation or community centers in central and prominent areas to provide equitable access and connectivity for all residents.
- 1.3 Maintain a cooperative approach to planning for educational facilities.
- 1.4 Ensure safe, accessible, and prominent schools in the community.

Goal 2: Provide areas for open space, parks, trails, and wildlife corridors in all new developments that are accessible to all residents.

- 2.1 Expand the range of recreational facilities, programs, parks, paths, and open space accessible to residents of all ages, incomes, and abilities.
- 2.2 Demonstrate adequate provision of neighborhood and community parks, trails, and recreational facilities in all new residential developments to meet the level of service standards in the *PaRC Plan*.
- 2.3 Coordinate with Denver Mountain Parks, Douglas County, and Rueter-Hess Recreation Authority to connect and enhance accessibility to the regional trail and open space networks.
- 2.4 Coordinate with Colorado Parks & Wildlife and Douglas County open Space to conserve wildlife habitats, wildlife movement corridors, and habitat linkages through the provision of significant open space.



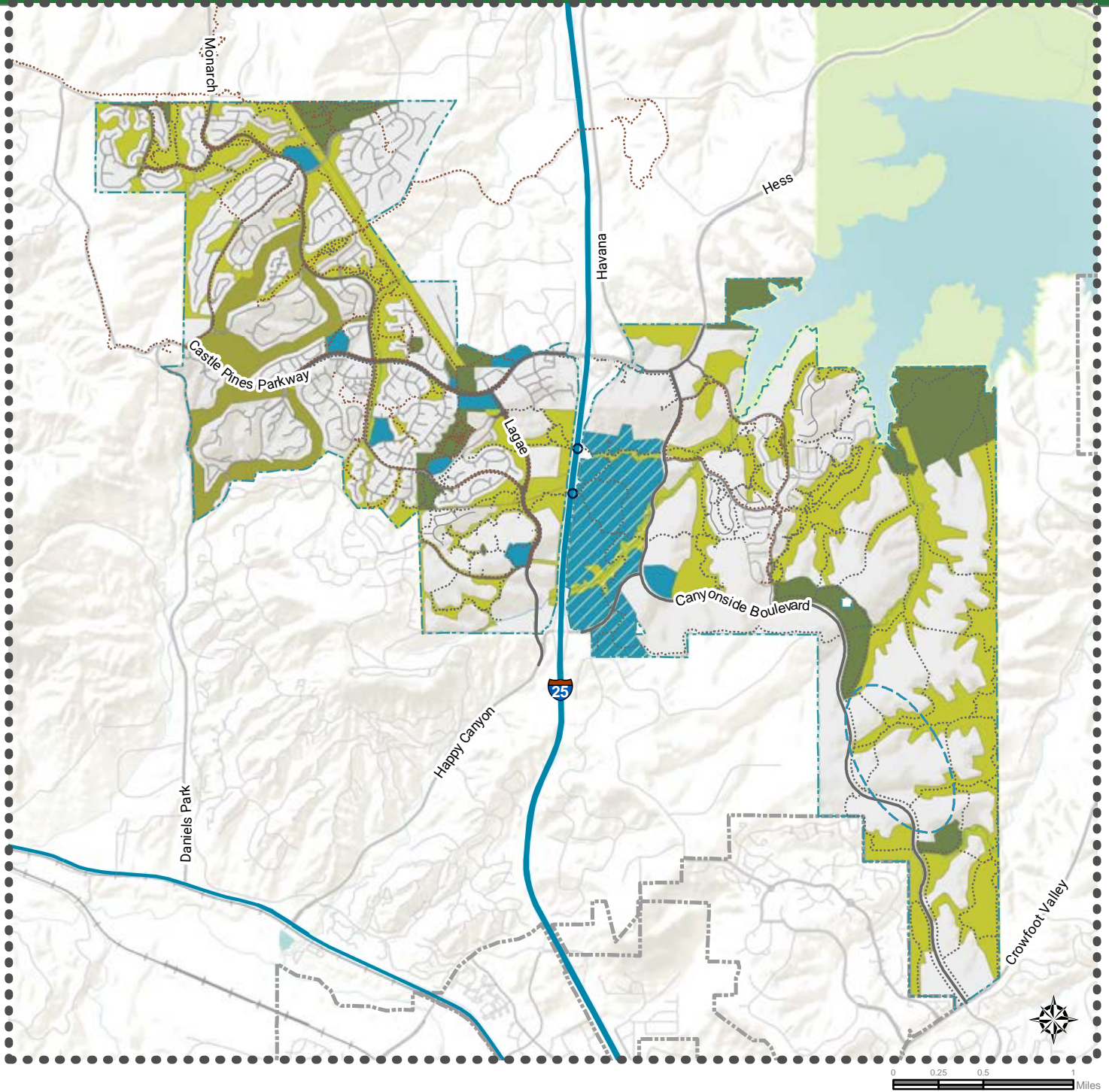
Goal 3: Advance opportunities for new recreational, educational, entertainment, and leisure activities within the Community Benefit Overlay.

- 3.1 Encourage public spaces and facilities that are open to the public or services that are provided at a reduced rate to community members.
- 3.2 Locate and design land uses to respect the ecological context and topography of the site.

Goal 4: Consistently manage high quality of facilities and efficient delivery of recreation.

- 4.1 Establish inter-agency coordination to ensure efficiency and to reduce redundancy.
- 4.2 Implement consistent set of high standards for parks and open space.

PARKS, RECREATION, AND AMENITIES FRAMEWORK



Legend

- Castle Pines
- Other Municipalities
- Streams
- Rueter-Hess/PWSD Property Boundary
- Rueter-Hess Reservoir (At capacity)

Recreation

- Railroad
- Interstate
- Major Road
- Local Road
- Park
- Golf Course
- Open Space
- Existing Trails
- Planned Trails
- Proposed Underpass

Civic Amenities

- Public/Quasi Public
- Community Benefit Overlay
- Future School Site

Figure 1. Parks, Recreation, and Amenities Framework Map from the 2021 Comprehensive Plan

PaRC PLAN ACCOMPLISHMENTS



Metro districts in Lagae Ranch, Castle Pines Town Center, and The Canyons started the process to transition management and maintenance of parks and trails to the City.



New pocket parks are being built to serve newly built and permitted housing stock.



Rueter-Hess will soon offer new recreation services including special events, programming, and new regional trails, including a newly constructed incline.



Completed key trail gaps, including from Elk Ridge Park to Castle Pines Parkway.



Open space and regional amenities in the Canyons continue to evolve, including an disc golf course open soon and the dedication of a 167 acre Park Preserve.



Development of Trails Master Plan.

LOCAL PARK AND RECREATION PROVIDERS

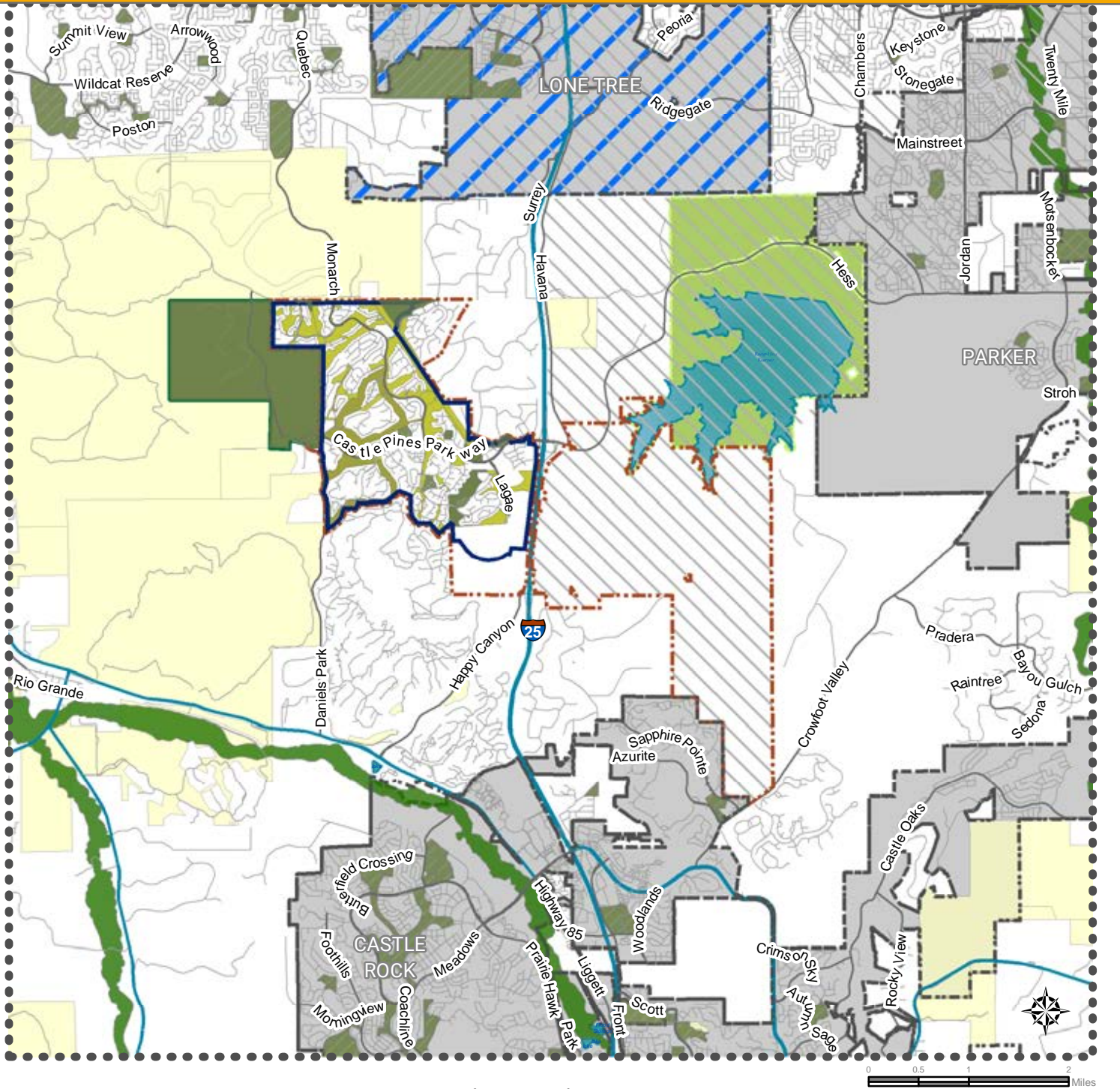
The Castle Pines community is unique because of the number of agencies responsible for overlapping services. Parks, trails, open space, and recreation programming are constructed and maintained by multiple entities (see Table 1 and Figure 2). This PaRC Plan Update helps all service providers understand what the community priorities are. Other than Castle Pines Athletics' youth basketball, which was primarily on hold throughout the COVID-19 Pandemic, no agency offers indoor recreation within the Castle Pines area. Several youth sports organizations offer outdoor recreational and competitive athletics.

Table 1. Current Local Parks and Recreation Service Providers

PROVIDERS	SERVICES				DESCRIPTION
	Parks	Recreation*	Open Space	Trails	
City of Castle Pines	✓		✓	✓	Currently, the City owns and operates Elk Ridge Park and oversees the construction of all new parks within the city limits. As new neighborhood/community parks are built long-term management and maintenance will be the responsibility of the City. Parks and Recreation Advisory Board (PRAB) makes recommendations to the City Council on different parks and recreation programs, parks and recreation legislative policies, updating the City's PaRC Plan, as well as policies for the acquisition, development, and improvement of recreation, park, and play facilities. In 2019, the City shifted management of all recreation services from the Castle Pines Parks Authority to the City.
Castle Pines North Metro District	✓		✓	✓	Located in the western portion of Castle Pines, the Metro District provides three parks and a trails and open space system for its residents.
Homeowner Associations		✓			Private neighborhood amenities that typically provide playgrounds, club houses, outdoor pools, pickleball courts, and/or tennis courts.
Adjacent Providers					
Rueter-Hess Recreation Authority			✓	✓	Working with regional partners, the Recreation Authority prepared a conceptual master plan to provide public recreational opportunities at Rueter-Hess Reservoir. Open space and trails will largely be constructed and maintained through partner funding.
Douglas County	✓		✓	✓	The county contributes to parks, open space, and trails of regional significance within and adjacent to Castle Pines on a county-wide basis. It maintains a number of regional parks, such as Bluffs Regional Park in Lonetree and Highland Heritage Regional Park in Highlands Ranch, and an extensive trail system. In addition, the County Fairgrounds and Events in Castle Rock has an indoor events center, arena, and other amenities.
South Suburban Parks and Recreation District	✓	✓	✓	✓	The district is a full-service parks and recreation agency. It manages a large number of parks, trails, outdoor pools, golf courses, ice rinks, indoor turf facility, and recreation centers.
City of Lone Tree					The city contracts with South Suburban for all park and recreation services (see above).
Denver Mountain Parks			✓	✓	Denver owns Daniels Park, one of its mountain parks, and shares maintenance responsibilities with Douglas County. The 1,000-acre historic ranch is known for its bison herd, dramatic view of the mountains, historic ranch buildings, and Tallbull Memorial Grounds. There are no recreation facilities or any recreation programs at the park.
City of Parker	✓	✓	✓	✓	The city maintains 250 acres of developed parkland and more than 900 acres of open space, including 14 public parks, a sports complex, soccer fields and a new dog park. The city also offers sports and recreation programs at the Parker Recreation Center and Parker Fieldhouse.
Town of Castle Rock	✓	✓	✓	✓	Castle Rock manages 20 developed parks, 5,800 acres of open space, and nearly 75 miles of trails. The city also owns the Red Hawk Ridge Golf Course, a Recreation Center and the Miller Activity Complex at Philip S. Miller Park. There are long range plans to build an additional recreation center.
Highlands Ranch Metro District	✓	✓	✓	✓	The district owns and manages 25 parks, 70 miles of trails, and 2,200 acres of natural open space areas in the community. Additionally, the district provides sports and recreation programs at the local park facilities. In addition, the Highlands Ranch Community Association owns and operates four recreation centers and four outdoor pools as well as a full complement of recreation programs.

* Recreation means recreation programs, which are often offered in tandem with an indoor recreation/community center

EXISTING PARKS + RECREATION PROVIDERS



Transportation

- Railroad
- Interstate
- Major Road
- Local Road

Service Areas

- CPN Metro District
- Primary Service Areas**
- Castle Pines
- Parker Water and Sanitation
- South Suburban Parks and Recreation District
- Municipalities

Park & Natural Features

- Golf Course
- Open Space
- Park
- Other Parks & Public Spaces
- Riparian Conservation
- Other Conserved Land

Facilities

- Daniels Park (Douglas County/Denver Mountain Parks)
- Rueter-Hess Reservoir IGA (Park Water & Sanitation District)
- Rueter-Hess/PWSD Property Boundary

Figure 2. Existing Parks + Recreation Providers

POPULATION DISTRIBUTION, DEMOGRAPHICS AND GROWTH

Along with many communities along Colorado's Front Range, the City of Castle Pines is projected to grow over the next 20 years, from its current population of 12,300 to over 35,000. Most of this population growth will occur east of Interstate 25. Overall, these new housing units are anticipated to attract a similar market of educated, middle- to upper-income families. With minimal variation of demographic characteristics, the needs of the community today will likely continue to be the needs of the growing community in the future. Douglas County more than doubled its over 65yr population, and Castle Pines saw an increase of over 60% in that age group between 2010 and 2021 (ESRI 2021). This trend will have far-reaching implications, including housing preferences, transportation and mobility limitations, and services and facility needs.

Household Income

The 2021 median household income in Castle Pines was estimated at \$163,469, which is more than Colorado's median household income (ESRI 2021). A higher household income is indicative of a higher disposable income and capacity for increased spending on local goods and services.

Household budget expenditures, and recreation expenditures specifically, can provide a snapshot of the spending patterns of Castle Pines residents. Recreation expenditures include sports participation, recreational lessons, club memberships, and exercise or sports equipment. The level of spending for Castle Pines residents is at least double the level for Colorado residents and, in some areas, nearly triple the level nationally.

Education

There is a strong correlation between higher education and increased earning potential, which may help explain Castle Pines' higher median household income compared to the region and state. The Castle Pines population has a similar or higher educated population than its peer cities. Lone Tree has 70%, followed by Parker at 53% and Castle Rock at 48%.

Home Value

Median home value is another useful metric for evaluating lifestyle interests and expectations within a community. While a range of values exists within any community, the median value provides a useful way of comparing the affordability of different locations.

Based on 2021 ESRI data, the median home value in Castle Pines was \$743,592. 90% of Castle Pines housing are single family homes, and 83% of residents own their homes as opposed to renting. Both of these numbers are higher than those found in neighboring communities.

DEMOGRAPHIC CHARACTERISTICS

- The City of Castle Pines population is relatively small at just under 12,300. With new homes being built in The Canyons, Lagae Ranch, and Castle Pines Town Center, the City anticipates about 35,000 total residents by 2040.
- The family-oriented community is made up of well-educated professionals.
- There is very little ethnic diversity within the population.
- The income levels in the greater Castle Pines area are very high, which results in a significant Spending Potential Index for recreation services.
- Douglas County more than doubled its over 65yr population, and Castle Pines saw an increase of over 60% in that age group between 2010 and 2021.
- There are a large number of families in the market, and they are frequent users of indoor recreation centers.
- Other than the relatively small population base, the demographic characteristics are ideal for the support and use of recreation facilities in Castle Pines.



CHAPTER TWO

COMMUNITY PRIORITIES

2022 PLANNING PROCESS

The PaRC Plan Update builds on the extensive public outreach from the 2016-2017 planning process. During that process, the planning team gathered information about the City’s recreation facilities and resident preferences on parks and open space in order to make recommendations on what projects should be pursued in the future. Given the interim nature of the 2022 Plan Update, a streamlined approach was taken. When a complete plan rewrite is needed due to substantial population increase or changing community needs, robust public outreach will be executed.

The recently established PRAB acted as the primary guiding body for the PaRC Plan Update. Early in the process individual stakeholder interviews were conducted with the PRAB and City Council to review what’s working well, what’s missing, and opportunities for the future of parks, recreation, trails, and open space in Castle Pines. Multiple worksessions were held with the PRAB to gather input and feedback during the plan’s development. The Board will be instrumental in ensuring the PaRC Plan Update recommendations are carried out.

2017 PARC PLAN PUBLIC OUTREACH SUMMARY

The public engagement process used three methods to garner input from Castle Pines residents and stakeholders: one-on-one and small group interviews, community surveys, and public meetings. Residents were notified of outreach events and surveys through different online and print media, including the following: project website, Notes & News e-newsletter, Facebook updates, press releases published in *Castle Pines Connection*, Nextdoor posts, save-the-date postcards, and an email distributed to the City’s homeowners’ association contact list.

This section shares key highlights that informed the 2017 PaRC Plan.

STAKEHOLDER INTERVIEWS

Small group and individual interviews were held with a cross-section of community leaders and representatives to get a clear understanding of priorities and goals. The following sections summarize the ideas and comments articulated during the stakeholder interviews.

Recreation Center

- There is a need for a strong community gathering place to reinforce sense of community. A future recreation center should be full service and should offer lifestyle classes, hold events, and provide community/meeting rooms and year-round indoor sports.
- Carefully consider what amenities/facilities are needed; some kinds may not be needed, while others may be needed to fill a void.
- Location should be central and unifying. Potential locations include Castle View Park, The Canyons, or near the library.
- Compared to neighboring communities, Castle Pines residents are underserved, have to travel longer distances, and pay a premium price for nonresident status.
- As a community of over 10,000 people today, it may not be cost effective for Castle Pines to invest in a recreation center. This could change when The Canyons start developing.
- From a real estate point of view, a recreation center is a huge asset and a selling point for new residents, as long as taxes are not ridiculous.
- Convenience is a big draw; if there were a local recreation center, then people would probably use it over facilities in other communities or private fitness centers.

Parks

- Neighborhood parks are keeping pace with population growth.
- Facilities should be diversified for other sports besides football and soccer.
- Important to design parks for all generations – families and seniors.
- HOA managers get a lot of requests for tennis courts and pools.
- Not a lot of residents are aware of Daniel’s Gate Park or Coyote Ridge Park.
- The parks in Castle Pines are already great; the City probably does not need more parks to serve the developed neighborhoods.
- Residents have high expectations for the City to provide a range of recreation options for all ages, including therapy pools for seniors and playgrounds for toddlers.
- Off-leash dog parks are in high demand, since there are no dog parks in Castle Pines and that is where many people socialize.

Open Space and Trails

- Trails are some of the City’s most attractive amenities.
- Increase the number of soft-surface trails, especially east-west, and connect to natural areas and regional facilities.
- Rueter-Hess will be an important regional destination, but convenient access points are not guaranteed.
- Castle Pines has done a good job of integrating trails in the neighborhoods, but it needs more connections to the business area and to regional recreation.
- Should have an intergovernmental agreement to allow mutual use of nearby trails (Highlands Ranch).

COMMUNITY SURVEY RESULTS

RESIDENTS ARE VERY SATISFIED WITH OUR REGIONAL PARK AND RECREATION OPPORTUNITIES

54% OF RESIDENTS STATED THAT A LACK OF FEATURES IS THE PRIMARY REASON FOR NOT USING CASTLE PINES FACILITIES MORE.

44% OF RESIDENTS SAID THAT THE KEY REASON FOR USING FACILITIES OUTSIDE CASTLE PINES IS PROXIMITY.

WHERE ARE RESIDENTS CURRENTLY GOING FOR PARK AND RECREATION FACILITIES?

47% SOUTH SUBURBAN PARKS AND RECREATION DISTRICT

46% PRIVATE HEALTH AND FITNESS CLUBS

37% TOWN OF CASTLE ROCK

CITYWIDE COMMUNITY SURVEY

A citywide survey was conducted to help guide the 2017 PaRC Plan. The results helped to identify residents' needs and desires specific to parks and recreation, as well as to gauge the support for additional recreation and park facilities. A full survey analysis and report was created by Left Brain Concepts and is found in Appendix A.

Highlights

- Castle Pines residents are extremely satisfied with the quality of the existing parks and recreational opportunities in and around Castle Pines.
- The biggest need in Castle Pines, as voiced by residents, is a community/ recreation center. Almost all of the recreation activities that people feel are lacking in Castle Pines can be provided by a community/recreation center.
- Castle Pines can also better serve residents and improve their quality of life by adding to the trails system.
- Residents are amenable to an increase in their property taxes to pay for construction of the community/recreation center and an increase in sales taxes to help cover the operating costs of the facility. Based on current sentiment, both issues may pass in a future election.
- Since more than half of the respondents said they would use an indoor lap swimming pool, an indoor leisure pool with slides and other amenities, and an indoor wellness pool, pool features will need to be carefully selected during the design phase because pool construction and operation are expensive.
- The results mirror Castle Pines' demographics. Younger residents engage in a wider range of activities than older residents; residents who have children are more interested in services that support their families; and residents aged 50 and older are more interested in walking and senior activities. Regardless of age group, however, responses indicated that Castle Pines residents are overwhelmingly in support of building a community/recreation center.

Implementation and Coordination

- Unity between existing public agencies and metro districts is desired, though seen as a challenge.
- Potentially develop a partnership between Castle Pines Athletics and City regarding shared facilities.
- City's role may or may not be to develop parks; consider joining South Suburban or defining roles with existing entities.
- Set up phasing and funding mechanisms to ensure future operating and maintenance costs.
- Collaborate with City and developers to build new parks and trail system.
- Provide clear and transparent funding options and costs.
- Perception that Castle Pines is already at the top end of property tax spectrum relative to neighboring communities.

PUBLIC EVENTS

During multiple public events, participants provided the following feedback on the unique aspects and programming of these features and how a potential community center would be funded:

- **HISTORY BETWEEN GOVERNMENTAL AGENCIES.** Parks, trails, and open space are currently constructed and maintained by multiple entities. Many participants were aware of competing needs in the area and were somewhat confused about all of the various district entities. Based on the conversations during the open house, most participants felt that the City of Castle Pines, rather than other governmental entities, developers, or special districts, should be operating and maintaining parks, trails, and open space. Future shared-use agreements and/or intergovernmental agreements may be a key implementation strategy.
- **CONTINUED DESIRE FOR A COMMUNITY/RECREATION CENTER.** Many young families spoke about the importance of a community center in their community, while other residents were less enthusiastic. Ideas for a location of a community center included reuse of the old Safeway, in the downtown, or near the existing Castle Pines North Metro District building. Some residents desire that a community recreation center be a part of a larger vision for a consolidated gathering place and hub for the community.
- **FINANCIAL VIABILITY OF COMMUNITY RECREATION CENTER.** Many alternatives to fund construction and operations were offered. As an alternative to a center that is constructed and operated entirely by the City of Castle Pines, suggestions included a private/public partnership with developers for constructing and maintaining a community center with a special recreation district providing the operation and programming.
- **COMPETING NEEDS FOR IMPROVEMENT.** Several people mentioned that there are competing needs between improving existing parks, improving roads and landscaping, and building a new recreation center. There may be limitations to what the City can reasonably fund.
- **PUBLIC OUTREACH.** More than half of the attendees indicated that they participated in the citywide survey, by mail or online.





CHAPTER THREE

INVENTORY + NEEDS

CASTLE PINES' GOLD STANDARD

Residents have a high expectation for outdoor and indoor recreation, are extremely active, and take advantage of year-round opportunities, and are quick to associate the quality of parks, trails, and open space with their quality of life. They want the opportunities that other cities offer their residents – such as the Phillip S. Miller Complex or the Lone Tree Recreation Center – yet they want to retain Castle Pines' own distinctiveness and fiscal health. From this, the City's essential role is fourfold:

1. **Conservation:** Because parks and open space are critical to preserving natural resources and generating real economic advantages, the City is the voice for protecting open space, connecting children to nature, and providing facilities and programming that helps residents engage in environmentally sustainable ways of living.
2. **Healthy Lifestyles:** The City is an essential partner in improving the overall wellness of residents by supporting healthy choices for physical activity and academic success.
3. **Social Equity:** Universal access to parks and recreation by the oldest, the youngest, and least advantaged members of the community requires equal distribution of parks and trails and consistency in design quality and maintenance.
4. **Operational Efficiency:** The number of overlapping park and recreation service providers requires strategic investments with an eye towards filling gaps and managing long-term operational costs.

Three of these pillars – conservation, health and wellness, social equity – are also the foundation for the National Parks and Recreation Association (NPRA). Each year the NPRA and American Academy for Park and Recreation Administration (AAPRA) award a Gold Medal

for Park and Recreation Management to local parks and recreation programs, the highest national award available. This award recognizes exceptional long-range planning, resource management and innovative and creative approaches to designing and delivering outstanding park and recreation services through fiscally sound business practices. Many small Colorado communities have been honored with the Gold Medal since its inception in 1966.

The Gold Medal is symbolic of this PaRC Plan's vision. There is no single level of service or level of facility standard for the winning communities. Instead, the judging criteria are based on a qualitative description of the positive impacts that the park and recreation facilities and services provide to the community. Creativity, resourcefulness, and thoughtful long-range and strategic planning are paramount.

PAST COLORADO GOLD MEDAL WINNERS

CITIES LESS THAN 75,000 POPULATION:

- City of Lafayette (2002, 2014)
- Town of Erie (2013)
- City of Durango (2012)
- City of Golden (2010)
- City of Evans (2004)
- Town of Parker (2000, 2011)
- Commerce City (1998)
- Castle Rock (2018)
- Grand Junction (2004)

BENEFITS OF AN INTEGRATED SYSTEM OF PARKS, TRAILS, AND OPEN SPACE:

INCREASED PROPERTY VALUES:

Homes near parks can sell for up to \$2,262 more than homes without parks nearby.

INCREASED PHYSICAL ACTIVITY:

The more parks there are in a community, the more people exercise. People who live closer to parks exercise more.

INCREASED MEDICAL SAVINGS:

A study found that for every \$1 spent on trails, there was almost \$3 in savings in direct medical costs.

SAFE ROUTES TO EVERYWHERE:

People who live in walkable neighborhoods are 2 times more likely to get the recommended amount of physical activity compared to those who live elsewhere.

ACADEMIC ACHIEVEMENT:

Physical activity improves attention and concentration, classroom behavior, graduation rates, GPA, and educational aspirations.

INCREASED MENTAL HEALTH:

People who live closer to parks report better mental health even if they do not actually exercise there.

Source: www.activelivingresearch.org and www.tpl.org

EXISTING AND PLANNED INVENTORY

TRAIL INVENTORY

The City updated their Trails Master Plan in March 2020. The Trails Master Plan highlights existing and planned connections across the City, including paved paths, natural trails, bike facilities, crosswalks, and planned underpass locations. Ensuring connectivity and continuity of trails and open space is an important value for the community.

PARKS INVENTORY

A comprehensive inventory and assessment of parks, recreation, trails, and open space facilities and services was developed to determine current conditions. Four developed local parks serve the community are summarized in Table 2 and additional details are each described under Park Recommendations at the end of this chapter. Only Elk Ridge Park is owned and maintained by the City. These parks are highly regarded and in good condition, though some features are in need of maintenance or replacement. The total acreage of parkland available to the entire community today is 74 acres.

OPEN SPACE INVENTORY

Open spaces interwoven throughout Castle Pines are treasured for scenery, natural habitat, and wildlife-viewing opportunities, in addition to passive recreation. As the backbone for a community trails system, open spaces feature over 14 miles of 8-foot-wide paved concrete trails for residents to use for recreational activities, including bicycling, jogging, and skating.

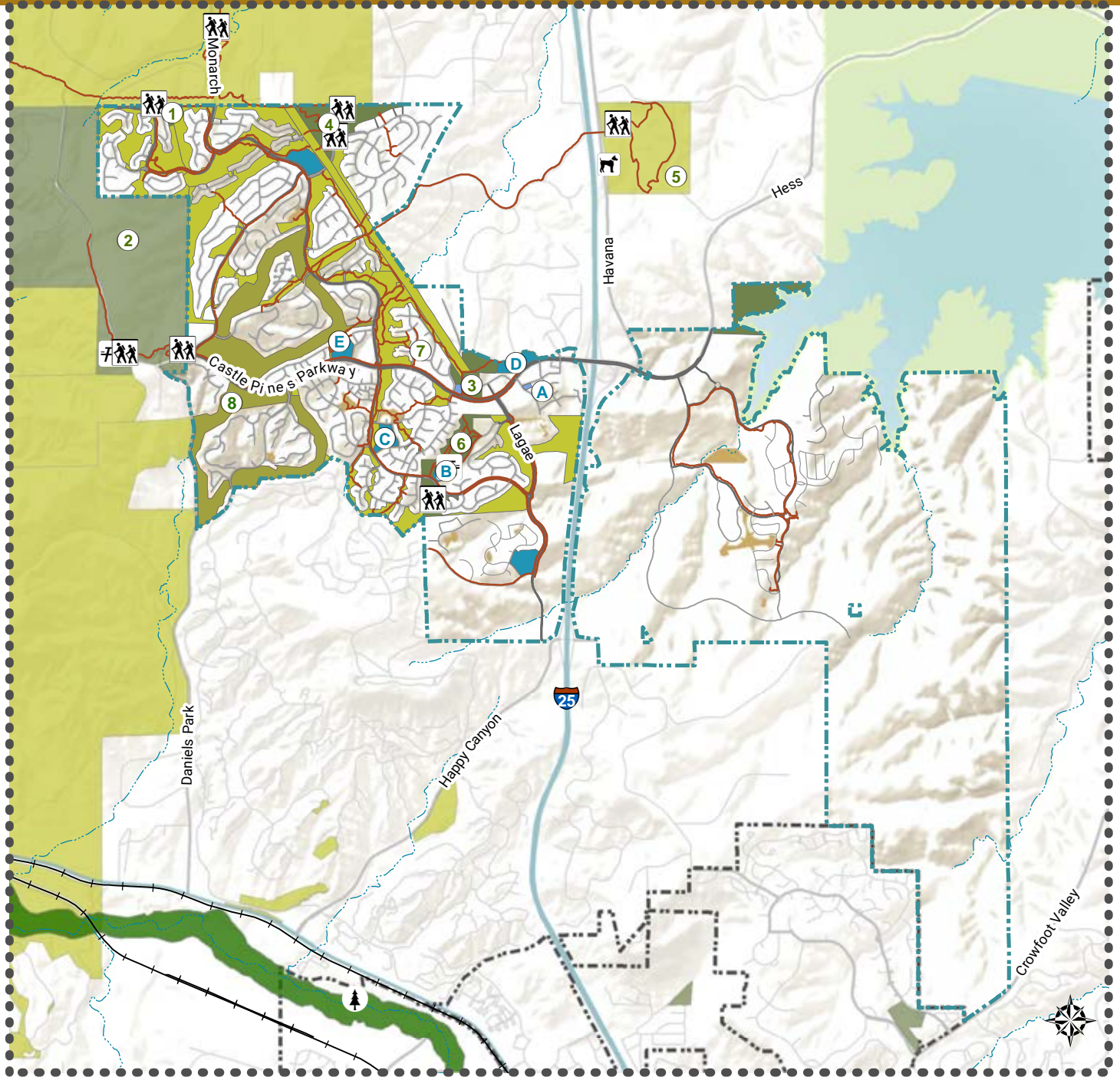
Existing open space in the Castle Pines community is owned by the Castle Pines North Metro District (3401 acres) and HOAs (209 acres). Future planned developments at Lagae Ranch, Town Center, and The Canyons have made commitments to triple this number—for a total of 1,600 acres (Table 2). This PaRC Plan does not address The Ridge Golf Course, a private facility, at 218 acres.

On the western boundary of Castle Pines, residents enjoy convenient access to Daniels Park, a 1,000-acre historic ranch that is owned and managed by Denver Mountain Parks. Douglas County is partnering with Denver Mountain Parks on substantial trail, trailhead, and road improvements. Many residents view Daniels Park, as well as other regional open space facilities, as an extension of the trails and neighborhood open space found within Castle Pines.

Table 2. Existing and Anticipated Parks and Open Space

NAME		CLASSIFICATION	PROVIDER	ACTIVE PARKS (acres)	PASSIVE OPEN SPACE (acres)
Existing	Elk Ridge Park	Community	City	26.2	13.2
	Retreat Park	Neighborhood	CPNMD	3.7	N/A
	Coyote Ridge Park	Community	CPNMD	40.5	N/A
	Daniel's Gate Park	Neighborhood	CPNMD	3.6	N/A
	Open Space	Open Space	HOA/CPNMD/other	N/A	549.2
	HOA Parks	Pocket	HOA	55.4	N/A
	Golf Course	Golf Course	Private	218.4	N/A
	Castle Pines Town Center PD	Pocket	City	3.7	N/A
	Existing Total				351.5
Future	Castle View Park	Neighborhood)	CPNMD	21.9	N/A
	Dedicated Parks in The Canyons PD	Neighborhood or Community	City	166.0	N/A
	Open Space and Trails in the Canyons PD	Open Space	Developer or assigns	N/A	1,037.0
	Pocket Parks in the Canyons PD	Pocket	Canyons Metro District	9.5	N/A
Anticipated Total				197.4	1,037.0
Total				548.9	1,599.4

EXISTING PARKS, RECREATION, AND AMENITIES



Transportation

- Railroad
- Interstate
- Major Road
- Local Road
- Castle Pines
- Other Municipality
- Rueter-Hess/PWSD Property Boundary

Natural Features

- Golf Course
- Open Space
- Park
- Riparian Conservation
- Other HOA/Metro Amenities
- ① Daniel's Gate Park
- ② Daniel's Park
- ③ Castle View Park (undeveloped)
- ④ Coyote Ridge
- ⑤ Glendale Farm
- ⑥ Elk Ridge
- ⑦ Retreat Park
- ⑧ The Ridge Golf Course

Water Features

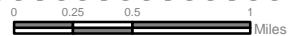
- Streams
- Rueter-Hess Reservoir

Amenities

- Dedicated School Sites
- Library and City Hall
- Library and City Hall (A)
- American Academy (B)
- Buffalo Ridge Elementary (C)
- Montessori Charter (D)
- Timber Trail Elementary (E)

Recreation

- Dog Park
- Tree Nursery
- Picnic Area
- Trailhead
- Existing Trails



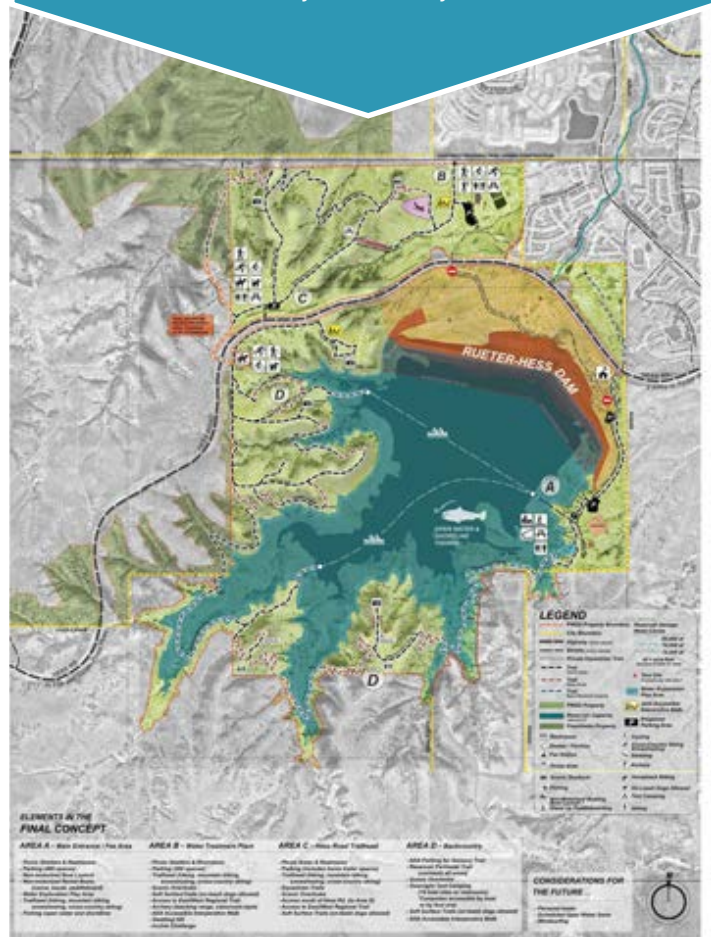
EMERGING TRENDS

The following local and regional trends, opportunities, and issues have emerged since 2017.

- The Castle Pines Comprehensive Plan vision, goals, and objectives were updated in 2021 to align with larger transportation, land use, economic, and housing trends.
- A Trails Master Plan was developed in 2020 that highlights future and planned connections.
- New park land has been identified east of Interstate 25, including a 167-acre Park Preserve and a 38-acre community park. Additionally other private pocket parks are under construction in The Canyons.
- Potential school sites continue to be evaluated by the Douglas County School District for potential alternative uses.
- Castle Pines North Metro District continues to evaluate its provision of utility and park services. The Metro District residents voted to transition water and wastewater utilities to Parker Water & Sanitation in May 2021.
- Local desires, as well as national market trends, show increased participation in pickleball. According to the USA Pickleball Association, pickleball grew by 650% between 2013 and 2017.
- Esports and digitally enhanced sports such as golf entertainment venues and indoor cycling are increase in popularity. Further technology is improving management and operations of parks and open space, as well as allowing for virtual events.
- The COVID-19 pandemic heighten awareness of the importance for outdoor exercise and access to open spaces for improved mental and physical health.
- There has been a continued growth in fitness and wellness activities.
- Inclusivity (ADA) in design and equal neighborhood access is key to creating social and physical fabrics.
- With more families being able to work remotely, desirable residential locations are becoming more important.
- Impacts of a changing climate will enhance the need for parks and open space to serve multiple benefits – including protection from flooding, increased shade/reduced heat effects, filtering of stormwater, and other environmental impacts. Further, recent wildfires throughout the state and country have moved people indoors.

A NEW REGIONAL RESERVOIR PARK IN OUR BACKYARD

A recreation plan for Rueter-Hess Reservoir was finalized in 2016 and momentum is growing Figure 3. The City of Castle Pines has committed - along with the Towns of Parker and Castle Rock, Douglas County, and the City of Lone Tree - to create a partnership (the Rueter-Hess Recreation Authority) which will bring this project to life in years to come. Discussions regarding funding, budgeting, staffing, management and phasing are ongoing. In late 2020, a 132 step Incline Challenge debuted at the Reservoir. South Suburban Parks & Recreation District is contracted to manage recreation facilities, which are open Friday - Sunday from Memorial Day to Labor Day.



Final Conceptual Reservoir Master Plan
Rueter-Hess Reservoir Recreation Master Planning

April 20th, 2016

Figure 3. Final Conceptual Reservoir Master Plan

NEEDS ANALYSIS

PEER COMPARISON

As part of the inventory of existing parkland and facilities, a benchmark analysis of four peer communities was completed for parks, recreation facilities, trails, and staffing. These communities are located in the southern metro Denver area, have comparable population, and have similar park and recreation services. This is one tool to help assess needs within the community based on other like communities.

Table 3. Parks and Trails Peer Comparison

	HIGHLANDS RANCH (Metro District and HRCA)	LONE TREE (South Suburban Parks and Recreation District)	CASTLE ROCK (City)	PARKER (Town)	CASTLE PINES (City and Castle Pines North Metro District)	COLORADO BENCHMARK (2020 Agency Performance Review of park agencies across Colorado)
Population*	105,631	13,614	70,567	58,673	11,664	Of 24 reporting cities
Acres of Developed Parks	478	79	352	250	74	N/A
Parks Acreage per 1,000 Residents*	4.5	5.8	5.0	4.3	6.4	8.7
Number of Developed Parks	26	9	22	14	4	N/A
Adopted Level of Service Standard	N/A	N/A	8 acres per 1,000 residents		6.5 acres per 1,000 residents	N/A
Number of Full-Time Equivalent Staff	56 (Park/ OS Admin, maintenance)	94 Full time plus several hundred part time	23 (Parks and Open Space - including planning and maintenance)	28.5 FTE (Parks Open Space/ Forestry)	0.25 (City contracts for park maintenance services) N/A for District	20.5 full-time staff members per 10,000 residents
Number of Recreation Centers	4	1	2 (current stages of planning for 3rd)	2	0	1
Average Square Footage of Recreation Center	82,250	54,000	72,500	91,250	0	Most full-service recreation centers are between 50,000 and 65,000 square feet
Outdoor Pools	4	1	2	1	0	
Performing Arts Center	0	1	0	1	0	

*Population based on 2020 American Community Survey 5-Year Estimates

+Based on National Recreation and Parks Association, 2020

¹ Based on total acreage, not usable acreage

ACCESSIBILITY ANALYSIS

Well-distributed and connected parks and trails provide opportunities for physical activity and can help people of all ages lead a more active lifestyle. Simply put, people who live near parks or who can comfortably reach a park on foot or by bike are more likely to be active. Making recreational facilities accessible in all communities is a critical strategy for increasing physical activity and mental acuity and for preventing obesity.

The cul-de-sac street pattern prevalent throughout Castle Pines west of Interstate 25 significantly limits pedestrian and bike connectivity, where trail easements are absent (see Figure 4). The internally oriented street and trail pattern surrounding Elk Ridge Park and American Academy, for instance, cuts off all connectivity to the adjacent residential neighborhoods —making what could otherwise be a 200-foot trip into a 1-mile drive. Unfortunately, there are limited opportunities to increase connectivity once neighborhoods are established.

HOA clubhouses and outdoor pools and private golf-course neighborhoods also help fulfill the lifestyle requirements of many residents in some neighborhoods lacking active parks. In secluded neighborhoods, the HOA is responsible for providing neighborhood park amenities.

Opportunities exist to improve residents' ability to participate in outdoor recreational activities by adding trail spurs, exercise equipment, natural play spaces, small playgrounds, pump-track elements, or

shade shelters and benches along open space trails in underserved neighborhoods.

In 2020, the Town created a Trails Master Plan to refine existing and planned connections (Figure 5). Additional details and map enlargements are available [online](#).



Figure 4. Example of Long Walking Distance to Adjacent Park due to Subdivision Design

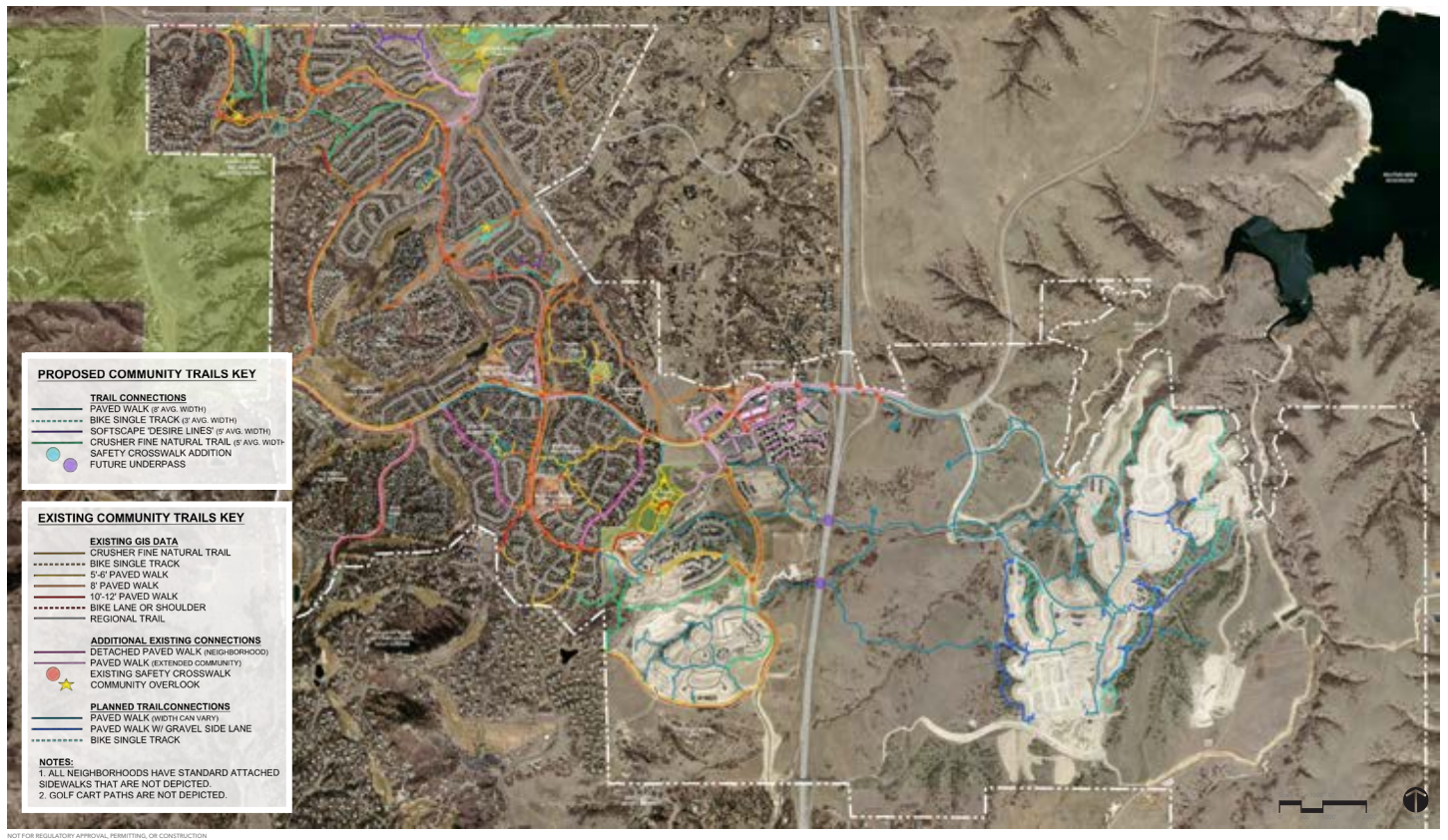


Figure 5. Final Trails Master Plan

TRAIL DESIGN STANDARDS

“Trails” in this plan are defined as two-way facilities that are off-street and shared by many types of non-motorized users, including bicyclists, pedestrians, joggers, skaters, people in wheelchairs, and equestrians. Located in an independent right-of-way through open space, utility easements, drainages and parks, conflicts with motorized vehicles are minimized, and the recreational experience is greatly different than sidewalks along roadways.

All future trails constructed in Castle Pines should offer the following qualities:

- Frequent access points from the local road network including culs-de-sac.
- Direct connections from neighborhoods to parks.
- Directional signs to direct users to and from the path.
- A limited number of at-grade crossings with streets or driveways (except side paths).
- Terminating the path where it is easily accessible to and from the street system.
- Separate treads for pedestrians and bicyclists when heavy use is expected. With heavy volumes, a separate soft-surface track (5-foot minimum) for exclusive pedestrian or jogging use is encouraged.
- Amenities such as dark-sky lighting, interpretive signage, and wildlife-friendly fencing (where appropriate).

As a guideline, all future trails should meet the design standards in Table 4. Asphalt is the most traditional surface for shared-use paths, but it requires frequent replacement and patching and can be uneven due to tree roots and soil settling. Future trails should be constructed with concrete, which has proven to be more durable and accessible than asphalt over the long term. Soft-surface trails should be limited to routes with a low level of expected use, such as short nature trails that loop off of a concrete trail spine.

Table 4. Trail Design Criteria

DESIGN CRITERIA	DESCRIPTION
Width	<ul style="list-style-type: none"> • 8 feet is the minimum allowed for a two-way shared-use path and is only recommended for low-traffic situations. • 10 feet is recommended in most situations. • 12 feet is recommended for heavy-use situations with high concentrations of multiple users.
Lateral Clearance	<ul style="list-style-type: none"> • A 2-foot or greater shoulder on both sides of the path should be provided. An additional foot of lateral clearance (total of 3 feet) is required by the Manual on Uniform Traffic Control Devices for the installation of signage or other furnishings.
Overhead Clearance	<ul style="list-style-type: none"> • Clearance to overhead obstructions should be 8 feet minimum, with 10 feet recommended.
Striping	<ul style="list-style-type: none"> • When striping is required, use a 4-inch dashed yellow centerline stripe with 4-inch solid white edge lines. • Solid centerlines can be provided on tight or blind corners and on the approaches to roadway crossings.
Materials and Maintenance	<ul style="list-style-type: none"> • The use of concrete for paths has proven to be more durable than asphalt over the long term. Saw-cut rather than troweled concrete joints improve the experience for trail users.
Additional References and Guidelines	<ul style="list-style-type: none"> • AASHTO. Guide for the Development of Bicycle Facilities. 2012. • NACTO. Urban Bikeway Design Guide. See entry on Raised Protected bike lanes. 2012.

PARK AND OPEN SPACE CLASSIFICATIONS

Pocket Parks

Pocket parks are an important supplement to the neighborhood park system and provide neighborhood gathering spaces and visual relief within the urban landscape. However, they are not substitutes for adequately sized neighborhood parks. As an amenity to the immediate neighbors rather than the larger neighborhood, pocket parks and other HOA recreational facilities are the responsibility of a developer or HOA to construct and operate, and do not count towards parkland dedication requirements. Table 5 lists the specific standards for pocket parks.

Table 5. Pocket Park Standards

ACREAGE AND SITE CHARACTERISTICS	PURPOSE/FUNCTION
<p>½ - 1 acre usable park area</p> <p>Should be located as an accessible gathering space for a neighborhood. Typically located adjacent to HOA common areas and HOA recreation facilities such as swimming pools.</p> <p>Should be accessible via walkways, paths at the end of cul-de-sacs, or trails.</p> <p>At least half of the park/ two sides should be bordered by a street in order to provide easy public access, visual surveillance and parking.</p>	<p>Serves residents within a one-quarter mile walking distance of the park. Should serve as a common area for neighbors of all ages to gather, socialize and play.</p> <p>Due to limited size, may only contain a few of the elements typical of a standard neighborhood park. Typical features may include a paved, multi-purpose area for court games or tennis court(s), small multi-purpose turf field, and child play equipment, shaded areas for picnics and sitting within a landscaped setting that is a blend of xeriscaping and full irrigation for active uses. In most cases there are no programmed sports activities beyond HOA or neighborhood managed gatherings. All features should meet ADA requirements. On-street parking is typically adequate.</p>

Neighborhood Parks

Neighborhood parks should be adequately sized and have gentle terrain to provide space for a variety of activities. Ideally a minimum of 4 acres, they should be centrally located within the residential area they serve and adjacent to an elementary or middle school or other community facility if possible. As a key destination and social gathering spot, neighborhood paths and trails should connect to neighborhood parks. In order to be compatible with surrounding residential land uses, programmed sports activities in neighborhood parks are typically limited to practices or youth sports. Exceptions may be necessary if no other facilities exist, or if the use does not severely impact the neighborhood. The City of Castle Pines will own and manage neighborhood parks after they are dedicated and constructed. Table 6 lists the specific standards for neighborhood parks.

Table 6. Neighborhood Park Standards

ACREAGE AND SITE CHARACTERISTICS	PURPOSE/FUNCTION	LEVEL OF SERVICE STANDARD
<p>A minimum of 5-10 acres; slightly smaller size may be acceptable if adjacent to other schools or open space while accommodating larger neighborhood park purposes/functions.</p> <p>Should be located adjacent to greenway, open space, elementary or junior high schools when possible, and centrally located within the area served.</p> <p>Should be accessible via sidewalks, paths at the ends of cul-de-sacs, or trails. The site should have 5% slopes or less to accommodate fields and facility development.</p> <p>At least half of the park/ two sides should be bordered by a street in order to provide easy public access, visual surveillance and parking. Surrounding the site with the back property lines of houses is strongly discouraged.</p>	<p>Provides nearby recreation and leisure opportunities within walking distance (½ mile) of residential areas. Should serve as a common area for neighbors of all ages to gather, socialize and play. Typically would include a paved, multi-purpose area for court games/in-line skating or two tennis courts, a large multi-purpose play field with backstop, play equipment, ADA accessible trails, and shaded areas for picnics and sitting within a landscaped setting that is a blend of xeriscaping and full irrigation for active uses. In most cases, programmed sports activities should be limited to practices. On-street parking is typically adequate, and separate parking lots are discouraged.</p> <p>Trailheads can serve as portions of neighborhood parks when integrated with features such as interpretive signs, water bodies, overlooks, bike pump/maintenance equipment, group shelters, restrooms, drinking fountains, and areas of natural vegetation with sufficient off-street parking.</p>	<p>2 usable acres / 1,000 population</p>

Community Parks / Sports Complexes

Community parks should be adequately sized and have adequate areas of gentle slope to accommodate a variety of diverse activities. They are typically 25 to 75 acres in size, and often combine developed parkland for self-directed or programmed activities (festivals, performances, fitness trails, sports fields and courts, group rentals, stake parks, disc golf courses, picnic shelters, etc.) with natural areas or other interesting elements (water features, arboreta, or gardens). They should be centrally located and accessible to everyone in the community. Community parks are programmed for evening and weekend sports events and community festivals. A community park developed primarily as a sports complex to meet needs for large and intensely programmed field contain lighted fields and should be located and designed to minimize impacts with surrounding residential land uses. An off-street trail system should connect to community parks, allowing for non-motorized access. The City of Castle Pines will own and manage neighborhood parks after they are dedicated and constructed. Public or private golf courses do not count towards parkland dedication requirements. Table 7 lists the specific standards for community parks.

Table 7. Community Park / Sport Complex Standards

ACREAGE AND SITE CHARACTERISTICS	PURPOSE/FUNCTION	LEVEL OF SERVICE STANDARD
<p>A minimum of 25-75 acres.</p> <p>A majority of the site should have 5% or less slope to accommodate fields and facility development.</p> <p>Special site features, such as streams, lakes, forests, rock outcrops, historic or archaeological sites, and other interesting elements may add to the unique character of the park.</p> <p>Strategically locate to fill service gaps for specialized sports facilities.</p> <p>Ideally, will have good access from a collector or arterial street and off-street parking.</p> <p>Direct access to the primary community trail system.</p> <p>Sports complexes should be relatively flat to accommodate sports fields and located away from residential areas to avoid traffic, light, and noise conflicts.</p>	<p>Provides opportunities for community-wide activities and facilities. Should maintain a balance between programmed sports facilities and other community activity areas, such as urban forests, gardens, trailheads, historic features, water features, performance areas, festival spaces, plazas, etc., and have features that appeal to the broader community. Amenities may include restrooms, pavilions or picnic shelters, benches, open turf areas, larger playgrounds, or walking paths.</p> <p>Sports complexes are not always considered complete community parks as they are very special-purpose. However, they contribute to the overall level of service for community parks. They provide opportunities for community-wide programmed and self-directed sports such as baseball, softball, soccer, tennis, in-line hockey, and skateboarding in higher intensity use facilities. They offer only limited areas for passive recreation uses and other features that appeal to the broader community.</p> <p>Community parks should generally be located to provide all residents access to a community park within 1- 2 miles of their home. Community parks may also serve as the local neighborhood park for residential areas within ½ mile.</p>	<p>4.5 usable acres / 1,000 population</p>

Open Space and Community Trail Corridors

Open space areas, natural drainages and greenbelt corridors protect natural values and provide opportunities for trail and habitat connections as well as agriculture. Existing open space is frequently located on hillsides, along stream corridors or historically ranched lands. Although natural resource management is the primary concern, some park-like uses and amenities, such as trails, benches, shelters, picnic sites, interpretation, and trail-side individual fitness equipment are often integrated into these areas.

The majority of open space parcels remaining after the subdivision platting process are small and unsuitable for recreation given their locations on steep slopes and along drainageways. Many are also perceived as a maintenance and management challenge due to their small size and geographic dispersion. To promote neighborhood stewardship and reduce long-term operations costs to taxpayers, dedication of small and noncontiguous open space to the City is discouraged.

Land may be required in addition to parkland dedication requirements as defined in the Subdivision Ordinance. Natural landscapes are considered open space when conserved in perpetuity through deed restrictions, conservation easements, or dedication to the City of Castle Pines, a special district or a land trust. The City of Castle Pines can hold conservation easements jointly with land trusts, but should not be the primary conservation easement holder as long-term monitoring responsibilities are better performed by a land trust or other conservation organization.

The criteria to be used by the City in determining whether to accept open space dedications (and thereby become responsible for maintenance in perpetuity) are as follows:

- Educational, cultural, scenic, or scientific (geologic or wildlife habitat) values of community-wide or regional significance;
- Unique recreational experience beyond that of traditional trails and passive facilities;
- Opportunity to serve as a community buffer; or
- Minimum contiguous size of 100 acres

There is not an adopted level of service or standards for open space. Table 8 lists the common characteristics for open spaces and greenbelt corridors.

No credit is given for trails against the park land dedication requirements. Provision of local trails is considered a normal element of an appropriately planned development. Historically, local trails have been built and maintained by the developer, a special district, or homeowner's association.

Table 8. Open Space and Community Trail Corridors

ACREAGE AND SITE CHARACTERISTICS	PURPOSE/FUNCTION
<p>Varied acreage</p> <p>Emphasis on resource protection or preservation with some public access provided.</p> <p>Limited site area can be dedicated to park-like uses, such as roads, parking areas, trails, environmental education/interpretive areas, picnic sites, and visitor support facilities.</p> <p>Off-site stormwater flows are mitigated so as to avoid stream downcutting in the open space.</p>	<p>Protects natural values on smaller parcels and conserves steep hillsides from development. Often located along stream corridors. Provides opportunities for nature-oriented, outdoor recreation, which may include multi-purpose trails.</p> <p>Relocating fill from adjacent development to open space is prohibited.</p>

RECOMMENDATIONS

TRAIL GAP RECOMMENDATIONS

Trail projects that are relatively easy or inexpensive to implement should be considered for implementation as soon as funding is available in order to complete the network. These include the following:

- Elk Ridge Park to Monarch Boulevard (social trail), 1,300 feet
- Hyland Hills Road sidewalk/trail to King Soopers, 350 feet
- Daniel’s Gate Park trail to Turquoise Terrace Street (south side through homes), 150 feet
- Trails through open space surrounding The Ridge at Castle Pines North Golf Course to Daniels Park and Timber Trail Elementary School, 2,500 feet
- There are numerous spur-trail opportunities, or short neighborhood connections to a trail spine, that can be undertaken by neighborhood.

It is also important that redevelopment projects and future development in The Canyons and Town Center planned developments continue to create a more connected street system with trail easements between homes so that every home is within a 0.5-mile walking distance from active parks. The subdivision platting process is the opportunity for the community to integrate wildlife corridors, open space, farms, parks, and trails into new development.

Longer-term and higher-cost connectivity projects include the following:

- Pedestrian/bicycle connectivity across Interstate 25 south of the Castle Pine Parkway Interchange (per the Trails Master Plan).
- Interstate 25/Happy Canyon Road interchange to add bike lanes and sidewalks to the highway bridge

PARK AND FACILITY LEVEL OF SERVICE STANDARDS

Level of service (LOS) standards —defined as the provision of parks and facilities per the population (number of acres or facilities/1,000 people)— are one measure of how well community needs are being met. Park needs are based on the projected population at build-out. The recommended level of service standard for neighborhood parks is 2 usable acres per 1,000 population and for community parks, 4.5 usable acres per 1,000 population. This standard is consistent with many communities along the Colorado Front Range. As growth continues, these park standards can serve as a demand threshold to indicate when to build parks. As the population increases, it is recommended to not fall below these standards.

In 2021, the City offered a total of 74 acres of parkland to a population of 11,600, or a current LOS of 6.4 acres per 1,000 residents, which is slightly lower than in 2016 because the acres of parkland has not increased with the addition of more than 800 people. This number does not include school facilities, which often serve as neighborhood parks after school hours. The elementary schools through out the City offer access to playgrounds, four square, basketball courts, and informal fields and backstops. Total parkland acres does not include HOA clubhouses, pools, or pocket parks which are exclusively available to HOA members. However, this calculation includes the unbuildable and/or steep terrain within each park boundary which can be substantial. For example, less than one-half of Coyote Ridge Park is usable for necessary park facilities due to steep slopes, a narrow configuration, and a natural drainage. Therefore, the 6.4 acres per 1,000 residents is well below the 6.5 acres per 1,000 standard in terms of usable acres.

Fortunately, large, planned developments already anticipate the need for adequate parkland. The City estimates that the level of service (LOS) standard for usable park acres will be met once all residences and parks are constructed. A build-out population of 35,000 would need

✓ POLICY PR-4.2

The design guidelines and level of service standards fulfill the Comprehensive Plan Policy to “Implement consistent set of high standards for parks and open space.”

✓ POLICY PR-2.1

The recommendations for parks, trails, and open space fulfill the Comprehensive Plan Policy to “expand the range of recreational facilities, programs, parks, paths, and open space accessible to residents of all ages, incomes, and abilities.”

✓ POLICY PR-2.2

The recommendations for parks, trails, and open space fulfill the Comprehensive Plan Policy to “demonstrate adequate provision of neighborhood and community parks, trails, and recreational facilities in all new residential developments.”

a total of 227.5 acres of active parkland, exclusive of Metro District properties, to meet the LOS standard of 6.5 acres per 1,000 residents LOS (Table 2). There are 197.4 acres to be developed by CPNMD and in the Canyons development east of Interstate 25. If those sites are 80% usable for active recreation facilities, the net usable acreage would be 138 acres. New usable park acreage added to the existing 74 acres results in a total of 232 acres of usable parkland, which meets the LOS standard at build-out.

Equitable distribution of parks and recreational facilities is an important consideration when developing the facility program for parks. The City should adjust these level of service targets and suggested locations for facilities as park designs progress, and input from stakeholders is obtained. Typically, when developers construct parks there is limited input from the public because few people live in the subdivision when the parks are built, therefore proactive outreach to the broader community and consideration of existing and future needs will be very important.

A second quantitative standard is a target facility LOS for athletic facilities and park amenities (number of athletic facilities/1,000 population, see Table 9). The 2020 National Recreation & Parks Association (NRPA) gathers data from communities across the nation. Table 9 presents the Median LOS for communities in Colorado that

reported their data and then calculates a suggested buildout based on those metrics. However it is important to consider the differences in communities, such as topography and demographics, and the fact that not all communities report their data. Further, it is important to take into consideration HOA amenities. While not available to all residents, HOA amenities provide opportunities for the residents to participate in these activities and provides an increased level of service throughout the community. Therefore, the Desired Future Facilities identifies the number of facilities that should be considered in future park development, pending funding and space availability, taking on all the considerations into account.

It is important to understand the specific acreage requirements for large athletic facilities like sports fields, courts, and associated parking which can then be translated into total usable acreages required to accommodate those facilities. The facilities in greatest need are athletic courts and fields –there are no tennis courts, dog parks, or large baseball/softball fields and only one large soccer/football field offered by the City or CPNMD today. To compound matters, the remaining future parks on the west side of Interstate 25 are not suitably sized or sited on gentle enough terrain to accommodate the number of courts and fields in demand. The demand for these facilities will need to be met on the east side of Interstate 25.

Table 9. Park Features Inventory Compared with Colorado Benchmarks

	AMENITIES AVAILABLE TODAY				COLORADO (2020 NRPA Field Report)			DESIRED FUTURE FACILITIES
	City	CPNMD	Total	Current LOS	Median LOS	NRPA Findings at Buildout 35,000, not including HOA	HOA	Potential new facilities recommended
Playgrounds	1	3	4	2,900	3,065	7	10	8
Basketball Courts (outdoor)	0	2	2	5,800	7,624	3	2.5	3
Tennis Courts (outdoor)	0	0	0	0	4,208	8	4	4
Pickleball (outdoor)	0	0	0	0	8,000	4	3	8
Volleyball Courts (outdoor)	0	0	0	0	N/A	N/A	0	2
Diamond Fields: Baseball/Softball	0	2	2	5,800	6,727	3	0	4
Rectangular Fields: Multipurpose	1	3	4	2,900	4,807	3	5	4
Rectangular Fields: Football, Soccer	1	0	1	11,600	7,500	3	0	4
Skate Park	0	1	1	11,600	N/A	N/A	0	2
Spray Pad	1	0	1	11,600	N/A	N/A	0	1
Dog park	0	0	0	0	33,983	0	1	3
BMX / Pump track	0	0	0	0	N/A	N/A	0	1
Outdoor Pools	0	0	0	0	41,700	1	7	1

Note: No fields today are lighted.

PARKLAND DEDICATION STANDARDS

Castle Pines' Subdivision Ordinance recognizes that because active parks are specifically set apart for the recreational use of the public, they must be usable in terms of configuration, access, and building constraints. For potential parks to count toward a developer's parkland dedication requirement and to be usable for active park purposes, this plan recommends that less than 20% of the total area be located:

- in the 100-year floodplain, reservoirs, ponds or wetlands;
- in areas with significant existing large shrubs or trees that should be preserved;
- in areas encumbered by overhead or underground utility lines, surface drainage easements or easements of any other type which might limit the opportunity for park and recreation development; or
- with slopes greater than 5% or unusual topography which renders it difficult to grade for large fields, parking lots, and recreational facilities that are typical in developed, active parks.

Ultimately, allocating parkland does not depend on a quantifiable level of service alone but on careful judgment regarding the:

- 1) equitable distribution of facilities throughout the community (park access)
- 2) logical parkland dedication (usable park acreage), and
- 3) qualitative public desires for needed park features.

Dedicated parkland must have ready access to at least two public streets to offer on-street parking and visibility. The City will not accept parkland dedication sites encumbered by hazardous or waste materials or dump sites.

Dedications will only be accepted after evaluation of an environmental constraints map and on-site inspection of the property in the field by City staff to determine site suitability and identification of any hazards or impediments to park development and use. During the subdivision platting process, the Planning and Zoning Commission will make a recommendation to the City Council regarding acceptance or rejection of parkland. The developer may be required to initiate specific environmental studies or assessments if the visual inspection of the site or other evidence gives rise to the belief that an environmental problem may exist on the site. The City may, in its sole discretion, accept or reject voluntary dedications of parkland and/or additional park improvements.

Where no suitable land is available in a residential or non-residential development, cash-in-lieu of land or of equivalent full market value in the donation of recreational facilities may be substituted at the City's discretion.

EXISTING PARK RECOMMENDATIONS

The following pages outline the park recommendations for existing parks.

Elk Ridge Park

TYPE: Community Park
SIZE: 39.3 acres
LOCATION: Mira Vista Ln.
AGENCY: City of Castle Pines
PARK CLASSIFICATION: Community

Features

- Bicycle or Pedestrian Path
- Native Landscaping Area
- 2 Parking Lots
- Drinking Fountain
- Picnic Area/Tables
- 4 Pavilions (3 rentable)
- 1 Multipurpose Athletic Field
- Playground
- Restrooms
- Splash Pad



Community Wish List (2017)

- Add a baseball field or multipurpose field
- Tennis or basketball courts
- Consider overflow parking lot for events; even with two parking lots, parking is a challenge
- More community events
- Summer Camp Programs
- Additional swing sets
- Additional drinking fountains and restrooms
- Additional artistic features
- Keep bathrooms open year-round

Plan Recommendations:

- Connect paved and natural surface trails to surrounding neighborhoods and Castle Pines Parkway



Retreat Park

TYPE: Neighborhood Park

SIZE: 3.7 acres

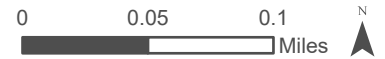
LOCATION: Tangleoak Ln.

AGENCY: Castle Pines North Metro District

PARK CLASSIFICATION: Neighborhood

Features

- Baseball/Softball
- Bicycle or Pedestrian Path
- 1 Parking Lot
- Picnic Area/Tables
- 1 Pavilion
- 1 Multipurpose Athletic Field
- Playground
- Drinking Fountain
- Vault Restrooms
- Play Field (informal)



Community Wish List (2017)

- Walking path around the park
- Replace exercise equipment
- Add basketball courts (to at least one public park)



Plan Recommendations:

- Paved sidewalk/walking path around park perimeter (1,000 feet)
- Replacement of exercise equipment

Coyote Ridge Park

TYPE: Community Park

SIZE: 40.5 acres

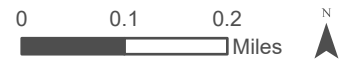
LOCATION: Serena Dr. and Hidden Point Blvd.

AGENCY: Castle Pines North Metro District

PARK CLASSIFICATION: Community

Features

- Baseball/Softball
- Bicycle or Pedestrian Path
- 2 Parking Lots
- Picnic Area/Tables
- 3 Pavilions
- 2 Multipurpose Athletic Fields
- Playground
- Drinking Fountain
- Vault Restrooms
- Skate Park
- Play Field (informal)
- 2 Basketball Courts



Community Wish List (2017)

- Add basketball courts (at least one public park)
- Bleachers/seating to watch games on baseball fields or soccer fields
- Address vandalism and graffiti; improve maintenance, cleanup, and security; consider courtesy patrols
- Additional feedback from the 2021 Plan Update:
 - Pickleball courts
 - Permanent restroom
 - Parking lot/driveway improvements
 - Possible expansion on to adjacent school site



Plan Recommendations:

- Paved sidewalk/trail connection and crosswalk between the skate park and playground (400 feet)
- 30 shade trees near playground and sports fields for spectators
- Natural-surface trail connection to east end at Crossing Drive, including pedestrian bridge over creek (2,000 feet)
- Neighborhood watch program
- Continue to evaluate school district site
- Resurface parking lot and access roads



Daniel's Gate Park

TYPE: Pocket Park

SIZE: 3.6 acres

LOCATION: Grig's Rd.

AGENCY: Castle Pines North Metro District

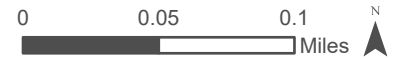
PARK CLASSIFICATION: Neighborhood

Features

- 1 Parking Lot
- 1 Multipurpose Athletic Field
- Playground
- Vault Restrooms
- Drinking Fountain
- Play Field (informal)

Community Wish List (2017)

- Mountain biking skills course
- Connect path at north of soccer field
- Natural surface running trails
- Only serves adjacent neighborhood, due to isolated location
- Accessibility upgrades



Plan Recommendations:

- Connect multi-use trail north of soccer field (200 feet)
- Connect multi-use trail from neighborhood (Turquoise Terrace St.) to southeast of soccer field (275 feet)
- Formalize natural surface running trails adjacent to multi-use trails (900 feet)



FUTURE PARK AND OPEN SPACE RECOMMENDATIONS

Table 10 proposes how the recommended desired future facilities needed for a population of 35,000+ would be distributed throughout the remaining planned properties. Implementation is dependent on funding, community priorities, and land availability. Along with further design and engineering of specific sites, additional public outreach will occur at the time of park development to determine exact amenities.

Table 10. Potential Programs for Future Parks & Open Spaces

	Recommended Desired Future Facilities	FUTURE PARKS & OPEN SPACES						
		Castle View Park ³	The Canyons Open Space Limited B	The Canyons Community Park I “Canyonside Park”	The Canyons Active Park M	The Canyons Active Park K	The Canyons Open Space Limited O “The Preserve”	Future Canyons Pocket Parks
Provider		CPNMD	City	City	City	City	City	Developer/HOA
Acres		21.9	35.9	74.1	18.2	14.9	167.3	Undefined
Park Classification		Neighb.	Open Space.	Comm.	Neighb.	Neighb.	Open Space	Pocket Parks
Neighborhood Playgrounds	8			1		1		~5
Community Playgrounds ¹	3	1		1	1			
Basketball Courts (outdoor)	3					1		2
Tennis (outdoor)	4			4				
Pickleball (outdoor)	8			8				
Volleyball Courts (outdoor)	2			2				
Diamond Fields: Baseball/Softball ⁴	4*			2				
Rectangular Fields: Multipurpose/Practice	4	1			2	2		
Rectangular Fields: Football, Lacrosse, Soccer ²	4			2	1	1		
Skate Park	2	1			1			
Spray Pad	1				1			
Dog Park	3	1		1		1		
BMX/Pump Track	1					1		
Outdoor Pool	1*							
Disc Golf	1		1					
Single track trails	NA		X				X	

¹ Community playgrounds should be destinations sized to suit the needs of the overall community, not solely the neighborhood.

² The majority of rectangular fields in Castle Pines are small (nonstandard) multipurpose and serve as practice fields. Rectangular fields not listed as multipurpose should be large (standard) size for the exclusive use of that activity.

³ As a CPNMD property, Castle View Park is subject to available funding and direction of the District.

⁴ Adult fields should be lighted.

* Location not identified for facilities.

The Canyons Open Space Limited B

Open Space Limited B within The Canyons is being envisioned as a premier disc golf course. The site will offer an 18-hole course with a potential 2 hole bonus, along with single track trails for hiking and mountain biking (See Figure 6). Access to a small parking lot and restroom will be provided off of Hess Road.

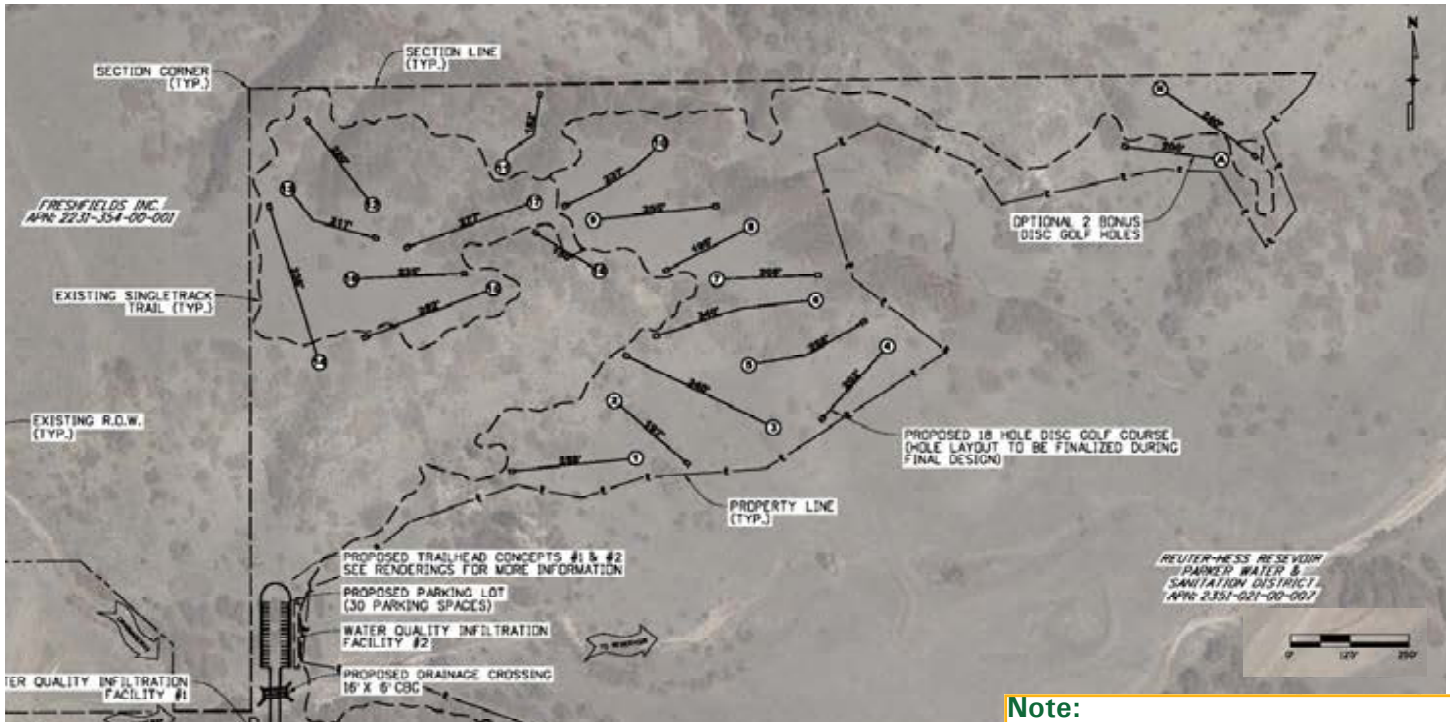


Figure 6. Disc Golf Conceptual Plan (City of Castle Pines, 2021)

The Canyons Community Park I “Canyonside Park”

To address the desires of the community and maintain the level of service for park acreage and amenities, development of a new park is needed. New homes are coming online daily across the community. While the Canyons development has already constructed a Club House and a few smaller pocket parks, a large community park with large amenities is needed to serve the City. Figure 7 illustrates a conceptual buildout of the entire site as outline on the Future Land Use Plan (74 acres). However, as of the date of this plan only 16 acres have been dedicated to the City for parkland (Phase 1). It is anticipated that an additional 24 acres, for a total of 40 acres, will be dedicated to the City in the future. A detailed enlargement of Phase 1 is shown in Figure 8. The Phase 1 conceptual plan is based on initial site work to be completed by the developer during the construction of residential streets and homes neat the site. Further conceptual planning of Phase 2 will be needed once land is dedicated and adjacent roads developed. Per the City’s Subdivision Ordinance, the remaining 24 acres to be dedicated to the City should include:

- Lands between the existing 16 acres and the revised ROW
- Lands with lesser slopes towards the south end of the site
- Lands within the drainage, while not dedicated to the City, should remain as passive open space and integrate trail connections
- Two water and sewer stub from the development

Budgetary Construction Cost Estimate: Total construction costs for Phase 1 is anticipated to be between \$14-16 million (2022 \$) for all amenities shown in Figure 8, including artificial turf and lighted multipurpose fields, irrigation (exclusive of water taps), and native landscaping. Construction costs can vary and are dependent upon final park design and engineering. The costs assumptions includes contingency costs but not extensive grading, design, permitting, and surveying. Costs will also need to be escalated over the years to adjust for inflation and current market conditions, typically 5% per year. Future budgets should also consider long-term maintenance and capital costs, which is not included in the planning-level construction costs below.

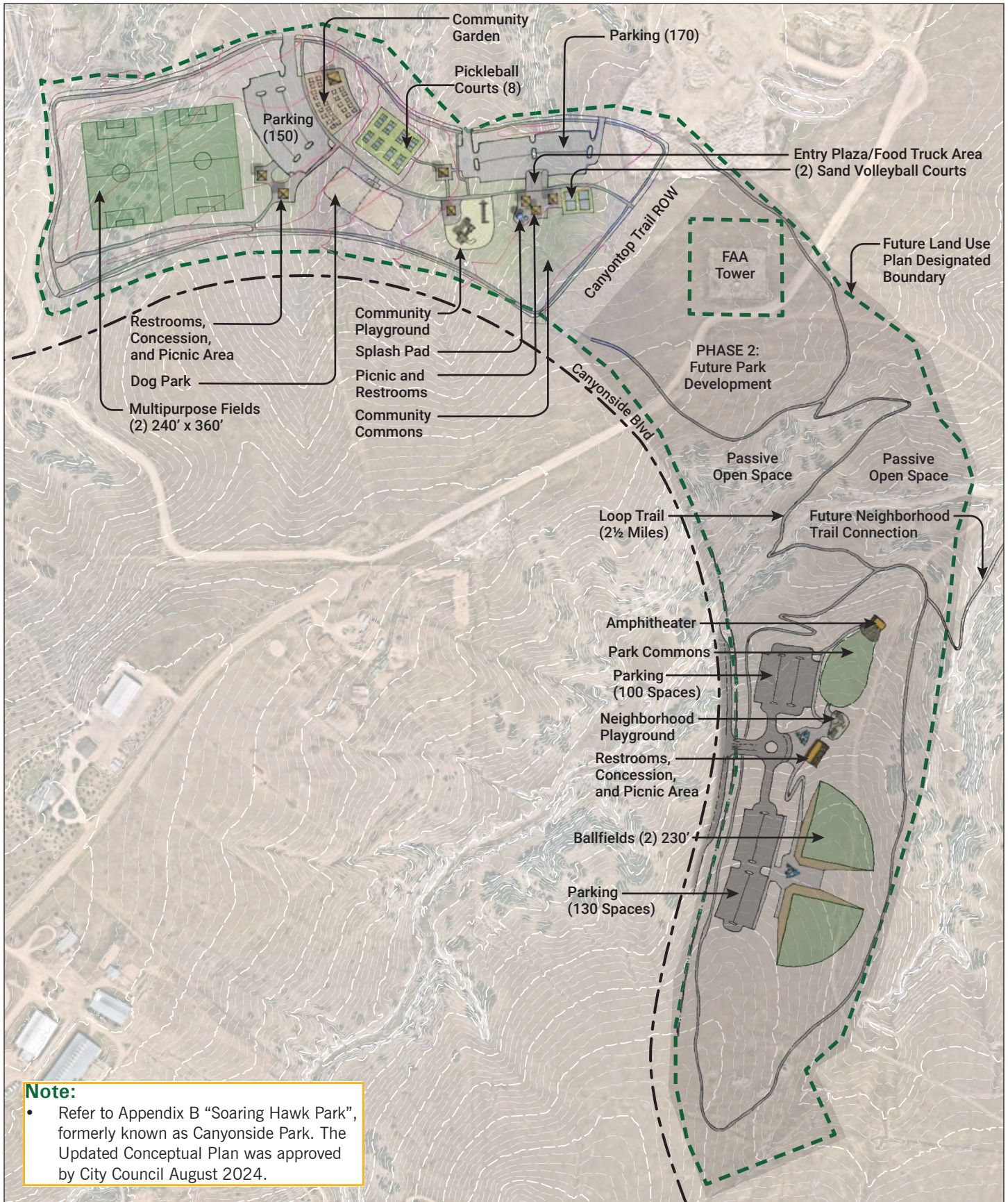
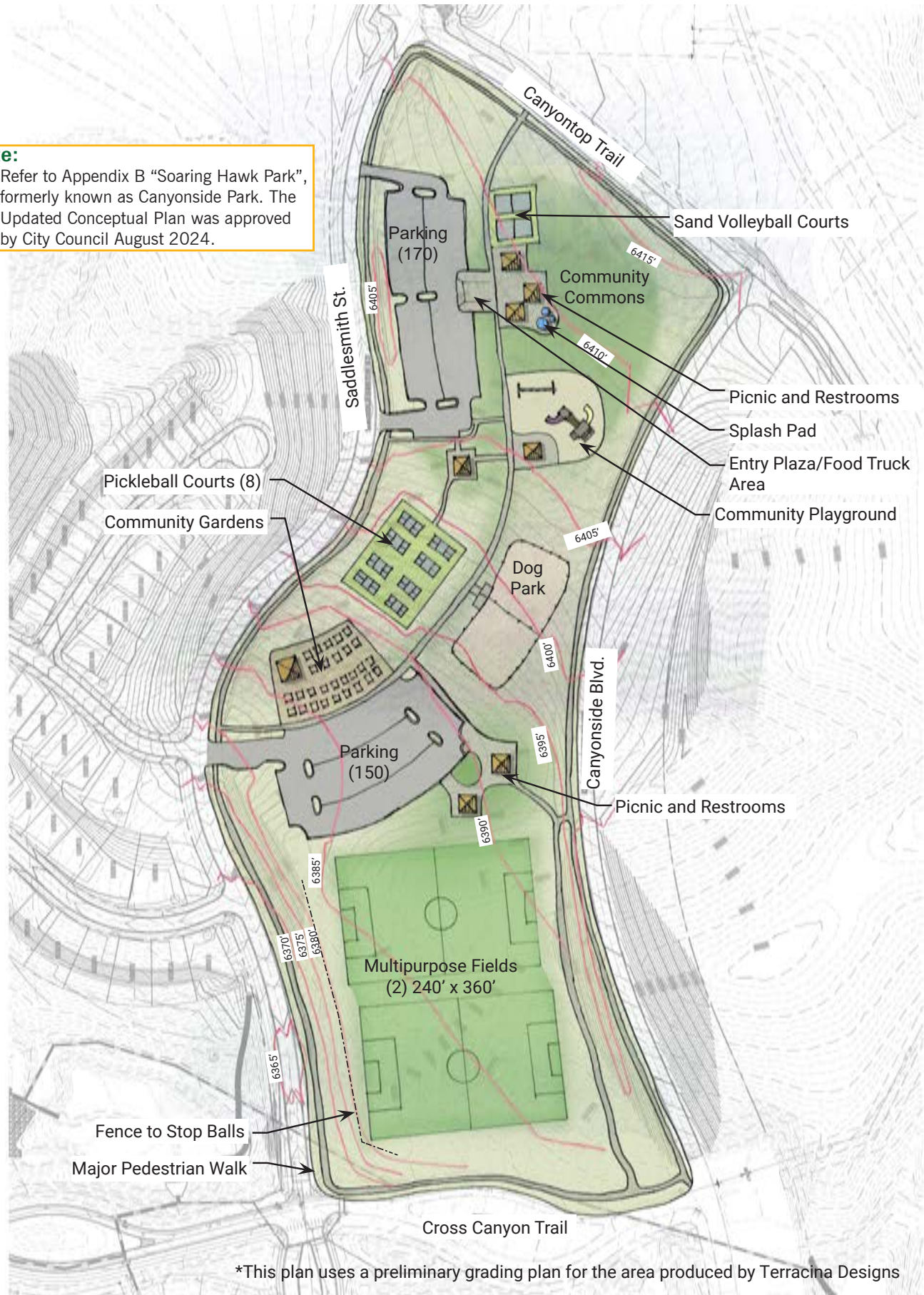


Figure 7. "Canyonside Park" Concept Park Plan (Logan Simpson, 2022)

Note:

- Refer to Appendix B "Soaring Hawk Park", formerly known as Canyonside Park. The Updated Conceptual Plan was approved by City Council August 2024.



*This plan uses a preliminary grading plan for the area produced by Terracina Designs

Figure 8. "Canyonside Park" Concept Park Plan (Logan Simpson, 2022)

The Canyons “Preserve Park”

The Planned Development Amendment #2 for The Canyons, resulted in a revision to the public land dedication. Figure 9 shows the revised layout that changed 115.2 acres from private open space to public land dedication and 52.1 acres from developed land to public land dedication. The Canyons Open Space O, also known as “Preserve Park,” will now offer additional conserved open space with sweeping views of the Rocky Mountains to the West and Rueter-Hess Reservoir to the North. The site is envisioned provide an opportunity for passive recreation with possible amenities like a visitor center, paved and soft surface trails, overlooks, and picnic areas (See Figure 10).

In 2020, the Denver Botanic Gardens provided an overview of the sites ecosystem. The report detailed the major plant communities in order to provide direction on future management, conservation, and education. The two many plant community types on the Preserve Park include Western Great Plains Shortgrass Prairie and Rocky Mountain Gambel Oak-Mixed Montane Shrubland. Healthy plant communities are important for maintaining biodiversity, wildlife habitat, and reducing flammable fuels that contribute to increased fire susceptibility. The plant communities are currently healthy with few invasive species, except cheatgrass (*Bromus tectorum*) into the shortgrass prairie.

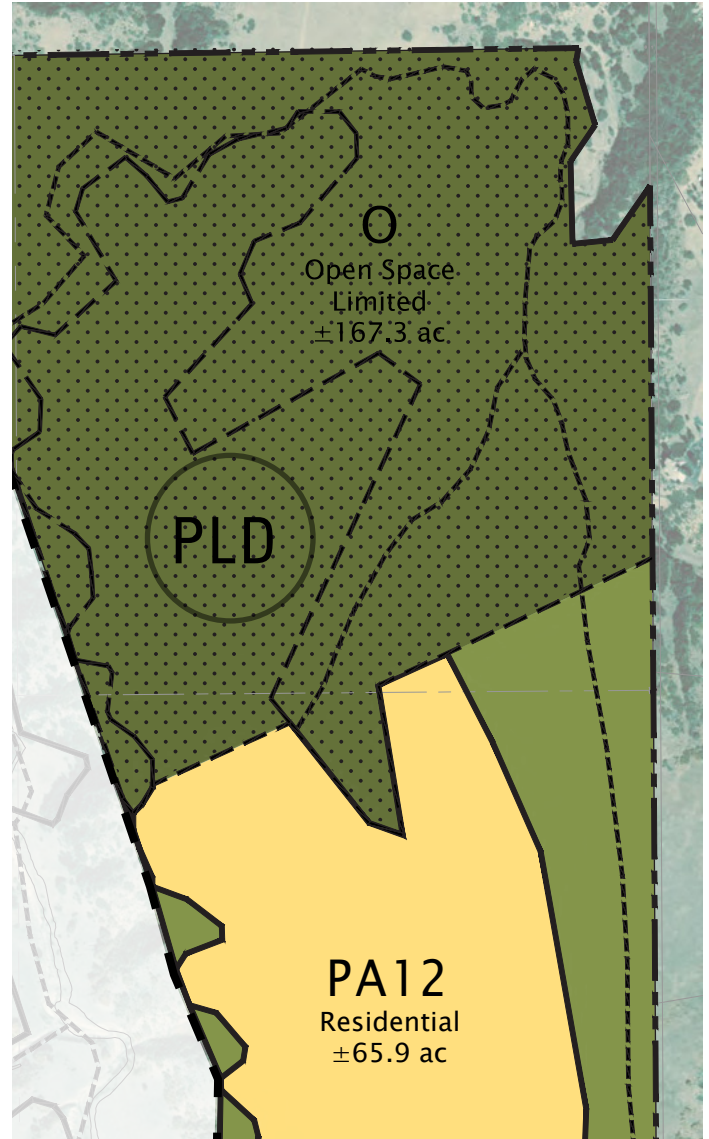


Figure 9. The Canyons Open Space O - PD Amendment #2 (Design Workshop, 2017)



LEGEND

-  VISITORS CENTER
-  VEHICLE CIRCULATION
-  PAVED TRAIL
-  SOFT SURFACE TRAIL
-  TRAIL CONNECTION
-  VIEWING AREA
-  LOOKOUT TOWER
-  SHELTERED PICNIC AREA
-  PICNIC AREA
-  TRAILHEAD
-  PARKING
-  INFORMATION
-  RESTROOMS

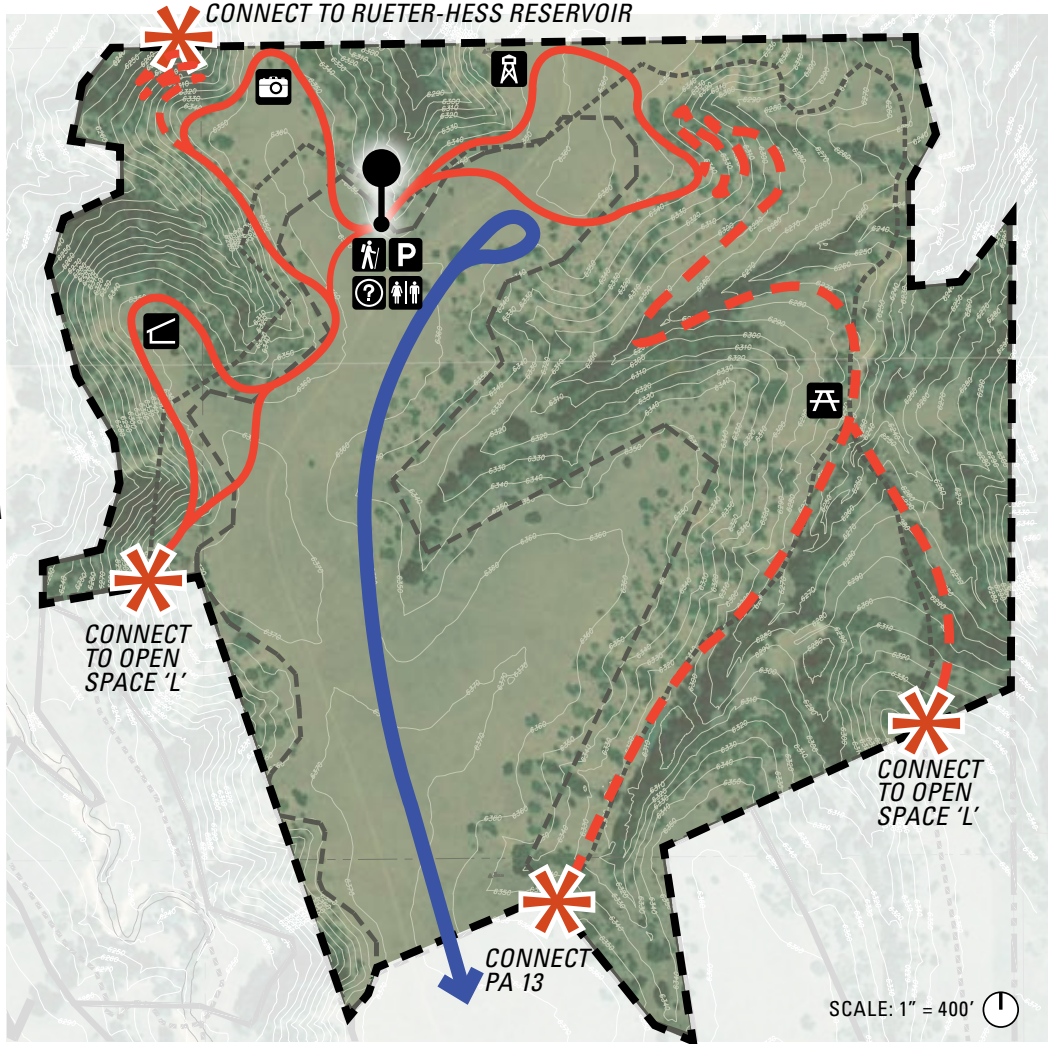


Figure 10. The Canyons Open Space O - Recreation Concept (Design Workshop, 2017)



CHAPTER FOUR

IMPLEMENTATION

OPERATION AND MANAGEMENT OF PARKS AND RECREATION

While the City continues to move forward with the development of parks, trails, and other recreation amenities, the operation and management of these facilities has historically been largely contracted to other entities. For the next 5 or more years this is a viable approach but as the City continues to grow closer to a population of 20,000 and the expectations for parks and recreation services expands, the City will need to plan for the possible development of a more traditional parks and recreation department. Moving forward, the City will need to determine the role that it wants to take in providing park maintenance and recreation services.

Interviews with City Council members, PRAB members, and City staff during this planning process confirmed that contracting for parks and recreation functions has been successful and should continue for the next 5 or more years.

Recognizing the number of other parks and recreation service providers in the Castle Pines area, there are opportunities to partner or contract with these entities for basic services. This includes neighboring communities, parks and recreation districts, non-profits, and the private sector to enhance the services that are available to residents. However, the City will need to continue to be the organizational entity for all parks, recreation, and trails development and maintenance.

PARKS MAINTENANCE

- For the next 5 to 7 years, the City should continue to contract with other entities for the general maintenance of parks, trails, and other parks/community gateway facilities.
- This will continue to require on going oversight of maintenance efforts, well written contracts, and performance documentation.
- These efforts can be enhanced by having detailed maintenance plans for each park, type of trail, and other unique park amenities.
- Consideration could be given to contracting with other public agencies that are managing and maintaining similar facilities in the area, especially for the maintenance of amenities that have a regional appeal or direct connection to other agencies (trails).
- Public Works staff will need to continue to provide some parks maintenance assistance where and when needed.
- With continued addition of parks facilities, the City will likely have to hire additional staff for contract management and oversight. Within the next 3 to 5 years hiring a Parks Supervisor for this effort will likely need to occur.
- The City will also need to plan for a significant increase in the maintenance budget for new parks and trails.
- The City will need to develop a long-range plan for the possible establishment of a Parks Maintenance Division within in the Public Works Department. This could possibly ensure that parks maintenance standards are upheld and maintenance is tracked separately from median/ROW maintenance and city/neighborhood gateways.
- Develop a sustainability manual to address long-term management of properties that meet water efficient landscape design and irrigation standards.

✓ POLICY PR-4.1

Working with existing service providers fulfills the Comprehensive Plan Policy to “establish inter-agency coordination to ensure efficiency and reduce redundancy of services.”

✓ POLICY PR-2.1

Establishing a parks and recreation department fulfills the Comprehensive Plan Policy to “expand the range of recreational facilities, programs, parks, paths, and open space accessible to residents of all ages, incomes, and abilities.”

✓ POLICY PR-2.2

Establishing a parks and recreation department fulfills the Comprehensive Plan Policy to “demonstrate adequate provision of neighborhood and community parks, trails, and recreational facilities in all new residential developments.”

RECREATION PROGRAMS AND SERVICES

- For the next 5 to 7 years the City should continue to contract with other entities for most recreation programs and services.
- This will continue to require on going oversight of contract service providers, well written contracts, and performance documentation.
- These efforts can be enhanced by having an overall recreation program plan in place that identifies community recreation needs and available service providers for specific types of programs. This may require the active recruitment of some specialty providers. The City should be a “clearinghouse” for other recreation providers that serve the community.
- Community special events will continue to be offered by the City but if the number of events increases additional staff resources may be needed.
- With the expansion of recreation opportunities staffing needs will need to be addressed to continue to provide special events and handle contract management and oversight for recreation services.

SPECIALTY RECREATION FACILITIES

- Recreation Center – The City has determined that at this time active indoor recreation pursuits should be offered by other providers that could include public facilities in neighboring communities, non-profit agencies, and the private sector.
- Working to attract these types of providers to Castle Pines will be important for this concept to be effective.
- Community center amenities such as meeting rooms and event space will ultimately need to be considered. These public spaces may need to be included in a future city building.
- Outdoor Aquatics Center – Despite the fact that a number of HOAs have outdoor pools as part of their amenities, there has been some discussion by city officials regarding the possible need for a public outdoor aquatic center in the future. Before seriously considering moving forward with such a facility, the City should conduct a feasibility study to determine the need and financial requirements of the project.
- Other – The City could evaluate offering low-cost ground leases in large community parks to partner organizations for the development of specialty recreation facilities that are outside the norm for public agencies to own and operate. An agreement could also include a stipulation for revenue sharing.
- The development and management of recreation amenities at Rueter-Hess Reservoir would be greatly enhanced through partnerships with other agencies that have a similar role at the reservoir. Although this is outside the control of the City, it should still be encouraged.

OTHER

- Parks and Recreation Advisory Board – The board was formed in 2021 to provide input to City Council regarding future needs and management of parks and recreation services in the community. The Board will need to play a key role in the implementation of the Parks and Recreation Comprehensive Plan and provide guidance on how facilities and programs are maintained and managed by the city.
- Castle Pines North Metro District – The district has a number of parks and recreation facilities that serve a significant portion of the City. It is important that there is a coordination between the two entities to maximize parks and recreation opportunities for the community.
- Naming policy – The naming of future parks, open spaces, and other amenities will follow guidelines established by the Castle Pines City Council. When desired by City Council, the City will solicit public input for naming suggestions. Guidelines for naming include using land features, plants, or animals native to Colorado and not naming after a person. If public suggestions are solicited for naming, a list will be shared with the Castle Pines PRAB. The PRAB will then submit a shortlist to City Council. City Council will select a final name from the shortlist and pass a resolution to finalize the name. On a case-by-case basis, naming of specific amenities or facilities within a park from a significant contribution or sponsorship could be considered through additional approval of the City Council.

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APPENDIX A

JUNE 2016 COMMUNITY SURVEY

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CASTLE PINES COLORADO

Parks and Recreation Comprehensive (PaRC) COMMUNITY SURVEY

Prepared by:

Left Brain Concepts, Inc.
Research / Consulting



Lakewood, Colorado

June 16, 2016

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BACKGROUND

This report presents the findings of a community survey of Castle Pines residents. The survey was conducted to help guide the City's Parks and Recreation Comprehensive (PaRC) Plan which is being completed by Logan Simpson in Fort Collins, Colorado.

The survey determined Castle Pines residents':

- ✓ Level of use of Castle Pines' recreation facilities
- ✓ Satisfaction with Castle Pines' recreation facilities
- ✓ Use of other local organizations for recreation
- ✓ Reasons for using facilities outside of Castle Pines
- ✓ Reasons preventing them from using Castle Pines' facilities
- ✓ Interest in potential additional parks and recreation facilities in Castle Pines
- ✓ Interest in features in a community/recreation center in Castle Pines
- ✓ Greatest need in new parks, trails, open space and recreation facilities
- ✓ Support of an increase in taxes to construct and run a community/recreation center

The survey was conducted via U.S. postal service in April and May, 2016. People were also given the opportunity to respond electronically from a link that was printed on the survey. A survey was mailed to every dwelling unit in Castle Pines which is the most defensible process when conducting community surveys because it gives every resident a chance to respond to the survey. A copy of the same survey questions were also made available online to the public and advertised through City newsletters, email and social media (referred to as an open-link survey).

Completed surveys were returned in a postage-paid envelope directly to Left Brain Concepts, Inc., (LBC) a Denver-area market research and consulting firm. The survey was written and finalized by senior staff at Castle Pines, staff at Logan Simpson and Jeff Haugen, President of Left Brain Concepts, Inc. LBC was responsible for compiling the results and preparing this report.

The survey asked a head of household, 18 years or older complete the survey. A total of 699 surveys were completed, 403 via mail and 296 electronically. In this report, results of the Postal Service survey and the online survey are combined. The maximum margin of error for a sample of 699 is $\pm 3.7\%$ at the 95% level of confidence.

KEY FINDINGS

Satisfaction with parks and recreation facilities: When asked to rate their satisfaction on a four point scale of excellent, good, fair and poor, two-thirds (66%) or more rated Castle Pines' and other nearby facilities as excellent or good in all eighteen areas of query. For Castle Pines' facilities, residents are very satisfied with Elk Ridge Park (94%), open space and natural areas (89%), the trail system (82%) and park maintenance (83%).

Reasons for using facilities outside of Castle Pines: The five main reasons people use facilities outside of Castle Pines are the proximity of the facilities, affordability, quality of service, hours of operation, and for classes. It is noteworthy that most of the write-in responses referenced the fact that Castle Pines does not have a community/recreation center.

Use of facilities, reaction to number of facilities: Respondents were given a list of 29 activities and asked to note if members of their households participate in each activity. Then, for activities in which household member(s) participate, people were asked to note if they feel there are too many, about the right number or too many of each facility in Castle Pines. The top eight activities in which people participate consist of outdoor swimming, weight training / fitness equipment, fitness classes, indoor swimming, outdoor playgrounds golf, dog parks / off-leash areas, and outdoor water play areas. Almost all of the recreation facilities that residents would like Castle Pines to add can be addressed by building a community/recreation center – indoor running, indoor swimming, fitness classes, weight training / fitness equipment, indoor basketball, health and wellness classes, and cultural classes.

Reasons for not using Castle Pines facilities more: The six main reasons residents do not use Castle Pines' facilities more are because there are not the features they are looking for (54%), that there are no restrooms (19%), inadequate parking (17%), the distance from their homes (14%), overcrowding (13%) and poor maintenance.

Interest in potential features in a Castle Pines Community Center: People were given a list of features that could be part of a potential community/recreation center and asked to note how frequently they feel they would use each feature. More than half of the respondents said they would use the facilities below at least once a month.

- ✓ Weight room / Cardiovascular equipment
- ✓ Studios for fitness classes
- ✓ Indoor elevated walking / jogging track
- ✓ Indoor lap swim lanes (warm water) for exercise swimming and swim lessons
- ✓ Indoor leisure swimming pool (warm water) with slides, lazy river, water sprays, beach
- ✓ Indoor wellness pool (warmer water) for therapeutic purposes
- ✓ Gymnasium with courts for basketball, volleyball, badminton, pickleball, etc.

Features that would be used most in a Castle Pines Community Center: From the same list of potential features in the community/recreation center, people were asked to note the three features they would use most. The most popular activities were a weight room / cardiovascular equipment, an elevated track for walking and jogging, studios for fitness classes, indoor lap swimming pool, an indoor leisure swimming pool with slides and other features, and a gymnasium.

Organizations people use for recreation: The local organizations people use the most are South Suburban Parks and Recreation District, private health and fitness clubs, the Town of Castle Rock, private youth recreation program providers, school recreation programs, and private studios.

Preferred additional recreational facilities: Respondents were given a list of seven parks, trails, open space and recreational facilities and asked to rank them in order of importance to them (including the opportunity for a write-in response). Combining facilities that people ranked first, second or third, by far the greatest need as expressed by Castle Pines residents is a community/recreation center and additional multi-purpose trails.

Increasing property or sales taxes for a Community Center: A majority (61%) reported they would support an increase of \$200 to \$250 in their property taxes to fund the construction of an indoor recreation facility. A majority (55%) also said they would support an increase in sales taxes to assist in covering the operating costs of the community/recreation center.

Demographics: Respondents' demographics fairly closely mirrored 2014/2015 U.S. Census data for Castle Pines.

CONCLUSIONS

- Castle Pines residents are extremely satisfied with the quality of the existing parks and recreational opportunities in and around Castle Pines.
- The biggest need in Castle Pines as voiced by residents is a community/recreation center. Almost all of the recreation activities that people feel are lacking in Castle Pines can be provided in a community/recreation center.
- Castle Pines can also better serve residents and improve their quality of life by adding to the trails system.
- Residents are amenable to an increase in their property taxes to pay for construction of the community/recreation center and an increase in sales taxes to help cover the operating costs of the facility. Based on current sentiment, both issues would likely pass at the ballot box in an upcoming election.
- Since more than half of the respondents said they would use an indoor lap swimming pool, an indoor leisure pool with slides and other amenities, and an indoor wellness pool, choices likely will need to be made in the design of the features of the pool(s).
- The results mirror Castle Pines' demographics. Younger residents engage in a wider range of activities than older residents, residents who have children are more interested in services that support their families, and people aged 50 and older are more interested in walking and senior activities. There was no difference by age of respondent to the finding that Castle Pines residents are overwhelmingly in support of the City building a community/recreation center.

SATISFACTION WITH PARKS AND RECREATION FACILITIES

Question: If you use the following, what is your current overall satisfaction level with the following park and recreation facilities in or near Castle Pines?

Combining responses of excellent and good, satisfaction with Castle Pines' and other jurisdictions' parks, trails, maintenance and recreation facilities was 66% or higher for all eighteen areas of query. For facilities in Castle Pines, people are very satisfied with Elk Ridge Park (94%), open space and natural areas (89%), the trail system (82%) and park maintenance (83%).

SATISFACTION WITH PARKS AND RECREATION FACILITIES				
	Excellent	Good	Fair	Poor
Miller activity complex	65%	28%	6%	1%
Elk Ridge Park (City of Castle Pines)	56%	38%	5%	1%
Lone Tree recreation center	43%	46%	9%	2%
Open space and natural areas	36%	53%	11%	-
Trail system (Access to, proximity, ease of use, etc.)	35%	47%	15%	3%
Parker fieldhouse	35%	52%	10%	3%
Daniel's Park (Denver Mountain Parks)	32%	47%	17%	4%
Parker recreation center	31%	55%	11%	3%
Coyote Ridge Park (Castle Pines North Metro District)	31%	51%	16%	2%
Castle Rock recreation center	29%	52%	16%	3%
Retreat Park (Castle Pines North Metro District)	29%	46%	22%	3%
Private health, fitness, dance clubs or studios (e.g., Core Fitness, 24 Hour Fitness, YMCA)	29%	43%	18%	10%
Park maintenance (e.g., landscaping, mowing, trash, etc.)	28%	55%	14%	3%
Glendale Farm and dog park (Douglas County)	27%	51%	20%	2%
Daniel's Gate Park (Castle Pines North Metro District)	25%	51%	22%	2%
Community events (e.g., Food Truck Frenzy, Run Wild, etc.)	16%	50%	27%	7%
Homeowner Association parks and clubhouses	15%	51%	27%	7%
School District outdoor sports fields (e.g., soccer, baseball, etc.)	13%	55%	24%	8%

REASONS FOR USING FACILITIES OUTSIDE OF CASTLE PINES

Question: If you use a recreation or community center outside the City of Castle Pines, why do you choose to use these indoor centers? (CHECK ALL THAT APPLY)

The top five reasons people use a recreation or community center outside of Castle Pines are the proximity of the facilities, affordability, quality of service, hours of operation, and for the classes.

REASONS FOR USING FACILITIES OUTSIDE OF CASTLE PINES	
	% of respondents
Proximity	44%
Affordability	40%
Quality of service	36%
Hours of operation	26%
Write-in responses	
Fitness and other classes	19%
Swimming pool	17%
Weights, cardio equipment, exercise machines	14%
Castle Pines does not have a recreation center	13%
Indoor pool	12%
Youth classes, children play areas, child care	7%
Basketball courts	5%
Indoor tennis	3%
Indoor adult sports	3%
24 Hour Fitness, open 24 hours	2%
Racquetball courts	1%
Silver Sneakers	1%
Hockey rink	1%

USE OF FACILITIES, REACTION TO NUMBER OF FACILITIES

Question: Please indicate if you or anyone in your household participates in the activities below. Then, for the activities in which your household members participate, please tell us if you think there are too many, about the right number, or not enough of these facilities to meet your needs.

The top eight activities in which residents participate consist of outdoor swimming, weight training / fitness equipment, fitness classes, indoor swimming, outdoor playgrounds, golf, dog parks / off-leash areas, and outdoor water play areas.

Almost all of the recreation facilities that residents would like Castle Pines to add can be addressed by building a community/recreation center – indoor running, swimming, fitness classes, weight training / fitness equipment, indoor basketball, health and wellness classes, and cultural classes.

USE OF FACILITIES, REACTION TO NUMBER OF FACILITIES					
Type of facility	Participate in this type activity?		Are there too many, about the right number, or not enough in or around Castle Pines?		
	Yes	No	Not Enough	About Right	Too Many
Outdoor swimming	72%	28%	41%	58%	1%
Weight training / Fitness equipment	64%	36%	78%	21%	1%
Fitness class	62%	38%	79%	19%	2%
Indoor swimming	60%	40%	82%	17%	1%
Outdoor playgrounds	55%	45%	15%	84%	1%
Golf	51%	49%	16%	78%	6%
Dog parks / Off-leash areas	42%	58%	47%	49%	4%
Outdoor water play area	41%	59%	63%	36%	1%
Indoor running	37%	63%	84%	15%	1%
Tennis	34%	66%	72%	26%	2%
Soccer	29%	71%	33%	64%	3%
Fishing ponds	26%	74%	88%	9%	3%
Climbing walls	25%	75%	76%	23%	1%
Arts or crafts classes	24%	76%	75%	23%	2%
Indoor basketball	23%	77%	78%	20%	2%
Health and wellness classes (nutrition)	22%	78%	77%	22%	1%
Outdoor basketball	22%	78%	63%	36%	1%
Cultural classes (dance, drama, music)	20%	80%	76%	22%	2%
Baseball	15%	85%	47%	51%	2%
Travel / Excursion programs	13%	87%	68%	29%	3%
Outdoor skating at skate parks	12%	88%	40%	50%	10%
Football	10%	90%	34%	63%	3%
Outdoor volleyball	10%	90%	70%	27%	3%
BMX biking track	8%	92%	62%	30%	8%
Softball	8%	92%	43%	54%	3%
Indoor volleyball	8%	92%	69%	29%	2%
Pickleball	7%	93%	69%	26%	5%
Lacrosse	7%	93%	43%	53%	4%
Foot golf	4%	96%	44%	50%	6%

REASONS FOR NOT USING CASTLE PINES FACILITIES MORE

Question: Is there anything preventing you from using parks, trails, playgrounds, and/or athletic fields more within the City of Castle Pines? (CHECK ALL THAT APPLY)

The top six reasons residents do not use Castle Pines' facilities more are because there are not the facilities people are looking for (54%), that there are no restrooms (19%), inadequate parking (17%), the distance from their homes (14%), overcrowding (13%) and poor maintenance.

REASONS FOR NOT USING CASTLE PINES FACILITIES MORE	
	% of respondents
Lack of features I enjoy	54%
No restrooms	19%
Inadequate parking	17%
Distance from home	14%
Overcrowding	13%
Poor maintenance	12%
Physical disability	6%
No public transportation	3%
No handicapped access	1%
Write-in responses	
No recreation center in Castle Pines	7%
Need more interconnected trails	6%
No swimming pool	3%
Poor snow removal	2%
Safety, vandalism	2%
Need tennis courts	2%
Lack of time	1%
Old age	1%
Roads are not safe for bicyclists	1%
Need water activities - fishing, boating, kayaking	1%
Need a dog park	1%
Need basketball courts	1%
Need updated equipment	1%
Facilities are for HOA people only	1%

INTEREST IN POTENTIAL FEATURES IN A CASTLE PINES COMMUNITY CENTER

Question: Listed below are potential features that could be incorporated into the design of a new Castle Pines Recreation Center. Help the City understand the demand for a new center by marking with an "X" approximately how often you and members of your household would use each of these features.

More than half of the respondents said they would use the facilities bulleted below at least once a month.

- ✓ Weight room / Cardiovascular equipment
- ✓ Studios for fitness classes
- ✓ Indoor elevated walking / jogging track
- ✓ Indoor lap swim lanes (warm water) for exercise swimming and swim lessons
- ✓ Indoor leisure swimming pool (warm water) with slides, lazy river, water sprays, beach
- ✓ Indoor wellness pool (warmer water) for therapeutic purposes
- ✓ Gymnasium with courts for basketball, volleyball, badminton, pickleball, etc.

INTEREST IN POTENTIAL FEATURES IN A CASTLE PINES COMMUNITY CENTER					
Type of facility	Seldom or Never	Less than once/month	At least once/month	A few times per month	Several Times per week
Weight room / Cardiovascular equipment	15%	5%	8%	20%	52%
Studios for fitness classes	20%	7%	8%	21%	44%
Indoor elevated walking/jogging track	19%	9%	10%	23%	39%
Indoor lap swim lanes (warm water) for exercise swimming and swim lessons	20%	10%	12%	26%	32%
Indoor leisure swimming pool (warm water) with slides, lazy river, water sprays, beach	19%	11%	15%	28%	27%
Indoor wellness pool (warmer water) for therapeutic purposes	33%	13%	16%	17%	21%
Indoor competition swim pool (cool water) for club and high school teams and exercise	56%	11%	7%	9%	17%
Gymnasium with courts for basketball, volleyball, badminton, pickleball, etc.	35%	13%	15%	22%	15%
Indoor turf field house for soccer, lacrosse, football, etc.	51%	10%	12%	13%	14%
Cafe / Juice bar	37%	14%	19%	18%	12%
Children's indoor interactive playground	65%	6%	6%	11%	12%
Multi-activity court gym for soccer, floor hockey, batting cages, etc.	48%	15%	12%	14%	11%
Senior activities / Services	62%	11%	7%	10%	10%
Space for teens games activities	54%	11%	14%	12%	9%
Rock climbing wall	47%	17%	14%	15%	7%
Child watch / Baby sitting	77%	5%	4%	7%	7%
Gymnastics room	67%	9%	7%	11%	6%
Golf simulator	50%	17%	14%	13%	6%
Preschool program space	88%	2%	2%	3%	5%
Arts + crafts room	51%	15%	16%	14%	4%

Computer lab	75%	8%	6%	8%	3%
Performing arts theater	53%	21%	17%	6%	3%
Classroom	69%	17%	7%	5%	2%
Party rooms	55%	32%	7%	4%	2%
Community room events hall	52%	32%	10%	4%	2%

FEATURES WOULD USE MOST IN A CASTLE PINES COMMUNITY CENTER

Question: Which three of the features in Question #5 above would you and members of your household use the most often if they were included in a new recreation/community center? [Please write in the letters from Question #5 for your 1st, 2nd, and 3rd choices.]

The six features that residents said they would use the most in a community/recreation center are a weight room / cardiovascular equipment, an elevated track for walking and jogging, studios for fitness classes, indoor lap swimming pool, an indoor leisure swimming pool with slides and other features, and a gymnasium.

FEATURES WOULD USE MOST IN CASTLE PINES COMMUNITY CENTER	
	% of respondents
Weight room / Cardiovascular equipment	53%
Indoor elevated walking / Jogging track	37%
Studios for fitness classes	32%
Indoor lap swim lanes (warm water) for exercise swimming and swim lessons	28%
Indoor leisure swimming pool (warm water) with slides, lazy river, water sprays, beach	27%
Gymnasium with courts for basketball, volleyball, badminton, pickleball, etc.	20%
Indoor turf field house for soccer, lacrosse, football, etc.	11%
Indoor wellness pool (warmer water) for therapeutic purposes	10%
Child watch / Baby sitting	10%
Senior activities / Services	9%
Multi-activity court gym for soccer, floor hockey, batting cages, etc.	7%
Rock climbing wall	7%
Golf simulator	7%
Indoor competition swim pool (cool water) for club and high school teams and exercise	6%
Gymnastics room	5%
Cafe / Juice bar	4%
Children's indoor interactive playground	3%
Performing arts theater	3%
Space for teens games activities	2%
Arts + crafts room	1%
Party rooms	1%
Computer lab	1%
Classroom	1%
Community room events hall	1%
Preschool program space	1%

ORGANIZATIONS PEOPLE USE FOR RECREATION

*Question: When you participate in recreation activities, what local organizations do you use?
(CHECK ALL THAT APPLY)*

Castle Pines residents rely most on South Suburban Parks and Recreation District, private health and fitness clubs, the Town of Castle Rock, private youth recreation program providers, school recreation programs, and private studios.

ORGANIZATIONS PEOPLE USE FOR RECREATION	
	% of respondents
South Suburban Parks and Recreation District	47%
Private health and fitness clubs (e.g., Core Fitness, 24 Hour Fitness, YMCA)	46%
Town of Castle Rock	37%
Private youth recreation program providers	29%
School recreation programs	25%
Private studios (e.g., karate, yoga, dance studios)	22%
Town of Parker	6%
We do not participate in recreation programs	9%
Write-in responses	
Highlands Ranch	3%
Castle Pines Athletics	2%
Club sports	2%
Ridge Golf course, other golf courses	1%
Lone Tree recreation center	1%

PREFERRED ADDITIONAL RECREATIONAL FACILITIES

Question: Castle Pines will have to make some choices regarding which parks, trails, open space areas and recreational facilities to devote financial resources to first. We want to know what is most important to you. Please rank in order of importance (1 through 7) the following potential projects. 1 is most important; 7 is least important. Use each number only once.

Combining facilities that people ranked first, second or third, by far the greatest need as expressed by Castle Pines residents is a community/recreation center and additional multi-purpose trails. People gave very few “other” write-in responses for other recreation facilities. Of these write-in responses, the most suggested as first, second or third priorities were tennis courts (3%) and an indoor pool (3%). Just 4% reported that they feel there is no need for additional recreational facilities in Castle Pines.

PREFERRED ADDITIONAL RECREATIONAL FACILITIES							
	1	2	3	4	5	6	7
Construct a recreation / community center	64%	14%	5%	3%	1%	3%	10%
Construct additional multi-purpose trails	24%	26%	17%	10%	11%	8%	4%
Construct more sports fields / courts	4%	14%	13%	19%	16%	27%	7%
Construct additional neighborhood parks	2%	12%	15%	20%	24%	20%	7%
Construct a new large multi-use park	2%	15%	27%	24%	18%	10%	4%
Construct an outdoor community events space	2%	15%	18%	16%	21%	23%	5%
Other	19%	11%	5%	5%	2%	5%	53%

INCREASING PROPERTY OR SALES TAXES FOR THE COMMUNITY CENTER

Question: Please indicate whether you would support increasing your property tax by \$200-\$250 a year to fund construction of an indoor recreation/community facility?

Question: Please indicate whether you would support an increase in sales tax to 4% (currently 2.75%) to assist in covering the operating costs of an indoor recreation/community center?

A majority (61%) reported they would support an increase of \$200 to \$250 in their property taxes to fund the construction of an indoor recreation facility. A majority (55%) also said they would support an increase in sales taxes to 4% to assist in covering the operating costs of the community/recreation center.

INCREASING TAXES FOR THE COMMUNITY CENTER	
	% of respondents
Support increase in property taxes?	
Yes	61%
No	39%
Support increase in sales taxes?	
Yes	55%
No	45%

DEMOGRAPHICS

Our final questions are for classification purposes only. The answers to these questions help us better understand the residents of Castle Pines. Your answers to these questions, like all of the survey questions, are confidential and are used only when combined with all other peoples' responses.

Question: What is your age?

Question: How many members of your household are under age 18?

Question: How many members of your household are over age 65?

- The median age was 54.
- 53% had children under the age of 18 living in their households.
- 34% had household members older than 65 living in their households.

	Castle Pines Survey	2014/2015 American Community Survey
Age		
18 to 19	-	2%
20 to 29	-	4%
30 to 39	9%	6%
40 to 49	29%	20%
50 to 59	28%	30%
60 to 69	18%	27%
70 and older	16%	11%
Children under 18?		
Yes	53%	50%
No	47%	50%
Residents over 65?		
Yes	34%	29%
No	66%	71%

DIFFERENCES IN RESULTS BY AGE

Below are the differences in responses by categories of age to key questions on the survey. While these analyses add detail to the results of this survey, the reader is advised that this information does not change the finding that Castle Pines residents are overwhelmingly in support of the City building a recreation center. Further, much of the information below is to be expected - younger people engage in a wider range of activities than older people, residents who have children are would like to have more services that support their families, and people aged 50 and older are more interested in walking and less physically demanding activities. This information is presented largely to demonstrate that the results of the survey are representative of residents of Castle Pines.

Use of facilities: Respondents were given a list of 29 activities and asked to note if members of their households participate in each activity. For each activity, people under the age of 50 reported they engage in each of the activities more than people over the age of 50 engage in the activities, except for golf, and health and wellness classes.

USE OF FACILITIES			
Type of facility	< 40	40-49	50+
Outdoor playgrounds	91%	85%	54%
Outdoor swimming	88%	93%	73%
Outdoor water play area	88%	74%	30%
Indoor swimming	84%	86%	59%
Weight training / Fitness equipment	81%	83%	69%
Fitness class	79%	82%	66%
Soccer	59%	59%	22%
Indoor running	55%	64%	38%
Golf	53%	65%	61%
Arts or crafts classes	48%	46%	23%
Dog parks / Off-leash areas	47%	63%	52%
Tennis	42%	55%	41%
Fishing ponds	41%	50%	28%
Climbing walls	39%	54%	20%
Cultural classes (dance, drama, music)	37%	40%	22%
Indoor basketball	33%	49%	24%
Baseball	23%	41%	13%
Health and wellness classes (nutrition)	20%	34%	32%
Outdoor basketball	20%	54%	21%
Softball	17%	13%	12%
Travel / Excursion programs	13%	20%	21%
Outdoor volleyball	13%	18%	14%
Outdoor skating at skate parks	10%	28%	15%
Football	10%	26%	10%
BMX biking track	10%	18%	10%
Indoor volleyball	10%	21%	8%
Lacrosse	7%	26%	5%
Pickleball	3%	8%	16%
Foot golf	3%	11%	4%

Interest in potential features in a Castle Pines Recreation/Community Center: Respondents were given a list of features that could be part of a potential recreation/community center and asked to note how frequently they feel they would use each feature.

People aged under 40 were more likely than those older to say they would use these facilities several times per week:

- ✓ Preschool program space
- ✓ Child care / Baby sitting
- ✓ Children’s indoor interactive playground
- ✓ Computer lab
- ✓ Arts + crafts room
- ✓ Classrooms
- ✓ Party rooms

People aged 40-49 were more likely than both those younger and those older to say they would use these facilities several times per week:

- ✓ Weight room / Cardiovascular equipment
- ✓ Studios for fitness classes
- ✓ Gymnasium with courts for basketball, volleyball, badminton, pickleball, etc.
- ✓ Multi-activity court gym for soccer, floor hockey, batting cages, etc.
- ✓ Indoor turf field house for soccer, lacrosse, football, etc.
- ✓ Space for teen games and activities

People aged under 50 were more likely than those 50 and older to say they would use these facilities several times per week:

- ✓ Indoor leisure swimming pool (warm water) with slides, lazy river, water sprays, beach

People aged 50 or older were more likely than those younger to say they would use these facilities several times per week:

- ✓ Senior activities / Services

INTEREST IN POTENTIAL FEATURES IN A CASTLE PINES RECREATION/ COMMUNITY CENTER – WOULD USE SEVERAL TIMES A WEEK			
Type of facility	< 40	40-49	50+
Weight room / Cardiovascular equipment	68%	59%	44%
Studios for fitness classes	56%	55%	55%
Children's indoor interactive playground	50%	15%	2%
Indoor leisure swimming pool (warm water) with slides, lazy river, water sprays, beach	49%	34%	20%
Indoor elevated walking/jogging track	44%	43%	38%
Indoor lap swim lanes (warm water) for exercise swimming and swim lessons	44%	33%	31%
Child watch / Baby sitting	38%	8%	1%
Indoor competition swim pool (cool water) for club and high school teams and exercise	29%	20%	13%
Indoor turf field house for soccer, lacrosse, football, etc.	28%	22%	5%
Preschool program space	26%	5%	1%
Indoor wellness pool (warmer water) for therapeutic purposes	25%	19%	21%
Cafe / Juice bar	18%	14%	9%

Gymnasium with courts for basketball, volleyball, badminton, pickleball, etc.	17%	23%	10%
Multi-activity court gym for soccer, floor hockey, batting cages, etc.	17%	18%	4%
Space for teens games activities	16%	15%	3%
Rock climbing wall	14%	9%	4%
Arts + crafts room	14%	6%	1%
Senior activities / Services	9%	2%	15%
Computer lab	9%	5%	1%
Classroom	7%	2%	-
Party rooms	7%	4%	1%
Golf simulator	6%	8%	5%
Gymnastics room	4%	13%	8%
Performing arts theater	4%	4%	2%
Community room events hall	4%	3%	1%

Features that would be used most in a Castle Pines Recreation/Community Center: From the same list of potential features in the recreation/community center, people were asked to note the three features they would use most.

People aged under 40 were more likely than those older to say they would use these facilities several times per week:

- ✓ Child care / Baby sitting

People aged 40-49 were more likely than both those younger and those older to say they would use these facilities several times per week:

- ✓ Indoor turf field house for soccer, lacrosse, football, etc.
- ✓ Multi-activity court gym for soccer, floor hockey, batting cages, etc.

People aged under 50 were more likely than those 50 and older to say they would use these facilities several times per week:

- ✓ Indoor leisure swimming pool (warm water) with slides, lazy river, water sprays, beach

People aged 50 or older were more likely than those younger to say they would use these facilities several times per week:

- ✓ Indoor elevated walking / Jogging track
- ✓ Indoor wellness pool (warmer water) for therapeutic purposes
- ✓ Senior activities / Services

FEATURES WOULD USE MOST IN CASTLE PINES RECREATION/COMMUNITY CENTER			
Type of facility	< 40	40-49	50+
Indoor leisure swimming pool (warm water) with slides, lazy river, water sprays, beach	56%	44%	21%
Weight room / Cardiovascular equipment	53%	58%	57%
Child watch / Baby sitting	44%	14%	12%
Studios for fitness classes	28%	38%	38%
Indoor lap swim lanes (warm water) for exercise swimming and swim lessons	25%	25%	34%
Indoor elevated walking/jogging track	16%	38%	48%
Gymnasium with courts for basketball, volleyball, badminton, pickleball, etc.	16%	23%	15%
Indoor competition swim pool (cool water) for club and high school teams and exercise	9%	7%	3%
Indoor turf field house for soccer, lacrosse, football, etc.	9%	15%	4%
Multi-activity court gym for soccer, floor hockey, batting cages, etc.	9%	15%	4%
Indoor wellness pool (warmer water) for therapeutic purposes	6%	3%	18%
Rock climbing wall	6%	5%	3%
Golf simulator	6%	6%	9%
Cafe / Juice bar	3%	2%	3%
Senior activities / Services	3%	-	15%
Gymnastics room	3%	3%	1%
Performing arts theater	3%	1%	4%
Children's indoor interactive playground	2%	1%	-

Arts + crafts room	1%	1%	-
Computer lab	1%	-	1%
Party rooms	1%	-	1%
Space for teens games activities	-	2%	1%
Preschool program space	-	-	1%
Classroom	-	-	1%
Community room events hall	-	-	1%

Preferred additional recreational facilities: Respondents were given a list of seven parks, trails, open space and recreational facilities and asked to rank them in order of importance to them (including the opportunity for a write-in response). There were no differences in responses by age.

Increasing property or sales taxes for a Community Center: A majority (61%) reported they would support an increase of \$200 to \$250 in their property taxes to fund the construction of an indoor recreation facility. A majority (55%) also said they would support an increase in sales taxes to assist in covering the operating costs of the community/recreation center.

People aged under 50 were more likely than those older to say they would:

- ✓ Support an increase in property taxes
- ✓ Support an increase in sales taxes

People who have children under the age of 18 living with them were more likely than those who do not have children in their residences to say they would:

- ✓ Support an increase in property taxes
- ✓ Support an increase in sales taxes

INCREASING TAXES FOR THE COMMUNITY CENTER			
	< 40	40-49	50+
Support increase in property taxes	71%	79%	53%
Support increase in sales taxes	64%	68%	48%
Children under 18	Kids	No kids	
Support increase in property taxes	77%	45%	
Support increase in sales taxes	67%	41%	

**Castle Pines Parks and Recreation Plan
Community Survey**

The recently completed Castle Pines 2016 Comprehensive Plan found that improving park and recreation facilities and programs is a top priority. The 4 public parks and 14 miles of trails available today will significantly increase as growth continues to be directed in ways that meet the community’s vision. To that end, we are preparing a Parks and Recreation Comprehensive Plan to serve as a road map for future parks and recreation programs for the next 5 to 10 years. We need your input! By participating in this survey, you will help City leaders understand residents’ preferences and better plan for now and the future.

We request that a head of household, 18 years old or older take a few minutes to complete this survey. When thinking about your answers please respond for your entire household. If you could **mail your completed survey in the self-addressed, postage-paid envelope by May 13, 2016**, we would appreciate it. You can also respond electronically at <https://www.surveymonkey.com/r/CastlePinesParks>. We encourage you to learn more about the process and sign-up to receive updates by visiting www.castlepinesgov.com/parks-rec-plan

Your answers will be collected by an independent third-party and remain anonymous. If you have questions about the survey, please contact parcplan@castlepinesgov.com

1. If you use the following, what is your current overall satisfaction level with the following park and recreation facilities in or near Castle Pines?

	Excellent	Good	Fair	Poor
Elk Ridge Park (City of Castle Pines)				
Retreat Park (Castle Pines North Metro District)				
Coyote Ridge Park (Castle Pines North Metro District)				
Daniel’s Gate Park (Castle Pines North Metro District)				
Daniel’s Park (Denver Mountain Parks)				
School District Outdoor Sports Fields (e.g., soccer, baseball, etc.)				
Glendale Farm and Dog Park (Douglas County)				
Open Space and Natural Areas				
Trail System (Access to, proximity, ease of use, etc.)				
Park Maintenance (e.g., landscaping, mowing, trash, etc.)				
Community Events (e.g., Food Truck Frenzy, Run Wild, etc.)				
Lone Tree Recreation Center				
Castle Rock Recreation Center				
Miller Activity Complex				
Parker Recreation Center				
Parker Fieldhouse				
Private health, fitness, dance clubs or studios (e.g., Core Fitness, 24 Hour Fitness, YMCA)				
Homeowner Association Parks and Clubhouses				

2. If you use a recreation or community center outside the City of Castle Pines, why do you choose to use these indoor centers? (CHECK ALL THAT APPLY)

- Quality of service
- Affordability
- Proximity
- Hours of operation
- They offer what I am looking for. Please specify _____
- Other. Please specify _____

3. Please indicate if you or anyone in your household participates in the activities below. Then, for the activities in which your household members participate, please tell us if you think there are too many, about the right number, or not enough of these facilities to meet your needs.

	Type of Activity	Participate in this type		Are there too many, about the right number, or not enough in or around		
		Yes	No	Not	About	Too
1	Outdoor playgrounds	Yes	No	1	2	3
2	Softball	Yes	No	1	2	3
3	Baseball	Yes	No	1	2	3
4	Lacrosse	Yes	No	1	2	3
5	Soccer	Yes	No	1	2	3
6	Football	Yes	No	1	2	3
7	Outdoor volleyball	Yes	No	1	2	3
8	Indoor volleyball	Yes	No	1	2	3
9	Outdoor basketball	Yes	No	1	2	3
10	Indoor basketball	Yes	No	1	2	3
11	Tennis	Yes	No	1	2	3
12	Foot golf	Yes	No	1	2	3
13	Outdoor skating at skate parks	Yes	No	1	2	3
14	Outdoor swimming	Yes	No	1	2	3
15	Indoor swimming	Yes	No	1	2	3
16	Arts or crafts classes	Yes	No	1	2	3
17	Fitness class	Yes	No	1	2	3
18	Weight training/fitness equipment	Yes	No	1	2	3
19	Indoor running	Yes	No	1	2	3
20	Golf	Yes	No	1	2	3
21	Climbing walls	Yes	No	1	2	3
22	Fishing ponds	Yes	No	1	2	3
23	Dog Parks/Off-Leash Areas	Yes	No	1	2	3
24	Outdoor water play area	Yes	No	1	2	3
25	Cultural classes (dance, drama, music)	Yes	No	1	2	3
26	Health and wellness classes (nutrition)	Yes	No	1	2	3
27	Travel/Excursion Programs	Yes	No	1	2	3
28	BMX Biking Track	Yes	No	1	2	3
29	Pickleball	Yes	No	1	2	3

4. Is there anything preventing you from using parks, trails, playgrounds, and/or athletic fields more within the City of Castle Pines? (CHECK ALL THAT APPLY)

- Lack of features I enjoy
- Poor maintenance
- Distance from home
- Overcrowding
- No restrooms
- Inadequate parking
- Physical disability
- No public transportation
- No handicapped access
- Other? Please specify: _____

5. Listed below are potential features that could be incorporated into the design of a new Castle Pines Recreation Center. Help the City understand the demand for a new center by marking with an "X" approximately how often you and members of your household would use each of these features.

	Programmatic Component	Seldom or Never	Less than once/month	At least once/month	A few times per	Several Times per
A	Gymnasium with courts for basketball, volleyball, badminton, pickleball, etc.					
B	Multi Activity Court Gym for soccer, floor hockey, batting cages, etc.					
C	Indoor Turf Field House for soccer, lacrosse, football, etc.					
D	Gymnastics Room					
E	Indoor Elevated Walking/ Jogging Track					
F	Weight Room/ Cardiovascular					
G	Studios for fitness classes					
H	Rock Climbing Wall					
I	Golf Simulator					
J	Café/ Juice Bar					
K	Senior Activities/Services					
L	Space for Teens Games Activities					
M	Preschool Program Space					
N	Child Watch / Baby Sitting					
O	Children's Indoor Interactive					
P	Computer Lab					
Q	Arts + Crafts Room					
R	Classroom					
S	Party Rooms					
T	Community Room Events Hall					
U	Performing Arts Theater					
V	Indoor Leisure Swimming Pool (warm water) with slides, lazy river, water					
W	Indoor Lap Swim Lanes (warm water) for exercise swimming and swim					
X	Indoor Wellness Pool (warmer water) for therapeutic purposes					
Y	Indoor Competition Swim Pool (cool water) for club and high school teams					

6. Which three of the features in Question #7 above would you and members of your household use the most often if they were included in a new recreation/community center? [Please write in the letters from Question #7 for your 1st, 2nd, and 3rd choices.]

 1st Most Use

 2nd Most Use

 3rd Most Use

7. If you or your family members participate in recreation programs and activities (e.g., team sports, classes, events, etc.), what local organizations do you rely on? (CHECK ALL THAT APPLY)

- South Suburban Parks and Recreation District
- Town of Castle Rock
- Town of Parker
- Private Youth Recreation Program Providers
- Private health and fitness clubs (e.g., Core Fitness, 24 Hour Fitness, YMCA)
- Private studios (e.g., karate, yoga, dance studios)
- School Recreation Programs
- Other? Please specify: _____
- We do not participate in recreation programs

8. Castle Pines will have to make some choices regarding which parks, trails, open space areas and recreational facilities to devote financial resources to first. We want to know what is most important to you. Please rank in order of importance (1 through 7) the following potential projects. 1 is most important; 7 is least important. Use each number only once.

- _____ Construct additional multi-purpose trails
- _____ Construct additional neighborhood parks
- _____ Construct a new large multi-use park
- _____ Construct a recreation/community center
- _____ Construct an outdoor community events space
- _____ Construct more sports fields/courts
- _____ Others? Please specify: _____

9. Please indicate whether you would support increasing your property tax by \$200-\$250 a year to fund construction of an indoor recreation/community facility?

- Yes
- No

10. Please indicate whether you would support an increase in sales tax to 4% (currently 2.75%) to assist in covering the operating costs of an indoor recreation/community center?

- Yes
- No

Our final questions are for classification purposes only. The answers to these questions help us better understand the residents of Castle Pines. Your answers to these questions, like all of the survey questions, are confidential and are used only when combined with all other peoples' responses.

11. What is your age? _____

12. How many members of your household are under age 18? _____

13. How many members of your household are over age 65? _____

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APPENDIX B

AUGUST 2024 COYOTE RIDGE PARK AND SOARING HAWK PARK CONCEPT PLANS

TABLE OF CONTENTS

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- LANDSCAPE ARCHITECTURE 4
- CIVIL ENGINEERING 11
- IRRIGATION 15
- ARCHITECTURE 50
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- OPINION OF COST 70

PROJECT SUMMARY

In anticipation of its recent growth, the City of Castle Pines, Colorado embarked on a mission to enhance and expand its park system and recreational assets. The city entrusted the Hord Coplan Macht (HCM) design team with leading the concept design for two key parks: Coyote Ridge Park, an existing 40-acre space necessitating upgrades and the integration of an adjacent 10 acres; and Soaring Hawk Park, a brand-new 74-acre park nestled within a burgeoning residential development characterized by substantial topography.

In close collaboration with City staff, the Park and Recreation Board, City Council, and the community at large, HCM spearheaded the design initiative, keeping a keen eye on the city's objectives and requirements. The design approach involved orchestrating a comprehensive community engagement process, featuring four in-person events and online surveys that garnered the participation of over 1,000 individuals. This engagement encompassed project guiding principles, contextual information, precedent images for dot voting, and interactive park design game boards.

HCM developed the concept plans for both parks, incorporating the most favored amenities to secure community consensus. The design ensures that Coyote Ridge Park and Soaring Hawk Park stand out individually while harmonizing with each other. Enriching features include multi-use fields, sport courts, play areas for all age groups, an amphitheater, pollinator gardens, trails, and more.

This document signifies the culmination of the above concept planning process which heavily relied upon the integrated community engagement to adequately plan for future public park amenities that benefit the community as a whole and respect the values, goals and principles set forth by the city. Open communication throughout the process both among board members, during City Council review meetings, and with community members was extremely important.

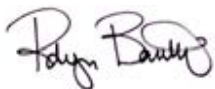
The project's guiding principles include the following:

Guiding Principles:

- To create a master plan process that focuses on the journey, not the destination.
- To engage the community in an authentic way and incorporate the community needs, so everyone can play a part in the design of their local parks.
- To create a plan that is representative of the community's best interests and lends itself to the community's different facets.
- To create a plan that is multigenerational, flexible, and accounts for future trends.
- Create a space that is utilized year-round for a variety of community events.
- To create a plan that can be implemented.
- Prioritize safety, visibility, accessibility and flow of visitors through each park.
- Incorporate a plan for exceptional and successful maintenance and sustainability.
- Enable each park to be attractive, and truly unique in the amenities it provides to the community, while also having a sense of place that feels like "Castle Pines" when you arrive.

The Concept Plan package presented here is a result of design explorations, incorporating feedback from the City of Castle Pines and aligning with the outlined guiding principles. Following this phase, a comprehensive cost estimate will be developed. The document, along with the Concept Design drawing package, will be formally presented to the City for review and commentary, marking a crucial step toward the next design milestone of project completion.

The Hord Coplan Macht design team expresses appreciation for the collaborative partnership with the City of Castle Pines, acknowledging their valuable time and input into the design process. As stewards of this transformative endeavor, the team looks forward to completing the concepts designs for both park spaces and realizing what a significant impact these spaces currently have and will have on future generations within the community.



Robyn Bartling, PLA, ASLA, Principal

LANDSCAPE ARCHITECTURE

COYOTE RIDGE PARK:

Coyote Ridge Park is a very popular existing community park within the limits of the Castle Pines, situated west of I-25. It is approximately a 40-acre park north of Hidden Point Boulevard and east of Serena Drive. The park consists of several highly used recreational activities such as pickleball courts, basketball courts, a multiuse field, a non-regulation sized baseball field, picnic shelter, play areas, and trail systems. Through the community engagement process, it was learned that some amenities were strongly opposed, and others were strongly favored. However, it was unanimous that the community had a strong affinity to this existing park space and wanted to ensure that the overall character, feel of the space, and natural vegetation was maintained. All proposed improvements were voted on by the community and vetted through various community engagement opportunities.

Proposed improvements to the existing park include modifying paved concrete trails to be fully accessible in accordance with ADA standards, the addition of more trails (both concrete and crusher fines trails with stabilization), as well as a new hill climb series of steps for those that want a challenging exercise experience that connects back to improved existing trails. For vehicular improvements, there are approximately 65 additional parking spaces along the existing drive being proposed, in addition to shifting, realigning, and paving the roadway that connects to the existing pickleball courts while simultaneously adding an accessible concrete walkway connection.

Other improvements include the addition of new vault restrooms, native pollinator gardens, bicycle parking, a multi-function pavilion, expanded baseball field expansion to be regulation sized, and the removal and replacement of existing playground with new equipment and poured-in-place rubberized safety surfacing material designed to be more inclusive.

The city has acquired an additional 10 acres of land on the opposite side of Serena Drive, to the southwest of the existing park. This vacant area of land is unique in that there is a significant amount of grade change, with the high point being on the southwestern point of the site and sloping north. Due to this natural topography and the community's desire to keep this site minimally impacted, a natural sledding hill is designated for this space. Aside from this amenity, other proposed improvements on this portion of the site includes a small parking lot, concrete trails, a nature-based play area, a challenge course, an asphalt all-wheels beginner pump track, additional pollinator gardens, a vault toilet, benches, and shade structures.

SOARING HAWK PARK:

Soaring Hawk Park is a large, slightly crescent-moon shaped area of land approximately 74-acres in size, situated east of I-25. This new proposed park is unique in that it is part of a new residential development known as The Canyons and is south of the Rueter-Hess Reservoir. The park space has a few challenging elements such as significant grade changes, easements, an FAA tower in the center of the site, a dedicated Historical Homestead area on the southern most portion of the site, a drainage area with flood zones, existing vegetation, and proposed roads and residential areas in close proximity. Through the community engagement process, it was learned that this new park had the potential to become a unique destination that accommodates lots of new recreational amenities and promote a sense of place for the community. Maintaining as much natural vegetation, and promoting healthy lifestyles with walking trails, and features for all ages were important factors. All proposed improvements were voted on by the community and vetted through various community engagement opportunities.

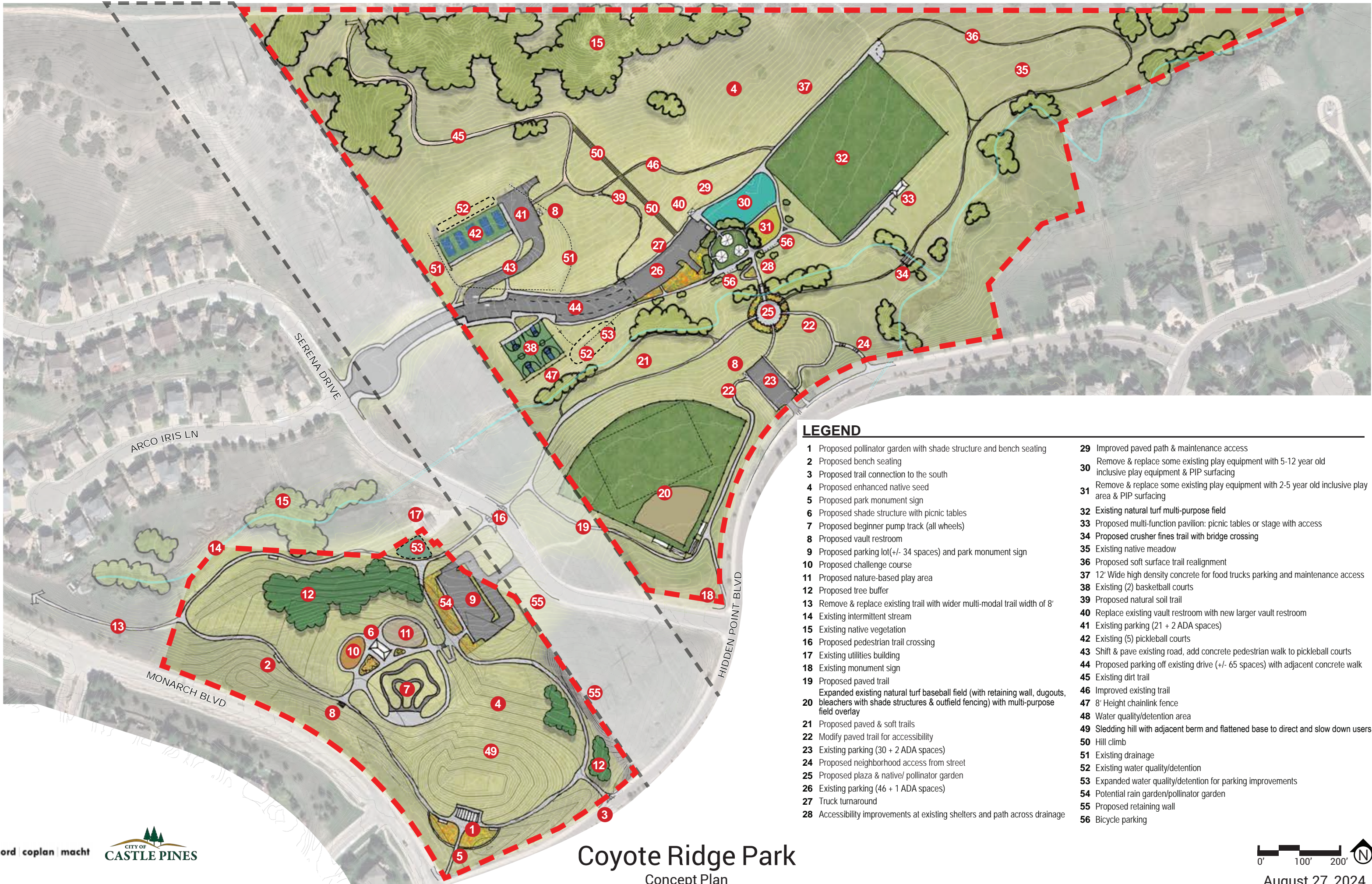
Due to the easements, FAA tower, vegetation and flood zone locations, the park was essentially divided into two main areas, a north and a south space. Proposed improvements to the northern park space includes a large artificial turf multiuse ballfield designed to accommodate a variety of sports, 8 pickleball courts, 2 tennis courts, a variety of nature trails, a bike skills loop, an all-wheels tot pump track for kids learning to balance, a restroom and storage facility, a concession and restroom building, an large inclusive playground with a hillside play area, a challenge courts, 2 parking lots and various areas of water quality.

Proposed improvements to the southern park space includes an amphitheater than can accommodate approximately 1,000 visitors, along with a concession and restroom building for those visitors. There are tiered seats directly in front of the designated stage area which would have artificial turf in anticipation of heavy use by visitors. Large open areas of natural turf expand beyond the formalized seating for the amphitheater, with one of those natural turf areas being large enough to accommodate a full multiuse field.

Other amenities include various shade structures and seating opportunities, a small inclusive playground, 2 basketball courts, a nature-based play space, a cultural overlook, a vault toilet, water quality areas, a small sledding hill, and a parking lot designed to accommodate large quantities of visitors.

Concrete and Asphalt Assumptions for Coyote Ridge Park and Soaring Hawk Park Improvements:

- 6" full-depth asphalt on 12" prepared subgrade for drive lanes.
- 5" full-depth asphalt on 12" prepared subgrade for parking stalls.
- 6" full-depth concrete on 12" prepared subgrade for sidewalks.



LEGEND

- 1 Proposed pollinator garden with shade structure and bench seating
- 2 Proposed bench seating
- 3 Proposed trail connection to the south
- 4 Proposed enhanced native seed
- 5 Proposed park monument sign
- 6 Proposed shade structure with picnic tables
- 7 Proposed beginner pump track (all wheels)
- 8 Proposed vault restroom
- 9 Proposed parking lot(+/- 34 spaces) and park monument sign
- 10 Proposed challenge course
- 11 Proposed nature-based play area
- 12 Proposed tree buffer
- 13 Remove & replace existing trail with wider multi-modal trail width of 8'
- 14 Existing intermittent stream
- 15 Existing native vegetation
- 16 Proposed pedestrian trail crossing
- 17 Existing utilities building
- 18 Existing monument sign
- 19 Proposed paved trail
- 20 Expanded existing natural turf baseball field (with retaining wall, dugouts, bleachers with shade structures & outfield fencing) with multi-purpose field overlay
- 21 Proposed paved & soft trails
- 22 Modify paved trail for accessibility
- 23 Existing parking (30 + 2 ADA spaces)
- 24 Proposed neighborhood access from street
- 25 Proposed plaza & native/ pollinator garden
- 26 Existing parking (46 + 1 ADA spaces)
- 27 Truck turnaround
- 28 Accessibility improvements at existing shelters and path across drainage
- 29 Improved paved path & maintenance access
- 30 Remove & replace some existing play equipment with 5-12 year old inclusive play equipment & PIP surfacing
- 31 Remove & replace some existing play equipment with 2-5 year old inclusive play area & PIP surfacing
- 32 Existing natural turf multi-purpose field
- 33 Proposed multi-function pavilion: picnic tables or stage with access
- 34 Proposed crusher fines trail with bridge crossing
- 35 Existing native meadow
- 36 Proposed soft surface trail realignment
- 37 12' Wide high density concrete for food trucks parking and maintenance access
- 38 Existing (2) basketball courts
- 39 Proposed natural soil trail
- 40 Replace existing vault restroom with new larger vault restroom
- 41 Existing parking (21 + 2 ADA spaces)
- 42 Existing (5) pickleball courts
- 43 Shift & pave existing road, add concrete pedestrian walk to pickleball courts
- 44 Proposed parking off existing drive (+/- 65 spaces) with adjacent concrete walk
- 45 Existing dirt trail
- 46 Improved existing trail
- 47 8' Height chainlink fence
- 48 Water quality/detention area
- 49 Sledding hill with adjacent berm and flattened base to direct and slow down users
- 50 Hill climb
- 51 Existing drainage
- 52 Existing water quality/detention
- 53 Expanded water quality/detention for parking improvements
- 54 Potential rain garden/pollinator garden
- 55 Proposed retaining wall
- 56 Bicycle parking

PRECEDENT IMAGES FOR COYOTE RIDGE PARK CONCEPT PLAN



NATURE PLAY



VAULT RESTROOM



INCLUSIVE PLAY



HILL CLIMB



CRUSHER FINES NATURE TRAILS



BALLFIELD DUGOUTS, BLEACHERS AND OUTFIELD FENCE



HILL CLIMB



BEGINNER PUMP TRACK



ADA ACCESSIBLE TRAILS



NEIGHBORHOOD CONNECTION

PRECEDENT IMAGES FOR COYOTE RIDGE PARK CONCEPT PLAN



VAULT RESTROOM



PAVED WALKING/JOGGING PATHS



PAVED WALKING/JOGGING PATHS



MULTI-FUNCTION PAVILION



PAVED WALKING/JOGGING PATHS



EXISTING PICKLEBALL COURTS



ENHANCED NATIVE PLANTINGS



EXISTING MULTI-PURPOSE FIELD



PLAZA AND POLLINATOR GARDEN



LEGEND

- 1 Preserve natural topography and native vegetation
- 2 Soft surface trails, typical
- 3 Tot pump track (all wheels)
- 4 Restroom and storage building
- 5 Proposed parking lot (+/- 122 spaces)
- 6 Challenge course
- 7 Basketball court
- 8 Nature play area (age separated for 2-5 years and 5-12 years)
- 9 Bike skills loop
- 10 Proposed parking lot (+/- 83 spaces)
- 11 Accessible ramp
- 12 Water quality/detention area
- 13 Access road to FAA tower and future cell tower
- 14 Existing berms
- 15 Crusher fines trails, typ.
- 16 Trail low flow crossing of intermittent stream
- 17 Potential future trail access to residential homes
- 18 100-Year floodplain
- 19 Community amphitheater with multi-use stage/pavilion with terraced and sloped lawn seating. Spaces between the formalized tiered seats to be artificial turf. (Seating for 1,000 guests)
- 20 2-5 Year old inclusive play area
- 21 5-12 Year old inclusive play area
- 22 Drop-off/parking for food trucks (+/- 4 spaces)
- 23 Natural turf multi-use field at 360' x 195' with 30' runoff
- 24 Multi-purpose pavilion with picnic tables
- 25 6' Fencing at field and 4' fencing adjacent to playground
- 26 Proposed parking lot (+/- 266 spaces)
- 27 Informal sledding hill
- 28 Trail access to open space
- 29 Shade structure
- 30 Historic homestead interpretive signage
- 31 Cultural overlook
- 32 Monument sign
- 33 Synthetic turf baseball field with dugouts and bleachers and shared 360' x 225' multi-use field with 30' runoff
- 34 Pickleball courts
- 35 Tennis courts

PRECEDENT IMAGES FOR SOARING HAWK PARK CONCEPT PLAN



PRECEDENT IMAGES FOR SOARING HAWK PARK CONCEPT PLAN



TENNIS COURTS



MULTI-PURPOSE AMPHITHEATER



CULTURAL OVERLOOK



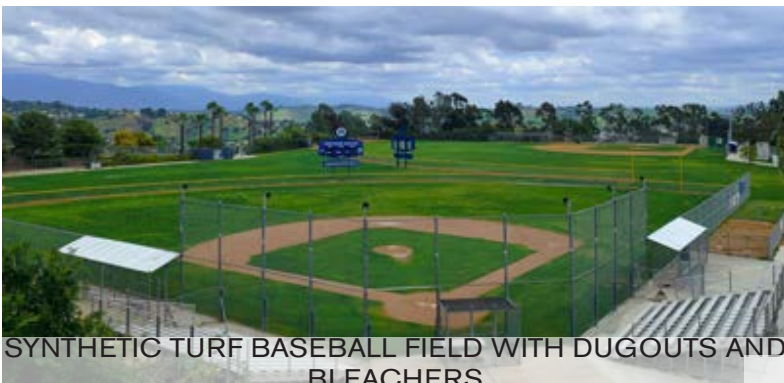
INCLUSIVE PLAY



TOT PUMP TRACK



BIKE SKILLS LOOP

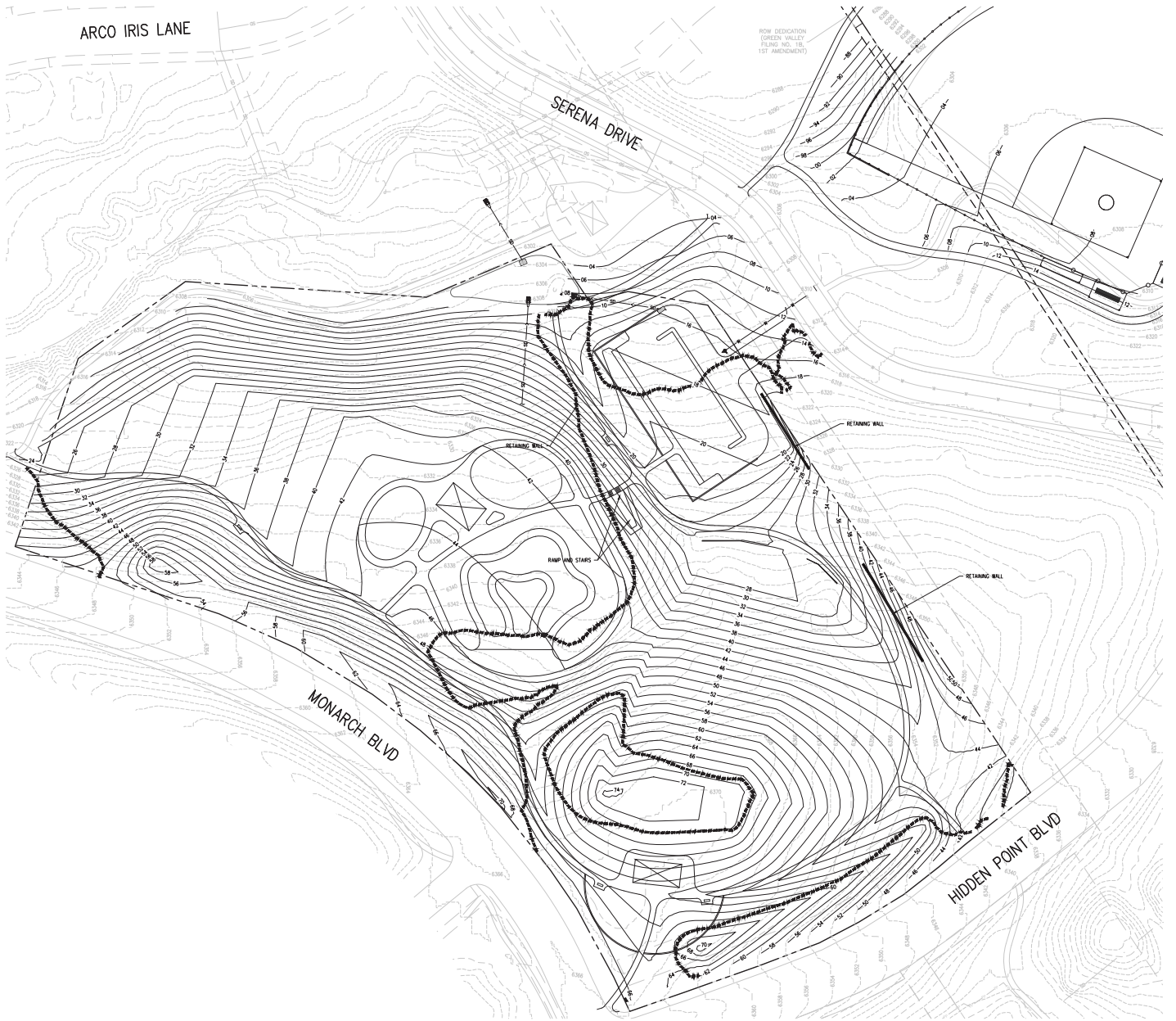


SYNTHETIC TURF BASEBALL FIELD WITH DUGOUTS AND BLEACHERS



BIKE SKILLS LOOP

CIVIL ENGINEERING



Cut/Fill Summary

Name	2d Area
COYOTE RIDGE	517526.04 Sq. Ft.
Cut	Fill
60222.23 Cu. Yd.	56138.79 Cu. Yd.
Net	
4083.44 Cu. Yd.<Cut>	

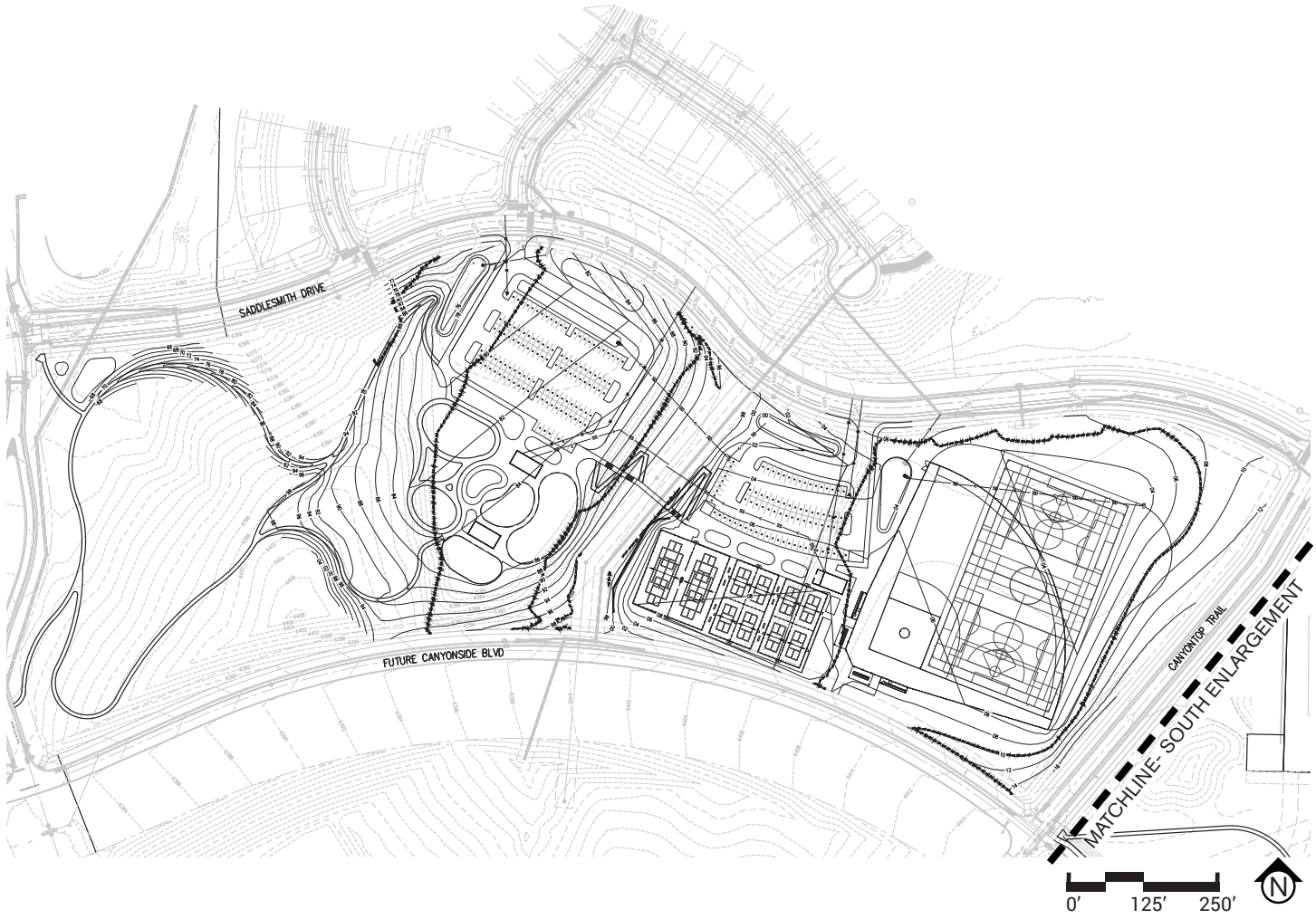
DESIGN LEGEND

- EXIST INDEX CONTOUR
- EXIST INTERMEDIATE CONTOUR
- PROPOSED INDEX CONTOUR
- PROPOSED INTERMEDIATE CONTOUR
- CUT/FILL BOUNDARY
- STORM LINE
- SANITARY SEWER LINE
- WATER LINE



Coyote Ridge Park

CIVIL ENGINEERING- NORTH ENLARGEMENT



Cut/Fill Summary

Name	2d Area
SOARING HAWK NORTH	750494.09 Sq. Ft.
Cut	Fill
42917.66 Cu. Yd.	47576.81 Cu. Yd.
Net	
4659.15 Cu. Yd.<Fill>	

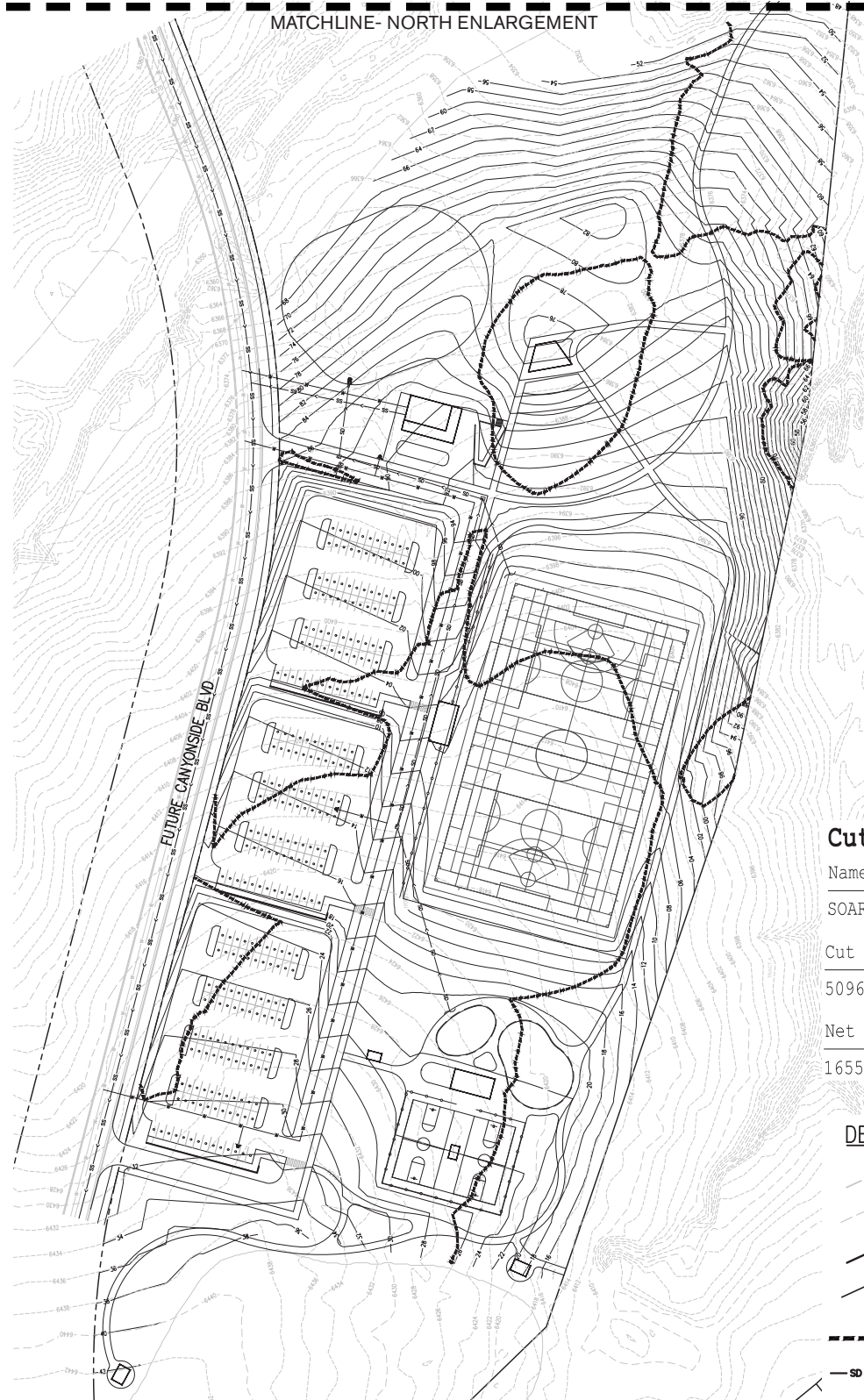
DESIGN LEGEND

	EXIST INDEX CONTOUR
	EXIST INTERMEDIATE CONTOUR
	PROPOSED INDEX CONTOUR
	PROPOSED INTERMEDIATE CONTOUR
	CUT/FILL BOUNDARY
	STORM LINE
	SANITARY SEWER LINE
	WATER LINE

Soaring Hawk Park

CIVIL ENGINEERING- NORTH ENLARGEMENT




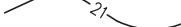




MATCHLINE- NORTH ENLARGEMENT



Cut/Fill Summary

Name	2d Area
SOARING HAWK SOUTH	828180.47 Sq. Ft.
Cut	Fill
50963.25 Cu. Yd.	49308.07 Cu. Yd.
Net	
1655.18 Cu. Yd.<Cut>	

DESIGN LEGEND

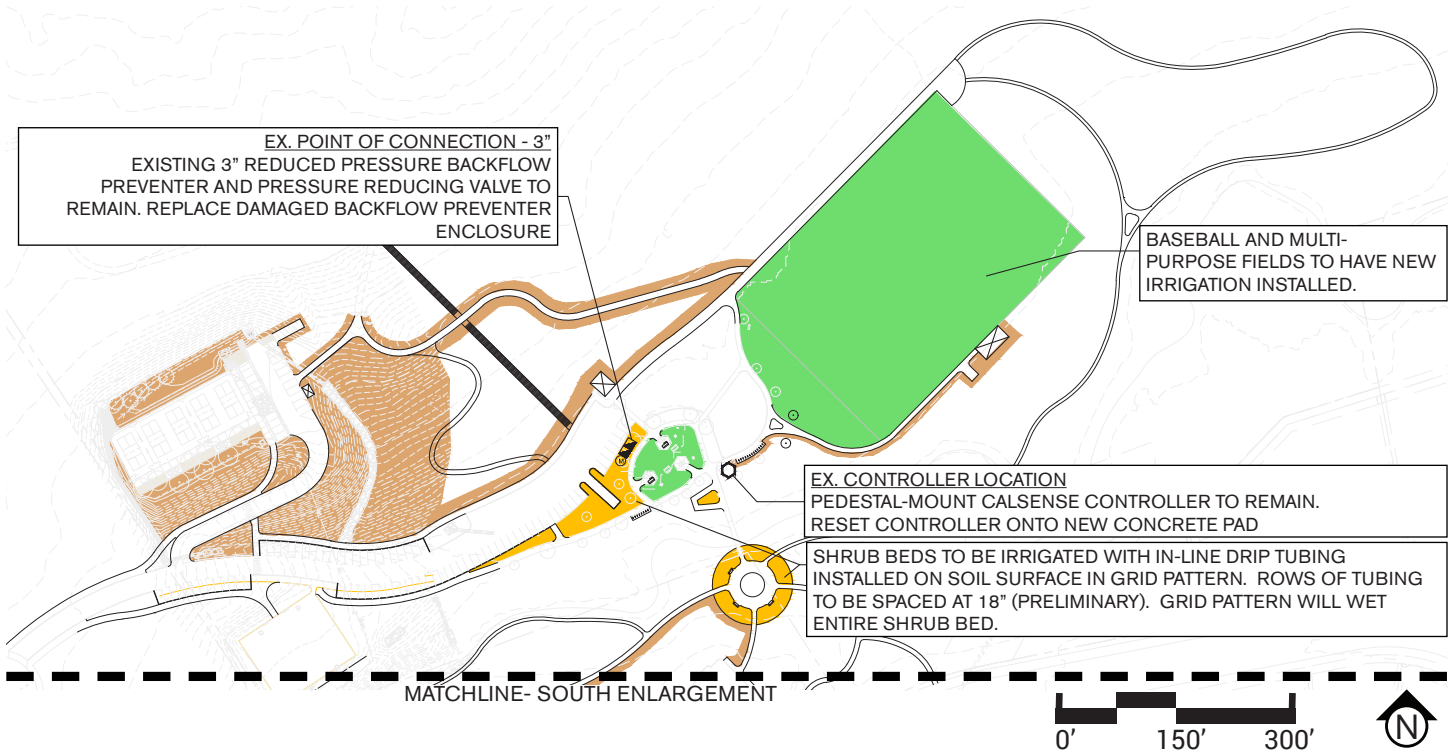
-  EXIST INDEX CONTOUR
-  EXIST INTERMEDIATE CONTOUR
-  PROPOSED INDEX CONTOUR
-  PROPOSED INTERMEDIATE CONTOUR
-  CUT/FILL BOUNDARY
-  STORM LINE
-  SANITARY SEWER LINE
-  WATER LINE

Soaring Hawk Park



IRRIGATION

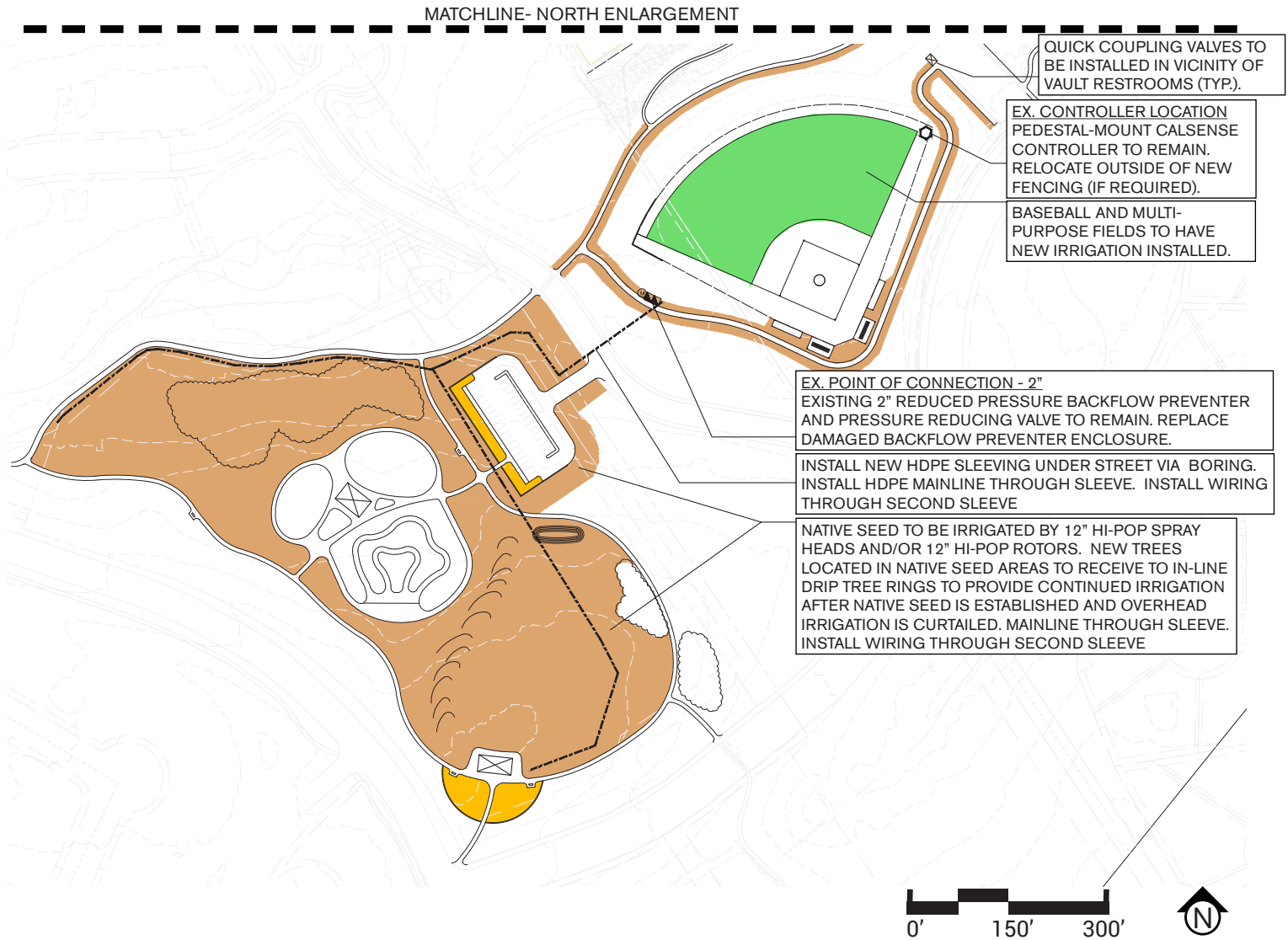
IRRIGATION- NORTH ENLARGEMENT



- NEW AND EXISTING TURF - NEW IRRIGATION
- NEW SHRUB BEDS - IN-LINE DRIP TUBING INSTALLED IN GRAD PATTERN
- NATIVE SEED ESTABLISHMENT AND RE-VEGETATION - 12" HI-POP ROTORS AND SPRAY HEADS

Coyote Ridge Park

IRRIGATION- SOUTH ENLARGEMENT

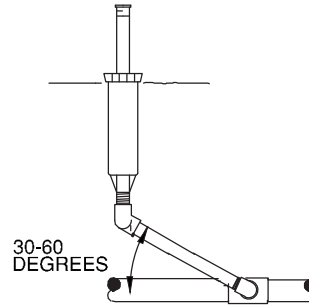
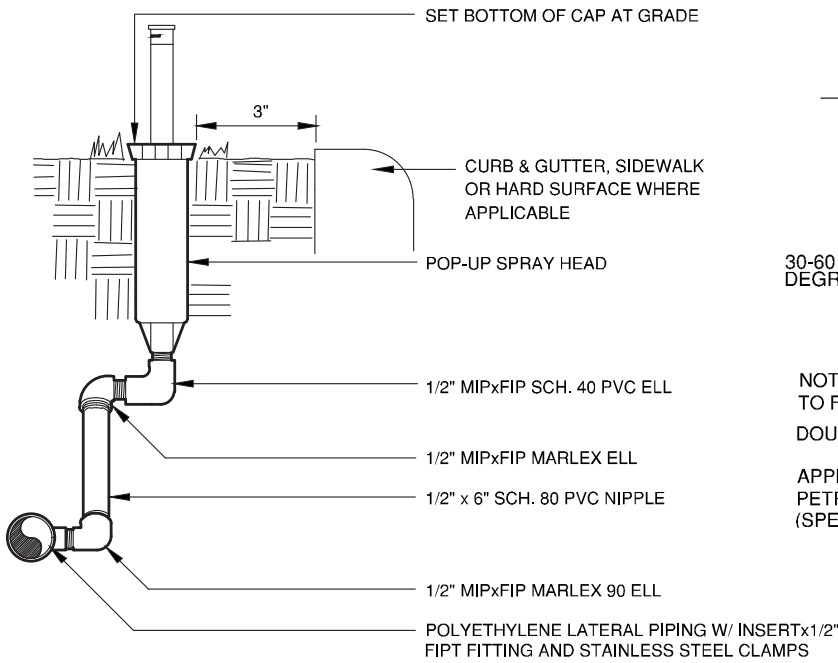


Coyote Ridge Park

IRRIGATION SCHEDULE - COYOTE RIDGE PARK CONCEPT PLAN

Irrigation Equipment and Materials Schedule					
SYMBOL	MANUFACTURER	MODEL NO.	DESCRIPTION	DETAIL NO.	COMMENTS
	RAIN BIRD	1806 SAM PRS W/ SPEC'D. NOZZ.	POP-UP SPRAY HEAD	1	
	RAIN BIRD	1812 SAM PRS W/NOZZ.	HI-POP SPRAY HEAD	2	
	HUNTER	I-20-06-SS W/ # NOZZ.	GEAR DRIVEN ROTOR	3	
	HUNTER	I-25-06-SS W/ # NOZZ.	GEAR DRIVEN ROTOR	3	
	HUNTER	I-20-12 W/ # NOZZ.	HI-POP GEAR DRIVEN ROTOR	4	
	RAIN BIRD	-	ELECTRIC CONTROL VALVE	5	
	CALSENSE	EXISTING	ELECTRIC CONTROLLER	-	
	MATCO-NORCA	LINE SIZE	GATE VALVE	7	
	-	EXISTING	BACKFLOW PREVENTER	-	
	-	EXISTING	WATER METER	-	
	RAIN BIRD	XCZ-100-PRB-LC	DRIP VALVE ASSEMBLY	12	
	HUNTER	WRF-CLIK	WIRELESS RAIN/FREEZE SENSOR	-	
	-	LINE SIZE	DRIP LINE BLOW-OUT STUB	13	
	RAIN BIRD	EFB-CP SERIES	MASTER VALVE	9	
	-	CLASS 200 SOLVENT WELD - 1" DIA. UNLESS NOTED OTHERWISE	PVC LATERAL	11	
	-	CLASS 200 SOLVENT WELD 2 1/2" & SMALLER	PVC MAINLINE	11	
	-	CLASS 200 GASKETED 3" & LARGER	PVC MAINLINE	11	
	NETAFIM	TLCV-6-18	IN-LINE DRIP TUBING	14, 15, 16 & 17	
	-	3/4" DIA.	MANUAL DRAIN VALVE	8	
	CREATIVE SENSOR TECH	FSI SERIES	FLOW SENSOR	10	
	-	CLASS 200 SOLVENT WELD	PVC SLEEVING		
	RAIN BIRD	44 NP	QUICK COUPLING VALVE	6	
	CONTROLLER & STATION NO.				
	CONTROL VALVE SIZE				

IRRIGATION DETAILS - COYOTE RIDGE PARK CONCEPT PLAN



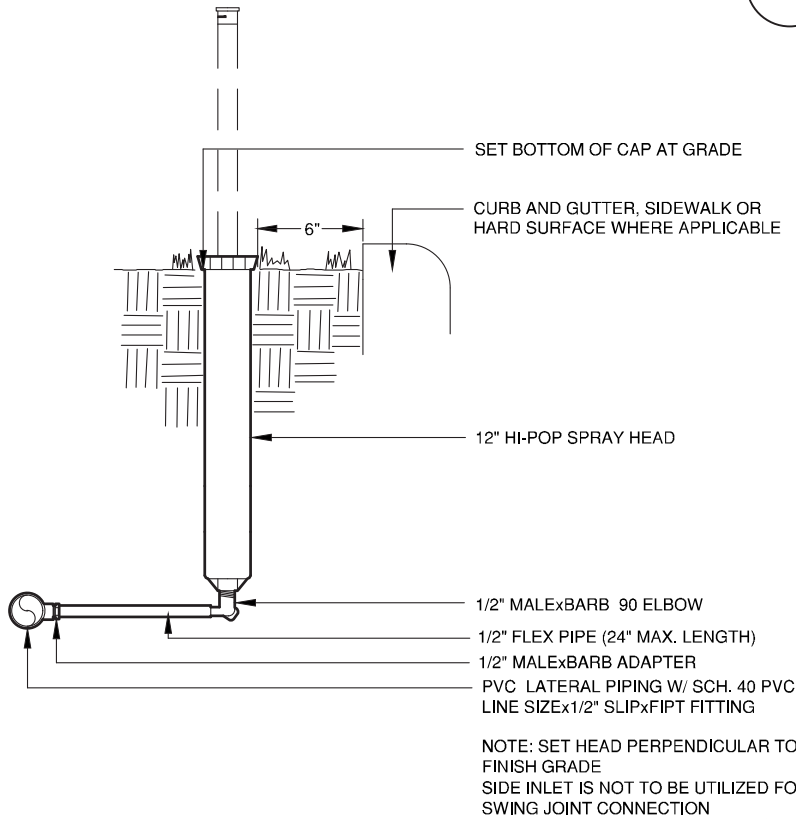
NOTE: SET HEAD PERPENDICULAR TO FINISH GRADE

DOUBLE CLAMP 1 1/2" & 2" DIAMETER FITTINGS

APPLY NON-HARDENING THREAD SEALANT CONTAINING NO PETROLEUM DISTILLATES TO ALL MALE-THREADED FITTINGS (SPEARS BLUE 75 OR EQUAL)

POP-UP SPRAY HEAD

1



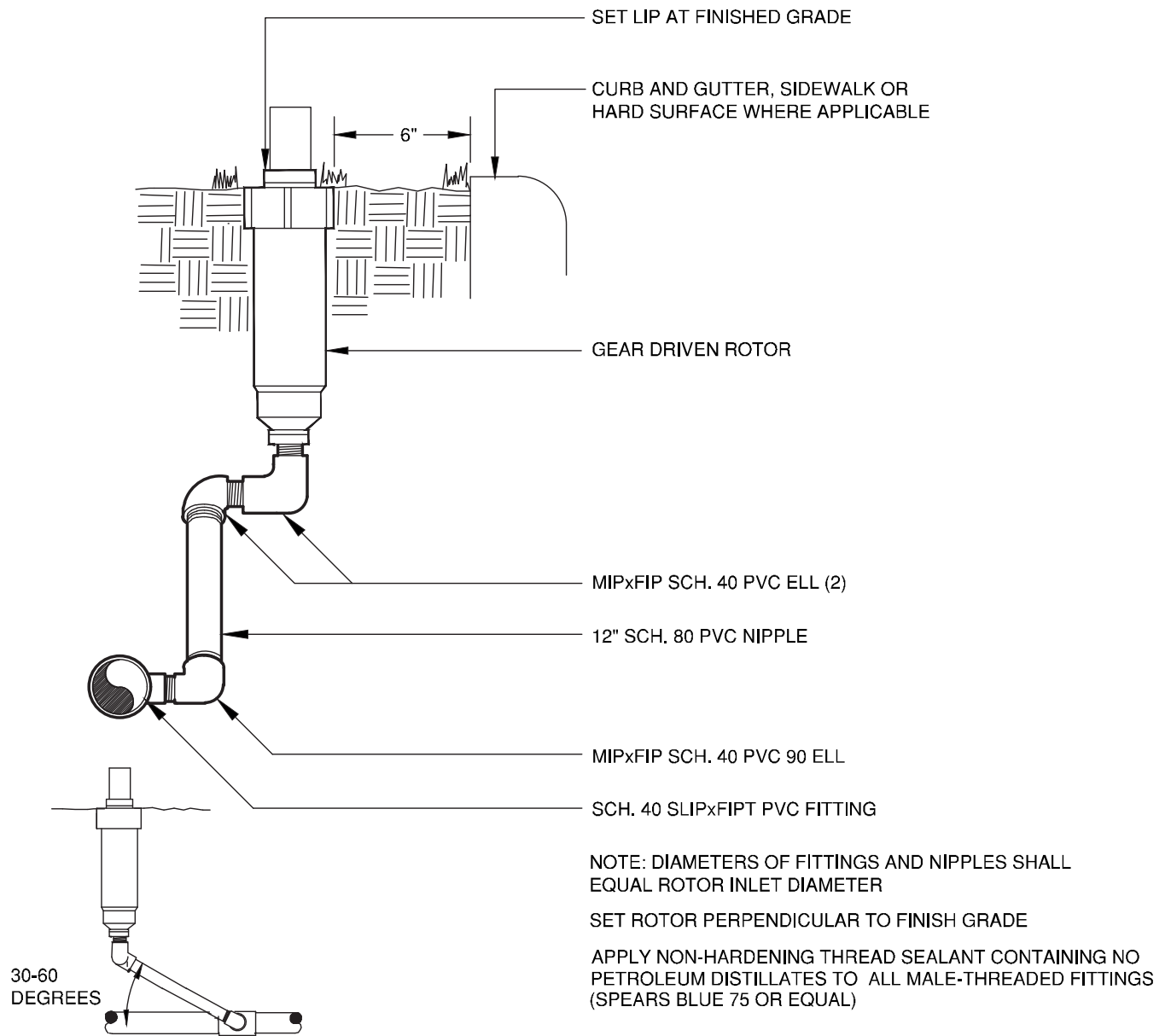
NOTE: SET HEAD PERPENDICULAR TO FINISH GRADE
SIDE INLET IS NOT TO BE UTILIZED FOR SWING JOINT CONNECTION

APPLY NON-HARDENING THREAD SEALANT CONTAINING NO PETROLEUM DISTILLATES TO ALL MALE-THREADED FITTINGS (SPEARS BLUE 75 OR EQUAL)

HI-POP SPRAY HEAD

2

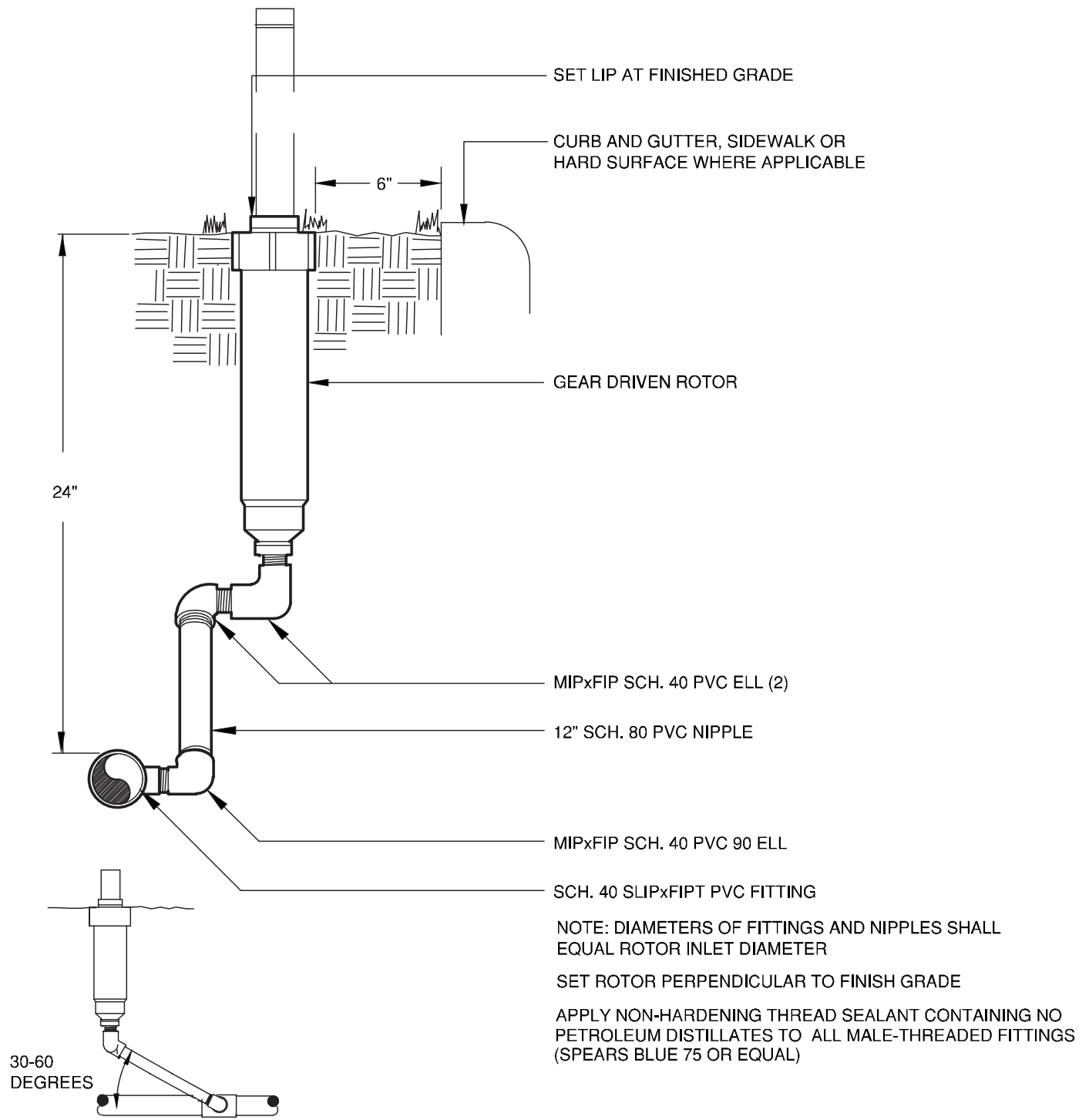
IRRIGATION DETAILS - COYOTE RIDGE PARK CONCEPT PLAN



GEAR DRIVEN ROTOR

3

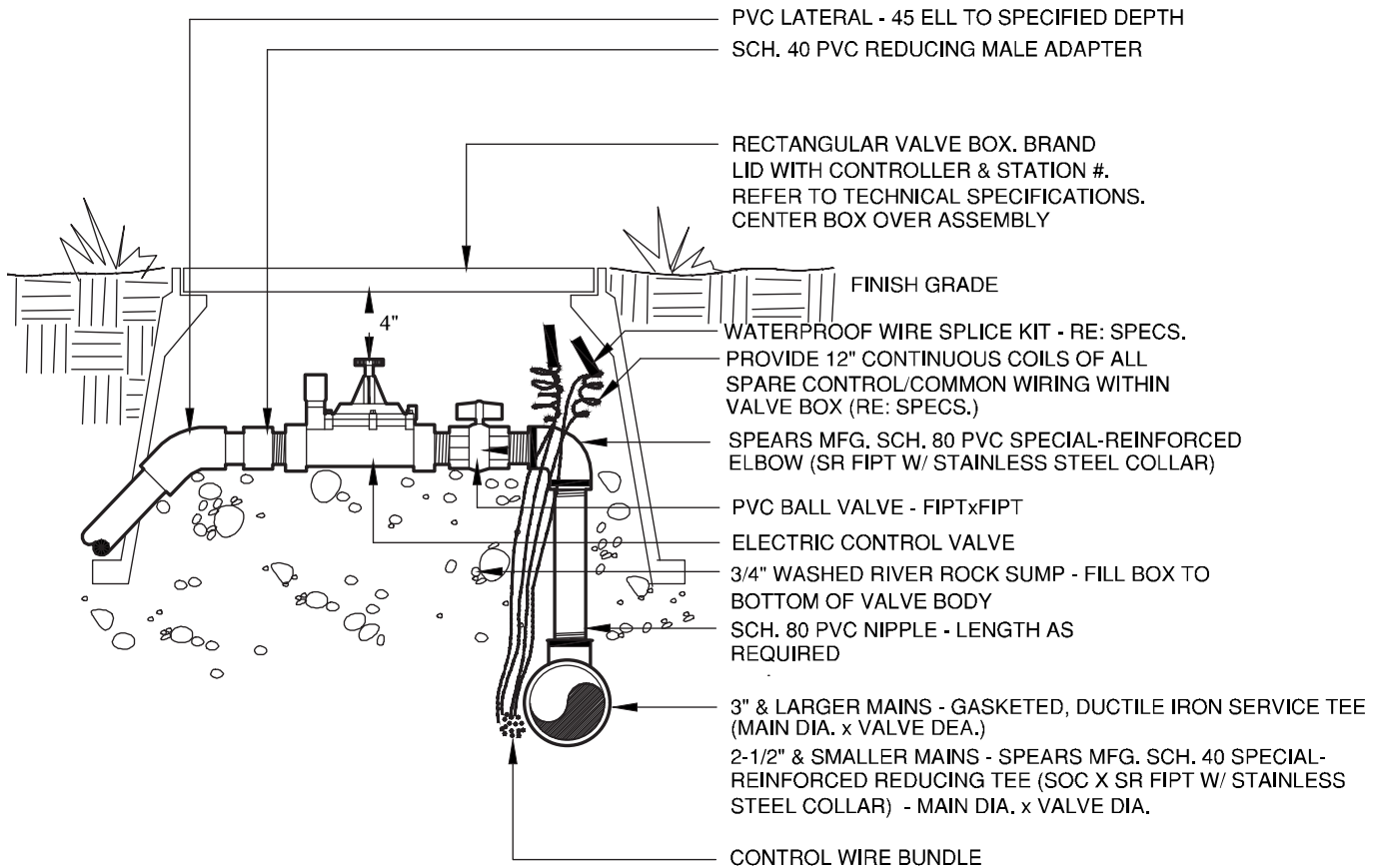
IRRIGATION DETAILS - COYOTE RIDGE PARK CONCEPT PLAN



HI-POP GEAR DRIVEN ROTOR

4

IRRIGATION DETAILS - COYOTE RIDGE PARK CONCEPT PLAN



NOTE: DIAMETERS OF BALL VALVES, PVC FITTINGS AND NIPPLES SHALL EQUAL ELECTRIC CONTROL VALVE DIAMETER

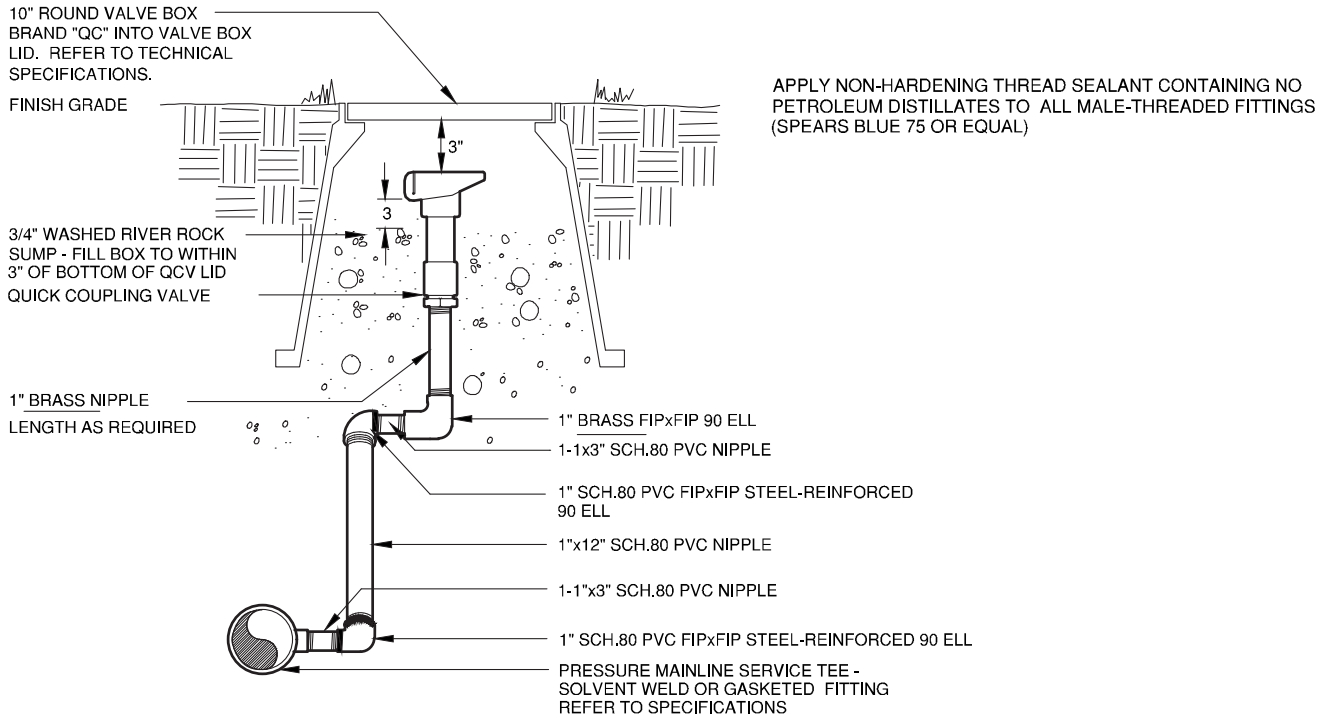
VALVE BOXES SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO ADJACENT SIDEWALKS AND HARD SURFACES WHERE APPLICABLE

APPLY NON-HARDENING THREAD SEALANT CONTAINING NO PETROLEUM DISTILLATES TO ALL MALE-THREADED FITTINGS (SPEARS BLUE 75 OR EQUAL)

ELECTRIC CONTROL VALVE

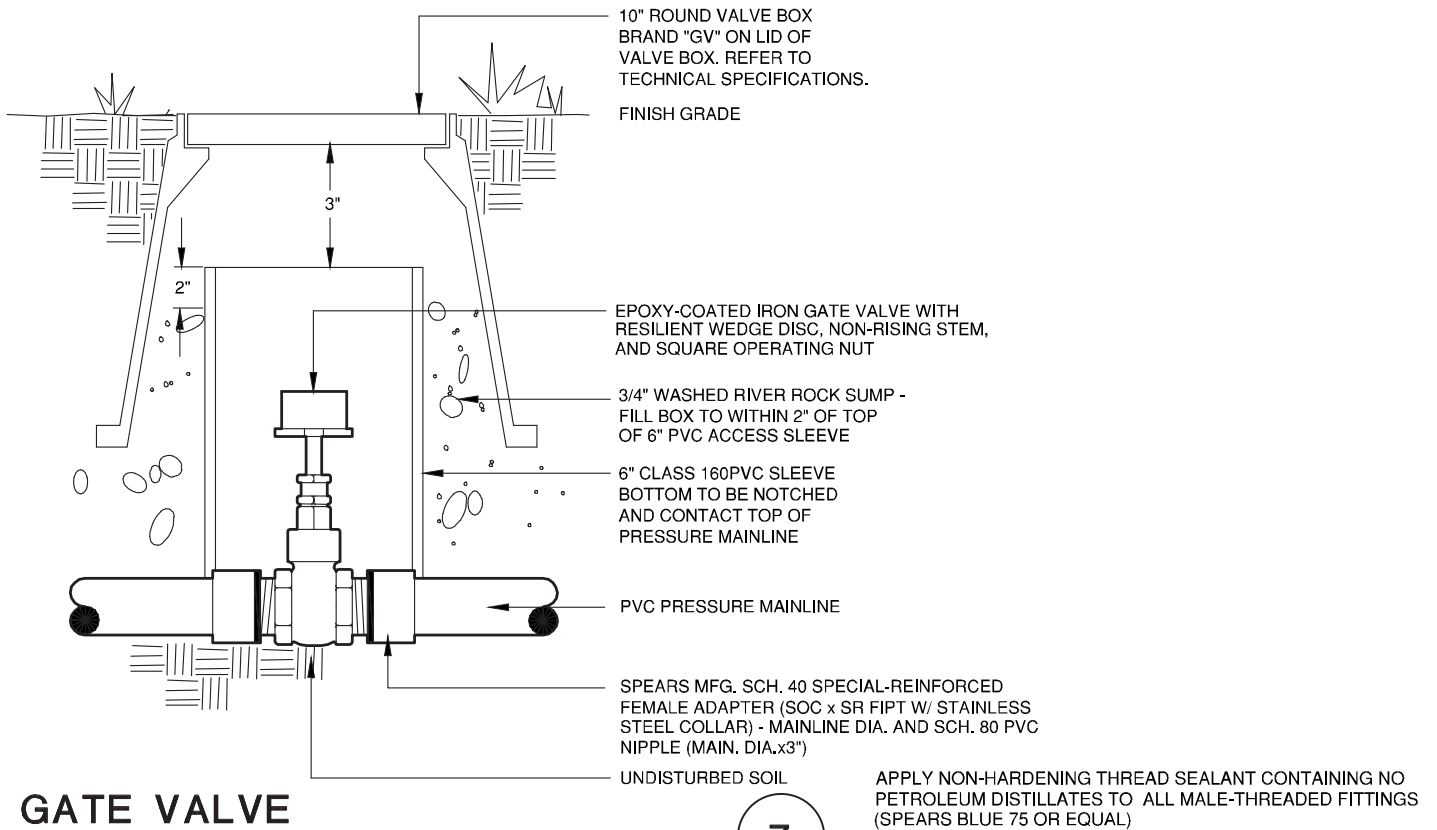
5

IRRIGATION DETAILS - COYOTE RIDGE PARK CONCEPT PLAN



QUICK COUPLING VALVE

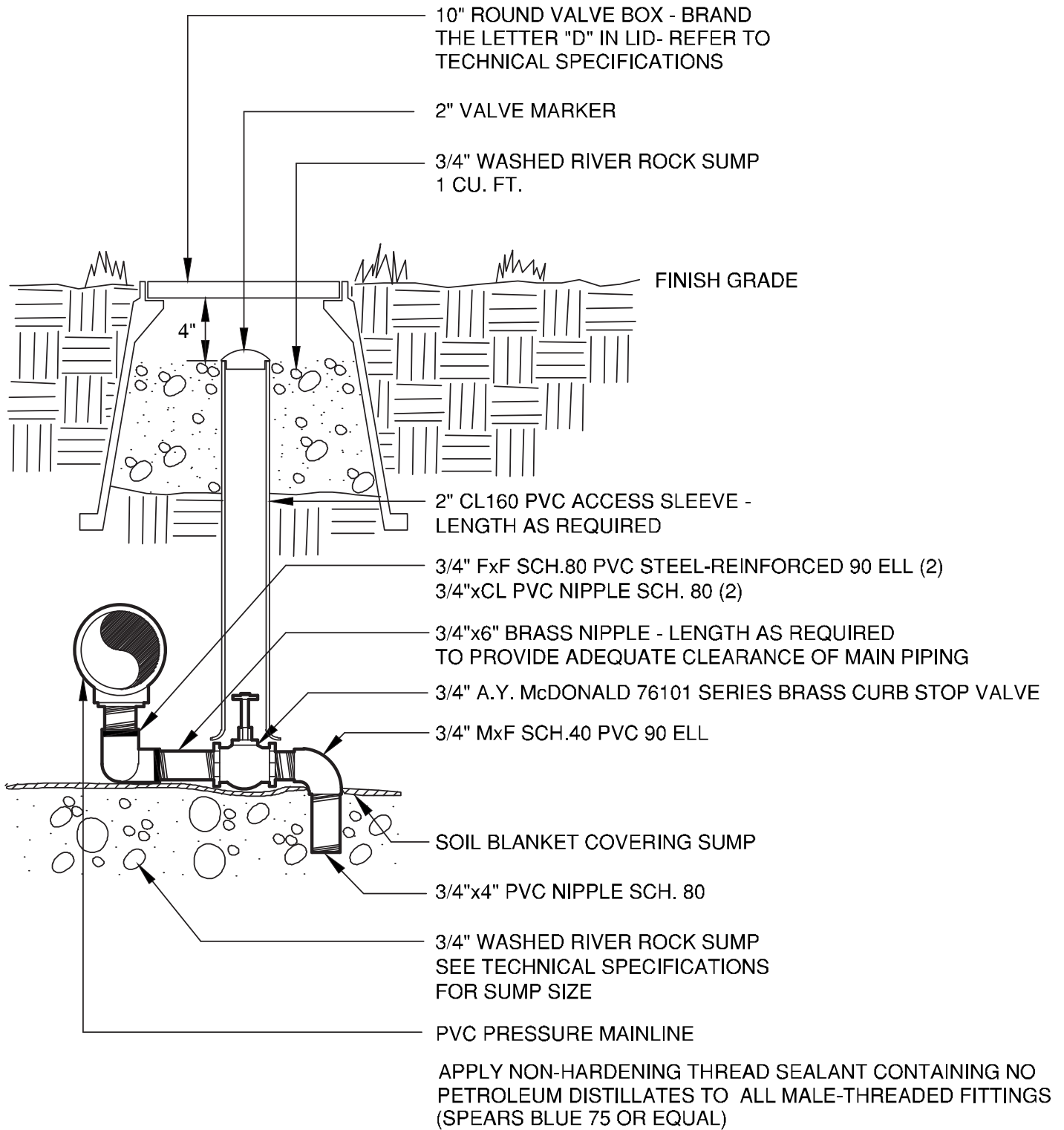
6



GATE VALVE

7

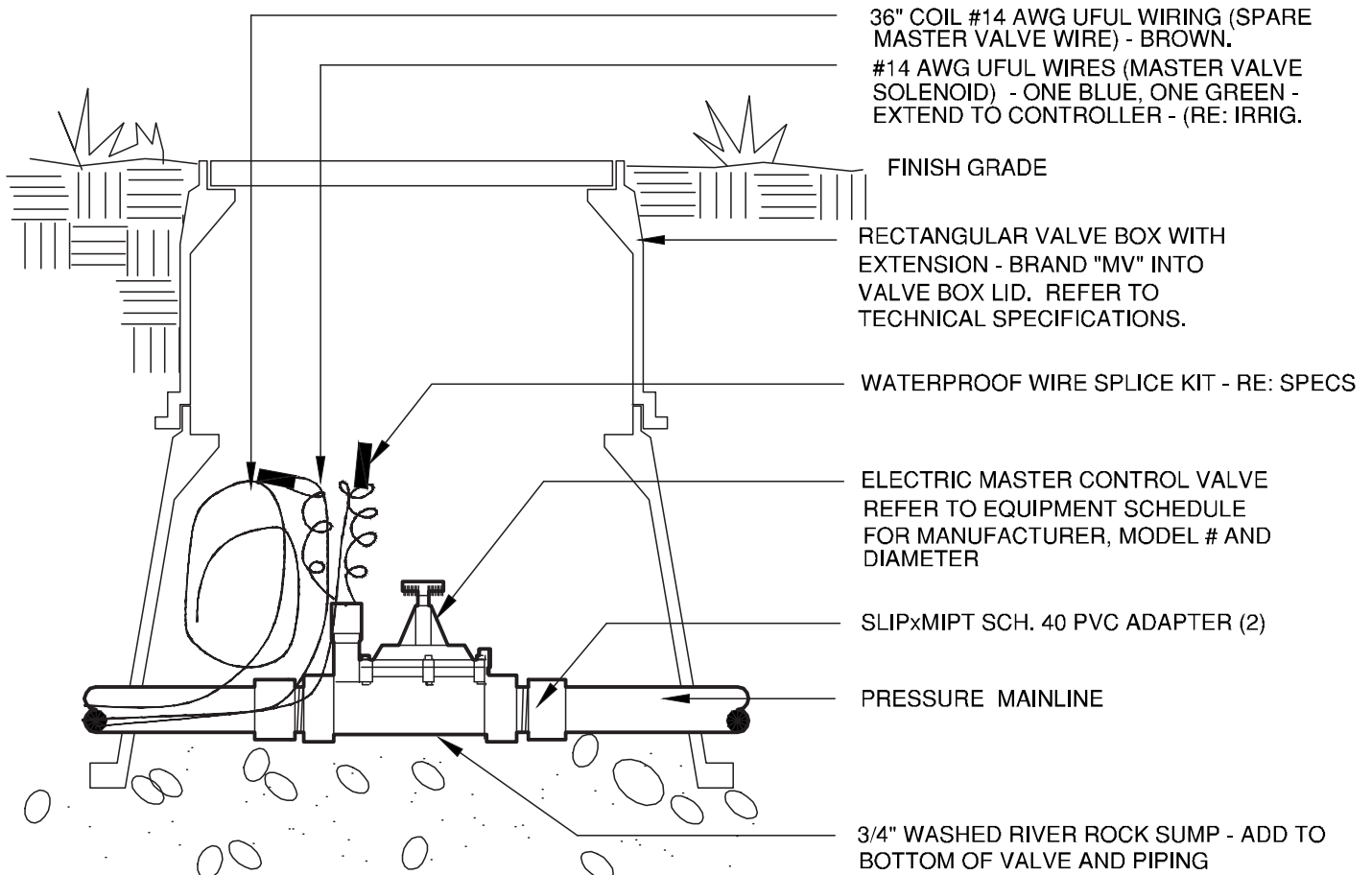
IRRIGATION DETAILS - COYOTE RIDGE PARK CONCEPT PLAN



MANUAL DRAIN VALVE

8

IRRIGATION DETAILS - COYOTE RIDGE PARK CONCEPT PLAN



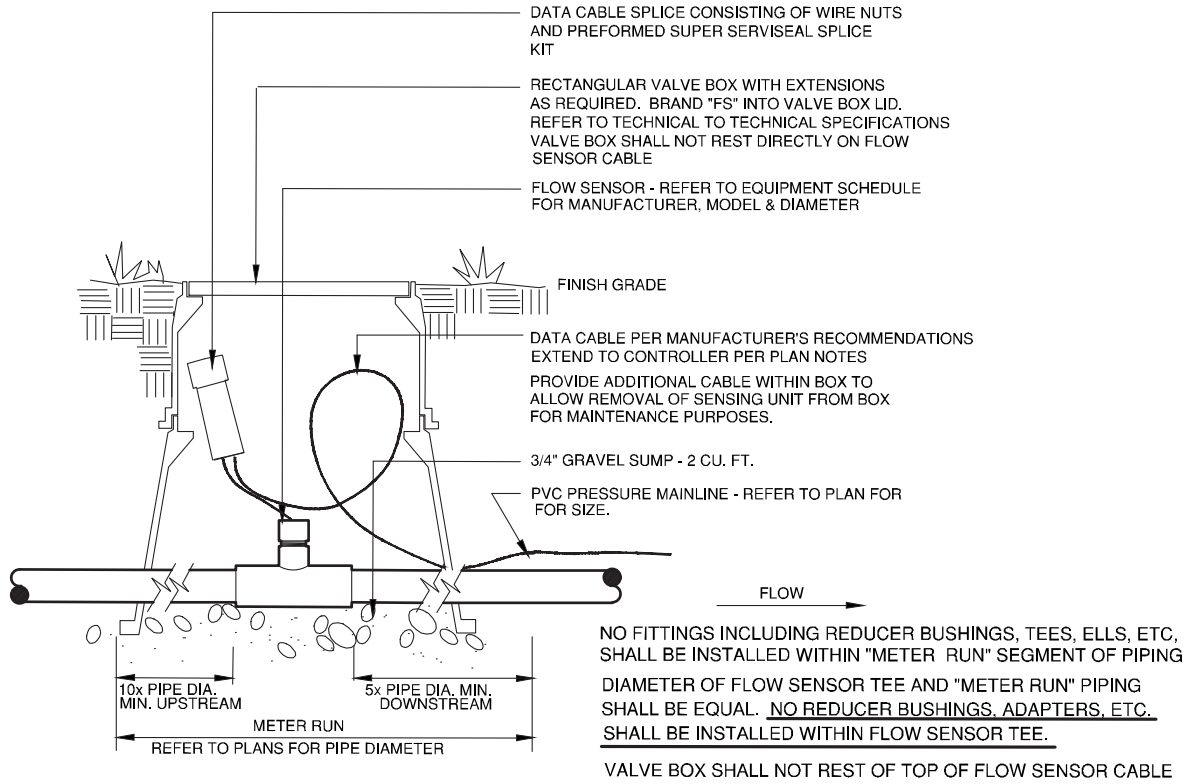
NOTE: CENTER BOX OVER VALVE ASSEMBLY.

APPLY NON-HARDENING THREAD SEALANT CONTAINING NO PETROLEUM DISTILLATES TO ALL MALE-THREADED FITTINGS (SPEARS BLUE 75 OR EQUAL)

MASTER VALVE

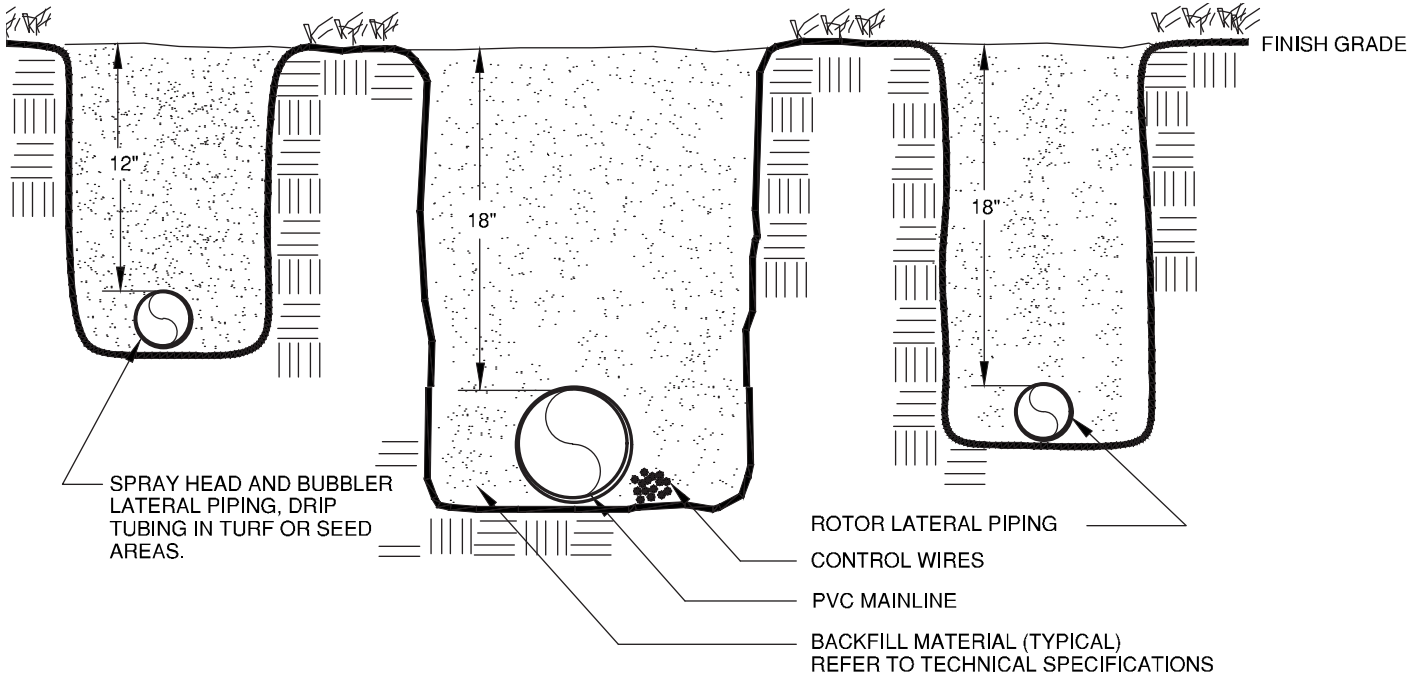
9

IRRIGATION DETAILS - COYOTE RIDGE PARK CONCEPT PLAN



FLOW SENSOR

10

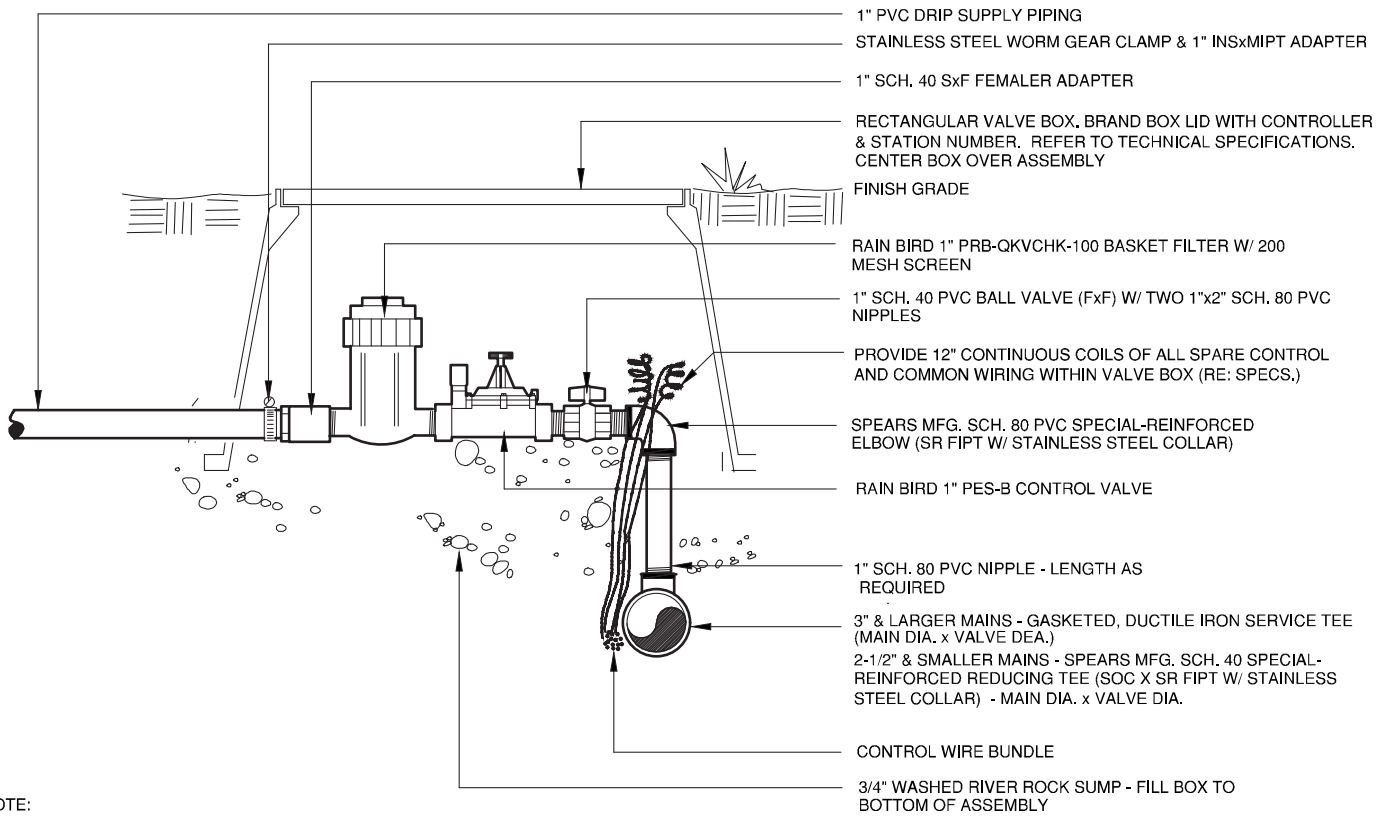


TRENCHES

11

NOTE: REFER TO TECHNICAL SPECIFICATIONS FOR MINIMUM TRENCH WIDTHS.

IRRIGATION DETAILS - COYOTE RIDGE PARK CONCEPT PLAN



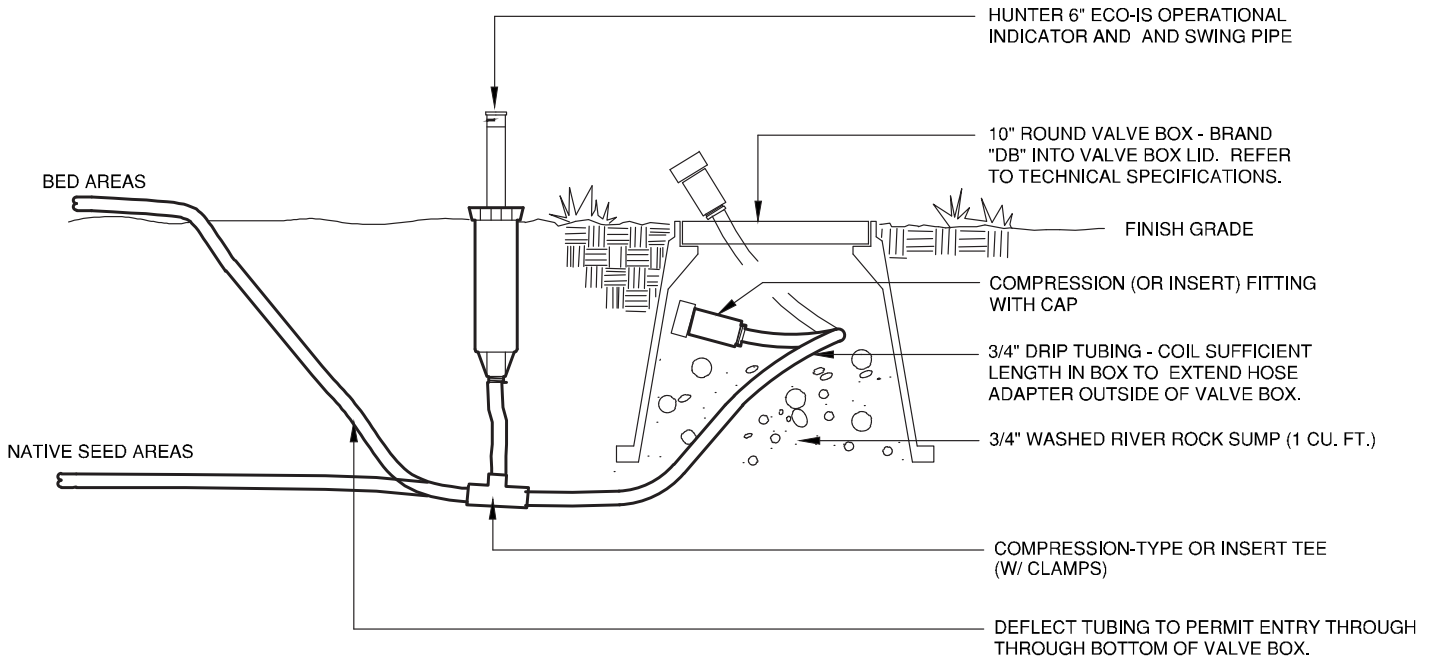
NOTE:

- INSTALL ASSEMBLY TO REST ON GRAVEL SUMP. CONTAIN ENTIRE ASSEMBLY WITHIN BOX.
- NO VALVE BOX EXTENSIONS WILL BE ACCEPTED
- PROVIDE 2" MIN. CLEARANCE BETWEEN TOP OF FILTER AND BOTTOM OF BOX LID
- TOP OF VALVE BOX TO BE FLUSH WITH FINISH GRADE
- VALVE BOX SHALL NOT REST ON DRIP TUBING/PIPING
- APPLY NON-HARDENING THREAD SEALANT CONTAINING NO PETROLEUM DISTILLATES TO ALL MALE-THREADED FITTINGS (SPEARS BLUE 75 OR EQUAL)

DRIP VALVE ASSEMBLY

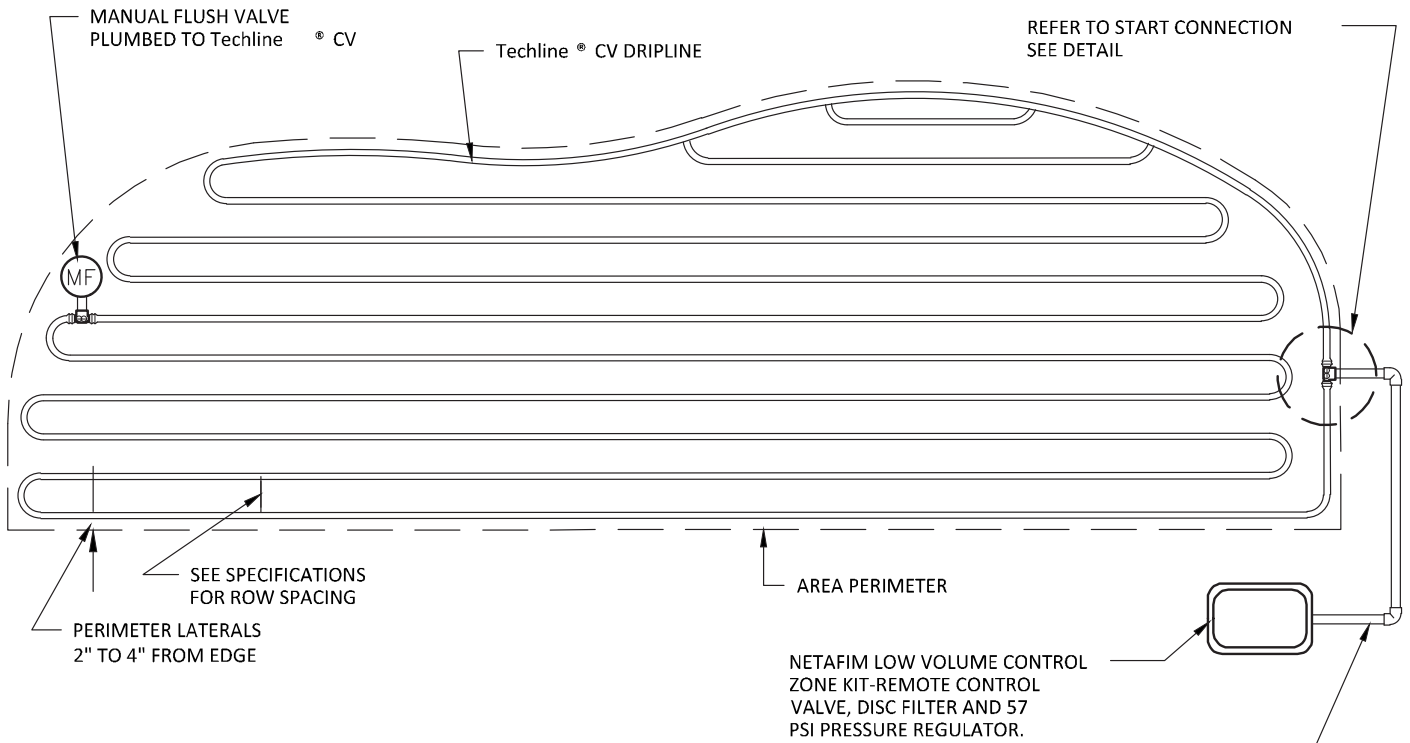
12

IRRIGATION DETAILS - COYOTE RIDGE PARK CONCEPT PLAN



DRIP LINE FLUSH-OUT AND OPERATIONAL INDICATOR

13

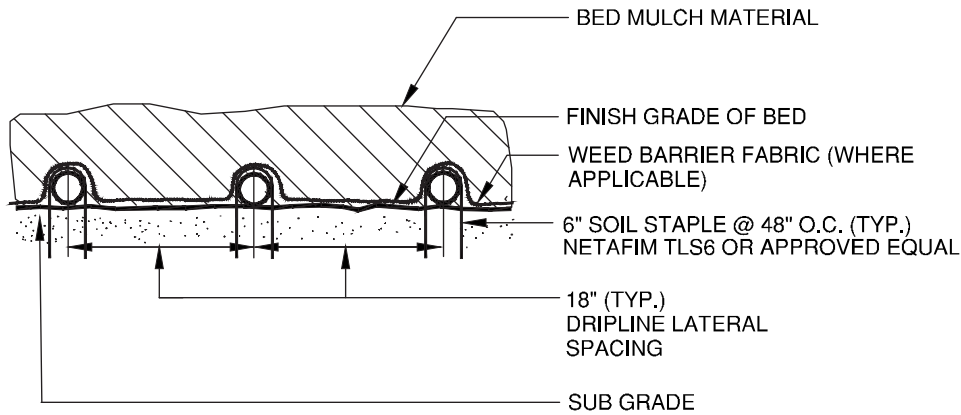


DRIP LINE SAMPL LAY-OUT OPERATIONAL INDICATOR

14

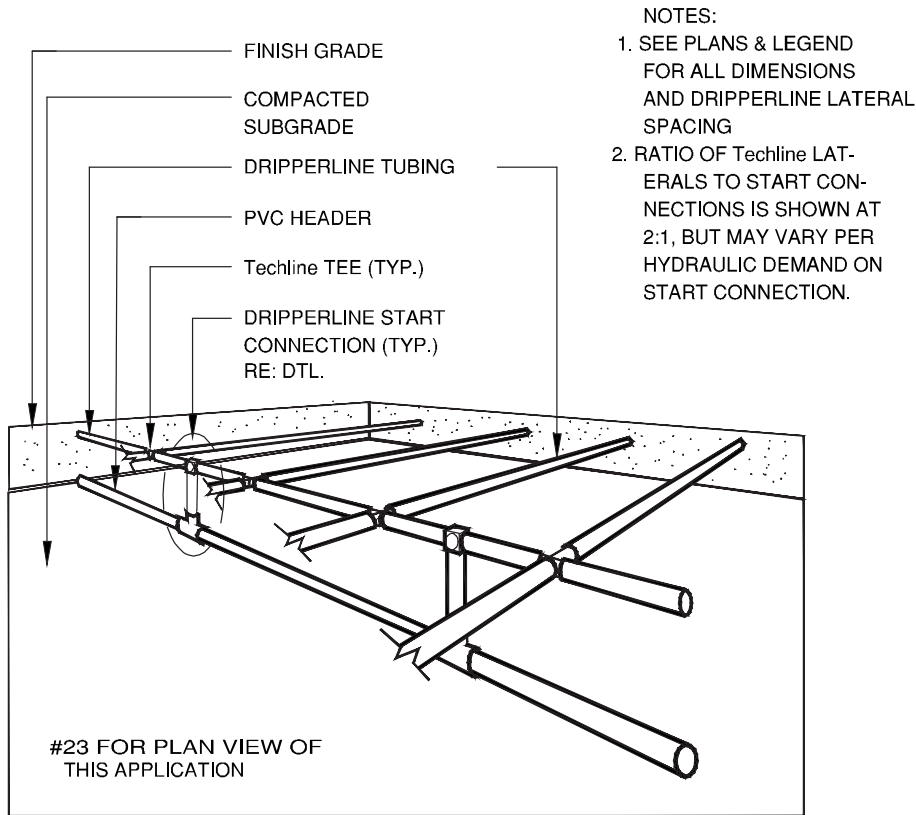
3/4" MIN. PVC/POLY TUBING TO CONNECTION; SIZE BASED UPON OVERALL SYSTEM DEMAND.

IRRIGATION DETAILS - COYOTE RIDGE PARK CONCEPT PLAN



SURFACE IN-LINE DRIP TUBING

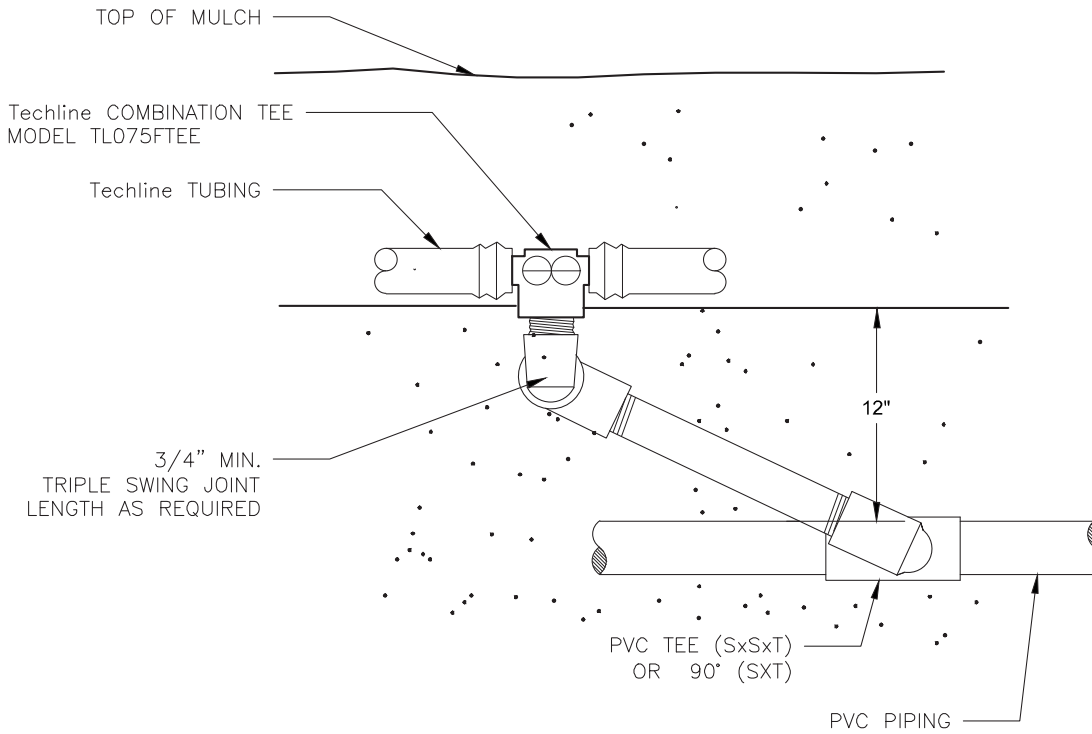
15



DRIPPERLINE PIPE LAY-OUT ISOMETRIC VIEW

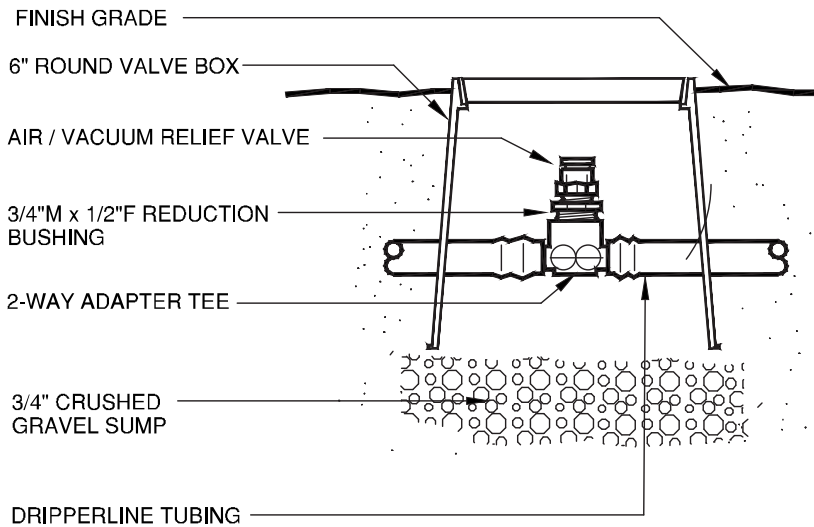
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IRRIGATION DETAILS - COYOTE RIDGE PARK CONCEPT PLAN



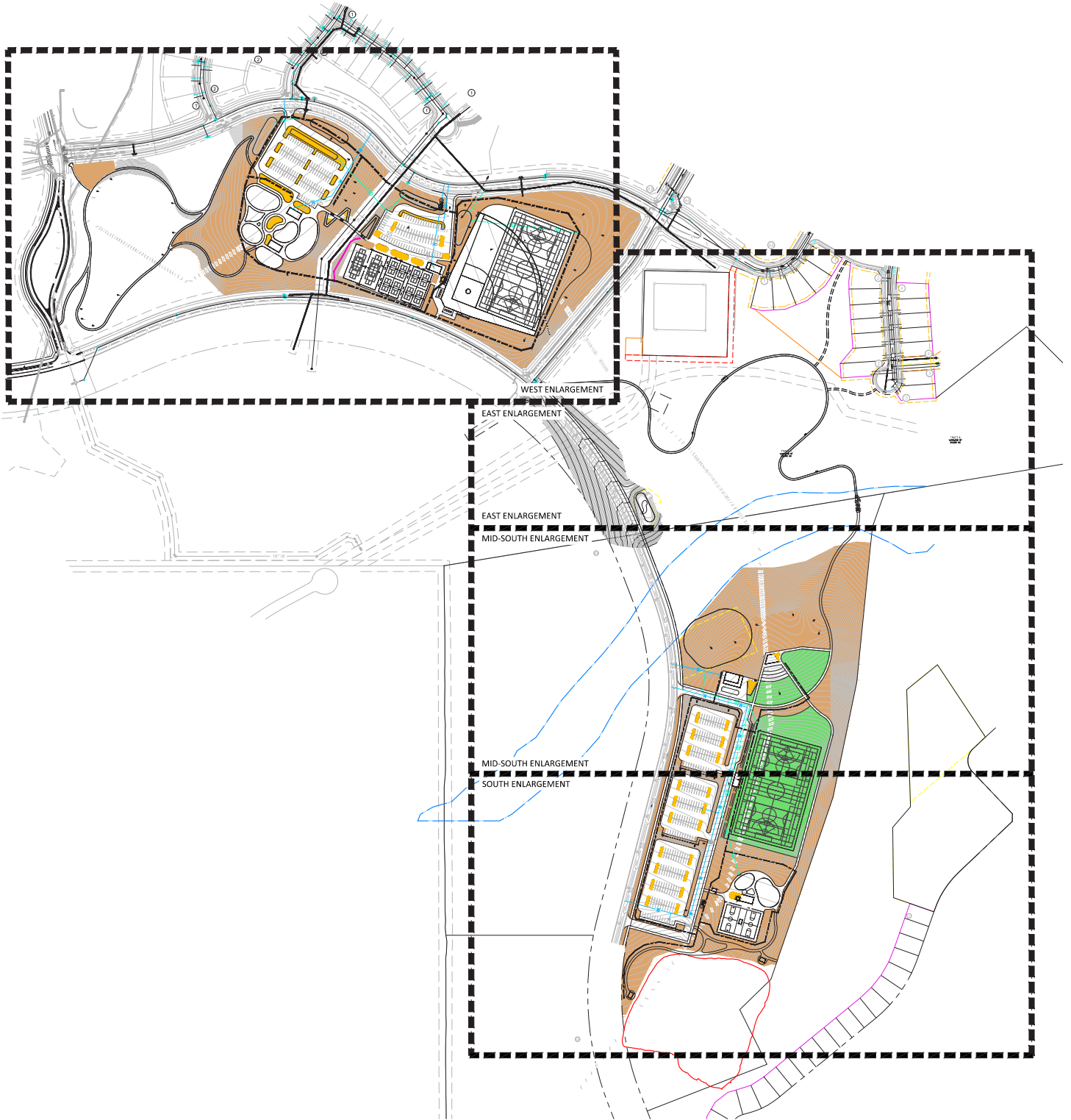
IN-LINE DRIP START CONNECTION

17

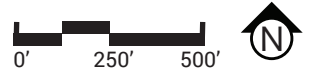


AIR/VACUUM RELEASE VALVE

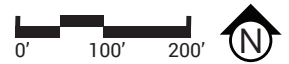
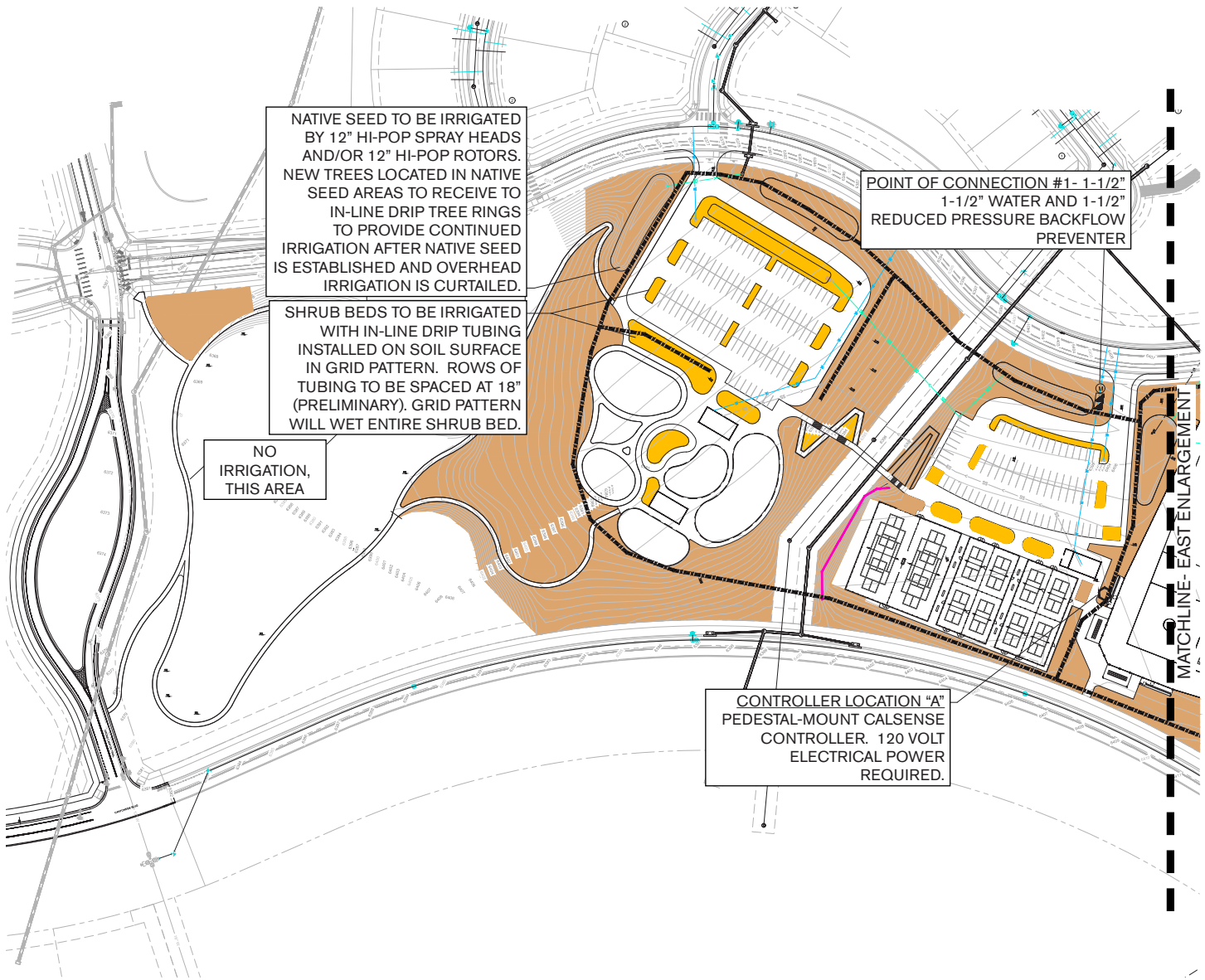
18



Soaring Hawk Park

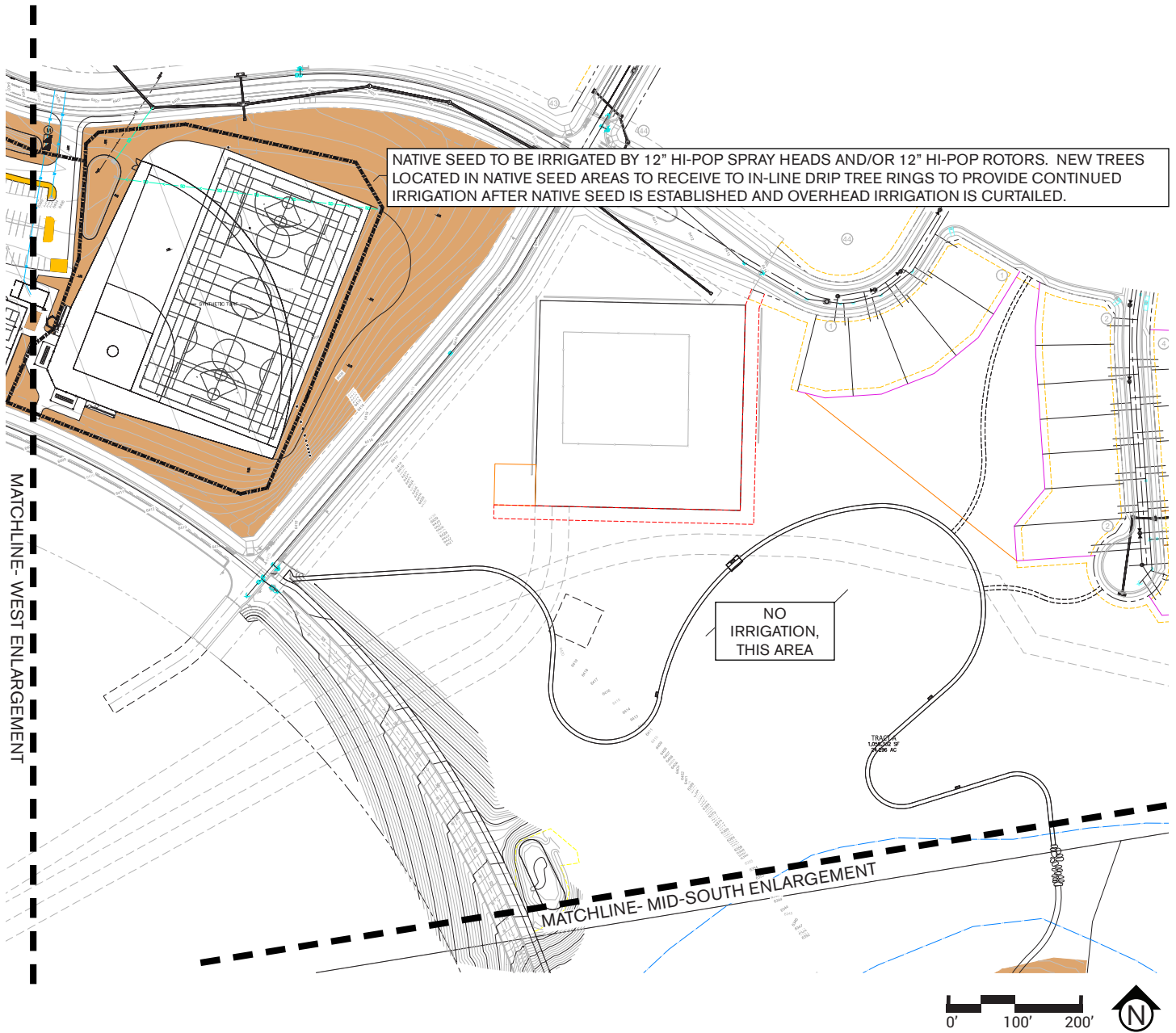


IRRIGATION- WEST ENLARGEMENT



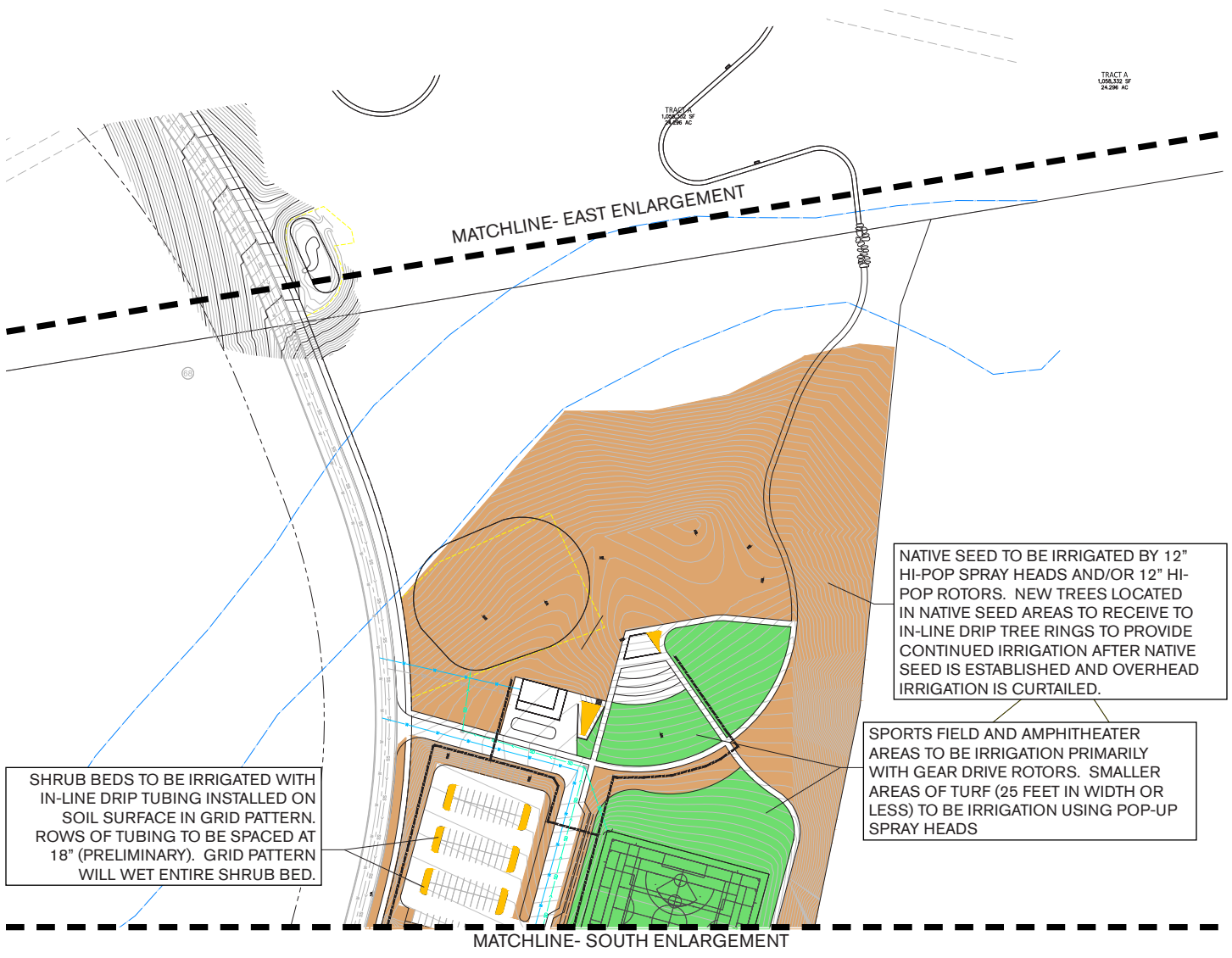
Soaring Hawk Park

IRRIGATION- EAST ENLARGEMENT

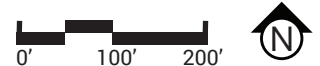


Soaring Hawk Park

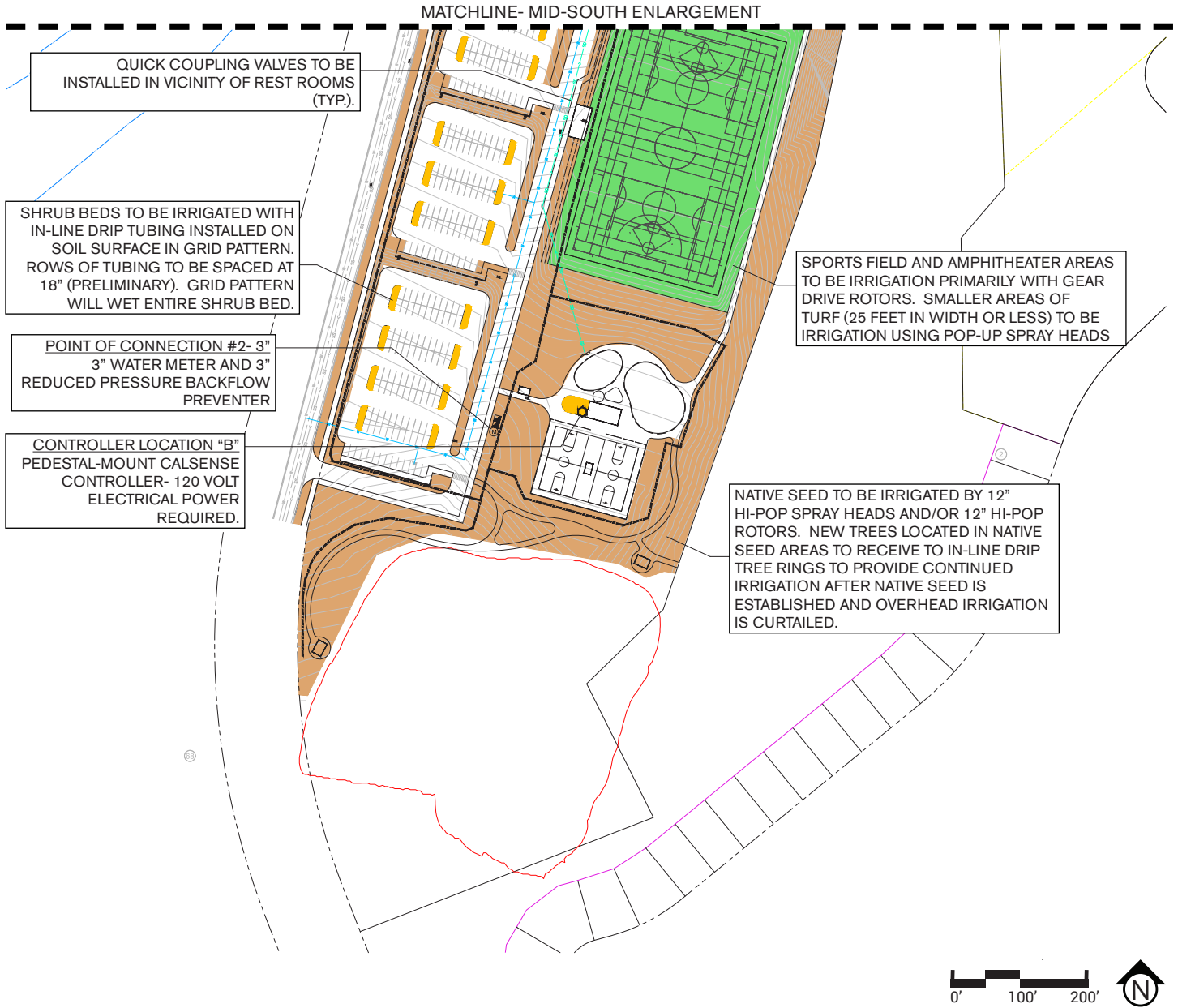
IRRIGATION- MID-SOUTH ENLARGEMENT



Soaring Hawk Park

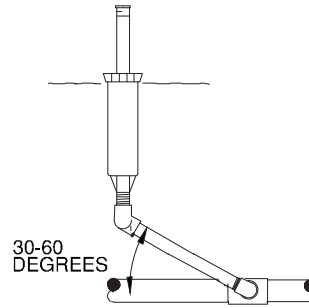
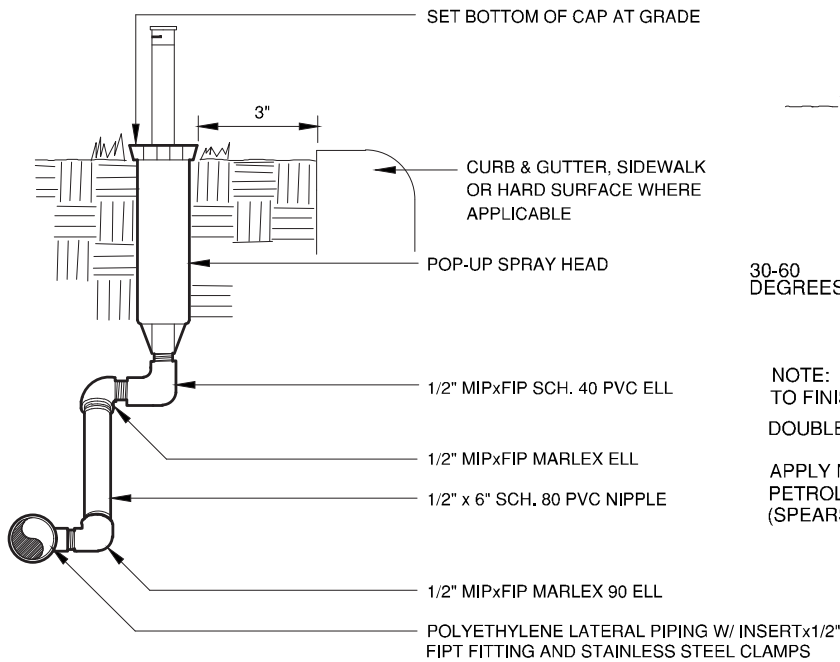


IRRIGATION- SOUTH ENLARGEMENT



Soaring Hawk Park

IRRIGATION DETAILS - SOARING HAWK PARK CONCEPT PLAN



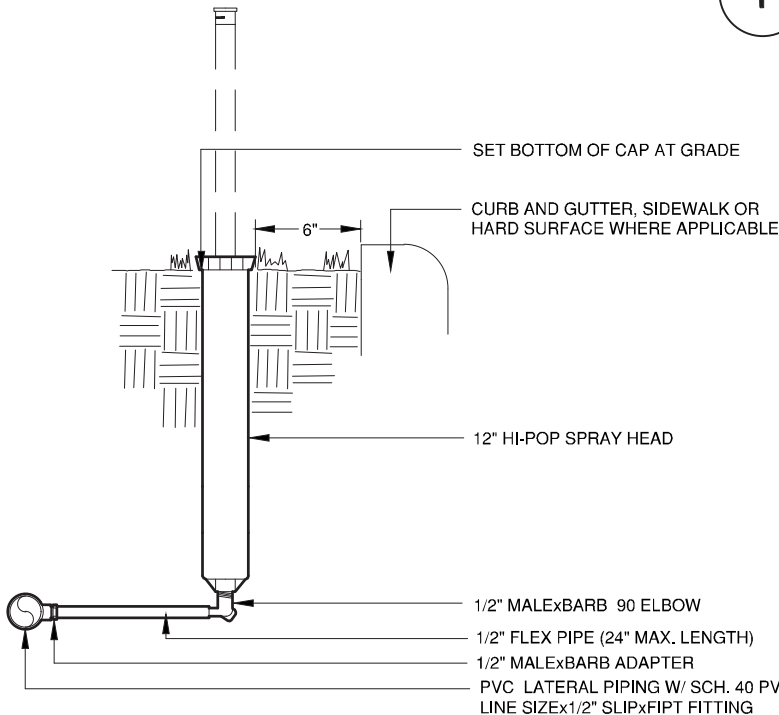
NOTE: SET HEAD PERPENDICULAR TO FINISH GRADE

DOUBLE CLAMP 1 1/2" & 2" DIAMETER FITTINGS

APPLY NON-HARDENING THREAD SEALANT CONTAINING NO PETROLEUM DISTILLATES TO ALL MALE-THREADED FITTINGS (SPEARS BLUE 75 OR EQUAL)

POP-UP SPRAY HEAD

1



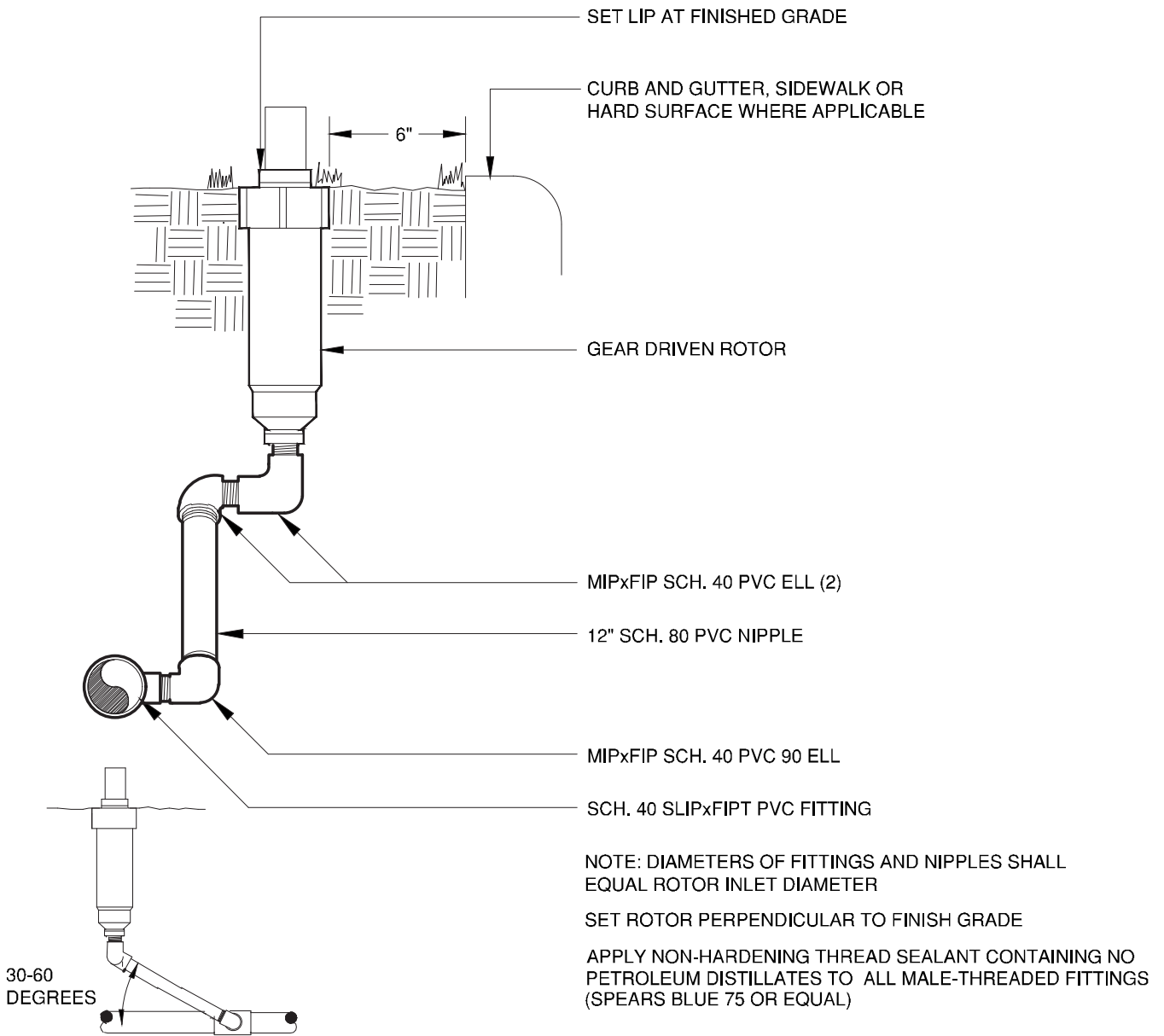
NOTE: SET HEAD PERPENDICULAR TO FINISH GRADE
SIDE INLET IS NOT TO BE UTILIZED FOR SWING JOINT CONNECTION

APPLY NON-HARDENING THREAD SEALANT CONTAINING NO PETROLEUM DISTILLATES TO ALL MALE-THREADED FITTINGS (SPEARS BLUE 75 OR EQUAL)

HI-POP SPRAY HEAD

2

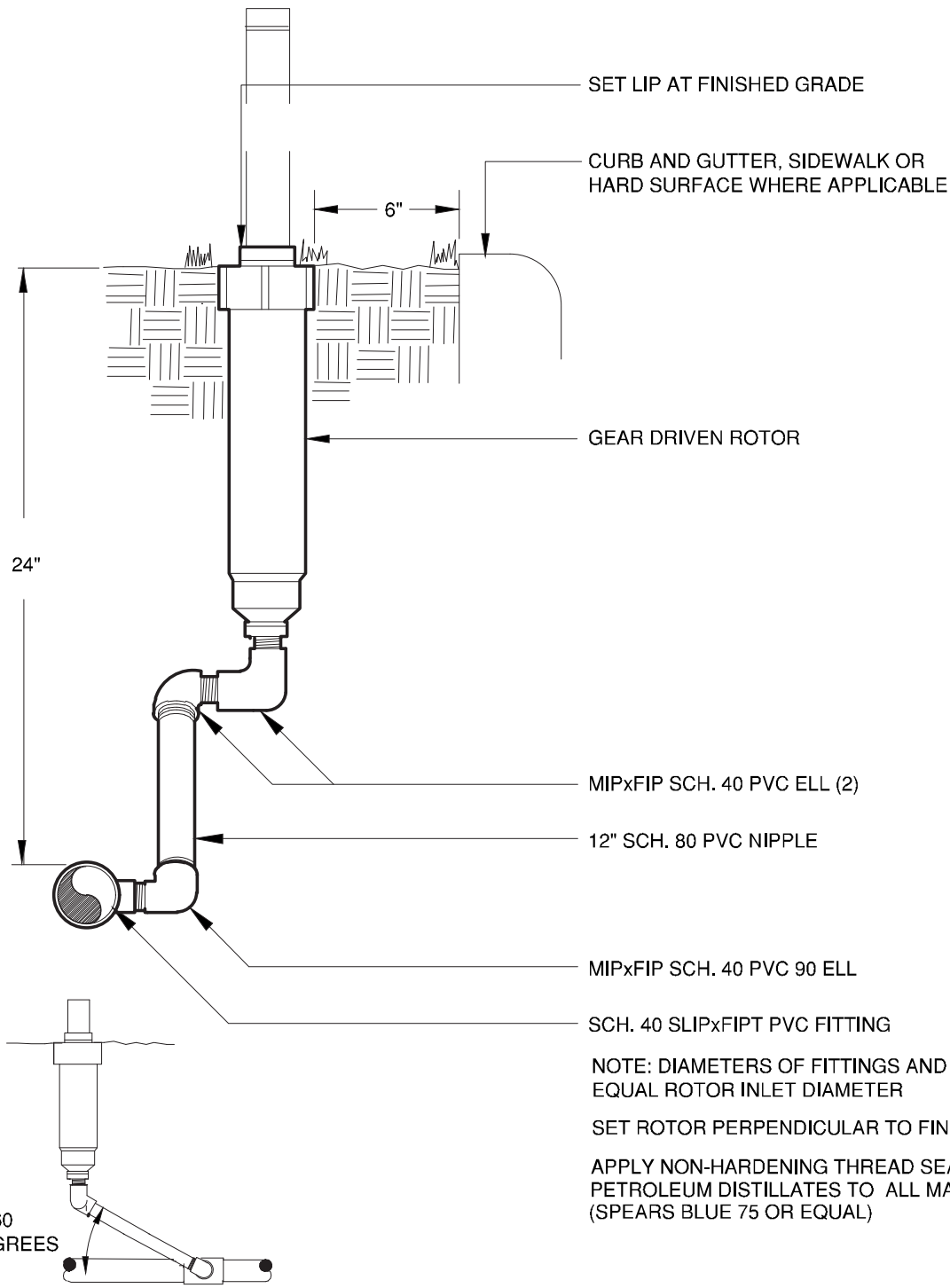
IRRIGATION DETAILS - SOARING HAWK PARK CONCEPT PLAN



GEAR DRIVEN ROTOR

3

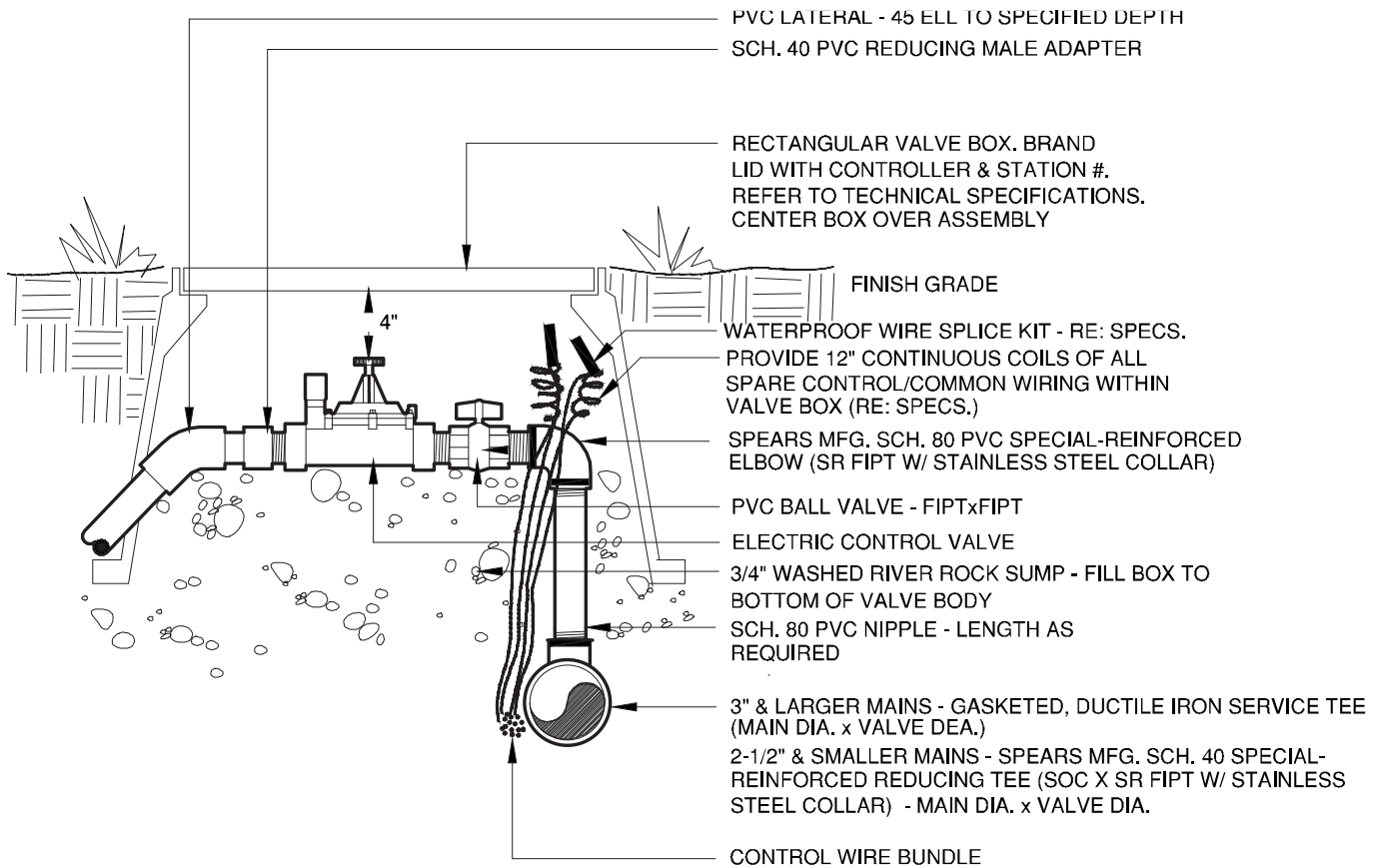
IRRIGATION DETAILS - SOARING HAWK PARK CONCEPT PLAN



HI-POP GEAR DRIVEN ROTOR

4

IRRIGATION DETAILS - SOARING HAWK PARK CONCEPT PLAN

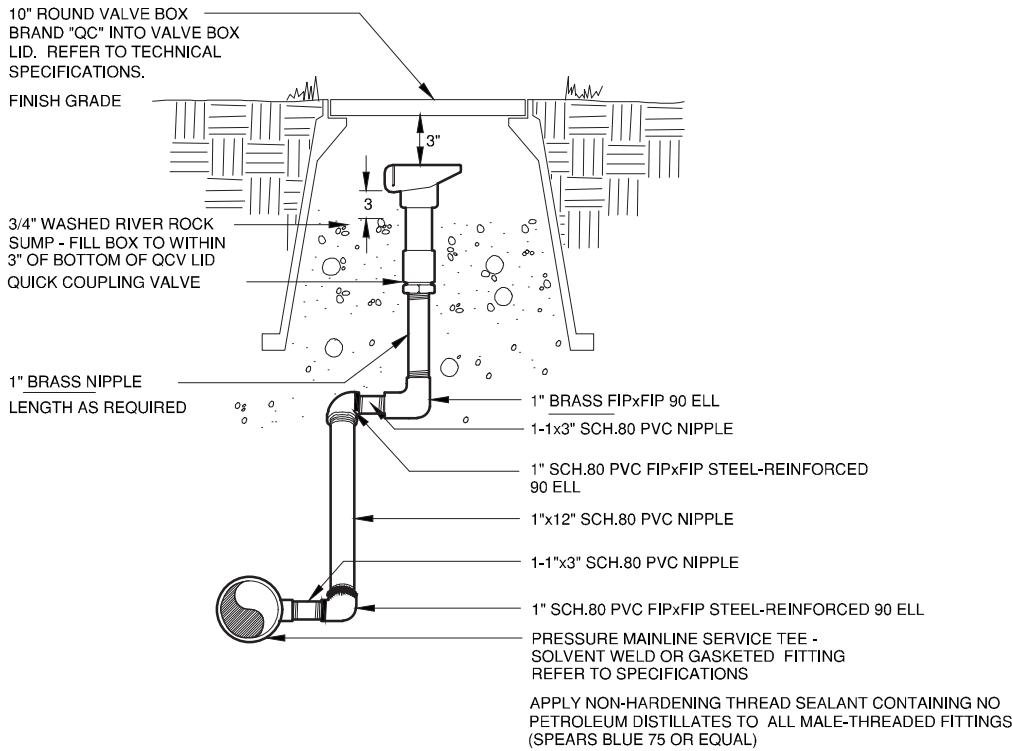


NOTE: DIAMETERS OF BALL VALVES, PVC FITTINGS AND NIPPLES SHALL EQUAL ELECTRIC CONTROL VALVE DIAMETER
 VALVE BOXES SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO ADJACENT SIDEWALKS AND HARD SURFACES WHERE APPLICABLE
 APPLY NON-HARDENING THREAD SEALANT CONTAINING NO PETROLEUM DISTILLATES TO ALL MALE-THREADED FITTINGS (SPEARS BLUE 75 OR EQUAL)

ELECTRIC CONTROL VALVE

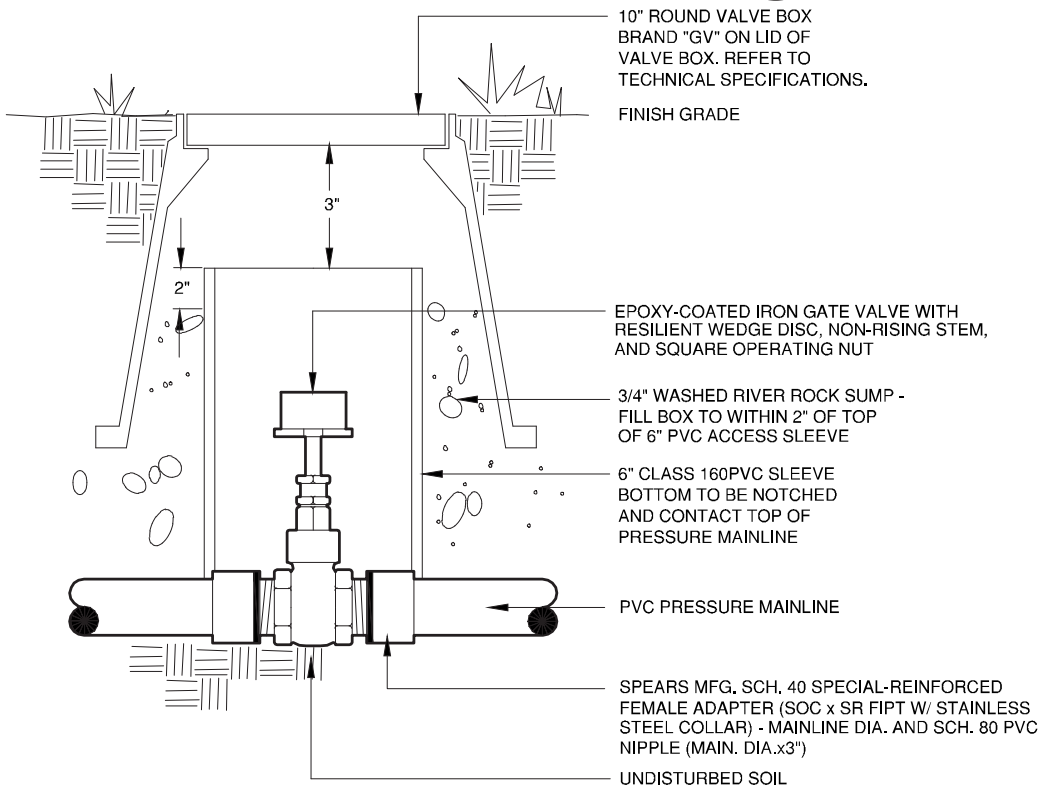
5

IRRIGATION DETAILS - SOARING HAWK PARK CONCEPT PLAN



QUICK COUPLING VALVE

6

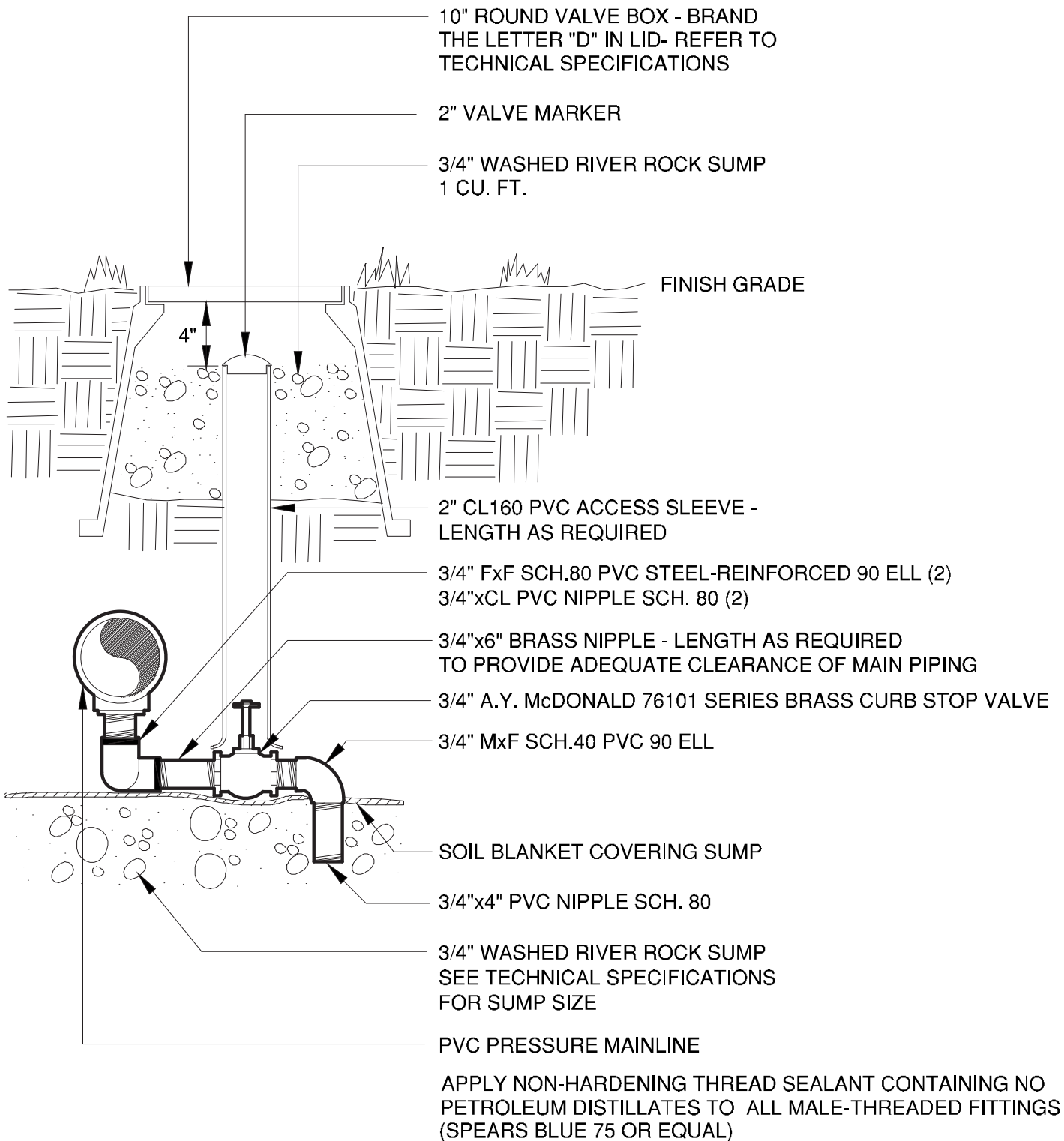


GATE VALVE

7

APPLY NON-HARDENING THREAD SEALANT CONTAINING NO
PETROLEUM DISTILLATES TO ALL MALE-THREADED FITTINGS
(SPEARS BLUE 75 OR EQUAL)

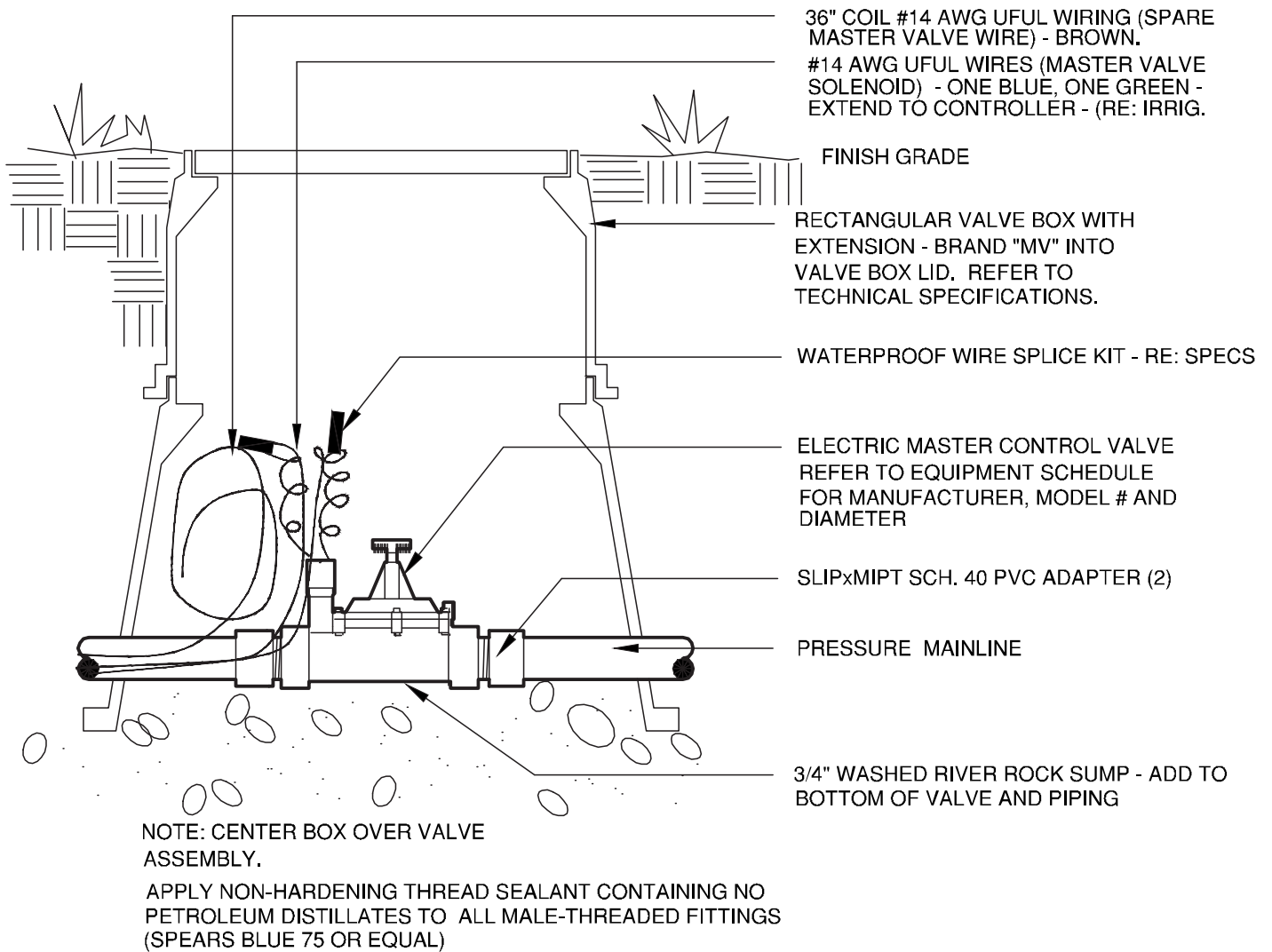
IRRIGATION DETAILS - SOARING HAWK PARK CONCEPT PLAN



MANUAL DRAIN VALVE

8

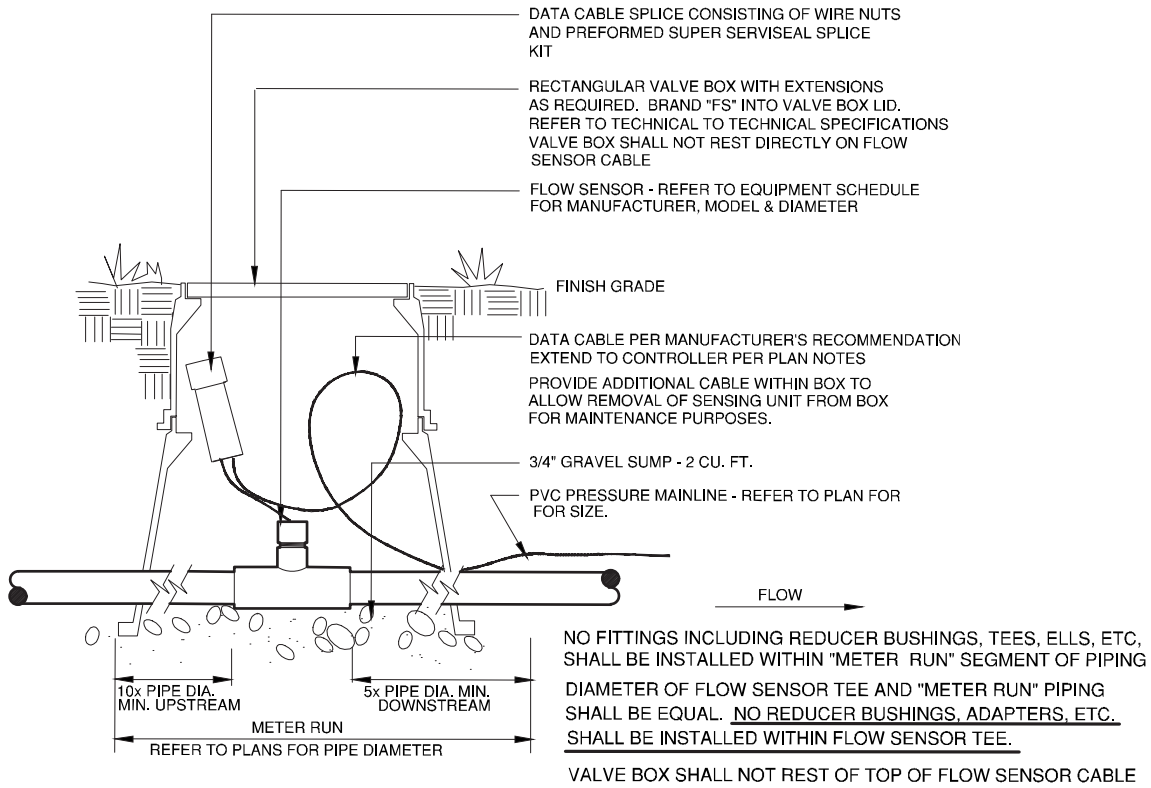
IRRIGATION DETAILS - SOARING HAWK PARK CONCEPT PLAN



MASTER VALVE

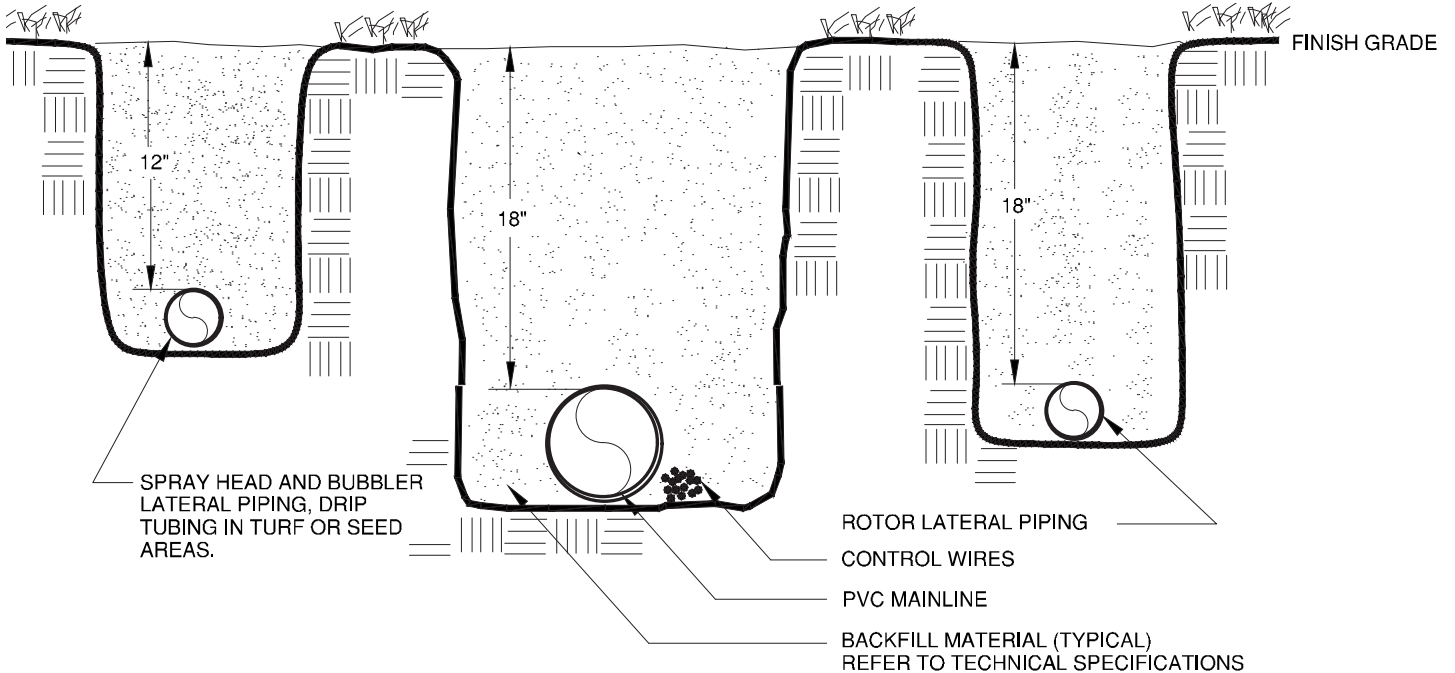
9

IRRIGATION DETAILS - SOARING HAWK PARK CONCEPT PLAN



FLOW SENSOR

10

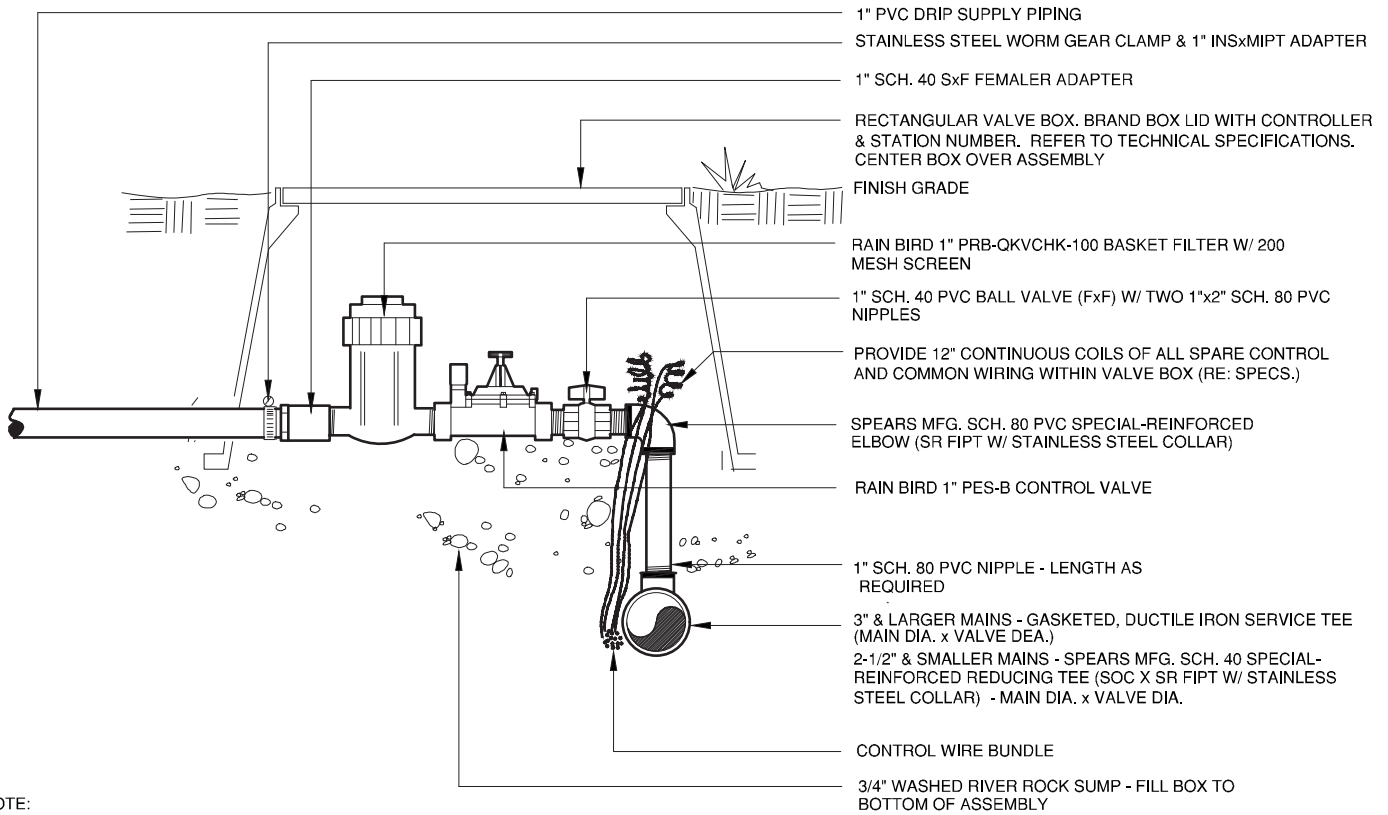


TRENCHES

11

NOTE: REFER TO TECHNICAL SPECIFICATIONS FOR MINIMUM TRENCH WIDTHS.

IRRIGATION DETAILS - SOARING HAWK PARK CONCEPT PLAN



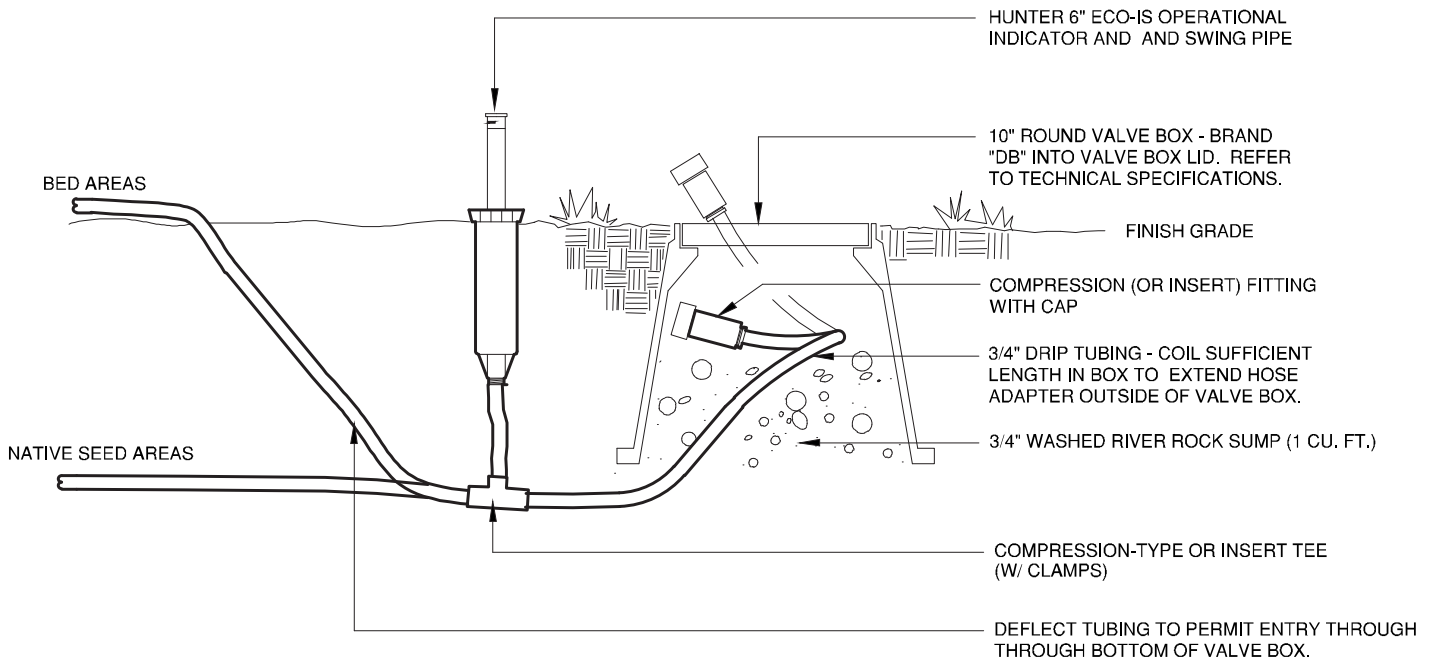
NOTE:

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- NO VALVE BOX EXTENSIONS WILL BE ACCEPTED
- PROVIDE 2" MIN. CLEARANCE BETWEEN TOP OF FILTER AND BOTTOM OF BOX LID
- TOP OF VALVE BOX TO BE FLUSH WITH FINISH GRADE
- VALVE BOX SHALL NOT REST ON DRIP TUBING/PIPING
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DRIP VALVE ASSEMBLY

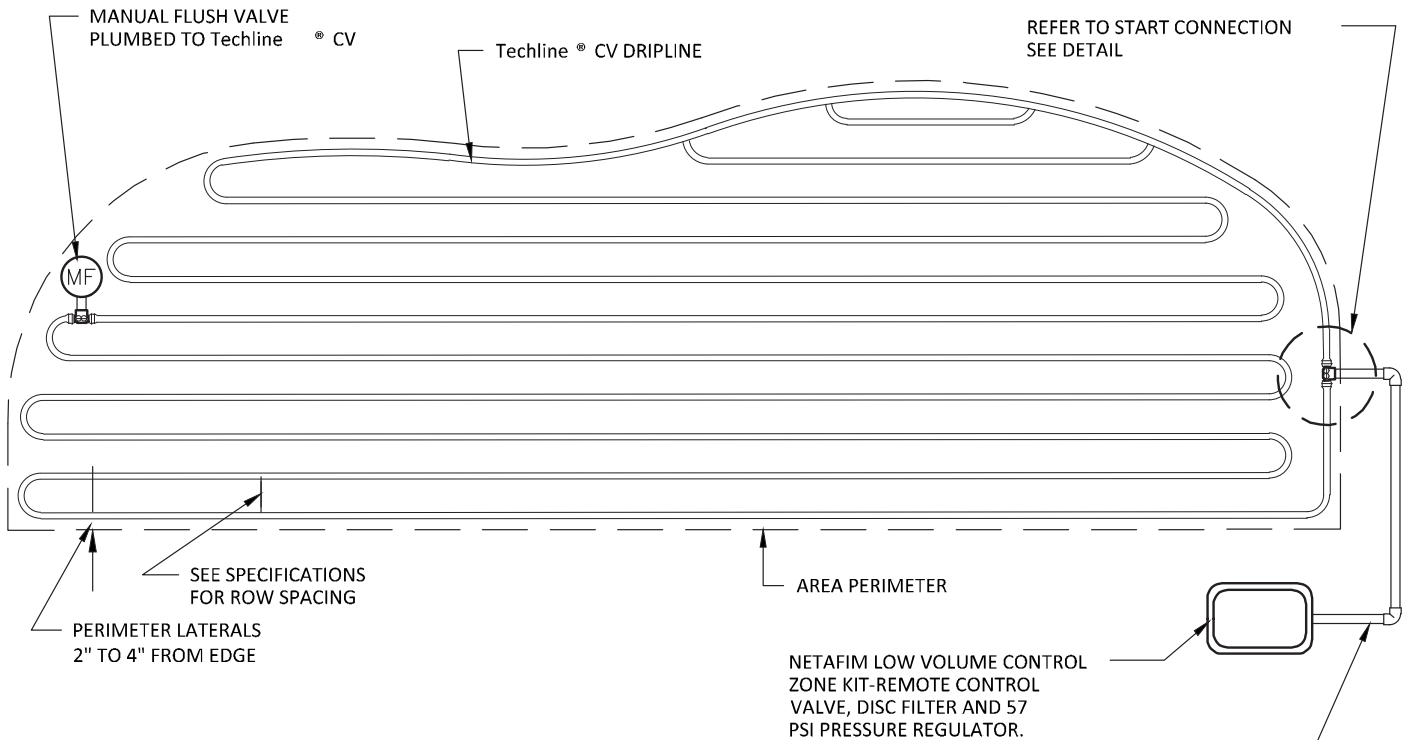
12

IRRIGATION DETAILS - SOARING HAWK PARK CONCEPT PLAN



DRIP LINE FLUSH-OUT AND OPERATIONAL INDICATOR

13

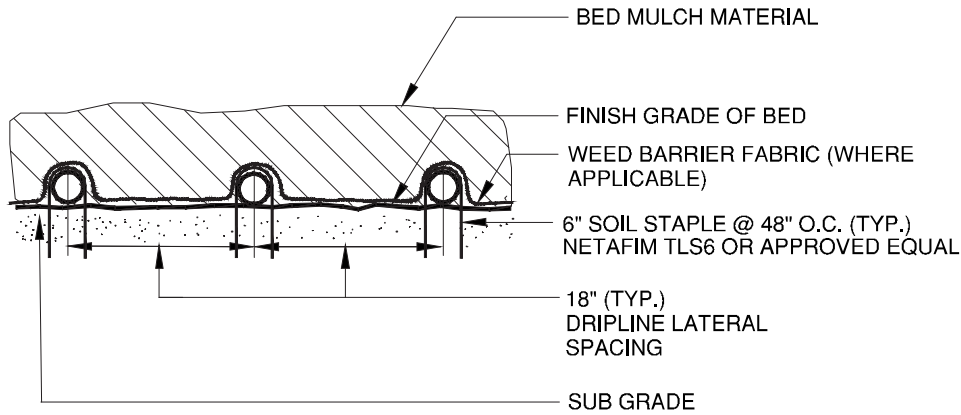


DRIP LINE SAMPL LAY-OUT OPERATIONAL INDICATOR

14

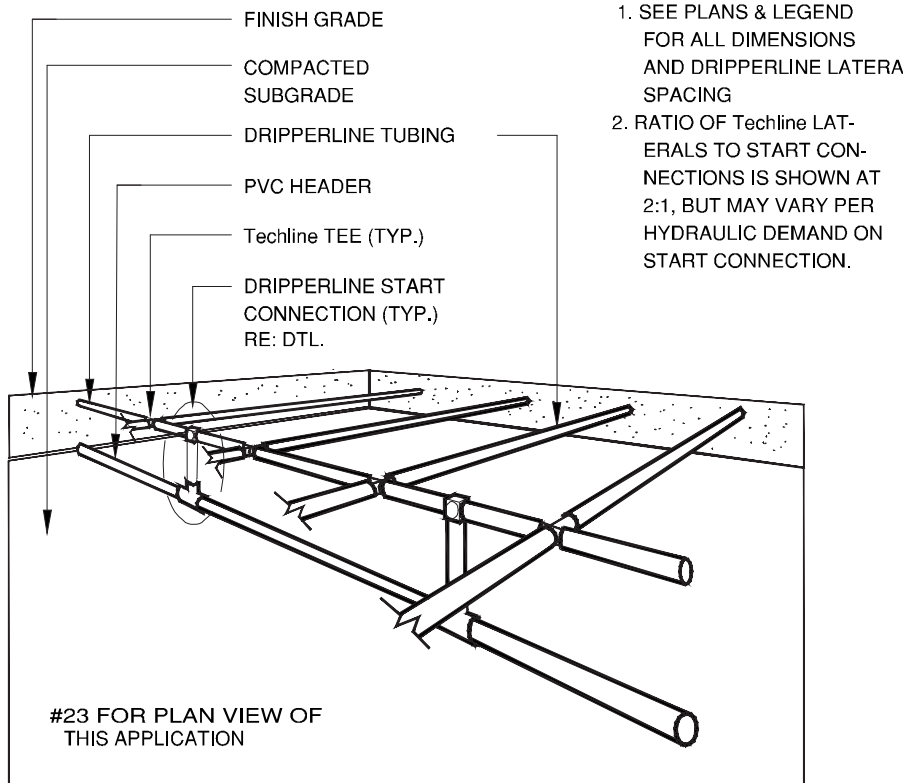
3/4" MIN. PVC/POLY TUBING TO CONNECTION; SIZE BASED UPON OVERALL SYSTEM DEMAND.

IRRIGATION DETAILS - SOARING HAWK PARK CONCEPT PLAN



SURFACE IN-LINE DRIP TUBING

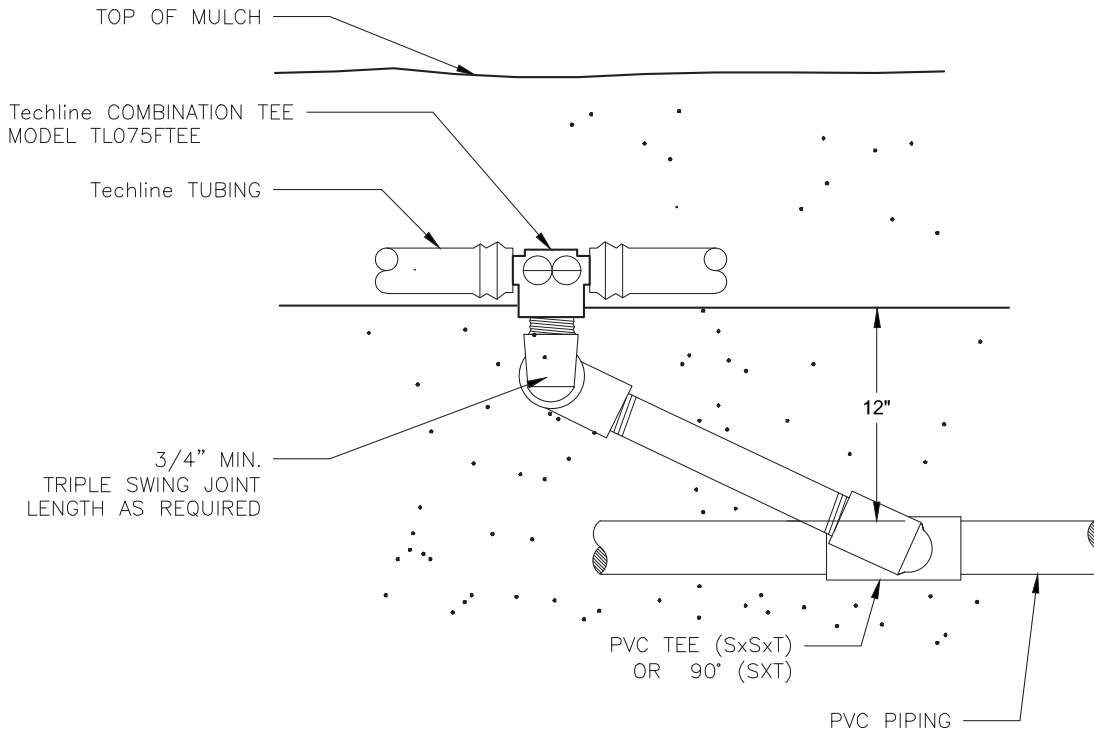
15



DRIPPERLINE PIPE LAY-OUT ISOMETRIC VIEW

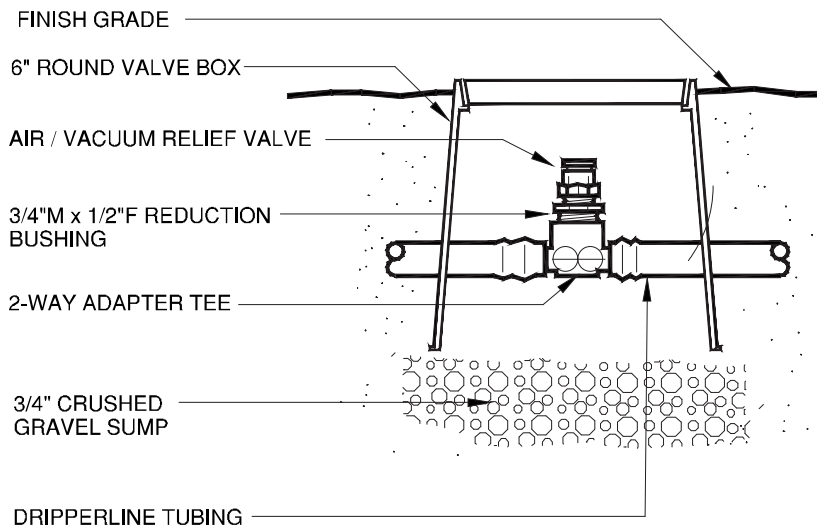
16

IRRIGATION DETAILS - SOARING HAWK PARK CONCEPT PLAN



IN-LINE DRIP START CONNECTION

17



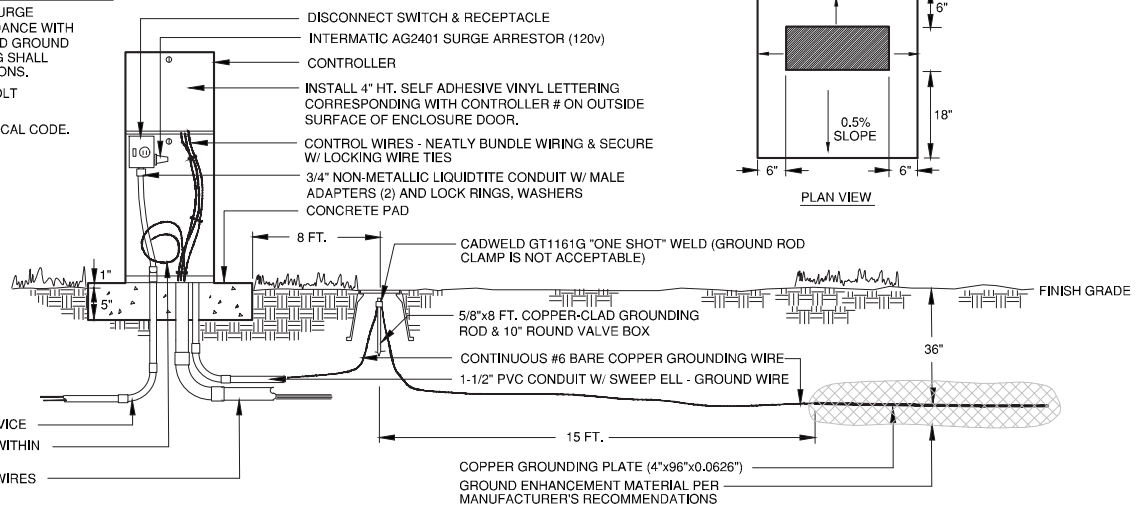
AIR/VACUUM RELEASE VALVE

18

IRRIGATION DETAILS - SOARING HAWK PARK CONCEPT PLAN

NOTES:

CONTRACTOR TO GROUND AND PROVIDE SURGE PROTECTION FOR CONTROLLER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND GROUND ROD(S) SHOWN. CONTROLLER GROUNDING SHALL COMPLY W/ MANUFACTURER'S SPECIFICATIONS.
 INSTALL A DISCONNECT SWITCH AND 120 VOLT GFI RECEPTACLE WITHIN PEDESTAL.
 ALL ELECTRICAL WORK TO CONFORM TO LOCAL CODE.



3/4" PVC CONDUIT W/ SWEEP ELL - 120v SERVICE
 PROVIDE 48" LENGTH OF ALL SPARE WIRES WITHIN PEDESTAL, NEATLY COILED.
 3" PVC CONDUIT W/ SWEEP ELL - CONTROL WIRES

ELECTRIC CONTROLLER

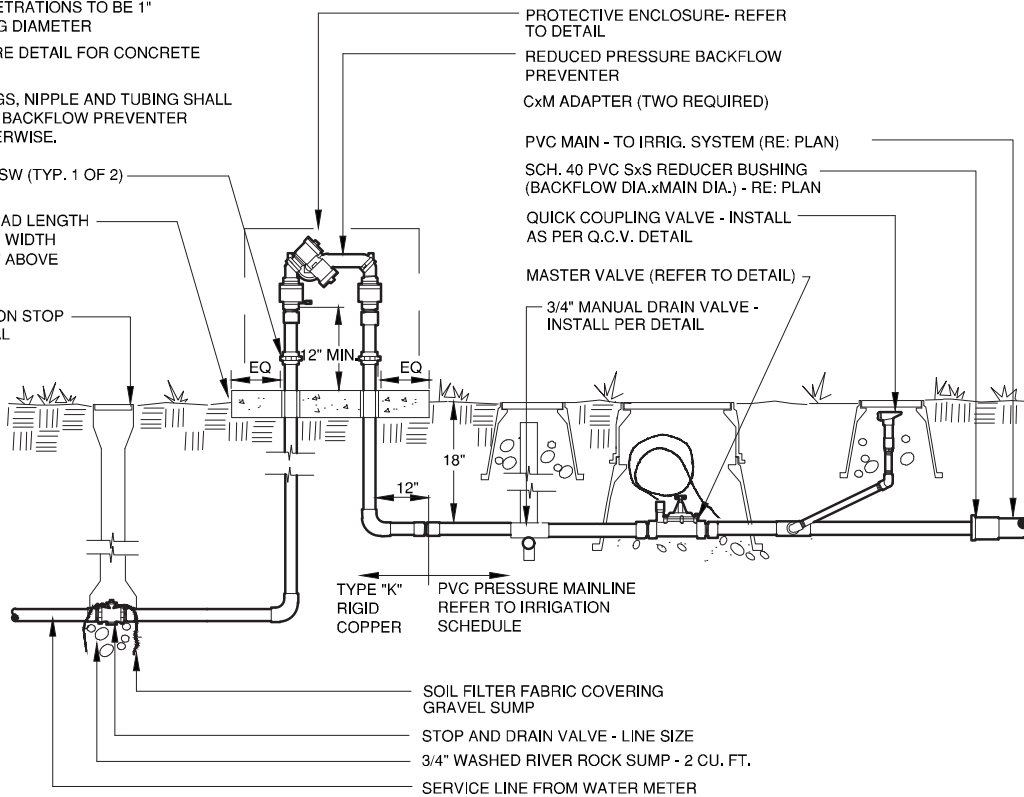
NOTE:

CONCRETE PAD PENETRATIONS TO BE 1" LARGER THAN TUBING DIAMETER
 REFER TO ENCLOSURE DETAIL FOR CONCRETE PAD DIMENSIONS
 DIAMETER OF FITTINGS, NIPPLE AND TUBING SHALL EQUAL DIAMETER OF BACKFLOW PREVENTER UNLESS NOTED OTHERWISE.

BRONZE UNION - SWxSW (TYP. 1 OF 2)

6" THICK CONCRETE PAD LENGTH AS REQUIRED 30" MIN. WIDTH TOP OF SLAB TO BE 1" ABOVE FINISH GRADE

ADJUSTABLE CAST IRON STOP BOX - TYLER OR EQUAL



BACKFLOW PREVENTER

IRRIGATION DETAILS - SOARING HAWK PARK CONCEPT PLAN

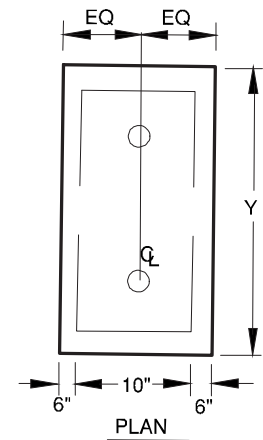
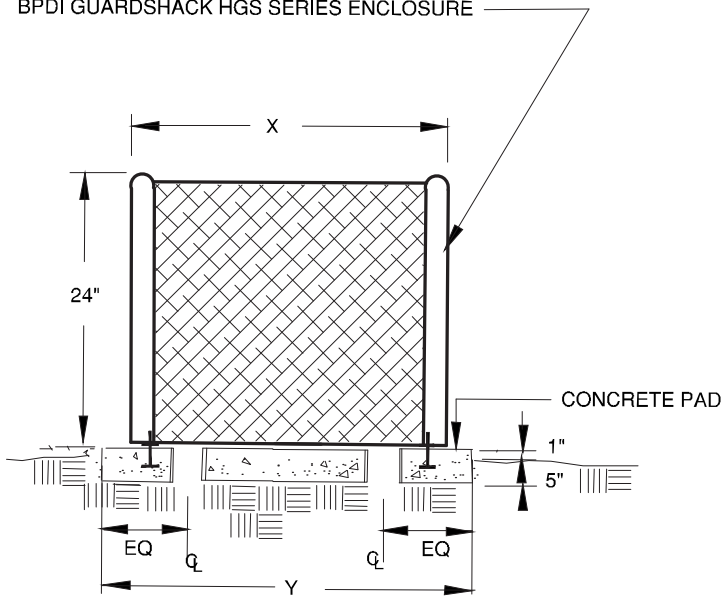
NOTES

PAD PENETRATIONS FOR BACKFLOW PREVENTER RISERS TO BE 1" LARGER THAN RISER DIAMETER

TOP SURFACE OF CONCRETE PAD SHALL BE 1" ABOVE FINISH GRADE.

BPDI GUARDSHACK HGS SERIES ENCLOSURE

BFP MODEL/SIZE	ENCLOSURE MODEL	X	Y
FEBCO 825YA - 3/4" & 1"	HGS-1	22"	34"
FEBCO 825YA - 1 1/2" & 2"	HGS-2	30"	42"



INSTALL ENCLOSURE ANCHORS AS PER MANUFACTURER'S RECOMMENDATIONS.

PROVIDE OWNER WITH KEYED PADLOCK FOR ENCLOSURE

PROVIDE ENCLOSURE IN FEDERAL GREEN COLOR

ENCLOSURE SHALL BE INSTALLED W/ GUARDSHACK ES SERIES ENCLOSURE SETTER

BACKFLOW ENCLOSURE

21

ARCHITECTURE

COYOTE RIDGE PARK

VAULT TOILETS

There are four new waterless vault toilets anticipated in this park. Three are new facilities with a capacity of 2 or 3 occupants, the fourth is a replacement facility with an increased capacity of 4 occupants. The basis of design manufacturer for these vault structures is Romtec.

The Romtec Model 1016 is a medium size vault structure with two separate ADA compliant restrooms.

The Romtec Model 1014 is a medium size vault structure with three separate ADA compliant restrooms.

The Romtec Model 1015 is a large vault structure with four separate ADA compliant restrooms.

For all of these models, each restroom has a dedicated 750-gallon vault tank. Exterior materials include split face CMU block, grouted solid. Polycarbonate windows are located within the gable space to provide daylighting into the restrooms. The roof is made of glulam structure, wood decking and fascia, and asphalt composite shingles. The roof is gabled in profile with a 60" extension in front of the restroom doors to provide shelter and weather protection. Wood columns and glulam truss support the roof overhang. The standard roof overhang on the remaining three sides varies between 12"-21". Interior finishes include paint on the CMU walls and sealed concrete floor slab.

Other exterior finish materials are available for these prefabricated facilities. Options include stone veneer, stained cedar or painted wood lap siding, and standing seam metal roofing. These facilities can be customized to meet park design guidelines or a desired aesthetic.

SOARING HAWK PARK

BUILDING ENVELOPE

The buildings to be constructed of load bearing 8" CMU with brick masonry veneer. The sloped roof can be a variety of different profiles based on the desired aesthetic. A minimum 1:12 slope is required for a standing seam roof to ensure proper drainage and weather protection. Gutters and downspouts will be located on the low end of each roof to capture rainwater. It is recommended to capture this rainwater and divert to adjacent landscaping as appropriate.

All doors to be painted hollow metal, with hollow metal frames. Door hardware to match park district standards. Utilizing magnet locks on timers allows for facilities to be opened or secured at set times of the day without staff having to be present. Signage to be provided at each door, indicating the use of the room with braille. Daylighting

into the buildings can be provided with clerestory windows or tubular roof skylights. Daylighting features helps to minimize the need for electric interior lighting during the day and provides a pleasing interior environment that can aid in discouraging vandalism.

Exterior lighting to be provided on all elevations of the buildings for enhanced security. Based on the configuration of the doors, lighting must provide code minimum foot candles at each exit. Each public restroom door shall be adequately illuminated for ease of use and safety.

Exterior plumbing fixtures include a hi-lo ADA compliant drinking fountain with bottle filler and lockable hose bib. Plumbing fixtures can be specified for year round use, with integral features that prevent these fixtures from freezing during winter months.

RESTROOMS

The restrooms at each building to include, at a minimum, the number of fixtures to meet minimum code requirements. However, anticipated uses at each location should be considered to determine if additional fixtures would be beneficial. This should be considered at locations with scheduled events or activities that will bring large populations of people to the site during concentrated times. The code minimum number of fixtures is identified below specific to each location.

The interior finishes consist of painted interior walls and gypsum board ceiling and resinous epoxy flooring. Toilet and urinal partitions to be high density plastic for maximum durability and ease of repair if damaged or vandalized. These partitions to be floor mounted, overhead braced. The urinal screens to be wall mounted, secured with a floor mounted post on the open side, to help alleviate potential vandalism and damage.

Plumbing fixtures include toilets, urinals and lavatories. Fixtures to be stainless steel and wall mounted for ease of cleaning. Flush valves are located inside the utility chase with only a manual lever or motion sensor located at each toilet. A lockable hose bib is provided in each of the restrooms for cleaning.

Restroom accessories include grab bars at each ADA location, wall mounted mirrors at each lavatory, wall mounted electric hand dryers (assume 2 per restroom), soap dispensers (assume 1 per restroom), toilet paper dispenser, and baby changing stations in the family restrooms.

Interior lighting to be ceiling mounted or recessed fixtures with vandal resistant lenses. It is recommended to include lighting controls integrated into the fixtures to provide additional control of when the lights are on.

UTILITY CHASE

Dedicated utility chases will be provided between each restroom for all exposed plumbing piping and fixture mounts to be serviceable by park staff. It is necessary to maintain 4' clear between the two walls of piping as working clearances. This chase also includes the desired water heater system and electrical panels necessary to support the building. Heated water for handwashing is required per health department standards. Insta-hot water heaters are recommended in these types of facilities.

With all restroom buildings planned for year-round use, space heating must be considered. The utility chase can be heated with a small unit heater to keep pipes from freezing during winter months. Mechanical ventilation will be required in all rooms. Exhaust fans located in the chase will be ducted into each restroom to provide required exhaust. Fresh air to be provided through exterior wall louvers located above the restroom doors.

ACCESSIBILITY

Providing ADA accessibility to all public spaces is not only inclusive and good practice, but it is code required. Accessibility includes the ability to maneuver through spaces, open and maneuver through doorways, and use the restroom. Each restroom will have one accessible toilet stall, one accessible lavatory, and all toilet accessories to be located within accessible reach ranges. All family restrooms will be fully accessible as a single use restroom. Approach to each restroom must also be accessible including reach ranges for doors and pavement slopes.

ENERGY CONSERVATION

With all restroom buildings planned for year-round use, additional energy saving measures are required. The building envelope will be required to be fully insulated, with some level of electric heating systems in all occupied spaces. The roof requires R-30 continuous insulation, the walls require R-14.6 continuous insulation.

Occupancy sensors can be utilized to minimize the use of ventilation and electric lighting. Sensors can detect the presence of occupants and kick on ventilation fans and lighting, shutting these off when no occupants are in the restrooms.

If daylighting measures are incorporated through either exterior clerestory windows or tubular skylight devices, daylighting sensors can also be used to either turn off or dim interior lighting based on the amount of natural daylight within the spaces.

Playground Restroom & Storage

Square Footage: 1,400 SF

Restrooms – 900 SF

Maintenance Storage – 500 SF

Fixture Counts:

Women – 2 toilets, 2 lavatories

Men – 1 toilet, 1 urinal, 2 lavatories

Family – 1 toilet, 1 lavatory

Baseball and Sports Courts Restroom & Storage

Square Footage: 1,100 SF

Restrooms – 750 SF

Athletic Storage – 350 SF

Fixture Counts:

Women – 3 toilets, 3 lavatories

Men – 1 toilet, 1 urinal, 2 lavatories

Family – 1 toilet, 1 lavatory

Amphitheater Restroom & Storage

Square Footage: 2,050 SF

Restrooms – 1,000 SF

Concessions – 550 SF

Maintenance Storage – 500 SF

Fixture Counts:

Women – 4 toilets, 2 lavatories

Men – 2 toilets, 1 urinal, 2 lavatories

Family – 1 toilet, 1 lavatory

Basketball and Play Restroom & Storage

Square Footage: 1,150 SF

Restrooms – 900 SF

Athletic Storage – 250 SF

Fixture Counts:

Women – 2 toilets, 2 lavatories

Men – 1 toilet, 1 urinal, 2 lavatories

Family – 1 toilet, 1 lavatory

ELECTRICAL

PURPOSE OF THE ELECTRICAL CONCEPTUAL PACKAGE

The Electrical Systems conceptual narrative is intended to facilitate three primary purposes. First, the narrative is intended to provide a descriptive outline of the electrical systems for the new Castle Pines Parks project scope of work. This outline will facilitate the development of conceptual level preliminary pricing estimates for the exterior building systems covered within the scope of the Division 26 Contractors. Second, this narrative is intended to give the Owner a basic understanding of the site's electrical and lighting systems. Such systems shall include power, lighting, and lighting controls. The Owner can use this document as a method for reviewing project expectations and providing comments to AE Design for incorporation into the documents during the Schematic Design phases. Finally, the Conceptual Design can be used by the Design Team as a catalyst for preliminary coordination and building design discussions.

PROJECT DESCRIPTION

SOARING HAWK PARK

Soaring Hawk Park, approximately 74 acres, is anticipated to include the following features and amenities: (3) parking areas with space for (4) food trucks, community amphitheater with multi-use stage, (3) restroom buildings, multi-purpose pavilion with picnic tables, pickleball courts, tennis courts, basketball court and other play areas.

COYOTE RIDGE PARK

Coyote Ridge Park, approximately 30 acres, includes following existing features and amenities: parking areas, pickleball courts, basketball courts, and a baseball field. The additions to the park are anticipated to include the following features and amenities: (1) new parking area, (1) restroom buildings, and a shade structure.

DESCRIPTION OF WORK

This Division 26, 27, and 28 contractor scope includes all work to constitute a complete installation. Electrical work shall include all labor, materials, tools, equipment, and services necessary for, or incidental to proper installation and completion of the work indicated on the drawings and stated within specifications. Unless otherwise noted, provide labor and materials to make final electrical connections to motors, controllers and starters and electrical interconnections between equipment supplied by other trades to end at the load served. Provide the temporary electrical power installation including materials, tools, and labor as required. The contractor shall be responsible for all costs incurred for work of this section including all permits, fees, utility company fees, and other incidental costs associated with this work. This Contractor shall be responsible for all applicable regulatory safety measures, including disposal of all materials. All material, equipment, wiring devices, etc. shall be new, unless specifically indicated as existing to be reused. Provide complete metal raceway systems and enclosures for all wiring throughout the extent of the required distribution system.

Utilize electrical metallic tubing (EMT), minimum size of 3/4-inch for the following locations:

- o Service and feeders
- o Power circuit homerun
- o Branch circuits in concealed and exposed locations.

Utilize RNC, Type EPC-40-PVC for underground locations. Utilize RNC, Type EPC-80-PVC for underground locations subject to vehicular traffic.

Utilize metal-clad cable (MC) in the following locations as approved by the local AHJ.

- o Branch circuits in concealed locations
- o Final connection to recessed lighting fixtures

All conductors shall be copper (THWN/THHN), minimum wire size #12CU

All circuits shall have a ground wire installed.

All conductors not installed in conduit and installed in the ceiling space shall be plenum rated.

In exposed and suspended ceiling applications, route conduit as close to structural slab or deck as possible, and support conduit and junction boxes directly from the structural slab, deck or framing provided for that purpose. Lighting branch circuit conduits shall not be clipped to the ceiling system unless it has been specifically designed for that purpose.

All exterior equipment shall be NEMA-3R.

All exposed conduits shall be concealed to the greatest extent possible and shall be installed parallel and close to structural members. General Contractor shall paint conduit to match adjacent finishes.

All receptacles shall be specification grade, NEMA 5-20R, unless otherwise noted.

EXISTING CONDITIONS

SOARING HAWK PARK

Soaring Hawk Park is a brand new park located adjacent to the new Canyons Development. There are not currently any established amenities that utilize power, however, with the new Canyons Development neighborhood. In coordination with CORE Electric Co-Op we were able to confirm that both single phase and three phase services are available in the area. While the new neighborhood developments are primarily served by single phase, three phase services can be made available. Service lines are both routed along Canyonside Blvd, and would likely be the nearest source of power for anything located west of this area.

COYOTE RIDGE PARK

Coyote Ridge Park is being expanded by about 10-acres on to property formerly owned by Douglas County School District. The existing park utilizes limited utilities and has limited existing lighting within the park.

Core Electric Co-Op has clarified that the nearest existing power is a transformer located at 7377 Arco Iris Lane. Primarily single phase is in the area, however three-phase can be made available where needed.

The existing transmission lines that route through the center of the property are owned by Xcel Energy, so while the main source for the park is anticipated to be coordination with CORE, Xcel Energy requirements must be met for any improvements within the Transmission Easement.

For the areas on the west most portion of the site, CORE indicated that portions of the park may end up being served by Xcel Energy, so multiple services may need to be coordinated for the proposed needs and may be a consideration of the final placement of the utility locations.

ELECTRICAL UTILITIES

Core Electric CO-OP serves most of both parks as related to the anticipated scope of work. They are relatively easy to contact, and generally available. It was indicated in preliminary discussions that formal work-form information would be made available when the formal design is ready to be developed, but it was recommended that it be completed closer to when the formal construction documents are put together. They were very communicative by phone and it was indicated that phone is the best way to get a hold of them.

CORE ELECTRIC:

Member Services

(7-5:30 M-F)

(800) 332-9540

(303) 688-3100

membercontact@core.coop

Xcel Energy has the primary utility easement for the transmission lines that route through Coyote Ridge and may serve the western-most locations at the Coyote Ridge improvements. They are generally looking for Permit Level Construction Documents prior to their work on their development for the utilities design, however, early reach out and coordination on a development like this should be continually discussed for a development like this project as engaging them early and often supports better results. The Transmission Utility Easement has published standards/requirements information, as noted above, for reference, however, final development for the design solutions in future phases should also be verified with them often with correspondence tracked in writing. Preliminary concepts have been designed around those published requirements. Xcel are typically best available via phone, however working on preliminary information with them often requires at least preliminary information be submitted through the builder's call line. Where city contacts are available to support, it is recommended they be informed on the project as well to support efforts in working with the builder's call line:

The city has noted that their point of contact for their main accounts is:

Nathan Steele: Nathan.A.Steele@xcelenergy.com

XCEL ENERGY:

Builder's Call Line

800-628-2121

BCLCO@xcelenergy.com

As the project develops, it is the intent to maintain some continuous level of coordination with both utility companies to support the continued development and updates of the design and help to keep both utilities informed to the point where they can develop the utility design prior to Construction.

POWER DENSITY, DESIGN CRITERIA AND LOAD SUMMARY

The electrical density design criteria are based on estimated volt-amp per square foot allowances for interior lighting, exterior lighting, and miscellaneous power systems. The estimates are based on historical data for similar facilities. The following watts/sf estimates are used for preliminary electrical service sizing. It is anticipated that this facility will be designed with efficient mechanical and electrical systems causing these preliminary estimates to be on the high side and specific equipment sizing is to be adjusted as the design progresses.

THE ANTICIPATED ELECTRICAL DENSITY LOAD ESTIMATES ARE AS FOLLOWS:

COYOTE RIDG - Elec One-Line #1	
LOAD TYPE	VA
Exterior Lighting	1100
Monument Sign	200
General Purpose	360
Total VA	660 VA
Amps @ 240V/1ph	7 A

SOARING HAWK - Elec One-Line #1	
LOAD TYPE	VA
Interior Lighting (Restrooms)	500
Exterior Lighting	1700
General Purpose	1080
Total VA	3280 VA
Amps @ 240V/1ph	14 A

SOARING HAWK - Elec One-Line #2	
LOAD TYPE	VA
Interior Lighting (Restrooms)	500
Exterior Lighting	1300
General Purpose	1080
Sports Field Lighting	56,000
Total VA	58,880 VA
Amps @ 480V/3ph	71 A

SOARING HAWK - Elec One-Line #3	
LOAD TYPE	VA
Interior Lighting (Restrooms)	500
Exterior Lighting	7600
Monument Sign	200
General Purpose	1440
Sports Field Lighting	39,750
Amphitheatre	1800
Kitchen (Concessions) Equipment	6300
Food Trucks	14,400
Total VA	71,990 VA
Amps @ 480V/3ph	87 A

APPLICABLE CODES AND STANDARDS

The project is under the requirements of the City of Castle Pines and that jurisdiction has adopted the following codes, with local amendments:

- » 2021 International Building Code
- » 2021 International Fire Code
- » 2021 International Energy Conservation Code
- » 2020 National Electrical Code
- » Illuminating Engineering Society of North America (IESNA) Guidelines and Publications including the Lighting Handbook 10th Edition

ELECTRICAL UTILITY CONNECTION

The local electrical utility providers for this project are CORE Electric CO-OP and Xcel Energy. See existing conditions information above for more information. The following are anticipated standard requirements for consideration of the new utilities being proposed for these improvements:

- Pad Mounted Utility Transformer is by: Utility Provider
- Primary conduit furnished and installed by: Contractor
- Secondary conduit furnished and installed by: Contractor
- Primary conductors furnished and installed by: Utility Provider
- Secondary conductors furnished and installed by: Contractor
- Connections of primary and secondary conductors at transformer: Utility Provider
- Trenching and backfilling on primary and secondary: Contractor
- Transformer pad furnished and installed by: Contractor

All costs for work described above to be performed by LVE shall be billed to the new project number to be paid by the project owner. AE Design has sized the distribution gear and panelboards based upon the electrical density load estimates. In the event that loads realized during design differ from those estimated, the ampacity of the electrical equipment will be revised as necessary.

ELECTRICAL DISTRIBUTION CENTER

The electrical distribution systems for the parks are anticipated to consist of the following:

- 100A, 120/240V, 1-phase service at Coyote Ridge Park
- 100A, 120/240V, 1-phase service at Soaring Hawk Park
- (2) 200A, 277/480V, 3-phase services at Soaring Hawk Park.

Refer to the included electrical one-line diagrams for anticipated electrical gear specific sizing and interconnection intent.

GENERAL POWER REQUIREMENT

Given the schematic nature of the architectural design for the building, exact power device layout descriptions are premature. Therefore, the electrical contractor shall make basic assumptions in relation to the general power device layouts given similar building use types. Special equipment requirements for designated areas are noted on plans.

LIGHTING SYSTEMS SUMMARY

INTERIOR LIGHTING

Interior lighting will be limited across this project. Primarily only interior lighting will be at the restroom buildings and concessions facilities. Sources are generally anticipated to be cost-effective LED Troffer/ Surface Mount Fixtures or Downlights, providing an illumination level for a safe and clean environment. Sturdy fixtures are recommended to limit damage, maximize longevity, and minimize maintenance. Simple occupancy controls are anticipated to be utilized for automatic on/off control and simplicity. Restroom and storage areas are anticipated to be designed to approximately 20-30 fc. Concessions areas shall be designed to 50 fc to support health code lighting requirements.

Material cost per building is as noted on plans.

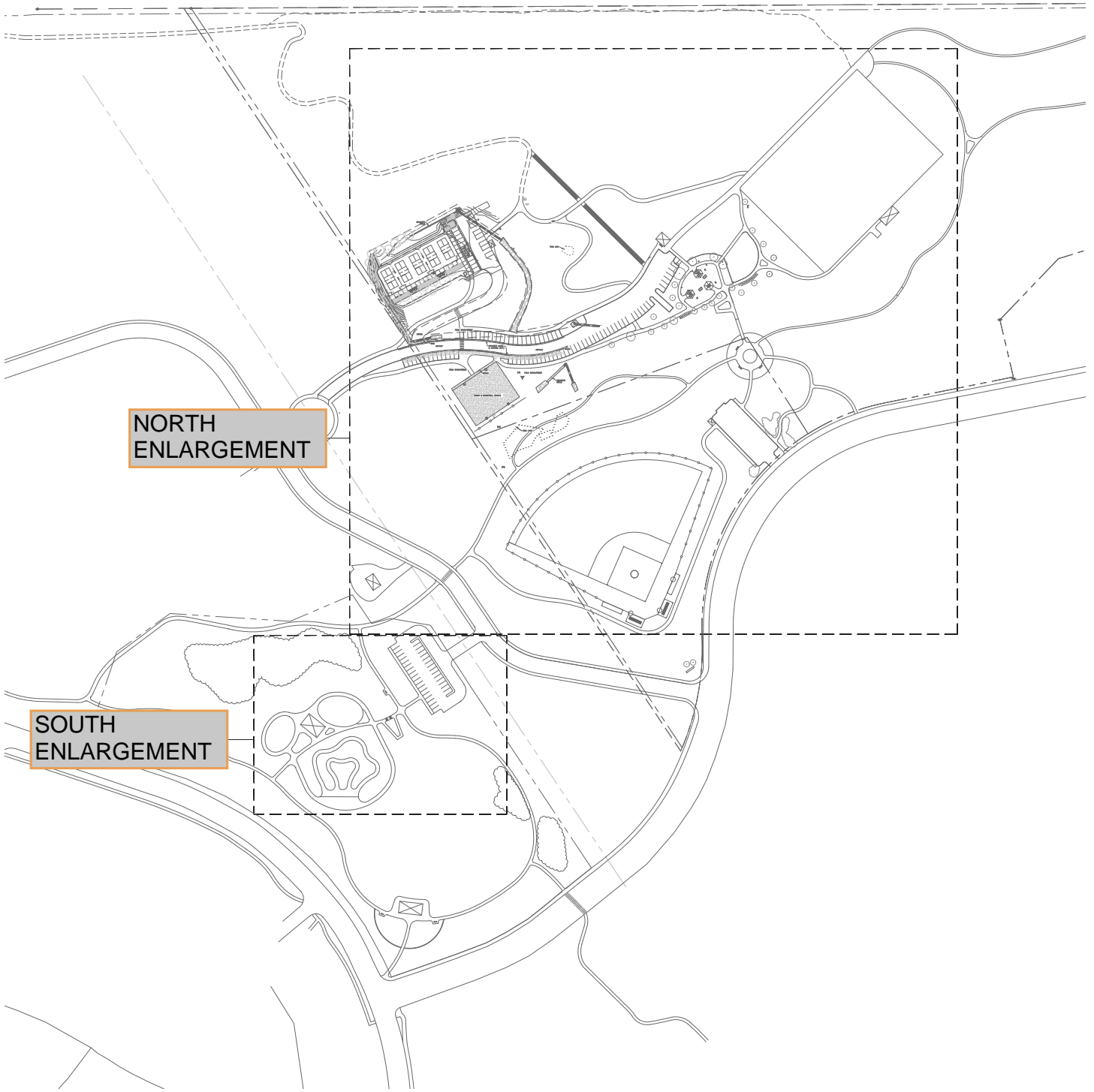
EXTERIOR LIGHTING

In general, LED sources will be utilized wherever possible to minimize the overall site lighting load as well as reducing maintenance costs. It is the intent of this design that no HID, incandescent, or fluorescent sources will be used. For preliminary pricing associated with the site for this project, the electrical contractor shall base their anticipated labor costs with the table below for exterior lighting fixture material-only and lighting control material-only costs:

Material cost per area is as noted on plans.

The specification and layout of all exterior luminaires shall comply with the City of Castle Pines exterior lighting requirements.

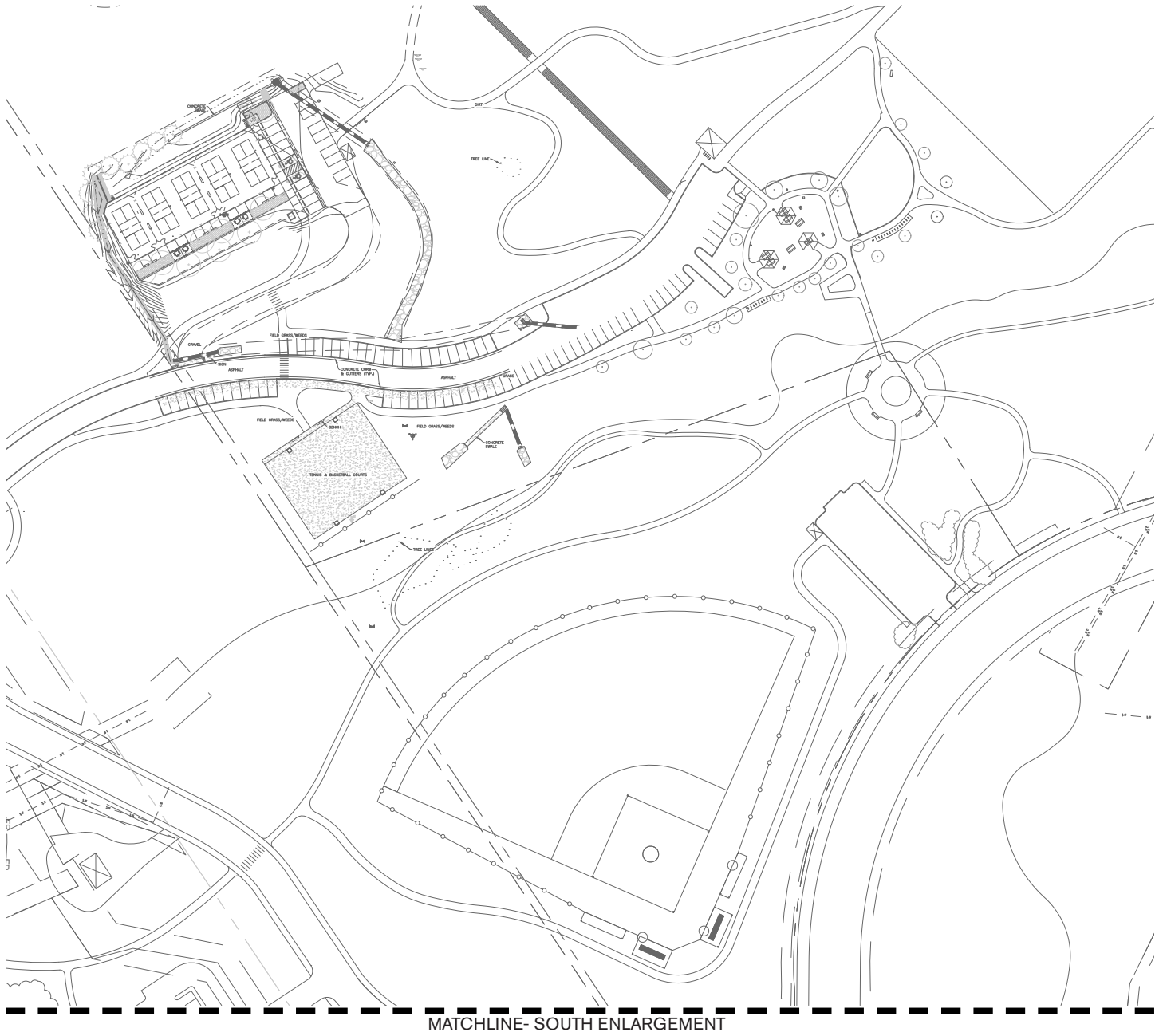
The building exterior lighting shall be controlled using photocells, motion sensors and/or timeclock control. All building mounted decorative and the parking lot/site pedestrian area luminaires shall be scheduled to be ON at full output from sunset to one hour before close of business. Curfew lighting shall reduce lighting levels to 30% output after business hours to provide safety lighting. All building mounted and parking area security luminaires shall be scheduled to dim up to full output at one hour before prior to start of business.



Coyote Ridge Park



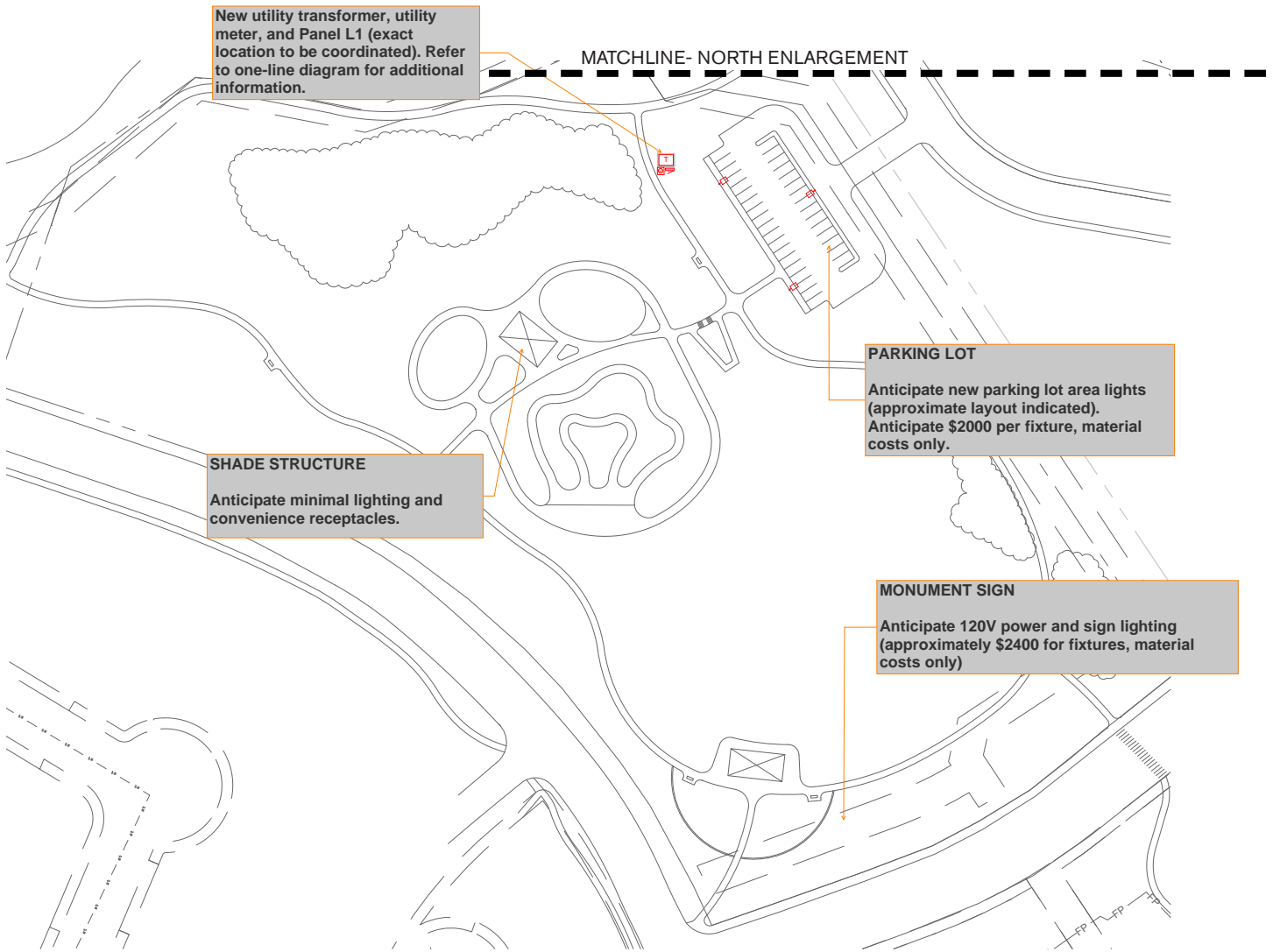
ELECTRICAL - NORTH ENLARGEMENT



Coyote Ridge Park



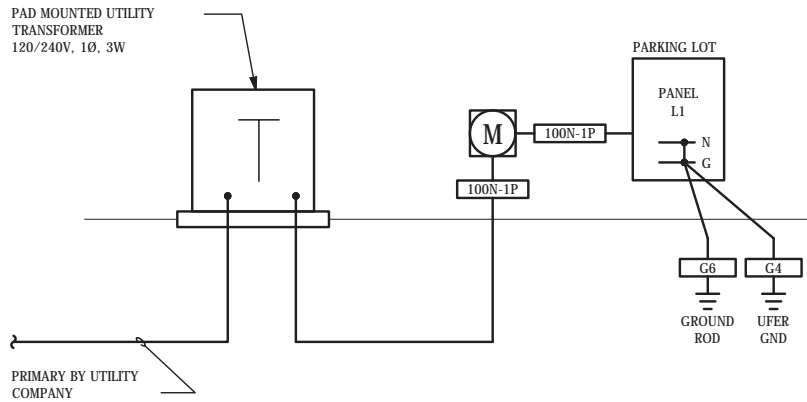
ELECTRICAL - SOUTH ENLARGEMENT



Coyote Ridge Park



COYOTE RIDGE PARK ELECTRICAL - DIAGRAMS & SCHEDULES



1 ELECTRICAL ONE-LINE DIAGRAM #1

EL-400 SCALE: NONE

FEEDER SCHEDULE

COPPER SINGLE PHASE

"KEY/ AMPS"	"FEEDER CONDUIT AND CONDUCTORS"	"KEY/ AMPS"	"FEEDER CONDUIT AND CONDUCTORS"
SERVICE ENTRANCE FEEDERS		SDS XFMR FEEDERS (NOTE 1)	
100N-1P	4#1, 1-1/2" C	30S	4#10, 1#8G, 3/4" C
200N-1P	4#3/0, 2" C	50S	3#6, 1#8G, 1-1/4" C
400N-1P	2[3#3/0, 2" C]	100S	3#1, 1#6G, 1-1/2" C

EQUIPMENT FEEDERS

20NG-1P	3#12, #12G, 3/4" C	20G-1P	2#12, #12G, 3/4" C
30NG-1P	3#10, 1#10G, 3/4" C	30G-1P	2#10, 1#10G, 3/4" C
40NG-1P	3#8, 1#10G, 1" C	40G-1P	2#8, 1#10G, 1" C
50NG-1P	3#6, 1#10G, 1-1/4" C	50G-1P	2#6, 1#10G, 1" C
60NG-1P	3#4, 1#10G, 1-1/4" C	60G-1P	2#4, 1#10G, 1" C
70NG-1P	3#4, 1#8G, 1-1/4" C	70G-1P	2#4, 1#8G, 1-1/4" C
80NG-1P	3#3, 1#8G, 1-1/4" C	80G-1P	2#3, 1#8G, 1-1/4" C
90NG-1P	3#2, 1#8G, 1-1/2" C	90G-1P	2#2, 1#8G, 1-1/4" C
100NG-1P	3#1, 1#8G, 1-1/2" C	100G-1P	2#1, 1#8G, 1-1/2" C
110NG-1P	3#1, 1#6G, 2" C	110G-1P	2#1, 1#6G, 1-1/2" C
125NG-1P	3#1/0, 1#6G, 2" C	125G-1P	2#1/0, 1#6G, 1-1/2" C
150NG-1P	3#1/0, 1#6G, 2" C	150G-1P	2#1/0, 1#6G, 1-1/2" C
175NG-1P	3#2/0, 1#6G, 2" C	175G-1P	2#2/0, 1#6G, 2" C
200NG-1P	3#3/0, 1#6G, 2-1/2" C	200G-1P	2#3/0, 1#6G, 2" C

GROUNDING CONDUCTORS

G8	1#8, 3/4" C
G6	1#6, 3/4" C
G4	1#4, 3/4" C
G2	1#2, 3/4" C
G10	1-1/0, 3/4" C
G20	1-2/0, 3/4" C
G30	1-3/0, 3/4" C

ABBREVIATIONS

MECH	SEE MECH SCHEDULE
XFMR	SEE XFMR SCHEDULE

NOTES:

1. FEEDER FOR SECONDARY OF SEPARATELY DERIVED SYSTEM (SDS). GROUND SIZE PER NEC TABLE INCLUDED IN ARTICLE 250.66.
2. ALL CONDUCTORS ARE SINGLE CONDUCTOR COPPER THWN UNLESS NOTED OTHERWISE. AMPACITY BASED ON THE NEC TABLE INCLUDED IN ARTICLE 310.
3. ALL CONDUITS ARE EMT UNLESS NOTED OTHERWISE, FILL RATIOS BASED ON NEC ANNEX C TABLE C.1.

FEEDER SCHEDULE

COPPER THREE PHASE

"KEY/ AMPS"	"FEEDER CONDUIT AND CONDUCTORS"	"KEY/ AMPS"	"FEEDER CONDUIT AND CONDUCTORS"
SERVICE ENTRANCE FEEDERS		SDS XFMR FEEDERS (NOTE 1)	
100N	4#1, 1-1/2" C	30S	4#10, 1#8G, 3/4" C
200N	4#3/0, 2" C	50S	4#6, 1#8G, 1-1/4" C
400N	2[4#3/0, 2" C]	100S	4#1, 1#6G, 1-1/2" C

EQUIPMENT FEEDERS

20NG	4#12, 1#12G, 3/4" C	20G	3#12, 1#12G, 3/4" C
30NG	4#10, 1#10G, 3/4" C	30G	3#10, 1#10G, 3/4" C
40NG	4#8, 1#10G, 1" C	40G	3#8, 1#10G, 1" C
50NG	4#6, 1#10G, 1-1/4" C	50G	3#6, 1#10G, 1" C
60NG	4#4, 1#10G, 1-1/4" C	60G	3#4, 1#10G, 1" C
70NG	4#4, 1#8G, 1-1/4" C	70G	3#4, 1#8G, 1-1/4" C
80NG	4#3, 1#8G, 1-1/4" C	80G	3#3, 1#8G, 1-1/4" C
90NG	4#2, 1#8G, 1-1/2" C	90G	3#2, 1#8G, 1-1/4" C
100NG	4#1, 1#8G, 1-1/2" C	100G	3#1, 1#8G, 1-1/2" C
110NG	4#1, 1#6G, 2" C	110G	3#1, 1#6G, 1-1/2" C
125NG	4#1/0, 1#6G, 2" C	125G	3#1/0, 1#6G, 1-1/2" C
150NG	4#1/0, 1#6G, 2" C	150G	3#1/0, 1#6G, 1-1/2" C
175NG	4#2/0, 1#6G, 2" C	175G	3#2/0, 1#6G, 2" C
200NG	4#3/0, 1#6G, 2-1/2" C	200G	3#3/0, 1#6G, 2" C

GROUNDING CONDUCTORS

G8	1#8, 3/4" C
G6	1#6, 3/4" C
G4	1#4, 3/4" C
G2	1#2, 3/4" C
G10	1#1/0, 3/4" C
G20	1#2/0, 3/4" C
G30	1#3/0, 3/4" C

ABBREVIATIONS

MECH	SEE MECH SCHEDULE
XFMR	SEE XFMR SCHEDULE

NOTES:

1. FEEDER FOR SECONDARY OF SEPARATELY DERIVED SYSTEM (SDS). GROUND SIZE PER NEC TABLE INCLUDED IN ARTICLE 250.66.
2. ALL CONDUCTORS ARE SINGLE CONDUCTOR COPPER THWN UNLESS NOTED OTHERWISE. AMPACITY BASED ON THE NEC TABLE INCLUDED IN ARTICLE 310.
3. ALL CONDUITS ARE EMT UNLESS NOTED OTHERWISE, FILL RATIOS BASED ON NEC ANNEX C TABLE C.1.

TRANSFORMER SCHEDULE - COPPER WINDINGS (2016 DOE EFFICIENCY STANDARDS)

KVA RATING	PRIMARY FLA	SECONDARY FLA	PRIMARY PROTECTION	PRIMARY FEEDER	SECONDARY PROTECTION	SECONDARY FEEDER	GROUNDING ELECTRODE CONDUCTOR (GEC)	TRANSFORMER IMPEDANCE	APPROX. DIMENSIONS			APPROX. WEIGHT	SPECIFIC NOTES
									HIGH	WIDE	DEEP		
3	3.6	8.3	15A/3P	3#12, 1#12G, 3/4"C	15A/3P	4#12, 1#6G, 3/4"C	1#8, 3/4"C	4.57%	15	15	11	140LBS	1.2
6	7.2	16.7	15A/3P	3#12, 1#12G, 3/4"C	20A/3P	4#12, 1#6G, 3/4"C	1#8, 3/4"C	4.57%	15	15	11	140LBS	1.2
9	10.8	25.0	15A/3P	3#12, 1#12G, 3/4"C	30A/3P	4#10, 1#6G, 3/4"C	1#8, 3/4"C	4.57%	20	20	15	260LBS	1.2
15	18.1	41.7	25A/3P	3#10, 1#10G, 3/4"C	50A/3P	4#6, 1#6G, 1-1/4"C	1#8, 3/4"C	2.88%	26	21.88	17.75	290LBS	
30	36.1	83.3	45A/3P	3#6, 1#10G, 1"C	100A/3P	4#1, 1#6G, 1-1/2"C	1#6, 3/4"C	2.56%	36.88	24.88	21.13	415LBS	
45	54.2	125.0	70A/3P	3#4, 1#6G, 1-1/4"C	150A/3P	4#1/2, 1#6G, 2"C	1#6, 3/4"C	3.44%	36.88	24.88	21.13	478LBS	
75	90.3	208.3	125A/3P	3#1, 1#6G, 1-1/2"C	250A/3P	4#250, 1#2G, 3"C	1#2G, 3/4"C	3.21%	43	30.54	24	670LBS	
112.5	135.4	312.5	175A/3P	3#2/0, 1#6G, 2"C	400A/3P	21#483/0, 1#2G, 2-1/2"C	1#2G, 3/4"C	3.63%	51	34.5	31.5	1263LBS	
150	180.5	416.7	225A/3P	3#4/0, 1#4G, 2"C	500A/3P	21#4250, 1#1/0G, 3"C	1#1/0G, 3/4"C	3.39%	51	34.5	31.5	1410LBS	
225	270.8	625.0	350A/3P	3#500, 1#3G, 3"C	800A/3P	31#4300, 1#2/0G, 3"C	1#2/0G, 3/4"C	4.34%	60	38	33.5	1745LBS	
300	361.0	833.3	450A/3P	21#44/0, 1#2G, 2"C	1000A/3P	31#4400, 1#3/0G, 3-1/2"C	1#3/0G, 3/4"	3.48%	66.18	42.18	33.5	2354LBS	
500	601.7	1388.9	750A/3P	21#3500, 1#1/0G, 3"C	1600A/3P	51#4400, 1#3/0G, 3-1/2"C	1#3/0G, 3/4"	4.57%	60	56	36	3490LBS	1.2
750	902.5	2083.3	1200A/3P	41#3650, 1#3/0G, 3"C	2500A/3P	71#4500, 1#3/0G, 3-1/2"C	1#3/0G, 3/4"	4.57%	74	56	41	3950LBS	1.2

GENERAL NOTES:

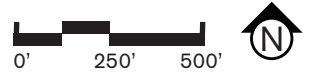
- A. ALL TRANSFORMERS ARE 480V, 3-PHASE, DELTA PRIMARY AND 208Y/120V, 3-PHASE SECONDARY.
- B. ALL CONDUCTORS ARE THWN, COPPER. SEE PLANS FOR INCREASED CONDUCTOR SIZE DUE TO VOLTAGE DROP.
- C. APPROXIMATE DIMENSIONS AND WEIGHT SHOWN FOR REFERENCE ONLY, AND MAY VARY BY MANUFACTURER.
- D. APPROXIMATE DIMENSIONS AND WEIGHT SHOWN FOR REFERENCE ONLY, AND MAY VARY BY MANUFACTURER.

SPECIFIC NOTES:

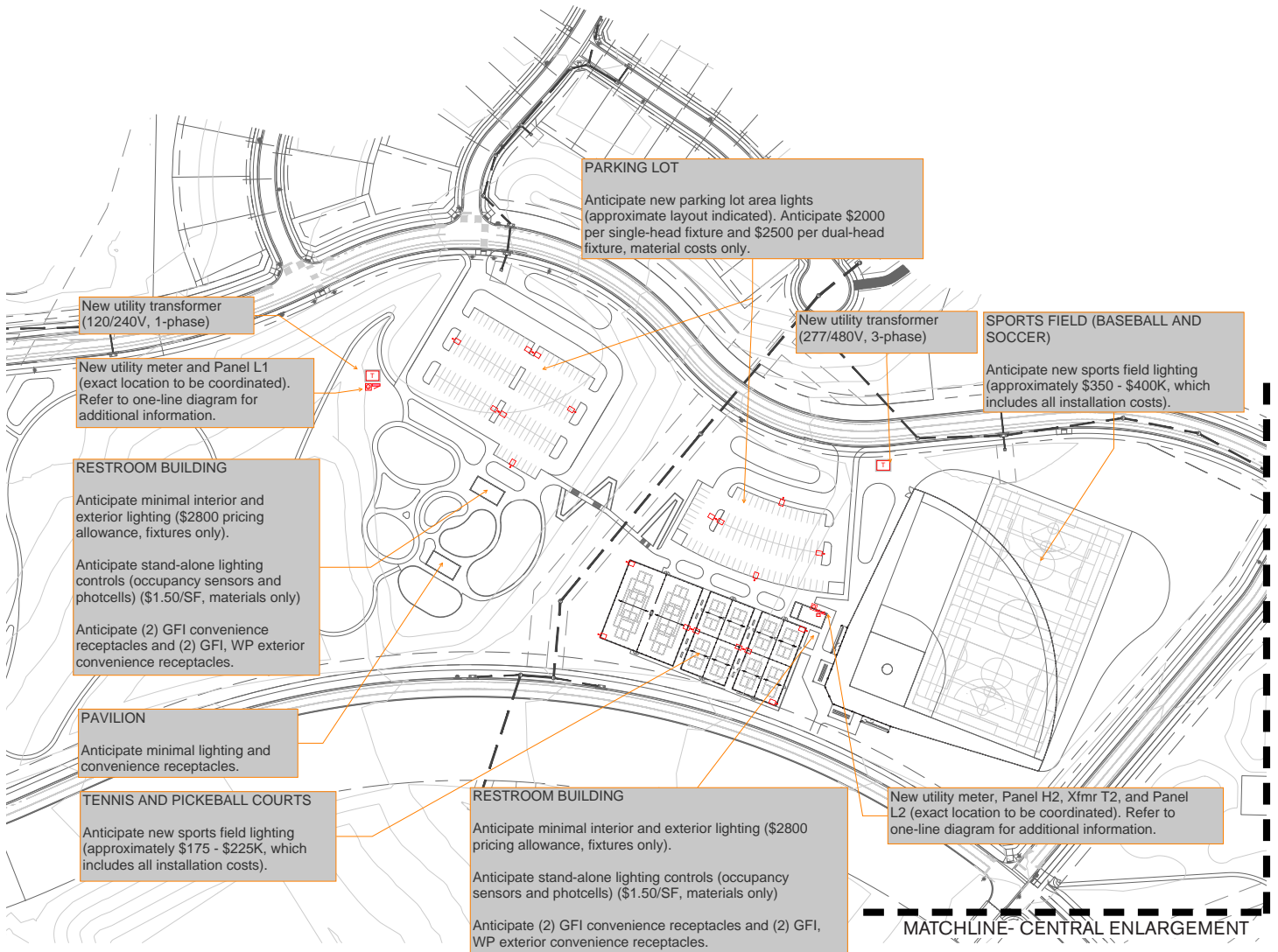
- 1. TRANSFORMER IMPEDANCE IS THE ASSUMED VALUE AND IS USED FOR FAULT CURRENT CALCULATIONS. IF SUBMITTED TRANSFORMER IS OF A DIFFERENT VALUE, REVISED CALCULATIONS MAY BE REQUIRED.
- 2. EC TO FIELD VERIFY WEIGHTS OF NON DOE 2016 AS THEY MAY VARY BY MANUFACTURER.



Soaring Hawk Park



ELECTRICAL - NORTH ENLARGEMENT



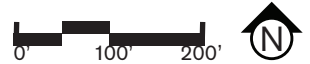
Soaring Hawk Park



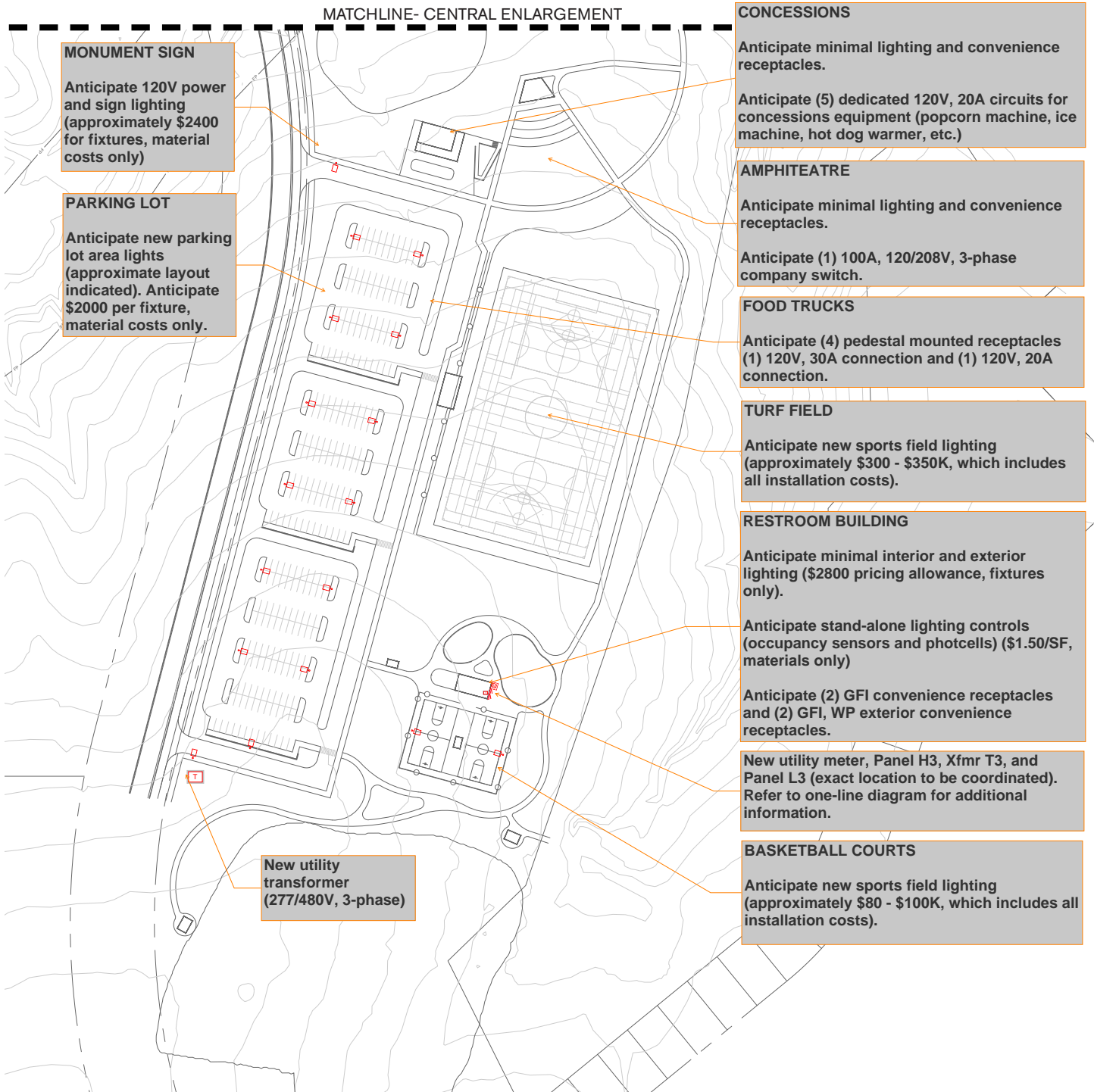
ELECTRICAL - CENTRAL ENLARGEMENT



Soaring Hawk Park



ELECTRICAL - SOUTH ENLARGEMENT

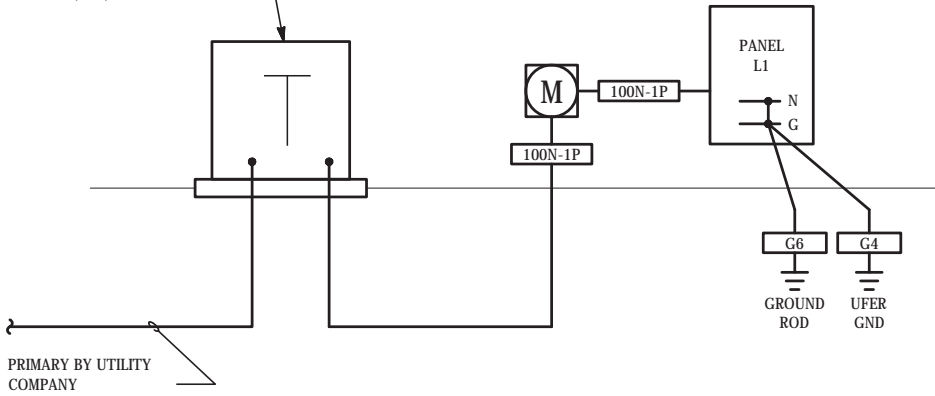


Soaring Hawk Park



SOARING HAWK PARK ELECTRICAL - DIAGRAMS & SCHEDULES

PAD MOUNTED UTILITY TRANSFORMER
120/240V, 1Ø, 3W

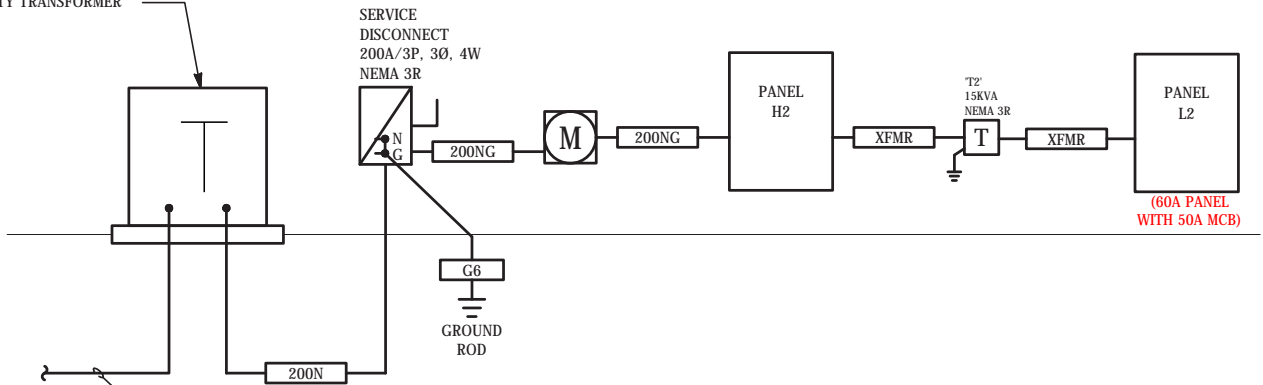


PRIMARY BY UTILITY COMPANY

1 | ELECTRICAL ONE-LINE DIAGRAM #1

EL-400 | SCALE: NONE

PAD MOUNTED UTILITY TRANSFORMER
277/480V, 3Ø, 4W



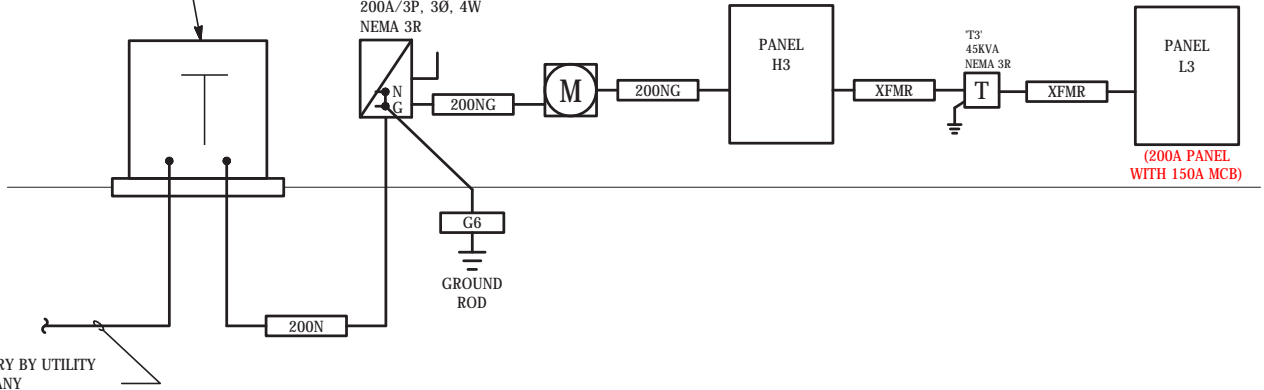
PRIMARY BY UTILITY COMPANY

2 | ELECTRICAL ONE-LINE DIAGRAM #2

EL-400 | SCALE: NONE

PAD MOUNTED UTILITY TRANSFORMER
277/480V, 3Ø, 4W

SERVICE DISCONNECT
200A/3P, 3Ø, 4W
NEMA 3R



3 ELECTRICAL ONE-LINE DIAGRAM #3

EL-400 SCALE: NONE

FEEDER SCHEDULE			
COPPER SINGLE PHASE			
"KEY/ AMPS"	"FEEDER CONDUIT AND CONDUCTORS"	"KEY/ AMPS"	"FEEDER CONDUIT AND CONDUCTORS"
SERVICE ENTRANCE FEEDERS		SDS XFMR FEEDERS (NOTE 1)	
100N-1P	4#1, 1-1/2" C	30S	4#10, 1#8G, 3/4" C
200N-1P	4#3/0, 2" C	50S	3#6, 1#8G, 1-1/4" C
400N-1P	2[3#3/0, 2" C]	100S	3#1, 1#6G, 1-1/2" C
EQUIPMENT FEEDERS			
20NG-1P	3#12, #12G, 3/4" C	20G-1P	2#12, #12G, 3/4" C
30NG-1P	3#10, 1#10G, 3/4" C	30G-1P	2#10, 1#10G, 3/4" C
40NG-1P	3#8, 1#10G, 1" C	40G-1P	2#8, 1#10G, 1" C
50NG-1P	3#6, 1#10G, 1-1/4" C	50G-1P	2#6, 1#10G, 1" C
60NG-1P	3#4, 1#10G, 1-1/4" C	60G-1P	2#4, 1#10G, 1" C
70NG-1P	3#4, 1#8G, 1-1/4" C	70G-1P	2#4, 1#8G, 1-1/4" C
80NG-1P	3#3, 1#8G, 1-1/4" C	80G-1P	2#3, 1#8G, 1-1/4" C
90NG-1P	3#2, 1#8G, 1-1/2" C	90G-1P	2#2, 1#8G, 1-1/4" C
100NG-1P	3#1, 1#8G, 1-1/2" C	100G-1P	2#1, 1#8G, 1-1/2" C
110NG-1P	3#1, 1#6G, 2" C	110G-1P	2#1, 1#6G, 1-1/2" C
125NG-1P	3#1/0, 1#6G, 2" C	125G-1P	2#1/0, 1#6G, 1-1/2" C
150NG-1P	3#1/0, 1#6G, 2" C	150G-1P	2#1/0, 1#6G, 1-1/2" C
175NG-1P	3#2/0, 1#6G, 2" C	175G-1P	2#2/0, 1#6G, 2" C
200NG-1P	3#3/0, 1#6G, 2-1/2" C	200G-1P	2#3/0, 1#6G, 2" C
GROUNDING CONDUCTORS		ABBREVIATIONS	
G8	1#8, 3/4" C	MECH	SEE MECH SCHEDULE
G6	1#6, 3/4" C	XFMR	SEE XFMR SCHEDULE
G4	1#4, 3/4" C		
G2	1#2, 3/4" C		
G10	1-1/0, 3/4" C		
G20	1-2/0, 3/4" C		
G30	1-3/0, 3/4" C		
NOTES:			
1. FEEDER FOR SECONDARY OF SEPARATELY DERIVED SYSTEM (SDS). GROUND SIZE PER NEC TABLE INCLUDED IN ARTICLE 250.66.			
2. ALL CONDUCTORS ARE SINGLE CONDUCTOR COPPER THWN UNLESS NOTED OTHERWISE. AMPACITY BASED ON THE NEC TABLE INCLUDED IN ARTICLE 310.			
3. ALL CONDUITS ARE EMT UNLESS NOTED OTHERWISE, FILL RATIOS BASED ON NEC ANNEX C TABLE C.1.			

FEEDER SCHEDULE			
COPPER THREE PHASE			
"KEY/ AMPS"	"FEEDER CONDUIT AND CONDUCTORS"	"KEY/ AMPS"	"FEEDER CONDUIT AND CONDUCTORS"
SERVICE ENTRANCE FEEDERS		SDS XFMR FEEDERS (NOTE 1)	
100N	4#1, 1-1/2" C	30S	4#10, 1#8G, 3/4" C
200N	4#3/0, 2" C	50S	4#6, 1#8G, 1-1/4" C
400N	2[4#3/0, 2" C]	100S	4#1, 1#6G, 1-1/2" C
EQUIPMENT FEEDERS			
20NG	4#12, 1#12G, 3/4" C	20G	3#12, 1#12G, 3/4" C
30NG	4#10, 1#10G, 3/4" C	30G	3#10, 1#10G, 3/4" C
40NG	4#8, 1#10G, 1" C	40G	3#8, 1#10G, 1" C
50NG	4#6, 1#10G, 1-1/4" C	50G	3#6, 1#10G, 1" C
60NG	4#4, 1#10G, 1-1/4" C	60G	3#4, 1#10G, 1" C
70NG	4#4, 1#8G, 1-1/4" C	70G	3#4, 1#8G, 1-1/4" C
80NG	4#3, 1#8G, 1-1/4" C	80G	3#3, 1#8G, 1-1/4" C
90NG	4#2, 1#8G, 1-1/2" C	90G	3#2, 1#8G, 1-1/4" C
100NG	4#1, 1#8G, 1-1/2" C	100G	3#1, 1#8G, 1-1/2" C
110NG	4#1, 1#6G, 2" C	110G	3#1, 1#6G, 1-1/2" C
125NG	4#1/0, 1#6G, 2" C	125G	3#1/0, 1#6G, 1-1/2" C
150NG	4#1/0, 1#6G, 2" C	150G	3#1/0, 1#6G, 1-1/2" C
175NG	4#2/0, 1#6G, 2" C	175G	3#2/0, 1#6G, 2" C
200NG	4#3/0, 1#6G, 2-1/2" C	200G	3#3/0, 1#6G, 2" C
GROUNDING CONDUCTORS		ABBREVIATIONS	
G8	1#8, 3/4" C	MECH	SEE MECH SCHEDULE
G6	1#6, 3/4" C	XFMR	SEE XFMR SCHEDULE
G4	1#4, 3/4" C		
G2	1#2, 3/4" C		
G10	1#1/0, 3/4" C		
G20	1#2/0, 3/4" C		
G30	1#3/0, 3/4" C		
NOTES:			
1. FEEDER FOR SECONDARY OF SEPARATELY DERIVED SYSTEM (SDS). GROUND SIZE PER NEC TABLE INCLUDED IN ARTICLE 250.66.			
2. ALL CONDUCTORS ARE SINGLE CONDUCTOR COPPER THWN UNLESS NOTED OTHERWISE. AMPACITY BASED ON THE NEC TABLE INCLUDED IN ARTICLE 310.			
3. ALL CONDUITS ARE EMT UNLESS NOTED OTHERWISE, FILL RATIOS BASED ON NEC ANNEX C TABLE C.1.			

TRANSFORMER SCHEDULE - COPPER WINDINGS (2016 DOE EFFICIENCY STANDARDS)

KVA RATING	PRIMARY FLA	SECONDARY FLA	PRIMARY PROTECTION	PRIMARY FEEDER	SECONDARY PROTECTION	SECONDARY FEEDER	GROUNDING ELECTRODE CONDUCTOR (GEC)	TRANSFORMER IMPEDANCE	APPROX. DIMENSIONS			SPECIFIC NOTES	
									HIGH	WIDE	DEEP		
3	3.6	8.3	15A/3P	3#12, 1#12G, 3/4"C	15A/3P	4#12, 1#8G, 3/4"C	1#8, 3/4"C	4.57%	15	15	11	140LBS	1.2
6	7.2	16.7	15A/3P	3#12, 1#12G, 3/4"C	20A/3P	4#12, 1#8G, 3/4"C	1#8, 3/4"C	4.57%	15	15	11	145LBS	1.2
9	10.8	25.0	15A/3P	3#12, 1#12G, 3/4"C	30A/3P	4#10, 1#8G, 3/4"C	1#8, 3/4"C	4.57%	20	20	15	245LBS	1.2
15	18.1	41.7	25A/3P	3#10, 1#10G, 3/4"C	50A/3P	4#6, 1#8G, 1-1/4"C	1#8, 3/4"C	2.88%	26	21.88	17.75	250LBS	1.2
30	36.1	83.3	45A/3P	3#6, 1#10G, 1"C	100A/3P	4#1, 1#6G, 1-1/2"C	1#6, 3/4"C	2.58%	36.88	24.88	21.13	415LBS	
45	54.2	125.0	70A/3P	3#4, 1#8G, 1-1/4"C	150A/3P	4#1/0, 1#6G, 2"C	1#6, 3/4"C	3.44%	36.88	24.88	21.13	478LBS	
75	80.3	208.3	125A/3P	3#1, 1#6G, 1-1/2"C	250A/3P	4#2/0, 1#2G, 3"C	1#2G, 3/4"C	3.21%	43	30.54	24	676LBS	
112.5	135.4	312.5	175A/3P	3#2/0, 1#6G, 2"C	400A/3P	21#4#3/0, 1#2G, 2-1/2"C	1#2G, 3/4"C	3.63%	51	34.5	31.5	1263LBS	
150	180.5	416.7	225A/3P	3#4/0, 1#4G, 2"C	500A/3P	21#4#2/0, 1#1/0G, 3"C	1#1/0G, 3/4"C	3.39%	51	34.5	31.5	1410LBS	
225	270.8	625.0	350A/3P	3#500, 1#3G, 3"C	800A/3P	31#4#3/0, 1#2/0G, 3"C	1#2/0G, 3/4"C	4.34%	60	38	33.5	1745LBS	
300	361.0	833.3	450A/3P	213#4/0, 1#2G, 2"C	1000A/3P	31#4#00, 1#3/0G, 3-1/2"C	1#3/0G, 3/4"C	3.48%	66.18	42.18	33.5	2354LBS	
500	601.7	1388.9	750A/3P	213#4/0, 1#1/0G, 3"C	1600A/3P	51#4#00, 1#3/0G, 3-1/2"C	1#3/0G, 3/4"C	4.57%	80	56	36	3450LBS	1.2
750	902.5	2083.3	1200A/3P	413#5/0, 1#3/0G, 3"C	2500A/3P	71#4#5/0, 1#3/0G, 3-1/2"C	1#3/0G, 3/4"C	4.57%	74	56	41	3950LBS	1.2

GENERAL NOTES:

- A. ALL TRANSFORMERS ARE 480V, 3-PHASE, DELTA PRIMARY AND 208Y/120V, 3-PHASE SECONDARY.
- B. ALL CONDUCTORS ARE THIN COPPER. SEE PLANS FOR INCREASED CONDUCTOR SIZE DUE TO VOLTAGE DROP.
- C. BONDING AND GROUNDING CONDUCTORS ARE TO BE INSTALLED PER NEC 250.30 - GROUNDING SEPARATELY DERIVED ALTERNATING CURRENT SYSTEMS.
- D. APPROXIMATE DIMENSIONS AND WEIGHT SHOWN FOR REFERENCE ONLY, AND MAY VARY BY MANUFACTURER.

SPECIFIC NOTES:

- 1. TRANSFORMER IMPEDANCE IS THE ASSUMED VALUE AND IS USED FOR FAULT CURRENT CALCULATIONS. IF SUBMITTED TRANSFORMER IS OF A DIFFERENT VALUE, REVISED CALCULATIONS MAY BE REQUIRED.
- 2. E.C TO FIELD VERIFY WEIGHTS OF NON DOE 2016 AS THEY MAY VARY BY MANUFACTURER.

OPINION OF PROBABLE COST

COYOTE RIDGE PARK - ALL PHASES



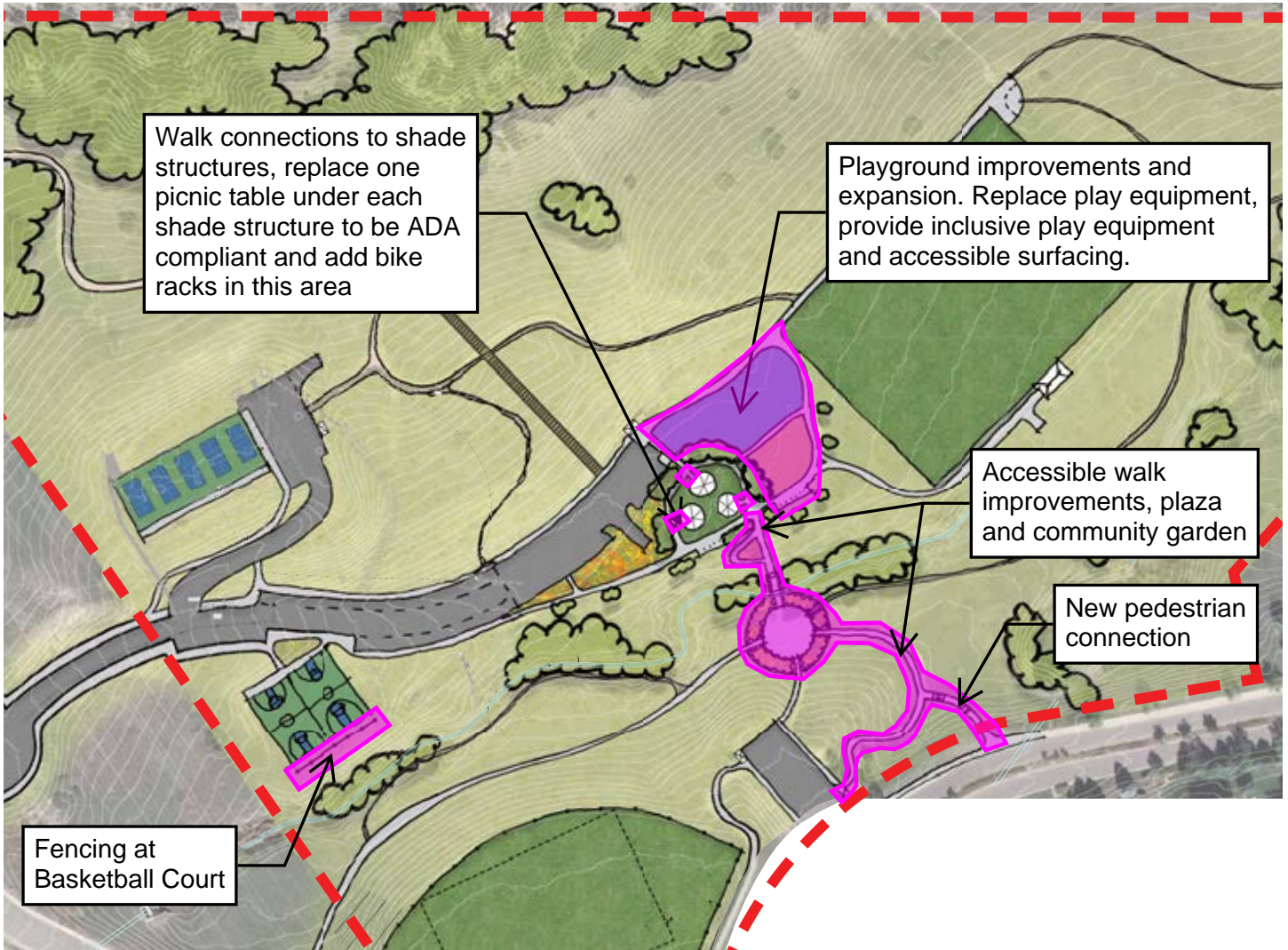
Coyote Ridge Park -
Concept Plan for Reference Only

Not to Scale

COYOTE RIDGE PARK - OPINION OF PROBABLE COST

Division of Work		Phase 1	Total Project Cost
Division 02	Existing Conditions	\$ 24,570.00	\$ 119,156.00
	Site Preparation Site Demolition		
Division 31	Earthwork	\$ 19,390.00	\$ 2,287,540.00
	Earthwork Landscape File & Finish Utility Trenching & Backfill Temporary Sediment and Erosion Control		
Division 32	Exterior Improvements	\$ 1,399,679.00	\$ 3,599,870.00
	Drainage & Containment Concrete Drive Pavement Site Improvements (Concrete walks, curbs, mowbands, ramps, etc.) Concrete Paving & Sealants Aggregate Pavement Asphalt Paving and Markings Landscape & Irrigation Play Area Surfacing Fencing Site Furnishings (Bike Racks, Benches, trash receptacles, picnic tables, etc.)		
Division 33	Site Utilities	\$ -	\$ 1,010,975.00
	Domestic Water Sanitary Sewer Site Electrical Distribution Site Lighting Site Circuits, FA, PA, CCTV Site Communication and Data		
Division 33-46	Buildings & Special Construction	\$ 765,632.00	\$ 3,121,274.00
	Play Equipment Vault Restrooms Shade Structures Bike Skills and Pump Track Hill Climb Soft Surface Trails		
	Subtotal	\$ 2,209,271.00	\$ 10,138,815.00
Division 01	General Requirements		
	General Requirements and Conditions	\$ 331,390.65	\$ 2,195,995.65
	Design Contingency - 20%	\$ 441,854.20	\$ 2,027,763.00
	City Tax on Materials - 3%	\$ 11,550.00	\$ 371,550.00
	Subtotal	\$ 2,994,066	\$ 14,734,123.65
	General Contractor Fee -3%	\$ 89,821.98	\$ 442,023.71
	Subtotal	\$ 3,083,888	\$ 15,176,147.36
	Bonds, liability and Worker's compensation- 3.63%	\$ 111,945.13	\$ 550,894.13
	Escalation to Midpoint of Construction Q3 of 2026-5.65%	\$ 180,564.56	\$ 888,577.84
	Subtotal	\$ 3,376,398	\$ 16,615,619.33
	Testing and Inspection	\$ 25,000.00	\$ 170,000.00
	Signage Allowance	\$ -	\$ 88,320.00
	Construction Contingency- 5%	\$ 168,819.88	\$ 830,780.97
	Coyote Ridge Park Concept Plan Total	\$ 3,570,217	\$ 17,704,720

COYOTE RIDGE PARK - PHASE 1



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Coyote Ridge Park -
Phase 1
Concept Plan for Reference Only

COYOTE RIDGE PARK - PHASE 1 - OPINION OF PROBABLE COST

Division of Work		Phase 1
Division 02	Existing Conditions	\$ 24,570.00
	Site Preparation Site Demolition	
Division 31	Earthwork	\$ 19,390.00
	Earthwork Landscape File & Finish Utility Trenching & Backfill Temporary Sediment and Erosion Control	
Division 32	Exterior Improvements	\$ 1,399,679.00
	Drainage & Containment Site Improvements (Concrete walks, curbs, mowbands, ramps, etc.) Concrete Paving & Sealants Aggregate Pavement Landscape & Irrigation Play Area Surfacing Fencing Site Furnishings (Bike Racks, Benches, trash receptacles, picnic tables, etc.)	
Division 33	Site Utilities	\$ -
	Domestic Water Sanitary Sewer Site Electrical Distribution Site Lighting Site Circuits, FA, PA, CCTV Site Communication and Data	
Division 33-46	Buildings & Special Construction	\$ 765,632.00
	Play Equipment	
	Subtotal	\$ 2,209,271.00
Division 01	General Requirements	
	General Requirements and Conditions	\$ 331,390.65
	Design Contingency - 20%	\$ 441,854.20
	City Tax on Materials - 3%	\$ 11,550.00
	Subtotal	\$ 2,994,066
	General Contractor Fee -3%	\$ 89,821.98
	Subtotal	\$ 3,083,888
	Bonds, liability and Worker's compensation- 3.63%	\$ 111,945.13
	Escalation to Midpoint of Construction Q3 of 2026-5.65%	\$ 180,564.56
	Subtotal	\$ 3,376,398
	Testing and Inspection	\$ 25,000.00
	Signage Allowance	\$ -
	Construction Contingency- 5%	\$ 168,819.88
	Coyote Ridge Park Concept Plan Total	\$ 3,570,217

SOARING HAWK PARK - ALL PHASES



Not to Scale

Soaring Hawk Park -
Concept Plan for Reference Only

SOARING HAWK PARK - OPINION OF PROBABLE COST

Division of Work		Cost
Division 02	Existing Conditions	\$ 94,586.00
	Site Preparation Site Demolition	
Division 31	Earthwork	\$ 2,429,427.00
	Earthwork Landscape File & Finish Utility Trenching & Backfill Temporary Sediment and Erosion Control	
Division 32	Exterior Improvements	\$ 16,758,222.00
	Drainage & Containment Concrete Drive Pavement Site Improvements (Concrete walks, curbs, mowbands, ramps, etc.) Concrete Paving & Sealants Aggregate Pavement Concrete Unit Pavers Asphalt Paving & Markings Landscape & Irrigation Play Area Surfacing Synthetic Turf Fencing Site Furnishings (Bike Racks, Benches, trash receptacles, picnic tables, etc.) Signage	
Division 33	Site Utilities	\$ 4,270,245.00
	Domestic Water Sanitary Sewer Site Electrical Distribution Site Lighting Athletic Field Lighting Site Circuits, FA, PA, CCTV Site Communication and Data	
Division 33-46	Buildings & Special Construction	\$ 6,572,819.00
	Play Equipment Amphitheater/stage/pavilion Restroom & Storage Buildings Shade Structures Bike Skills and Pump Track Hill Climb Drinking Fountains Crusher Fines Trails	
	Subtotal	\$ 30,125,299.00
Division 01	General Requirements	
	General Requirements and Conditions	\$ 3,009,978.18
	Design Contingency - 30%	\$ 9,037,589.45
	City Tax on Materials	\$ 1,437,187.50
	Subtotal	\$ 43,610,054
	General Contractor Fee -3%	\$ 1,308,301.62
	Subtotal	\$ 44,918,356
	Bonds, liability and Worker's compensation- 3.63%	\$ 1,630,536.31
	Escalation to Midpoint of Construction Q3 of 2026-5.65%	\$ 2,630,012.40
	Subtotal	\$ 49,178,904.47
	Access Road to Cell Tower	\$ 165,325.00
	Art Allowance	\$ 250,000.00
	Testing and Inspection	\$ 325,000.00
	Vehicle Crosswalk Signalization	\$ 325,000.00
	Signage Allowance	\$ 125,325.00
	Construction Contingency 10%	\$ 4,917,890.45
	Subtotal	\$ 6,108,540.45
	Soaring Hawk Park Concept Plan Total	\$ 55,287,445

