



Barn Owl Box Restoration

Boy Scouts Eagle Project



Project Team

- ▶ Project Mentor: Mr. Brian Fiorio
 - ▶ Parks Maintenance Supervisor, Parks Division, Pleasanton
- ▶ Project Support: Mr. Mitch Gedney
 - ▶ Parks Maintenance Worker, Parks Division, Pleasanton
- ▶ Eagle Project Reviewers
 - ▶ Coach: Mr. Manoj Midha (Troop 443 Treasurer and Counselor)
 - ▶ Approver: Weisin Chong (Scouting District Approval Representative)
- ▶ Eagle Scout Candidate: Aaditya Arora (Troop 443 Life Scout and Senior at Foothill High School)
- ▶ Volunteers: Abhishek Arora, Anikaa, Shrihari, Tommy

Barn Owls



Barn Owls

▶ Life Cycle

- ▶ Average life cycle of two years
- ▶ Barn Owls mate for life
- ▶ Reproduce a litter of 4-6 babies in April/May
- ▶ Can reproduce a litter two times in one summer
- ▶ Eggs incubate 30-34 days
- ▶ Live in cavities of trees, abandon structures, old barns
- ▶ Feed on small mammals such as pocket gophers, mice, rats, and voles



Why this Project is Important

- ▶ **Supports Barn Owl Conservation:** Provides safe nesting boxes for owls, protecting them from predators.
- ▶ **Enhances Ecosystem Health:** Improves the local environment by removing invasive pests (rodents).
- ▶ **Promotes Sustainability:** Encourages native plant growth and a safe park setting for the public.
- ▶ **Engages the Community:** Involves volunteers in conservation and fosters local environmental stewardship.
- ▶ **Educational Impact:** Raises awareness about barn owls and teaches valuable skills in construction and leadership.

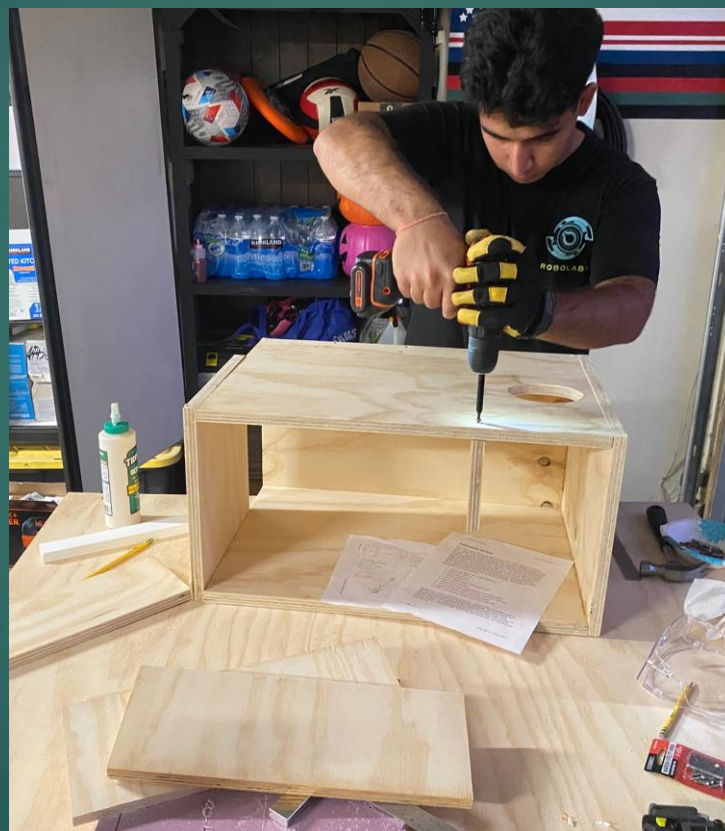
Overall Plan

- ▶ Location: Bernal Community Park
- ▶ Assess the condition of the current owl boxes to determine which need replacing due to damage or wear.
- ▶ Build 3 boxes with features such as an elliptical entrance, internal divider, and access doors for maintenance.
- ▶ Safely remove damaged or outdated boxes from the poles.
- ▶ Coordinate with city staff for installation of the newly built boxes on 20-foot poles.
- ▶ Apply mulch (woodchips) in all 6 locations around poles which boxes are mounted upon

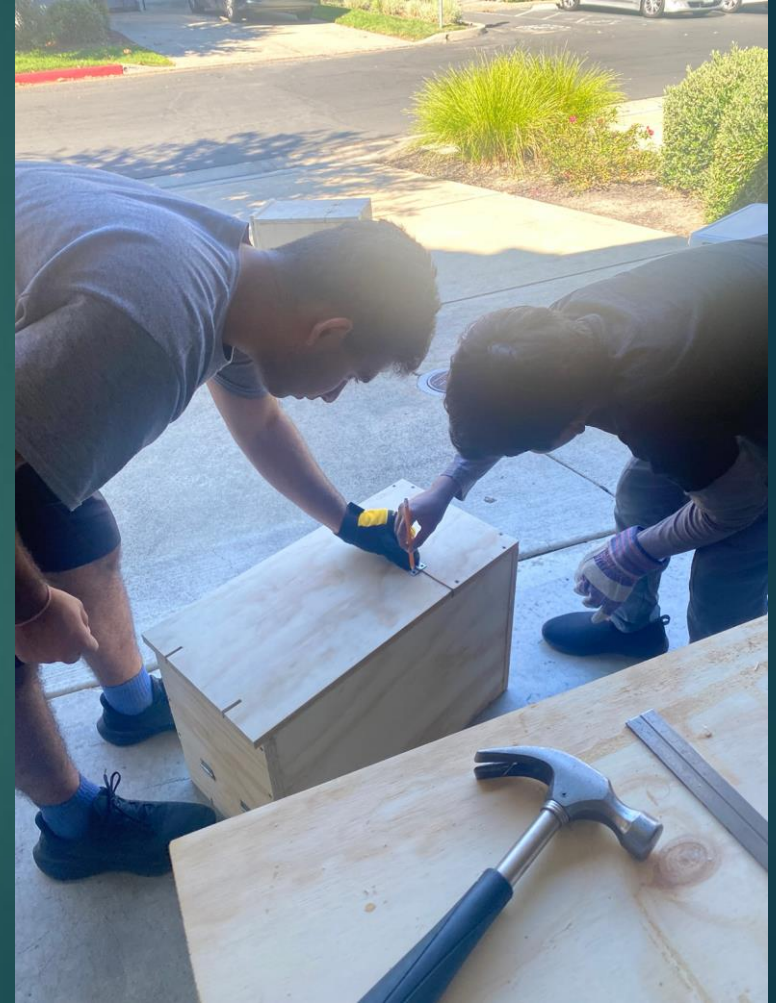
Construction Plan

- ▶ Required Tools and Materials
 - ▶ Plywood, Screws, Glue, Hinges, Dark Brown Stain
 - ▶ Power Drill, Table Saw, Air Nailer
- ▶ Design
 - ▶ Created detailed plans for dimensions and assembly
- ▶ Construction Process
 - ▶ Cut pieces
 - ▶ Attach using Screws and Glue
 - ▶ Apply Finishing Touches
 - ▶ Stain Boxes

Design and Construction



Finishing Touches



Staining Process



Finished Owl Boxes



Challenges and Lessons Learnt

- ▶ Difficulty cutting out entrance hole for first box
 - ▶ Made template from scrap wood that could be used on remaining two boxes
- ▶ Wood pieces moved around when adding screws as glue hadn't dried
 - ▶ Using air nailer to ensure parts were secured to screw into

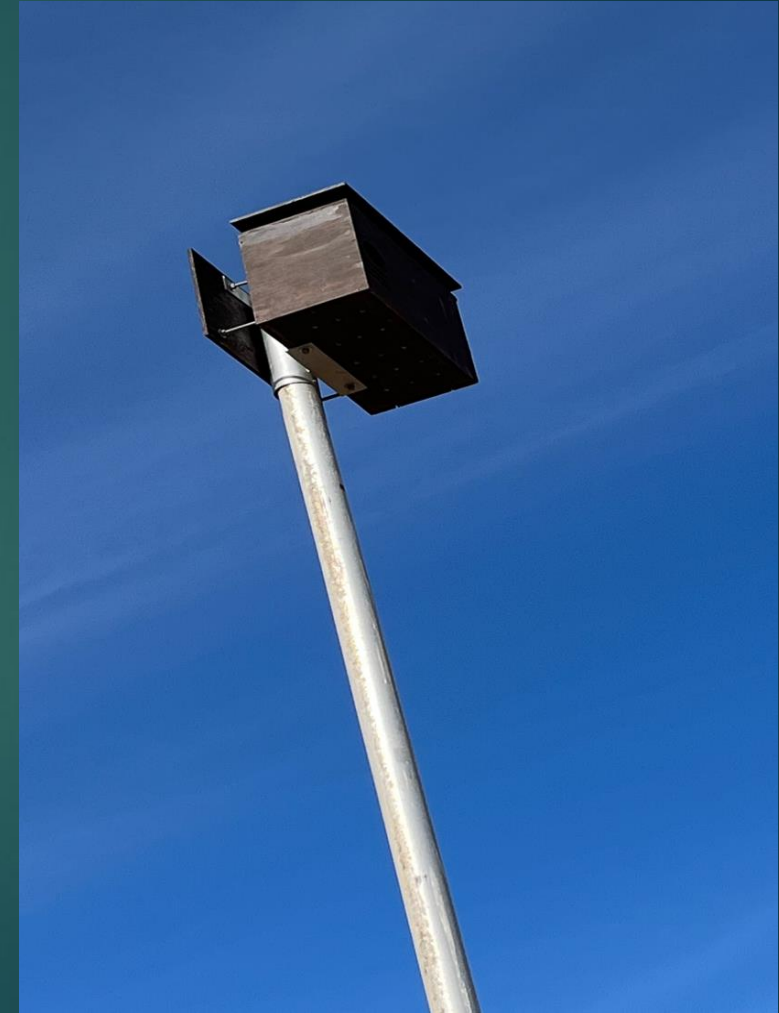
Cleaning and Installation Plan

- ▶ Cleaning
 - ▶ Slowly raised crane to box
 - ▶ Inspected box for any owls residing
 - ▶ Cleaned out boxes and refilled with fresh wood chips
- ▶ Installation
 - ▶ Old boxes that had to be replaced were taken off poles
 - ▶ Bracket from old box removed and installed on new
 - ▶ New boxes placed onto poles

False Top and Bracket Installation



Cleaning and Installation



Signs to Look For



Owls Taking Flight



Mulch Installation Plan


- ▶ Piles of mulch dumped at owl box sites
- ▶ Used shovels and garden rakes to move wood chips into general shape around poles
- ▶ Used metal leaf rakes to even out around owl box poles

Mulch Installation



Conclusion

- ▶ Expand the Program: Continue growing owl box installations in other park areas.
- ▶ Engage the Community: Involve residents in conservation efforts in parks and trails.
- ▶ Support Sustainability: Promote long-term ecological health through habitat restoration and weed control.
- ▶ Enhance City Parks: Improve biodiversity and overall park quality for community enjoyment.



Thank you, Mr. Fiorio, for your guidance and support throughout this project. I am grateful for the opportunity to serve the Pleasanton community and contribute to an important environmental cause.