

Fall 2023 Sacred Grounds Plans

Proposal for Board Approval July 18, 2023

Executive Summary

SACRED GROUNDS INITIATIVE MISSION STATEMENT
MULTIYEAR IMPLEMENTATION PLAN
SCOPE OF PROPOSAL FOR BOARD APPROVAL
ADMINISTRATION

Description

CELEBRATION GARDEN
DESERT CANYON DEMONSTRATION GARDEN
MESQUITE SCREENING
ANNUAL WILDFLOWERS

Financial

CAPITAL COST AND FUNDING – SUMMARY
FUTURE OPERATING EXPENSES – SUMMARY
FUNDRAISING

Communication, Education and Outreach

COMMUNICATION
EDUCATION
OUTREACH

Appendix - Financial Details

PAYMENT DETAILS
CAPITAL COST – DETAIL
FUTURE OPERATING EXPENSES – DETAIL

Appendix - Celebration Garden Implementation Details

CELEBRATION GARDEN IMPLEMENTATION PLAN

Appendix - Desert Canyon Garden Implementation Details

DESERT CANYON DEMONSTRATION GARDEN IMPLEMENTATION PLAN

Appendix - Additional Implementation Plans

MESQUITE SCREEN IMPLEMENTATION PLAN
ANNUAL WILDFLOWER IMPLEMENTATION PLAN

Appendix - Risks and Mitigations

Appendix - Future

YEAR ONE
SUBSEQUENT YEARS

Executive Summary

The Sacred Grounds Steering Committee is requesting approval from the UUCOD Board on July 18 for the following, to be completed in the Fall of 2023.

- Creation of a Celebration Garden near the plaza for Sacred Stones and commemorative pavers.
- Creation of the first of a series of demonstration native gardens, the Desert Canyon Garden near the picnic area and labyrinth.
- Spending not to exceed the Sacred Grounds Reserve account, funded from donations

SACRED GROUNDS INITIATIVE MISSION STATEMENT

The work of Sacred Grounds of UUCOD grows our spiritual and physical relationship with our endangered desert home through mindful stewardship, joyful celebration, and communal education.

MULTIYEAR IMPLEMENTATION PLAN

Begun in the Spring of 2020, The Sacred Grounds initiative was enthusiastically endorsed by a number of UUCOD members and friends. However, the Covid pandemic interrupted both planning and implementation. During this time, Leslie Gebhart set to work raising funds and over the past three years raised more than \$34,000. In the summer of 2021, SG funds were used to install misters on the terrace to allow people to gather after services for coffee hour and for other occasions. Sacred Grounds now has over \$21,000 in its account for implementation of this coming phase which focuses on securing more viable habitats for the plants and creatures who live on this land.

In the fall of 2022 and winter of 2023, a group of people interested in Sacred Grounds met and dreamed about creating demonstration gardens and moving and completing the Ceremonial Garden. This spring a Sacred Grounds Steering Committee was formed and developed plans for the first demonstration garden and the completion of the Celebration Garden. These proposals are being brought to the UUCOD Board for approval. Once approved, the work will be undertaken in the Fall of 2023.

Beginning this summer and ongoing, the Steering Committee and other volunteers will work to involve the Congregation. These efforts will include work days planting and tending the first gardens, education programs, and articles in the weekly and monthly newsletters and other outreach.

Over the next year or two our intention is to plan for and create several more demonstration gardens, and to add more features such as benches. We will quietly begin this summer to raise funds for these projects, with the anticipation of submitting grants to local foundations and having a more active fundraising effort as needed next spring.

SCOPE OF PROPOSAL FOR BOARD APPROVAL

- Asking for approval at July 18, 2023 Board Meeting (Details in body of Proposal)
 - Celebration Garden hardscaping, plantings and irrigation
 - Desert Canyon Demonstration Garden plantings, signage, irrigation, rocks and paths
 - Mesquite to screen future housing development
- Not in scope; will be future proposals

- Celebration Garden path and bench. We have willing donors so a proposal may be coming this Fall (we need to select a specific bench, cost and funding)
- Desert Canyon benches or bridge to labyrinth (we need to develop specifics, cost and funding)
- Additional Demonstration Gardens (Desert Dry Wash, Creosote Scrub, ...)

ADMINISTRATION

- The Project will be directed by the Sacred Grounds Steering Committee
 - Rod Belshee*^{1,2} and Diana Leslie*⁵, co-chairs
 - John Ressler*^{3,4}, Celebration Garden lead
 - Dave Emmerson*¹ and Sue Engel*¹, Desert Canyon co-leads
 - Jack Fitzsimmons*³, Landscape design creative
 - Mel Wilkinson*¹, Facilities
 - Jerry L'Hommedieu*², Board liaison

*¹ Certified California Naturalist

*² Certified Master Gardener

*³ Artist

*⁴ Organic Gardening & Conservation Professor

*⁵ Non-profits Consultant and Director

Description

CELEBRATION GARDEN

● Conceptual Overview

- The Celebration Garden is a place for remembrance of joyous events and of deceased friends and relatives. It is a sacred space.
- The feel of the Garden is to encourage people to linger in quiet reflection. We incorporate distant views, a central art sculpture, and the Sacred Stones. A low hedge to the north will provide semi-privacy..
- The Garden needs to be extremely accessible. The walkway is ADA compliant 36” pavement, and circular so there is no need to turn around a wheelchair.
- The existing commemorative pavers and new Sacred Stones will be placed both inside and outside the circular walkway, with lettering aligned to be read from the walkway. There are no plantings (or irrigation) among the Sacred Stones.
- (A future path from the Celebration Garden walkway to a bench under the massive Palo Verde is not in scope for this proposal. It requires selection of a specific bench, aesthetic approval, plus costing and funding.)

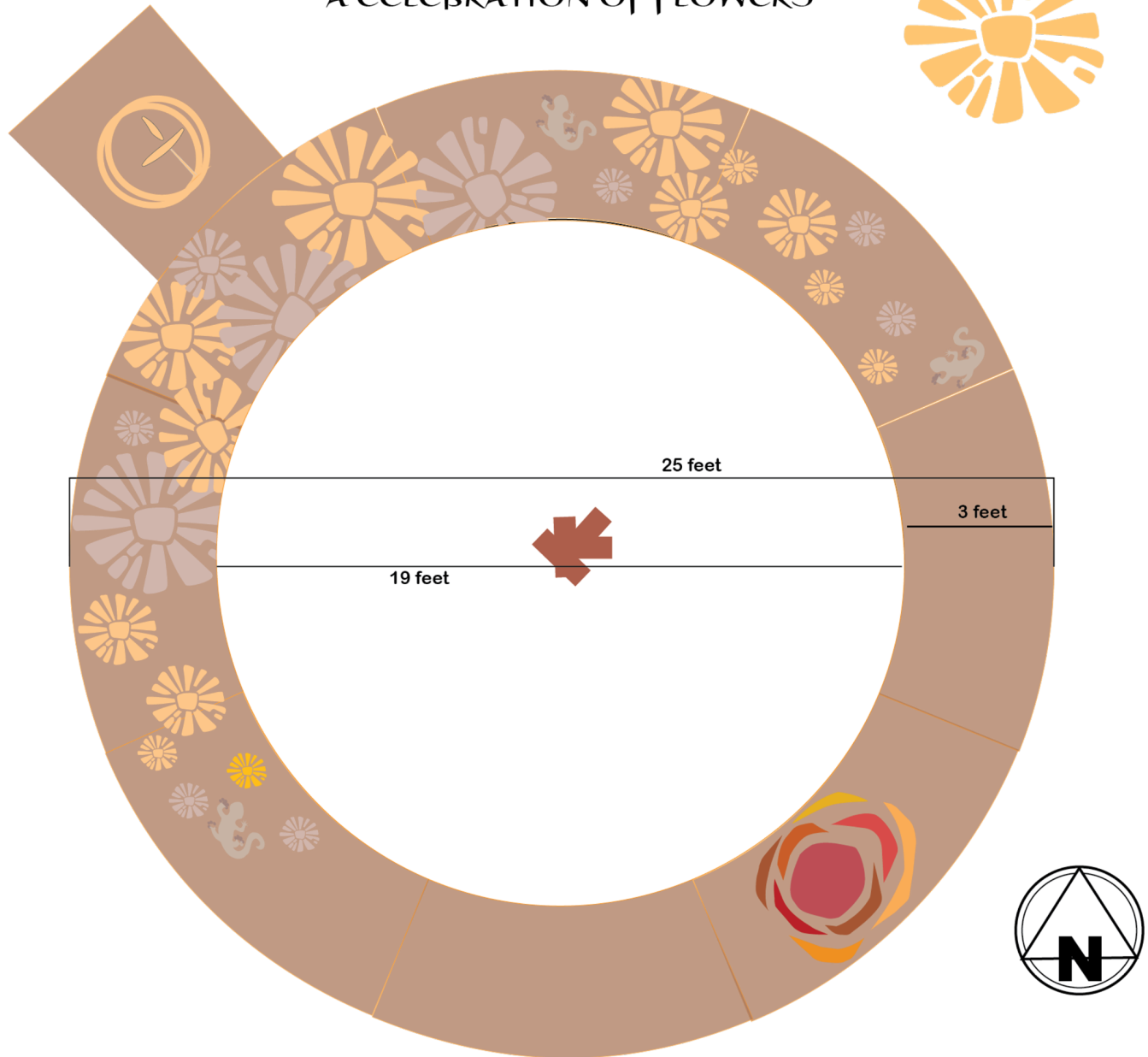
● Artistic description, materials and processes

- The walkway will be an expression of public art rather than just more gray concrete. It reflects the desert with a subtle but joyous brittlebush (*Encelia*) blossom design embedded in the walkway. The intent is for the art to add to the celebratory feeling without overpowering the important Sacred Stones. At the entrance will be a Chalice design embedded in the walkway.
- The walkway is poured concrete, commercially applied. The designs are subtle impressions stamped into the surface, colored with acid dye and then sealed. The acid dye is rather UV stable, especially when sealed.
- No permits are required.

● Basic Specifications and Drawing

- The circular walkway is 36 inches wide, with an inner diameter of 19 feet and outer diameter of 25 feet. The apron entrance fans out to approximately 48 inches where it connects to the plaza patio. The short block wall at the plaza patio perimeter rock garden has already been removed.
- The *Encelia* design will be replicated in three sizes, from approximately 12 inches to nearly 36 inches. Each size will be stamped in several locations, and some will be dyed yellow and some a gray that contrasts slightly with the concrete. The chalice will be dyed gray.
- The stamping will be just 1/16” to 1/8” deep so as to create a design but not impact walking or wheelchairs, and minimize collection of blow sand.
- The concrete will be 4” thick on 3” bed of crushed coarse (1.5”) gravel, with 2 rebar rings and cross-ties and eight saw-cut expansion joints.

A CELEBRATION OF FLOWERS



- **Plantings**

- The only planting will be an irrigated low native hedge that screens off the view of the parking lot and provides semi-privacy. We selected the native Bladderpod, *Isomeris arborea*, an evergreen that rapidly grows to a mature height of 4-5 feet with prolific yellow flowers that are favored by native bees, butterflies and birds.



- **Maintenance**

- The Garden requires little particular maintenance. Other than occasional picking up of litter or pulling weeds, re-sealing every few years is the only maintenance and the dye will retain color indefinitely.
- We recommend Facilities schedule resealing every three years, and this can be easily done by a volunteer (it is like painting water over the patterns).
- However we have selected a process and materials that if not maintained will not present a problem – the color just fades. The sealant will not fail and crack or peel, so if no maintenance is done the only result is reduction in color and the acid dye and sealant can be repeated if that occurs.
- The implementation plan is discussed later in this proposal

DESERT CANYON DEMONSTRATION GARDEN

- **Conceptual overview**

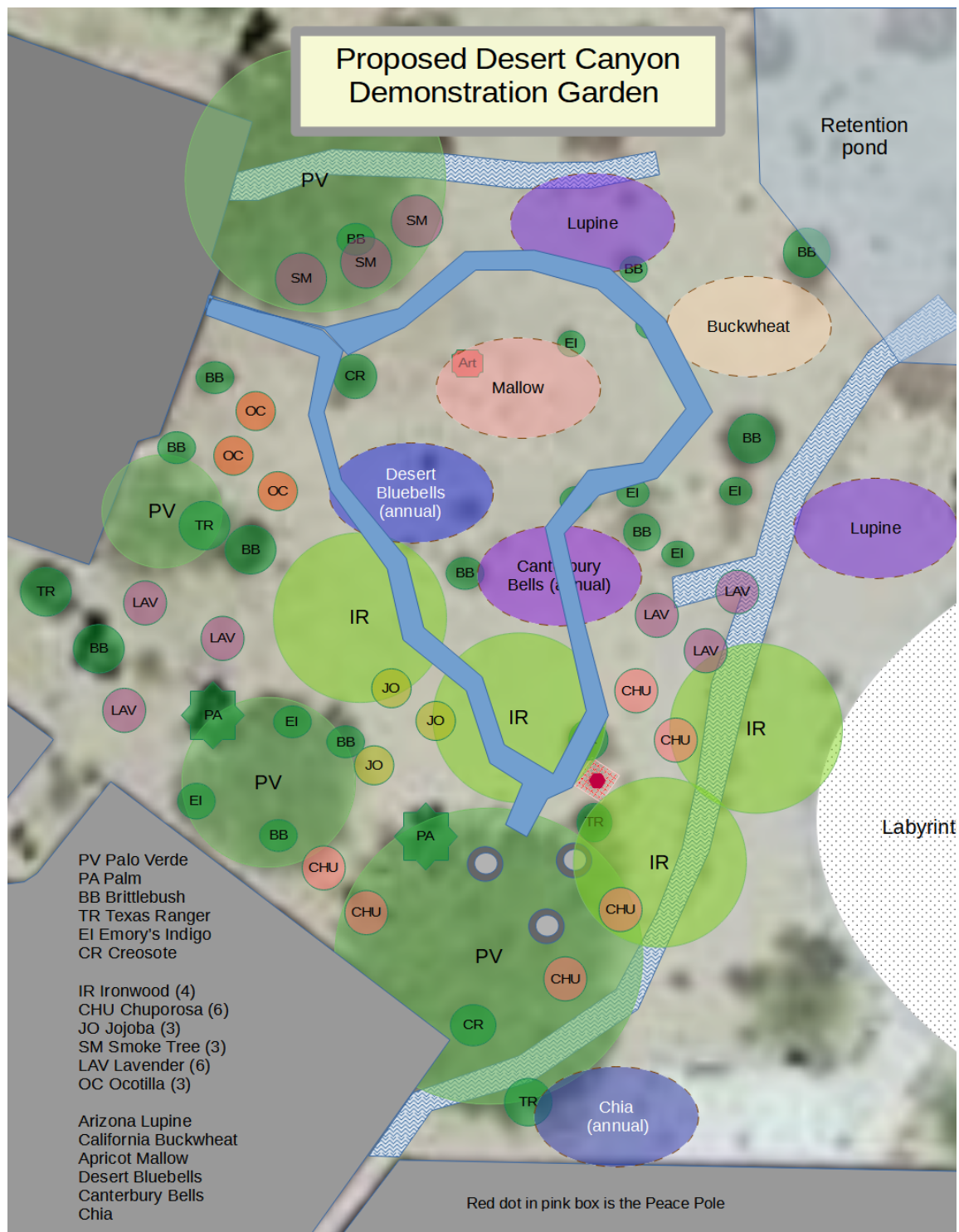
- The Demonstration Garden provides native habitat for pollinators, birds, lizards and small mammals. With the rapid increase in desert temperatures (already 5 degrees Fahrenheit), the natural areas are struggling. We are following the concept of “National Parks in Your Backyard”, which is to create refugia to supplement the declining natural habitat. In our case the primary difference we can make is to add occasional water to offset the increased transpiration and evaporation rates in natural areas.
- The Garden will invite people to slow down, meander and observe the natural world. It can serve as a place for a quiet escape, or place for discovery. We expect it to be frequented by butterflies, hummingbirds, birds and other forms of life.
- To foster curiosity and education, ample unobtrusive signage introduces the various plant species, with a QR code for visitors to explore further.
- The Desert Canyon Demonstration Garden is the first of perhaps five Gardens that replicate the native plant communities in the Coachella Valley. The Garden will eventually be part of a continuous story, with the Desert Canyon flowing into a Desert Dry Wash located in the retention pond, and adjacent to the Palms surrounding the labyrinth which can represent a Desert Oasis.
- There will be a small water basin for birds and pollinators, with a small solar recirculating pump to prevent mosquitoes.

- **Artistic description, materials and processes**

- The Garden's two main entrances are styled to resemble entering a desert canyon with a path leading between two large boulders. Within the Garden there are native plantings in attractive groupings and a path through the shade of Ironwood trees. The path will be recessed and the boundary ground raised into mounds with ample rocks to mimic the feel of a desert canyon and to provide habitat. We incorporate distant views and a central art sculpture which, as the garden matures, will undoubtedly be attractive to local Plein Art painters, of whom there are many.
- The Garden includes trees, large and small bushes, and a few areas for annuals.
- The Garden includes substantial boulders that will be placed by contractors and a large quantity of rocks collected and placed by volunteers (see the Implementation section below). Fully creating a canyon by acquisition of major boulders or creation of synthetic ones is beyond any reasonable budget, but the entrance boulders and smaller rocks are a facsimile.
- No permits are required.

- **Basic Specifications and Drawing**

- The Garden is situated roughly in a rectangle surrounding the metal sculpture by the picnic area and labyrinth. It is bordered by parking to the south and the west, the dry creek by the labyrinth to the east, and extends perhaps twenty feet north of the sculpture. The Garden covers about 7,500 square feet.
- Refer to the enclosed drawing which shows the proposed plantings. Note that existing non-native plants are not being deliberately removed (at least initially) so that the Garden does not appear barren.
- The Garden may be entered either from the end of the parking lot to the west, or from within the picnic area. Each entrance will have boulders to provide the feel of entering a desert canyon..
- The Garden path is sand, so does not meet ADA accessible guidelines.



● **Maintenance**

- The Garden requires little special maintenance compared to the existing grounds. Other than occasional picking up of litter or pulling weeds, we anticipate monitoring and repairing the irrigation emitters to be the main task. Trimming the four Ironwood trees should be done every three years.
- See details in the section below titled Future Operating Expenses - Details.

- The implementation plan is discussed later in this proposal

MESQUITE SCREENING

- The entire south perimeter block wall borders a future housing development. The current little bit of view of the Santa Rosa Mountains will be obscured by high-end homes.
- We will plant relatively small mesquite now so that they grow to screen off the future development.
- We selected Honey Mesquite because it is a keystone plant here and throughout the Colorado Desert, a critical species for pollinators with its flowers, critters with its seeds, and habitat for nesting birds.
- The mesquite will grow rather large (to 30 feet high) and also provide some shade.

ANNUAL WILDFLOWERS

- We will have some fun with annual wildflowers, collecting and purchasing some native seed to scatter in select areas of the grounds. We will hand water weekly Jan-Feb and see what happens. If we can produce our own little super-bloom that will be great (and the pollinators and lizards will be thankful) and if nothing comes of it that is fine too.
- If this produces flowers and lots of seeds then the superbloom can re-appear in future years if anyone chooses to supplement the Jan-Feb rains.

Financial

CAPITAL COST AND FUNDING – SUMMARY

- Capital Expense
 - \$21,197 Reserve balance as of June 30, 2023
 - \$19,000 estimated cost (detailed in Appendix)
 - \$10,000 (estimate) for Desert Canyon Demonstration Garden
 - \$8,000 (estimate) for Celebration Garden
 - \$1,000 (estimate) for Mesquite Screening
- FY2023-2024 UUCOD Budget
 - \$12,000 FY23-24 expense budget for Sacred Grounds
 - \$19,000 estimate expense
 - \$7,000 over the FY23-24 Sacred Grounds expense budget

FUTURE OPERATING EXPENSES – SUMMARY

- We anticipate no material change in annual operating expenses for the first several years. As desert natives, the cost for water, materials, and irrigation maintenance are expected to be nominal.
- After the initial three years we will incur additional expense for tree trimming, particularly the new Mesquites. This might be an increase of around \$600 in the grounds annual operating expense.

FUNDRAISING

- The Proposal will nearly drain the Sacred Grounds Reserve.
- We want to replenish the Reserve for year one replacement contingency and future gardens. We have a target of \$8,000 by November 1.
- We will quietly approach a few people who are Sacred Grounds supporters and potential donors between now and November 1. Approximately a half dozen people have already volunteered to make a donation.
- In keeping with UUCOD policies, we will not create naming opportunities nor delineate gift levels, and will ask people to give what they are able to give – all gifts count.
- We may give examples of what a donation can fund, e.g. \$20 buys a couple of small plants, \$50 buys a bigger bush, \$150 buys a small tree, etc.
- We want to encourage everyone to be Stewards of our Sacred Grounds regardless of how much time or money they give.
- We will have ongoing congregational fundraising such as selling Sacred Stones but not conduct a major, visible fundraising campaign at this time. We anticipate a green light for a fundraising campaign March-October 2024.

Communication, Education and Outreach

COMMUNICATION

- Our goal is to engage the congregation in the Sacred Grounds projects through frequent communications in the weekly and monthly newsletters. We will have a table on the patio following the Sunday services with information about the mission and vision of the Sacred Grounds Initiative, the Ceremonial Garden and the Desert Canyon Garden.
- For the past few months there has been a plant of the week photo in the newsletter. Once we have Board approval for the two gardens, we will begin communicating more information.
- We will also work closely with Randy Steele who is leading the effort to sell the Celebration Garden Sacred Stones.
- Dave, Jack, and Diana will work on these.

EDUCATION

- Our goal is to encourage members and friends of our congregation to become responsible stewards and advocates for the plants, trees, and creatures who live in the desert.
- We will also offer numerous opportunities for people of all ages, skill levels, and physical abilities to be involved including work parties, guided garden walks, games to identify plants and animals, etc.
- We will publicize and possibly organize trips to UCR lectures and other events.
- We will encourage people to take the California Naturalist Course.
- Lifespan and Social Justice have both suggested joint educational activities.
- Sacred Grounds also frequently works with Worship for the Earth Day service, such as soliciting noted local conservationists as speakers. We would like to be involved in additional services.
- Specific plans will be developed this fall and winter and will be shared with the board.

OUTREACH

- If UUCOD decides to pursue Outreach then Sacred Grounds can provide opportunities to help on that initiative as well.
- The Desert Canyon Demonstration Garden increases attraction to families, since it will further enhance the existing picnic area and provide more shade.
- The Garden also will provide better space and shade for adjacent labyrinth activities.
- Potentially, we could offer our demonstration gardens for use by school groups, which can increase our visibility in the valley.

Appendix - Financial Details

PAYMENT DETAILS

- TBD
- Concrete contractor likely pay part in advance (e.g. October 1) and remainder within 30 days (e.g. November 1)?
- Plant materials likely pay in advance (e.g. October 1)
- Miscellaneous materials (irrigation, dye, sealant, ...) reimburse volunteers, likely October

CAPITAL COST – DETAIL

- \$ 8,000 Celebration Garden
 - \$5,000-\$7,000 (*estimate**) Contractor labor, materials, taxes
 - \$1,000 (*estimate*) Stamp materials, Dye and sealant materials
 - under \$50 Plants and irrigation
- \$10,000 Desert Canyon Demonstration Garden
 - \$ 2,000 Plants
 - \$ 5,000 Boulders
 - \$ 0 Smaller rocks (collect ourselves)
 - \$ 1,000 (*estimate**) Grading
 - \$ 500 Preparation//irrigation
 - \$ 1,500 Signage
 - \$ 500 Promotion, visual renderings
- \$ 1,000 Mesquite Screening
 - \$ 600 Plant materials (12@\$50)
 - \$ 200 Irrigation materials
- \$ 50 Annual Wildflowers

**estimate: At the July 18 Board Meeting, we will have a bid for the Celebration Garden contractor, and we will have non-binding estimates from two contractors for Grading the Desert Canyon garden.*

FUTURE OPERATING EXPENSES – DETAIL

- Water, no material change in expense
 - For the first two summers the new plants will require watering. This will include hand watering and irrigation. This might increase the water usage for two summers, but perhaps not a lot since we already do hand watering and irrigation. The existing hoses can reach the Desert Canyon Demonstration Garden for hand watering.
 - After the second summer the plants will need scant water, perhaps once a month during the heat. This may be less expensive than the current watering, which drips every day.
- Gardening materials, no material expense
 - There should be no material expenses for materials
 - Native plants do not (actually can't tolerate) fertilizers, soil amendments, or other materials.

- The pollinators and lizards cannot tolerate insecticide or pesticides
- The only foreseen expenses might be something like stakes for trees
- Irrigation system maintenance, no material change in expense
 - Leaks
 - There are so many dead emitters that current maintenance is largely to repair leaks, including failed valves, broken pipes and broken emitters
 - The gardeners are under contract to maintain the system and will fix problems when called but often Mel, Dave or Steve just repair the leaks themselves
 - Emitters
 - For the first two summers Sacred Grounds volunteers will be monitoring the plants closely and can identify emitters that need repair.
- Tree trimming, potential \$800 annual increase after the first few years
 - We are adding a number of trees, four Ironwood in the Desert Canyon Demonstration Garden and twelve Mesquite as a screen along the south property line.
 - For the first several years we will do the trimming to help promote a nice shape and structure. After a few years the task will shift to a tree trimmer.
 - The mesquite trees require annual trimming. We want simply a light touch to remove dead or crossed branches and reduce vulnerability to wind damage. The cost will be similar per tree to the existing Palo Verdes, \$50/tree.
 - The four ironwood trees will require some light trimming every few years at a nominal cost.

Appendix - Celebration Garden Implementation Details

CELEBRATION GARDEN IMPLEMENTATION PLAN

- **Concrete contractor**
 - Leonard Loera, license number, bonded/insured
- **Coordination with Patio work**
 - We anticipate that the concrete contractor will complete the Plaza patio extension and repairs at the same time as pouring the Celebration Garden walkway. The Plaza patio extension and repairs will be planned and coordinated by the Facilities Committee.
- **Timing**
 - The target is to complete the Celebration Garden in October-November. This will vary depending upon the Contractor's schedule as well as our own.
 - Preparation will occur at the beginning of October, the pouring target is mid-October, and the final dye and sealing will be completed by the end of November.
 - We will complete the plantings and irrigation after the concrete is poured. If necessary we will keep the plants in pots in the shade and hand water until the pour is completed

- **Preparation**

- John will lead a work party to temporarily move the commemorative pavers and Sacred Stones from the Garden area and store them behind the SW wall of the church.
- The contractor will remove sand for this Garden and the Patio extension, and move the sand to form mounds in the Desert Canyon Garden.
- The contractor will lay the forms.
- The contractor will pour and smooth float the finish and trowel the edges.
- No preparation of the soil for planting, such as amendments is planned.

- **Stamping and Dyeing**

- John has created the stamp design and will fabricate the stamps with his laser engraver-cutter.
- John will lead a small work party pressing the stamps into the concrete. This is the most time-critical part of the operation so we will have multiple stamps to complete the work within two hours of finishing the pour.
- John will select, purchase, and lead a small work party in applying the acid dye at least 28 days after the pouring. There will be a single application of each color. Application consists of painting within the stamped design with a small paint brush.
- John will select, purchase, and lead a small work party in applying the sealant the day after the dye. There will be a single application.

- **Clean up and placement of Sacred Stones**

- John will lead a small work party approximately one week after the pour to remove the concrete forms.
- John will lead a small work party after the pour to place the commemorative pavers and Sacred Stones. All commemorative pavers from the central plaza patio will be moved to the new location.

- **Plantings and Irrigation**

- Rod and Sue will coordinate purchase and delivery of the Bladderpod along with the plantings for the Desert Canyon Demonstration Garden.
- Once the plants are set in place, Dave will lead the extension of irrigation pipe and placement of an emitter near each plant.
- Rod will lead a small work party to plant the Bladderpod, in conjunction with the planting of the Desert Canyon Demonstration Garden.
- For the period of time between acquiring the plants and getting them planted we will hand water them every few days.

- **Tending**

- The Bladderpod will grow to maturity (4-5 feet) within the first year.
- We will monitor the Bladderpods through the first summer and adjust irrigation and hand watering as needed.

- **Access Restriction**

- During grading, access to the area will be restricted. The building will still be accessible using the northern stairs or ramp.
- During preparation and laying of forms there will be no formal restriction to access though it will look like a construction site.

- During the pour access to the area will be restricted. The building will still be accessible using the northern stairs or ramp.
 - The front door access may be restricted due to the simultaneous plaza patio extension project, and if so then the Facilities Committee needs to coordinate scheduling based on our events calendar.
- During stamping, dyeing, sealing and cleanup there will be no formal restriction to access.

Appendix - Desert Canyon Garden Implementation Details

DESERT CANYON DEMONSTRATION GARDEN IMPLEMENTATION PLAN

- **Grading, boulders and paths**
 - The first work will be grading to create a path lower than grade and mound other areas to resemble canyon walls. We will hire a Bobcat loader operator. We will coordinate with the Celebration Garden and the Patio extension since they need sand removed for concrete and we will use that sand for mounds in the Desert Canyon Garden.
 - In addition, the grader will use excess sand that has blown into the retention pond over the decades.
 - Next, we place the large, entry boulders, which will be done by the Boulder supplier using a crane.
 - Subsequently, Dave will lead regular work parties to arrange the smaller rocks on the mounds and line the path.
- **Bobcat operator**
 - Either Leonard Leo (the concrete contractor) or Scotty Parks, 760-285-0456
- **Boulder contractor**
 - Southwest Boulder and Rock, license number, bonded/insured
 - Potentially, we could find free or very low cost boulders from construction sites. We will watch for such opportunities July-September
- **Preparation**
 - We have staked out the rough placement of the major plants and trees, corresponding with the drawing.
 - We will continue to collect more rocks for placement in the Garden
 - We do not plan to purposely clear the ground and remove existing vegetation, although the grading will likely clear many plants. We might remove non-natives over time, but currently they provide both aesthetic and refugia functions.
 - We will not amend the soil, since desert natives thrive best in native sand and soils

- **Plant Material Planning**

- Native plants have been identified, sourced locally, and priced. However availability of natives is always a concern so we expect to need to make adjustments in the Fall.
- Plant selection included a bias for those that attract butterflies, birds and hummingbirds, and those with attractive blooms.
- We generally are acquiring small and medium size plant materials. They survive much better in the desert than planting larger, root bound specimens.
- For many of the plants we are partnering with the California Native Plant Society. We will achieve wholesale prices by combining our order with their order for the Garden Day held at UCR on October 21, 2023. Other plant materials are sourced from a variety of local suppliers.

- **Plant Material Species**

- The Garden Plan included in the Description section above shows the proposed plantings.
- The planned perennial species and quantity are as follows
 - 4 Ironwood trees
 - 3 Smoke trees
 - 6 Chuparosa bushes
 - 3 Jojoba bushes
 - 6 Desert Lavender bushes
 - 3 Ocotilla bushes
- Additionally, there will be scattered annual plantings of Arizona Lupine, California Buckwheat, Apricot Mallow, Desert Bluebells, Canterbury Bells, and Chia. Unlike all of the perennials, these will not have permanent signs since they are ephemeral.

- **UUCOD volunteers**

- Work to be performed
 - Garden structure
 - Rod will contract and lead grading to create relief
 - Rod will lead design, purchase and placement of boulders
 - Dave will lead collection and placement of rocks
 - Dave will lead design, purchase and placement of signs
 - Irrigation
 - Dave will lead the irrigation system design and implementation
 - The current irrigation circuits from the valve box near the Key Largo entrance are fairly lightly loaded and have capacity for the new emitters. However we want to control the Desert Canyon Demonstration Garden separately from other water, which is too frequent and too shallow for desert plants. We will dedicate one existing circuit to the new Garden, and reconnect emitters that are outside of the Garden to the other circuits. We will not add any new circuits.
 - To encourage deep roots, we might place the emitters for the four Ironwood trees in PVC tubes underground. We might do the same with the Smoke trees.
 - Plantings
 - Rod will lead plant acquisition and the planting crews. Jerry will help train and oversee planting to optimize the chance of survival of the plantings.
- Work parties
 - Work parties will be needed in October-November for irrigation, paths, rocks and planting

- Leads will provide training and/or supervision
- Individuals
 - Broadcast annual seeds, hand watering, ...
- **Access Restriction**
 - Placing of the Boulders will close the parking lot at the Key Largo entrance and the southern portion of the parking lot for one day.
 - No other work is expected to impact access to the grounds or building.

Appendix - Additional Implementation Plans

MESQUITE SCREEN IMPLEMENTATION PLAN

- **Timing**
 - Given the volume of work for the other parts of the project, we may want to delay the Mesquite planting until the other projects are done. The timing for planting the Mesquites is flexible since the trees will be dormant for Fall.
 - If we acquire them through the California Native Plant Society then we will receive them October 21 and can keep them lightly watered; otherwise we can acquire and plant them any time through early December.
- **Preparation and Irrigation**
 - No soil preparation, amendments or grading is planned.
 - Dave will lead designing and implementing the irrigation, which will likely be a new circuit.
 - Creating a new circuit in this area does not require tunneling under any sidewalks or parking, and would allow us to control the watering separate from other plantings.
 - There is an unused valve up in the far SW corner of the property which could be used for a new circuit.
 - Alternatively, a new circuit could be added to the valve box in the SE corner, though considerably more work. Adding a circuit there requires stringing a long wire to the control panel (which has an available spare connection) and adding a valve to the valve box.
- **Planting**
 - Rod will lead a small work party to plant the Mesquite trees, probably in late November or early December.
- **Tending**
 - The trees won't leaf out until Spring. We will monitor them the first summer and make sure they get well established through irrigation or hand watering.

ANNUAL WILDFLOWER IMPLEMENTATION PLAN

- **Location**
 - Our overall grounds plan has a couple of areas designated for potential wildflowers. We need to make sure they are accessible for hand watering with the existing hoses.
- **Acquisition**
 - Several of us have collected seeds, and Sue has found a source for local native seeds for just \$6 a packet and we will buy some of those too.
- **Planting**
 - We will just scatter the seed in January and then hand water in January and February. If something grows that's great!
 - We'd get flowers in March-April
- **Cleanup**
 - By late May the wildflowers will have reseeded and dried up. Some species dry up and blow away, others we would want to clear off the dead debris.
- **Future**
 - This establishes a bit of a seed bank in the sand. If there are future Jan-Feb rains or if we hand water then we will get blooms again that year. The more years that we do this the bigger the seed bank becomes.

Appendix - Risks and Mitigations

- Capital Cost
 - While our estimated costs are based on bids from suppliers, they are not binding.
 - We plan some additional fundraising to provide for contingencies
- Emitter monitoring and maintenance
 - Currently irrigation and emitter maintenance is done by both volunteers and the gardeners. While it is the gardeners responsibility, they do not test or monitor the emitters. Often the volunteers who discover an issue find it easier to just fix it themselves.
 - Ideally over time we get the gardeners to test and monitor the emitters, but that may not be reality. This pre-existing problem allowed many plants to die in the prior decade and is a long-term issue for Facilities and the Board to address.
- Theft
 - Signs will have UUCOD logo and be set in concrete to minimize theft
 - Rocks and plants are vulnerable to theft
 - We did have pavers stolen from the picnic table area so theft is a potential issue
 - Likely any theft would be stuff people can carry easily, not the more expensive boulders or larger plantings
- Vandalism
 - This is the same public area as the labyrinth and picnic tables which has had no vandalism
- Litter

- The grounds frequently have litter (that Jerry picks up on Tuesday mornings), largely blown in from other areas or people eating lunch in the picnic area or in their cars.
- The creation of the Demonstration Garden is unlikely to change that.
- Parking lot damage by contractors
 - The Boulder Contractor states that their equipment when loaded with boulders does not exceed the 80,000 lb design limit required by code for parking lots, and the equipment can operate in sand if needed.
 - We haven't asked the concrete contractor yet, but they too are accustomed to projects accessed by asphalt parking lots.

Appendix - Future

YEAR ONE

- Plant monitoring and watering, two summers
 - For the first year (actually two summers) the plants need close monitoring to see if they are getting sufficient water. If they are dry then the emitters might need attention or the plants need hand watering.
- Plant mortality, replacements, cost
 - There will be some plants that fail during the first year and need replacing. For the months until early-spring we can replace them, but after that replacement will need to wait until the next Fall.

SUBSEQUENT YEARS

- Low maintenance
 - As native desert plants, they require little to no care once established.
- Ongoing volunteerism
 - We cannot really bank on any volunteer group to continue in perpetuity. For example our very strong Green Sanctuary movement faded away after a few years of intense effort.
 - There will always be benefits to picking up litter, removing weeds and such but if neglected it will not affect the health of the plantings.
- Contract
 - The main ongoing maintenance will be tree trimming, which is contracted out.
 - The main concern is monitoring and maintaining the irrigation system, which we need the gardeners to perform in the event our volunteers fade away. That is not a new concern related to the new gardens but an ongoing historical issue.