## Five: Jubilee Park

## Design Opportunities



Jubilee Park is the flagship community park for the City of Cave Junction and an important community space for events, recreation, and informal gatherings. In addition to providing general guidelines for developing Cave Junction's park system, the Parks and Recreation Master Plan also includes a new design concept that highlights specific improvements for Jubilee Park. The Jubilee Park design serves as a guide for future development in the park.

The following proposals for the renovation and development of Jubilee Park were developed by CSC staff designers and planners through conversations with and outreach to the Cave Junction community. The associated recommendations represent a vision for the future that balances community priorities with economic feasibility and sound design principles. These recommendations are intended to serve the city as a guide to community desires and economic feasibility as development of the park continues. This section includes 1) a concept plan for the park (see previous page); 2) cost investigations and estimates for proposed elements of park expansion or improvement; and 3) a feasibility study for the addition of a dog park.


Various views of the wooded area of Jubilee Park.

## Cost Estimates

## 1. Future Skate Park Expansion (NA)



Inner view of the skate park in Jubilee Park.
While there has been talk of expanding the skate park, this did not emerge as a priority among community members in outreach events. The current plan reserves the area adjacent to the existing skate park for future expansions if desired but does not propose any development or project development costs at this time.

## 2. Native Plantings (\$3,125 soil preparation only - \$18,125 soil prep and plants additional costs for grading plan)

The cost of plantings will be highly variable based on the plants chosen and the degree to which volunteer labor or in-house staff are able to do installation, as well as based on the amount of area covered by plantings. The low-lying northwest section of the park is approximately 25,000 square feet in total. To cover a quarter of this area with plantings would require 6,250 square feet of plantings. With soil prep at a projected cost of $\$ 0.25$ per square foot and topsoil costing $\$ 25$ per cubic yard and covering 100 square feet, the preparation of this area is projected to cost approximately $\$ 3,125$. This area could be covered by 500 shrubs (assuming a mature diameter of 4 feet); at a projected cost of $\$ 30$ a plant, the total cost for plants would be $\$ 15,000$.

The cost of these improvements could potentially be reduced by the use of donated plant material, through the careful choice of more cost effective species, or through the substitution of fast-growing vines, perennials, and groundcovers in place of shrubs. The use of a more varied plant palette would have advantages for species diversity and utility to wildlife, but would also necessitate more frequent maintenance. This could be a potential area for volunteer labor.

To adequately address drainage issues on site, it is recommended that an engineer or landscape architect be consulted for a grading plan in this area, a cost which is not included in the current projected cost.


Flrst Jubilee Park bathroom. on the Western edge.

## 3. Renovated Bathrooms (\$12,000 - \$156,000)

Park restroom precedent studies may be found in Section A of Appendix E. Based on these studies, new restrooms could be expected to run from $\$ 82,500-\$ 156,000$. Materials and supplies for renovating existing restrooms to be more vandalism resistant would run approximately $\$ 3,000$ per restroom $(\$ 12,000$ total to renovate the park's existing 2 male and 2 female restrooms).

## 4. Informational Kiosk (\$1,000 -\$ 2,000)

Both prefabricated message centers and custom wood kiosks typically cost between \$1,000 and \$2,000, not including installation. This structure might be particularly appropriate as an Eagle Scout project or high school shop class project, which could reduce labor and installation costs.

## 5. Covered Bike Parking (\$1,300-\$7,000)

The cost of bike parking varies widely; a Federal Highway Administration study found a range in installation costs from just $\$ 64$ to over $\$ 3,000$, with an average cost of $\$ 660(1)$.

Jubilee Park visitors have requested covered bike parking, which increases the cost of bike infrastructure significantly. Basic prefab bike shelters can be purchased for around $\$ 4,000(2)$. This does not include the cost of concrete pads and rack installation.
Because such prefab structures may be prohibitively expensive, Portland Public Schools produced a reduced cost plan for bike shelter construction to be used by volunteer groups at public schools (3); the projected cost for these shelters was $\$ 647$, not including racks. A 140 square foot concrete pad was projected to cost an additional $\$ 2,000$.

Installation, surfacing, and a prefab shelter could easily cost over $\$ 6,000$. If bike parking could be located on existing surfacing and volunteer labor could be used for construction, covered bike parking could cost as little as $\$ 1,300$.

Sources:

1. https://georgiabikes.org/files/Costs_for_Pedestrian_and_Bicycle_Improvements_2013.pdf
2. https://www.theparkcatalog.com/bike-racks
3. https://bikeportland.org/wp-content/uploads/2012/05/PPS_Bike_Shelter_Guide_March_2012.pdf

## 6. Shade Structure ( $\$ 1,000-\$ 10,000$ )

Two main constructed options exist for shading seating areas near the playground and proposed splash pad: traditional metal structures or tensile fabric. A small (between 100 and 400 square feet) metal canopy or pavilion typically costs between $\$ 1,800$ and $\$ 10,000$ depending on the size and type of construction $(1,2,3)$. Such structures can be expected to run between $\$ 18$ and $\$ 24$ per square foot (3). Tensile fabric may be a more cost effective option, costing between $\$ 10$ and 20 per square foot $(3,4)$.

Trees may be a significantly cheaper, ecologically friendly, and aesthetically pleasing alternative to a constructed shade structure. Several trees already exist near the playground and proposed splash pad area and siting any new benches or tables beneath these could provide shade for visitors at no additional cost. Although it takes several years for new trees to become established enough to produce shade, careful planning now could produce needed shade in future years and would save the city hundreds or thousands of dollars.

## Sources:

1. http://www.detailedplaypro.com/shade-structures.htm
2. http://www.bluegrassplaygrounds.com/shade-structures-shelters-and-gazebos-shades.html
3. http://www.ultimateshadeusa.com/frequently-asked-questions/
4. http://www.shadeindustries.com/FAQ.php

## 7. Splash Pad (\$65,000-\$500,000)

A splash pad has been frequently requested by community members as a desired amenity to complement the existing playground. Splash pads provide an alternative to traditional playgrounds in the hot summer months and may be a cheaper and safer alternative to traditional pools.

Splash pads represent a significant upfront expenditure and require ongoing maintenance. At a minimum, the installation of a commercial grade splash pad can be expected to exceed $\$ 65,000$ (1). In a review of public splash pad installations in the southeastern U.S., the majority were found to cost local governments between $\$ 100,000$ and $\$ 300,000$ in installation although some exceeded this amount (2). These numbers do not include utilities and maintenance, as well as the cost of hiring an attendant.

## Sources;

1. http://www.splashpadsusa.com/splash-pad-cost/
2. http://www.archwaypartnership.uga.edu/wp-content/uploads/2013/11/Best-Practices-for-Public-Spash-Pads_Taha-Hameddudin_FINAL.pdf

## 8. North End Entrance and Parking Lot (\$13,250 - \$48,000)

Asphalt paving is projected at $\$ 3.00$ per square foot. At this price point, the specified 20 foot wide two-way entrance drive and a 10 car capacity lot ( 28 feet by 90 feet) would cost approximately $\$ 48,000$. Reducing the entry drive to a single 12 foot lane and using gravel (projected at $\$ 1.25$ per square foot) rather than asphalt could reduce the cost to around \$13,250.

## 9. Park Host Infrastructure (\$1,712-\$3,424, plus hookups)

The two main expenditures for accommodating a park host are the installation of a poured concrete pad and the installation of water, sewer, and electrical hookups. At $\$ 4.28$ per square foot, a 400 square foot pad (large enough to accommodate a 30 ' long RV) would cost \$1,712 to install. To accommodate an additional park host, the cost would double, to \$3,424.

Water, sewer, and electrical hookups will need to be installed at each park host site. Cost for providing these hookups is site-specific, but will likely be relatively inexpensive since utilities already exist on site. Quotes should be obtained from contractors for these elements.
10. Mixed Use Court Renovation (\$5,000-\$12,000)


Existing tennis court in Jubilee Park.
Resurfacing the tennis court is projected to cost between $\$ 4,000$ and $\$ 10,000$ depending on the state of the current surface. Basketball hoops will cost an additional \$1,000$\$ 2,000$. Should renovations or replacement of the existing fence be necessary, these costs are projected at between $\$ 15$ and $\$ 40$ per linear foot (for 10' chain link fence), not included in the above estimate.

Sources:

1. http://www.sportmaster.net/faq_resurface/

## 11. Walking Path (\$12,741-\$83,800)

3,267 linear feet of walking paths are proposed to circumnavigate the park. At a cost of $\$ 4.28$ per square foot, a 6 -foot wide concrete path over this area would cost $\$ 83,888$. A soft-surface trail at 5 feet wide over the same distance would cost significantly less, around $\$ 12,741$, but would not be ADA accessible.

## 12. Shaded Stadium Seating (\$14,400-\$19,200)

Community members have expressed a desire to provide shade for spectators on either side of the baseball field. Adding two $10 \times 40$ foot shade structures over existing seating at the estimated $\$ 18$-24 per square foot would cost $\$ 14,400-\$ 19,200$. The height
requirements for the shade structure due to bleacher height may push these costs higher than those of typical shade structures.
In general, the community agrees that the quality and amount of seating at the baseball field is currently sufficient. Should additional seating be added or replaced, bleachers could be expected to run between $\$ 2,900-17,500$ depending on size and design $(1,2)$. This cost of additional seating is not included in the total cost listed above.

Sources:

1. http://www.ondecksports.com/VIP-Bleachers
2. https://www.theparkcatalog.com/bleachers
3. Baseball Field Renovations $(\$ 206,350-\$ 451,700)$


Baseball field adjacent to main parking lot.
Renovations of the existing baseball field will represent a significant financial input on the part of the City. At a minimum, the following renovations have been requested: relocation/replacement of lights, replacement of the backstop, the addition of a robust outfield fence or protection of some kind, and the relocation of the southern fence to accommodate an access road. Resurfacing of the turf is also likely desirable but is not included in the cost estimates as it should be done regularly as part of ongoing maintenance.

Replacing the backstop can be expected to cost between $\$ 1,100$ and $\$ 8,500$, depending on how much of the labor is done in house $(1,2,3)$. Kits can be purchased for as little as $\$ 1,100$ but would require significant labor, expertise, and equipment to assemble, likely resulting in additional costs. Kits with preassembled panels are also available, though these tend to cost slightly more. Including labor, delivery, and equipment rental, costs for the backstop could run around $\$ 8,500$.

At a minimum, fencing will need to be replaced on the south side of the field to make room for the desired access road. Chain link fencing typically costs between $\$ 15$ and $\$ 40$ per linear foot, depending on height and other variables. Replacing the fencing along the 270 foot side of the field could be expected to cost at least $\$ 4,050$.

Due to the field's proximity to other park amenities, protection has been requested around the outfield as well. In addition to replacing the fence on the south side, existing fencing could be replaced by taller, 10 foot chain link fencing. The replacement of fencing around the entire perimeter of the field (approximately 1,080 feet) is projected to cost between \$16,200 and \$43,200.

A much cheaper and potentially more effective alternative to the requested fence is the use of foul ball netting. Netting could be added above a chain link fence to protect pedestrians and cars outside the field, without removing or replacing the existing fence. Suitable netting typically runs approximately $\$ 1.00$ per square foot, significantly cheaper than fencing options $(4,5)$. Additionally, netting will likely provide better protection because it can extend significantly higher than a fence would. At this price, a 20 foot tall net surrounding the entire field (approximately 300 feet per side) would cost $\$ 1,200$, plus costs for installing posts and hardware for mounting. It should be noted that netting of this sort is typically used to protect spectators from foul balls near the infield and is thus typically only used along the baselines. In this case, due to the sensitive location of the parking lot next to the outfield, it is recommended that additional netting be used in the outfield area as well.

The largest expenditure will likely be the replacement and relocation of existing lighting. It is possible to light municipal baseball facilities for under $\$ 200,000$, although sports field lighting can run up to $\$ 400,000(7,8)$. Exact costs will depend on a variety of factors, including factors such as the desired new stadium capacity, the kinds of events the city hopes to host, and the degree to which lighting will impact park neighbors. Since the major concern with existing lighting is the location of the posts within the outfield area and not the lights themselves, it might be possible to relocate the existing fixtures for a reduced cost; pricing for such a move would require a quote from a lighting professional. The existing posts are in poor condition and would need to be moved and replaced even if the lighting fixtures themselves can be retained.

## Sources:

1. http://www.chainlinkfence.com/backstop.html (kit) \$1,100
2. http://www.hooverfence.com/backstop/ (2,000-4,000)
3. http://www.allcostdata.info/detail.html/027116201/Baseball-Backstop,-Galvanized-Regulation (including delivery, installation, etc.) $\$ 8500$
4. http://www.cascadenets.com/barrier_netting. php?gclid=EAIaIQobChMInYXuuYWj1QIVkLbACh3ppQF1EAAYASAAEgL8xfD_BwE
5. http://www.betterbaseball.com/calculator
6. http://www.shorenewstoday.com/upper_township/news/upper-township-receives-bid-for-baseball-field-lighting/article_86c48e81-f836-5b67-b459-613dde2e5b5a.html
7. http://www.stma.org/sites/stma/files/STMA_Bulletins/SportFieldLighting_SAFE.pdf
8. http://assets.ngin.com/attachments/document/0063/4980/Musco_Lighting_Brochure.pdf

## 14. Pavilion Renovation (\$1,000 - \$75,000)

The cost for renovating the existing pavilion will vary widely, depending upon the degree of renovation desired. At a minimum, it is recommended that the fencing around the structure be removed, allowing for regular visitor access and informal gatherings. The heavy furniture currently in the structure is problematic in most contexts: it prevents the structure from being used for the farmer's market because it is challenging to move
out of the way and also prevents the structure from being used on a daily basis because concerns of vandalism to the furniture cause the pavilion to be gated except when events are hosted there.


Existing pavilion at Jubilee Park.
Three options are presented for renovating the pavilion, each with a different focus and price point:

1. Minimal intervention, prioritizing informal uses (\$1,000-\$2,000): gates are removed from the structure, lighting is improved, and through the addition of the park host activity in the shelter is monitored. The concern of vandalism to the furniture is valid but this option assumes that some cost of ongoing repair and maintenance will be cheaper than additional renovations. This option also provides visitors with a shaded seating area which is currently lacking in the park. Costs would be minimal for this option: the labor and equipment costs for the removal of the fencing and the cost of additional lighting fixtures would be the only significant costs other than ongoing maintenance. However, it should be noted that this option does not address the desire to have a permanent structure for the farmer's market.
2. Moderate intervention, prioritizing flexible use ( $\$ 5,000-\$ 8,000$ ): As with the minimal intervention option, this option recommends that the gates be removed and lighting improved; additionally, in this case the heavy furniture is sold and portable furniture is added and stored when the area is not used for events. This option is not ideal for daily use of the structure since it doesn't provide a seating option for visitors, but would greatly facilitate the use of the space for the farmer's market and other events.

Commercial grade folding tables can be purchased for \$100-\$200 a piece, costing $\$ 1,000-\$ 2,000$ for a set of $10 ; 100$ chairs would run an additional $\$ 3,000-\$ 5,000$. It should be noted that storage of this equipment would be necessary, as even commercial grade tables and chairs are easily stolen or vandalized. Ideally, there would be a secure space within the pavilion to store the furniture. If sufficient room is not available, an adjoining storage shelter might be constructed at additional cost; alternatively other structures exist on site and could likely be used for storage at no additional renovation cost.

This option provides some opportunities for offsetting the construction costs, first through the sale of the existing wooden furniture and secondarily through the possibility of event rentals in the space. Keeping the space filled with events as frequently as possible would also be a positive way to deter unwanted activity in the structure once the gates have been removed.
3. Significant intervention, providing designated spaces for both formal and informal uses ( $\$ 50,000-\$ 75,000$ ): As with all previous options, the gates surrounding the structure are removed. Vandalism-resistant fixed furniture (concrete or metal) is added in place of the existing wooden elements. Commercial grade picnic tables typically cost between $\$ 800$ and $\$ 1,500$ depending on the quantity desired, this furniture could cost the park between $\$ 5,000$ and $\$ 15,000$ (1). Ideally, siting of this furniture would be done in consultation with the farmer's market and other community groups using the space to best keep flexible use options open.

An adjoining structure for the farmer's market would be added to the current pavilion. This structure would likely be located along the parking lot for easy vehicular access but should be situated with input from the market vendors. As with other metal shade structures, such a structure is expected to cost between $\$ 18$ and $\$ 24$ per square foot. The current structure is roughly 5,000 square feet; to add a structure half this size would cost the park between \$45,000 and 60,000 (2).

Sources:

1. https://www.theparkcatalog.com/picnic-tables
2. http://www.bluegrassplaygrounds.com/shade-structures-shelters-and-gazebos-shades.html

## Overall Cost Estimates:

## \$337,878 - \$1,386,249

Overall cost projections are based on the high and low numbers given for each amenity above. As noted more specifically in each section, there are cost saving opportunities for many amenities, as well as potentially desirable expenditures that are not factored into these numbers. Please note also that these numbers reflect initial construction costs only and do not reflect ongoing maintenance, which may be substantial. These numbers are for planning purposes only; costs of labor and equipment rentals are highly variable and local contractors should be consulted for formal estimates.

These cost projections show that with careful planning, costs can be significantly reduced and held well below $\$ 500,000$, an exceptionally modest budget for a park the scale of Jubilee. The breakdown of these projections by amenity should empower the community to choose how and where to allocate limited funds and to prioritize projects in phases.

## Dog Park Feasibility Investigation



Size: The parcel under consideration is approximately 1.4 acres. Typical recommendations for dog park size suggest 1 acre minimum to prevent overuse. The size of this parcel is appropriate for development as a dog park.

Access: The parcel does not currently have any developed access for pedestrians or vehicles. To create access to this property for pedestrians and maintenance vehicles, the existing baseball field would need to be shortened along the third base foul line.

Because the first base side of the field is currently 10 feet shorter than the third base side, shortening this end of the field by 10 feet would create an even field ( 270 feet square) while also making room for pedestrian and maintenance vehicle access. It should be noted that the existing dimensions of the field are already smaller than minimum outfield sizing recommendations (at least 300' from home plate to outfield fence) and reducing the footprint of the field will only exacerbate this situation. If access is added in this area, appropriate precautions should be taken through the addition of protective netting or fencing, as well as signage, to assure visitor safety.

Access and parking for visitor vehicles is not recommended, as two-way traffic is not possible on a 10 foot wide access road. However, there may be future possibilities for acquiring additional land for vehicle entry and parking.

Neighboring uses: The location of the parcel adjacent to Jubilee Park makes it an ideal site for further development. However, the parcel's proximity to several residences may be problematic.

Amenities: Fencing and utilities are the two most important amenities required for a dog park. Six foot tall chain link fencing is typically recommended, with double entry gates for added security. Water access is required and lighting is strongly recommended. In addition to these basic amenities, trash cans and cleaning supplies, seating, a walking loop, and signage regarding rules and regulations are all strongly encouraged. Although a shade structure is typically encouraged, existing trees on site may make this unnecessary.

Cost: The cost of a dog park includes the cost of physical amenities such as fencing, trails, and benches; the installation of utility lines; site preparation such as brush clearing and grass seeding; and ongoing maintenance. Based on these criteria, the overall cost of dog parks can vary greatly. In a cost analysis, the town of Chapel Hill, North Carolina found that minimal development of a 63,000 square foot parcel (similar in size to the current 66,000 square foot parcel under consideration) would cost approximately $\$ 43,400$ in upfront costs with an annual maintenance budget of $\$ 11,700$. The city of Mt. Pleasant, Michigan, budgeted between $\$ 150,000$ and $\$ 300,000$ for the development of their facility with additional amenities and anticipated between \$30,000 and $\$ 40,000$ of maintenance annually. The largest cost faced in installation is typically fencing, which can be expected to cost between $\$ 25$ and $\$ 30$ per linear foot. For the current site, approximately 10,000 linear feet of fence would be needed, resulting in a price tag of $\$ 25,000-\$ 30,000$ for fencing alone. Additionally, appropriate maintenance of the site is imperative and should be considered in the budget.

Conclusions: The parcel has potential for development as a dog park due to its size and location near other public land. However, several constraints and limitations need to be considered. First, the existing baseball field prohibits vehicular access; access to the parcel will be limited to pedestrian traffic only. Additionally, added foot traffic in this area may be undesirable for park neighbors whose properties border this parcel. In addition to these physical constraints, the cost of development is perhaps the most prohibitive challenge. In addition to sizable upfront costs, the development of a dog park would require the city to commit thousands of dollars annually to park maintenance, including mowing, grass reseeding, brush clearing, trash service and utilities, and basic infrastructural maintenance. It is recommended that the development of this parcel not be pursued until the city budget can include not only the upfront installation costs but also the annual maintenance costs.

