

Conceptual Park Master Plan:

BANDERA CITY PARK

S.H 173/Maple Street

City of Bandera
Bandera County, TX



Suspension Bridge at Bandera

Medina River – Bandera, TX

Prepared For:

City of Bandera Economic Development Corporation

511 Main Street

Bandera, TX 78003

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ACKNOWLEDGEMENTS

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Bandera Economic Development Corporation

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City of Bandera

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Stakeholders

1. City of Bandera – Administration, Fire/EMS, Police, Public Works
2. Bandera Economic Development Corporation
3. Bandera Convention & Visitors Bureau
4. Bandera Chamber of Commerce
5. Bandera ISD
6. Friends of City Park
7. Boys & Girls Club of Bandera County
8. Celebrate Bandera
9. Bandera County Historical Commission
10. Skateboard Advocacy Group

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EXECUTIVE SUMMARY

Bandera City Park (BCP)

The BCP is nestled beside the beautiful Medina River, Bandera's emerald ribbon, located in the Heart of this Texas Hill Country community. This is without a doubt a Texas Treasure worthy of generational stewardship, abundant enjoyment and community support. Together, this park and river are two quintessential natural, cultural and economic resources for the City and the greater Bandera region that reflects the quality-of-life desired by those who visit and make this area home.

Purpose of Report

The primary function of this document is provide a current appraisal of the comprehensive summary of past and current park planning services and community input that will serve as the beginning platform for a City of Bandera Parks and Open Space Master Plan document.

Next Steps

Build local consensus for the desire to proceed with the next phase of park planning which includes the preparation of a Request for Qualifications (RFQ) for professional park planning services for the design and development of contract documents and Opinion of Probable Costs for Phase I Park Improvements. In addition, prepare a RFQ to secure professional grant writing services that will work in tandem with the design team to strategize on priority park improvements and development of a Parks and Open Space Master Plan document for use in submission to qualified funding partners.

Overarching Park Planning Themes

1. Minimize constructed improvements within the park
2. Place costly park improvements outside or close as feasible to limits of 100 yr. flood plain
3. Remove as many roadways as feasible from park interior, utilize Maple St. and adjacent property of additional parking and overflow parking for events
4. Provide additional gated park entrance locations
5. Provide multi-purpose terraced earthen amphitheater
6. Provide for increased accessibility compliance for park amenities
7. Greatly improve electrical service Infrastructure for Community Events
8. Improve visual, pedestrian and vehicular linkage to Old Town
9. Emphasis on natural beauty of the park and minimize impact on natural resources
10. Reduce/minimize the City's hazard liability within the park
11. Improve overall pedestrian accessibility
12. No equestrian facilities - too much of a liability and competes with other local venues
13. Develop methodology to handle big overflow weekends, Easter, Mother's Day, RiverFest
14. Do not install and compete with active recreation facilities in the greater Bandera area,
15. Do not compete with nearby tourism venues & lodging – no on-site camping
16. Minimize soil erosion, soil compaction , overall light levels and other impacts to the park
17. Consider future park office with basic guest and maintenance services

ECONOMIC DEVELOPMENT & TOURISM RECCOMENDATIONS

Tourism for the City of Bandera and greater Hill Country area is a vital revenue source for the City. It is imperative that there is a balance monitored between park resource sustainability and income generation. Typically passive recreation parks and public open space do not generate as much income on the whole as active recreation sports parks that have more intensive maintenance and operation needs. Therefore, is in an effort to maximize the utilization of BCP

Develop a local material and design palette that does not produce a generic, non-traditional or western theme park appearance. The key to telling the Bandera story is to be authentic and utilize Texas Hill Country architectural vernacular elements that reflect historic structures within the community. Reflect local architectural styles and utilize available construction materials such as rough cut cedar, Ashe Juniper, Cypress, metal roofing, board and batten siding, steel and wrought iron, limestone wainscot, rusticated limestone blocks, etc.

The focus of park amenities should provide for and allow a diversity of family recreation activities, promote walkability and provide for visitor wayfinding to assist guests in having a prolonged and more enjoyable visitor stay which equates to additional tourism revenue.

Nature & Heritage Tourism Opportunities

The City of Bandera and Bandera County has an abundance of natural and cultural resources that should be incorporated into an interpretive program that provide an authentic and accurate portrayal of the region. Protection and stewardship of these unique and vital community resources should be a primary consideration and underlying theme throughout the development of park amenities and interpretive component through the use of local materials, vernacular architectural themes, and archived historical materials.

Funding Sources/Leveraged Resources

As with most parks and recreation projects, there are typically several public and private funding opportunities to support design, development and maintenance of these community facilities. The following is a list of potential source of funding and leverage resources for BCP.

1. City of Bandera General Fund
2. City of Bandera Economic Development Funds
3. Hotel/Motel Sales Tax proceeds
4. Bandera Community Foundation
5. Texas Parks & Wildlife Department Recreational Grants
6. Kronkosky Charitable Trust – Grant
7. Texas Capital Fund - Downtown Revitalization Program (sidewalks)
8. Medina River Protection Fund
9. 4A/4B Funding Availability?
10. Donations of labor and materials
11. Naming Opportunities for Individual Amenities

Existing Park Revenue

1. Park Pavilion Rental
2. Weekend entry fees - \$5 per person 12/over
3. Season Passes - \$50

4. Monday – Friday – Free admittance

Potential Revenue Sources

1. Food truck vendors
2. Additional community events
3. Water recreation vendors

Texas Parks & Wildlife Department (TPWD) Grants

A detailed Parks, Open Space and Recreation Master Plan needs to be developed and submitted 60 days prior to any grant application deadline. At the present time TPWD has trail funding available, however there is no dedicated funding available for either the Small Community and Outdoor Recreation Grant Programs.

COMMUNITY INPUT

A community workshop was conducted at the community meeting room of the Bandera Electric Cooperative Headquarters on October 24, 2014. A PowerPoint presentation was provided which illustrated the previous park planning by Texas A&M University, National Park Service River, Trails Conservation Assistance Program & Paul Barwick, and Bandera Master Plan. In addition to this information, ideas for potential park amenities were received from the Bandera EDC members.

Workshop attendees, totaling 70, were asked to provide input on the following items - desired park infrastructure, park amenities, existing community events/activities, future events/programming, potential park revenue sources, operational and maintenance considerations, existing parks pros/cons and natural/cultural resources. The following are the lists of items that were identified by the workshop attendees.

Community Events/Activities:

1. RiverFest
2. Christmas Light Show (Cowboy Capital Christmas)
3. Antique Car Shows
4. BISD Cross Country competitions
5. BEC 5K runs
6. Pet Parade
7. Medina River Cleanup with overnight camping
8. Disc Golf Tournaments
9. Parade Staging Area
10. Kids Fishing Day

Future Events/Programming:

1. Western/Historical Reenactments
2. Outdoor Movies
3. Musical/Theatrical Events
4. Expanded Christmas Light Show
5. Christmas Plays
6. School Field Trips
7. Community Easter Egg Hunt

Profit Centers:

1. User Entrance Fees
2. Event Fees
3. Park Facility Rental
4. Food/Drink Concessions
5. Water Recreation Rental - Tubes/Kayak
6. Heritage Tourism Sites

Park Pros

1. Easy Accessibility to River
2. Simple and Open Recreation Space
3. Accessibility for Pets
4. New Playground Equipment
5. Adequate Group Pavilions
6. Sufficient Shade
7. Disc Golf Course
8. Secondary Park Entrance at 11th Street

Park Cons

1. Existing Restroom at Park Entrance
2. Noise from Hwy 173 & bridge
3. Insufficient Utilities
4. Water for Restrooms, Drinking fountains and irrigation
5. Sufficient Sewer Service for Restrooms
6. Existing Electrical Service and inadequate Service for Cowboy Christmas displays

Park Infrastructure/Amenities:

1. Traffic Control – limited vehicular access
2. Defined Parking – head-in or angled w/wheel stops
3. Electrical service extensions
4. Wifi Availability for guests, security cameras
5. Water Service extensions
6. Dumpster locations
7. Playgrounds – individual and group
8. Individual Picnic Units
9. Group Picnic Units
10. Security Lighting
11. Parking Area Lighting
12. Shade Structures
13. Shade Structures for Playgrounds
14. Designated Memorial Areas
15. Amphitheater Restrooms
16. Multipurpose practice fields – soccer, baseball, volleyball, football
17. Entrance Gateway Features
18. Public Art
19. Perimeter Fence
20. Regulatory Signage

21. Interpretive Signage
22. Wayfinding Signage
23. Pedestrian Trails
24. Equestrian Trails
25. Equestrian Facilities
26. Drinking Fountains
27. Trash Receptacles
28. Seating – individual and group
29. Park Office/Information Center/First Aid Station
30. Historical Elements
31. Additional Trees
32. Landscaping
33. Landscape Irrigation
34. Nature Preserve Area
35. Skate Park/BMX Bike Area with Perimeter Fencing
36. Designated Fishing Areas
37. Designated Swim Area
38. Family Swim Area
39. RV Pads
40. BMX Bike Area
41. Pet Waste Stations
42. Water Safety equipment at Park Bldg.
43. Wildlife Viewing Area
44. 2 RV station for Park Hosts at South Restroom

Operational/Safety Considerations:

1. Management – temporary and permanent
2. Security – patrols, lighting, cameras
3. Maintenance
4. Insurance/Liability
5. Park Rules
6. Annual Costs
7. Park Closes 30 min. after sunset
8. TML – liability signage
9. Additional overflow event parking in bamboo lots
10. First St. Bridge Area – jumping from bridge into river
11. Lifesaving float/rope at Fee Booth or Park Host bldg.
12. Warning rope and sign at Dam for undertows, eddy's

Potential Natural & Cultural Resource Interpretive Topics:

1. Original Mill and Mill Race
2. Western Trail
3. Dude Ranches
4. Archeology
5. Geology
6. Native Americans
7. Spanish/Mexican Heritage

8. Polish Heritage
9. Texas Rangers, Ranger Camps
10. Old Spanish Trail (OST)
11. Saw Mills, Shingle Manufacturing
12. Medina River – River, Dam, Flood Events
13. Silver Spur
14. Bat Colonies, Bat Bomb Project X-Ray, Nye Cave
15. Medina River – Flooding & Families affected by floods

CONCEPTUAL PARK MASTER PLAN

A total of 5 park site observation visits were conducted over an 8 month period (September 2013-April 2014) and from these visits it was observed that park usage and programming can be generalized into 5 activity areas based primarily on park user activities, site conditions, adjacent land use and existing facilities.

Proposed Park Site Activity Areas

AREA A – Event & Vendor Area (Phase I Park Improvements)

Of the five park site activity areas, this area is the portion of the park that is most visible from public roadways and yields the highest concentration of use by residents and guests alike.

- Park Signage/Monumentation/Public Art at SH 173 & 11th Street
- Park Signage/Monumentation at Maple St. & 11th Street
- Terraced Earthen Amphitheater – seating for 500
- Restroom w/Drinking Fountain& Concession
- Individual Picnic Units
- Fee Collection Booth
- Enclosed Playground Area with Overhead Shade Canopies
- Comprehensive Electrical Service Infrastructure for Events
- Potable Water Infrastructure
- Asphalt Roadway & Parking Lot
- Security Lighting
- Interpretive Signs
- Post & Cable Perimeter Fence
- Roadway Access Control Gate
- Dumpster/Trash Collection
- Tree Plantings & Landscaping/Tree Buffer along SH 173

AREA B – Operations & Interpretive Area

This area is adjacent to the Boys & Girls Club of Bandera and is suited well at the end of Maple St. for a future Parks office and maintenance facility. This area is adjacent to overflow parking areas and had access from both Maple and 8th St.

- Park Signage/Monumentation at Maple St. & 8th Street
- Roadway Access Control Gate
- Park Operations/Maintenance Office/Information Center/First Aid Station
- Park Storage Structure
- Public Restroom

- Group Picnic Pavilion
- Individual Picnic Units
- Interpretive Signs
- Security Lighting

AREA C – Family & Group Activity Area

This area that is currently serviced with a public restroom is best location for more active recreation usage and additional park improvements. This is another location for a park entry point and is the most suitable location for a desired skate park and BMX bicycle course.

- Park Signage/Monumentation at Maple St. & 3rd Street
- Roadway Access Control Gate
- Asphalt Roadway
- Existing Restroom
- New Group Picnic Pavilion
- Individual Picnic Units
- Dripping Springs Waterhole – Family Swim Area
- Skate Park
- BMX Bike Course
- Open Space/Multi-Purpose Recreation Areas
- Dumpster/Trash Collection
- Security Lighting

AREA D – Natural Area

This area is most prone to periodic flooding and is best utilized as a natural area for low impact trails, wildlife viewing and other low cost recreation usage such as the existing disc golf course.

- Parking Lot – Caliche Surface
- Natural Trails – Wood Mulch
- Wildlife Viewing
- Expand Existing Disc Golf

AREA E – Gateway & Overflow Area

The property is an isolated section of park land that is best suited for passive recreation or low cost recreation services such as individual picnic units, swimming and fishing. There is an opportunity to create a community gateway feature at the southern end of the bridge at this gateway entrance into Bandera prior to crossing the Medina River.

- Individual Picnic Units
- Park Signage & Gateway Feature at SH. 173
- Fishing & Swimming Area

PHASE I PARK PLAN

The initial improvements to the BCP would be of the type that would assist in facilitating and servicing community events, productions and generation of entry fees, sales tax revenue and hotel/motel proceeds. See Appendix for Phase I Park Plan.

OPINION OF PROBABLE CONSTRUCTION COSTS

Itemized in the Appendix is the Opinion of Probable Construction Costs for Phase I of the BCP Park Improvements. These estimates are based on current construction industry pricing using

contract labor, materials, and high quality construction practices. A more accurate opinion of probable construction cost will be developed during the preparation of construction bid documents for each phase of this project. This estimate assumes that all work will be completed by contract labor and not with a mixture of volunteer labor and/or donated materials.

PARK OPERATIONS AND MAINTENANCE

- Existing Hours of Operation – 8am to 30min. before sunset
- Park entry fee collections on weekend only
- Current maintenance includes periodic trash collection, restroom cleaning,
- More substantial park maintenance includes repair of roadway surfaces, utilities repair, etc.
- Throughout the year there is periodic park, river and flood clean up that is handled with city staff and community organizations and volunteers.

RECREATIONAL FACILITIES – BANDERA, SCHOOL DISTRICT, BANDERA COUNTY & STATE PARKS

City of Bandera

Bandera City Park

This is a 77 acre park situated along the banks of the Medina River in downtown Bandera. Amenities and activities include picnic areas with BBQ pits, fishing, river swimming, picnicking, hiking, open space for variety of passive and active recreational uses. Multiple community events occur at BCP throughout the year.

River Bend Native Plant Trail

This 1/2 mile trail has been severely impacted and rendered unusable by recent flooding. This trail can be reestablished to provide a simple pathway with views of scenic bluffs and transitional vegetation of a flood prone area. Through the years, over 200 birding species have been identified in Bandera County.

City Park Disc Golf -9 hole course

This course could be reestablished as well if there was community interest in this sport activity. Repairs and restoration could be done with a volunteer labor force.

Western Trail Heritage Square

The square is a small, hard surfaced downtown pedestrian plaza that provides public restroom facilities and seating near the center of downtown. Along with benches there are a few trees, with adequate landscaping.

Sandage Park

This is a small city park utilized by younger children and is located on a corner lot with little or no protection on two sides from adjacent street traffic. There is playground equipment in the park and adequate adjacent parking.

Boys & Girls Club of Bandera County

Immediately adjacent to BCP is the Boys & Girls Club of Bandera County at the intersection of Maple St. & 8th St.

Bandera Independent School District

Bandera High School
Bandera Middle School
Alkek Elementary School
Hill Country Elementary School

Bandera County Parks

Medina Lake Park (Medina Lake)

Boat Launch, Parking Lot, Swimming

Bandera Sports Complex

4 soccer fields, 4 baseball fields, Concessions, Restroom

Mansfield Park

Rodeo Arena w/grandstands, livestock pens, Vendor Area
Recreational Hall with picnic table, kitchen, stage
RV Area (28 spaces), pavilion (40'x60')
Show Barn

Texas State Parks & Natural Areas

Within a 60 minute driving radius of the City of Bandera are 6 State Parks and Natural Areas, they are as follows:

Hill Country State Natural Area, Bandera (5,400 acres) Fee \$6 adult

40 miles of trails, picnicking, hiking, mountain biking, equestrian trails & camping, nature viewing, overnight camping, and primitive camping.

Government Canyon State Natural Area, San Antonio (8,624 Acres) Fee \$6 adult

40 miles of trails, picnicking, hiking, mountain biking, trail running, weekend overnight camping, nature viewing.

ABK State Natural Area, Pipe Creek (3,500 Acres) Not Yet Open to Public

Miles of trails, picnicking, hiking, nature viewing.

Garner State Park, Frio River Concan (1,774 Acres) Fee \$7 adult

11 miles of trails, picnicking, hiking, mountain biking, nature viewing, fishing, swimming, overnight camping, primitive camping, miniature golf, group pavilion & cabins.

Lost Maples State Park, Sabinal River Vanderpool (2,174 Acres) Fee \$6 adult

Miles of trails, picnicking, hiking, mountain biking, fishing, swimming, nature viewing, primitive camping, and overnight camping.

Guadalupe River State Park, Guadalupe River Spring Branch (1,938 Acres) Fee \$7 adult

Miles of trails, picnicking, mountain biking, equestrian trails, nature viewing, amphitheater, overnight camping, and primitive camping.

PREVIOUS PARK PLANNING

Texas A&M University (1987)

The Texas A&M Center for Urban Affairs developed a concept plan and site plan for BCP as part of the Bandera Comprehensive Master Plan.

National Parks Service – Rivers, Trails Conservation Assistance Team (2002)

Mr. Steve Bonner with the National Park Service (NPS) worked closely with the Friends of Bandera Parks, a citizen group in Bandera, to develop an updated park master plan. Steve contacted Paul Barwick, Landscape Architect, with the Nature Conservancy who consented to provide pro bono park planning services to develop conceptual plans and cost estimates for initial park improvements which was completed May, 2002.

City of Bandera Master Plan (2009)

A rather simplistic exhibit was created for this document to outline the configuration and boundaries of BCP.

PHYSIOGRAPHIC SETTING (Table of Bandera City Park Flora Inventory, Bill Carr TNC, April 11, 2001)

Watershed/Flood Plain

This park is situated mostly within the FEMA 100 year floodplain of the Medina River. Along the north bank of the Medina River, a strong perennial stream which, like most major streams within the Edwards Plateau Ecoregion, is subject to episodic flash flooding. Higher portions lie at elevations between 1230 and 1240 feet above mean sea level and are probably inundated only during the most severe floods. Lower portions, i.e., the riverbed itself, lie at around 1200 feet and are flooded several times during a normal year. Any work on the dam, dredging or any other disturbances within the boundaries of the Medina River would require coordination and permit from the U.S. Army Corp. of Engineers.

Geology/Soils

According to the San Antonio Sheet of the Geologic Atlas of Texas, surface geology of the park is Pleistocene fluvial terrace deposits composed of gravel, sand, silt and clay. Adjacent areas beyond the historic floodplain are underlain by limestone, dolomite or marl of the lower Glen Rose Formation (Lower Cretaceous). The soils of the park are mapped on sheet 26 of the soil survey of Bandera County. Uplands are mapped as Frio silty clay, a deep, well drained, gravelly, calcareous clayey soil containing patches of sandy loam. Bottomlands are mapped as Orif-Karnes association, frequently flooded. Soils of both the Orif and Karnes series are deep, well drained, calcareous fine sandy loams.

Vegetation

Major vegetational themes within the park include a bald cypress gallery forest in the bed and along the banks of the river; a pecan sugar hackberry riparian forest on slopes grading into a riparian woodland on the lower adjacent terrace; and a plateau live oak - Ashe juniper savanna on higher parts of the terrace. Common woody components of the bald cypress community include eastern sycamore and baccharis or Roosevelt weed the ground layer is chaotic and variable, containing numerous herbaceous species as well as many extensive barren gravel bars. Other woody components of the pecan-hackberry forest and woodland include plateau live oak,

roughleaf dogwood, possumhaw, and various woody vines such as poison ivy, greenbriar and Mustang grape; common ground layer species include eastern gamagrass, rescuegrass and the exotic yellow rocket. Texas colubrina or hog plum is notably common among the numerous shrubs in the upland live oak - Ashe juniper savanna; ground layer components vary considerably due to edaphic differences.

Wildlife

Most typical Texas Hill Country mammals, fishes, amphibians and reptiles can be seen occasionally in various parts of BCP. There have been reports of random sightings of mountain lions which range through this area especially during drought periods when water is scarce. There is plenty of opportunity to develop interpretive signage elements to identify and highlight native wildlife and vegetation species.

Exotic Species

There are several nuisance plant species in the immediate vicinity of BCP which includes bamboo, giant cane, nandina, and wax-leaf ligustrum, chinaberry trees. No too much was observed regarding non-native wildlife species such as feral hog, axis deer, red deer, fallow deer, etc.. A strategy should be developed and implemented slowly to manage these species and observations made to look for additional exotic and invasive species. Planting of native trees, understory and groundcover is to be encouraged for improved wildlife habitat and increased native wildlife species.

LAND USE

Existing Land Use

Based on site observations it was determined that the current primary land use is agricultural. Open fields for oat and hay production mixed with grazing were observed. There appeared to be 2 structures for lease, 1 residential and 1 commercial (for water well drilling operations).

Adjacent Land Use:

The Bandera City Park is bounded by Medina River to the south, and the remaining sides are bounded by adjacent single family housing, road frontage either along

Old Town District:

The historic center of downtown Bandera is located a block to the north of BCP. The historic structures in this district should be reflected in the architectural components for any structures designed for BCP. In addition, there should be a strong visual and accessible multi-modal streetscene connection between Old Town and BCP. Installation of adequate signage and pedestrian sidewalks and landscape amenities would entice visitors to move more freely and safely between these two distinctive visitor experiences.

INFRASTRUCTURE, UTILITIES & IMPROVEMENTS

Roads/Transportation

Along the perimeter of BCP is Hwy 173, the primary thoroughfare to the east side which connects with S.H. 46. Maple Street bounds BCP on the north side and a portion of this roadway has been removed and no longer connects directly to First St. Within BCP there are

numerous roadways throughout the park, most of which are either caliche or compacted soil. The primary BCP thoroughfare is a two-way looped asphalt roadway.

Water

Potable water for BCP is supplied by well water provided by the City of Bandera. The introduction of reuse water from the wastewater treatment plant for general park landscape irrigation and water level maintenance could possibly be a future landscape irrigation option.

Stormwater

The Medina River watershed provides ecological and hydrological services including water storage in the riparian root zones, water quality improvement through riparian vegetation, flood attenuation and flow stabilization as the riparian area releases water to maintain base flow or absorbs water when the river flows are high. Any future stormwater improvements needed with BCP should be designed with very limited structural components and utilize as many Low-Impact Development strategies to assist in minimizing erosion and costly structural repairs and replacement during periodic flood events.

Sanitary Sewer

Wastewater service is provided to BCP as effluent flows to the wastewater treatment facility downstream of the Medina River.

Electricity

The electric utility provider for City is provided by the Bandera Electric Cooperative.

Existing Improvements

Entrance gate

Restrooms - 2

Group pavilions - 2

Multiple playground areas

Swimming and fishing areas

Numerous individual picnic facilities with BBQ pits, trash receptacles

Numerous electrical service outlets

Post & cable perimeter fence

Asphalt and caliche roadways and parking areas



Figure #1 – Vicinity Map – USGS Bandera Quadrangle



Figure #2 – Historic Aerial Image of Bandera



Figure #3 – Existing Restroom near S.H. 173



Figure #4 – Existing Group Pavilion, 2 of Equal Size



Figure #5 – Existing Park Entrance Gateway



Figure #6 – Existing Restroom on West End of Park



Figure #7 – Existing Fee Collection & Concession Building



Figure #8 – Existing Electrical Service Panels at Park Entrance



Figure #9 – Existing Medina River Dam



Figure #10 – Typical Existing Individual Picnic Unit



Figure #11 – Typical Compacted/Eroded Soils From Vehicles



Figure #12 – Lower River Terrace Near Medina River Dam



Figure #13 – Maple St./S.H. 173 Intersection



Figure #14 – Proposed Skate Park & BMX Bicycle Course Site



Figure #15 – Existing Disc Golf Course



Figure #16 – Proposed Earthen Terraced Amphitheater Site



Figure #17 – Eleventh Street & Cypress Street Intersection



Figure #18 – Historical Structure and Iconic Bandera Water Tower Landmark



Figure #19 – Wildlife Viewing Blind (Joshua Springs Park/Preserve)



Figure #20 – Shaded Individual Picnic Unit (Joshua Springs Park/Preserve)



Figure #21 – Playground (Joshua Springs Park/Preserve)



Figure #22 – ADA Playground Accessibility and Surfacing (Joshua Springs Park/Preserve)



Figure #23 – Steel Roadway Access Control Gate (Joshua Springs Park/Preserve)



Figure #24 – Decomposed Granite Pedestrian Trail (Joshua Springs Park/Preserve)



Figure #25 – Restroom - Masonry Exterior (Joshua Springs Park/Preserve)



Figure #26 – Restroom Interior w/Stalls and Lavatory (Joshua Springs Park/Preserve)

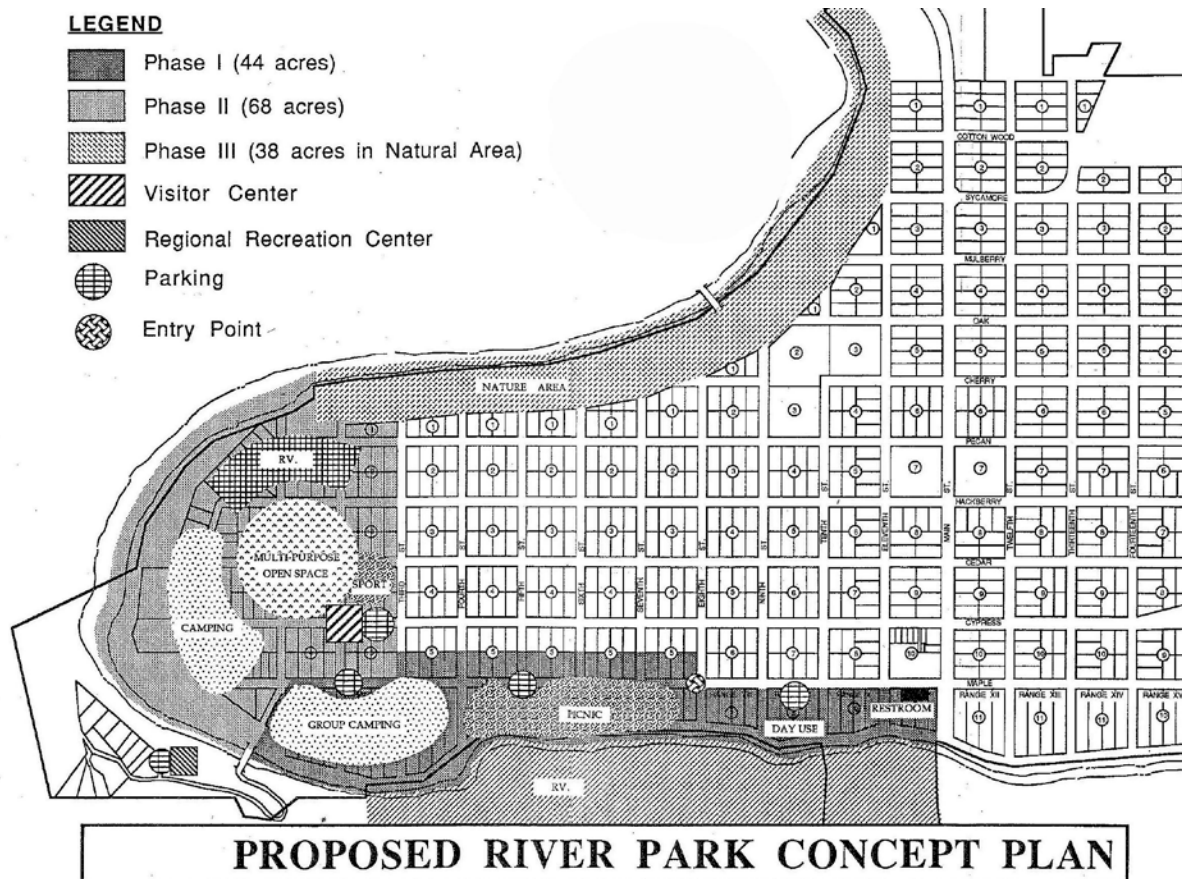


Figure #27 – Proposed River Park Concept Plan

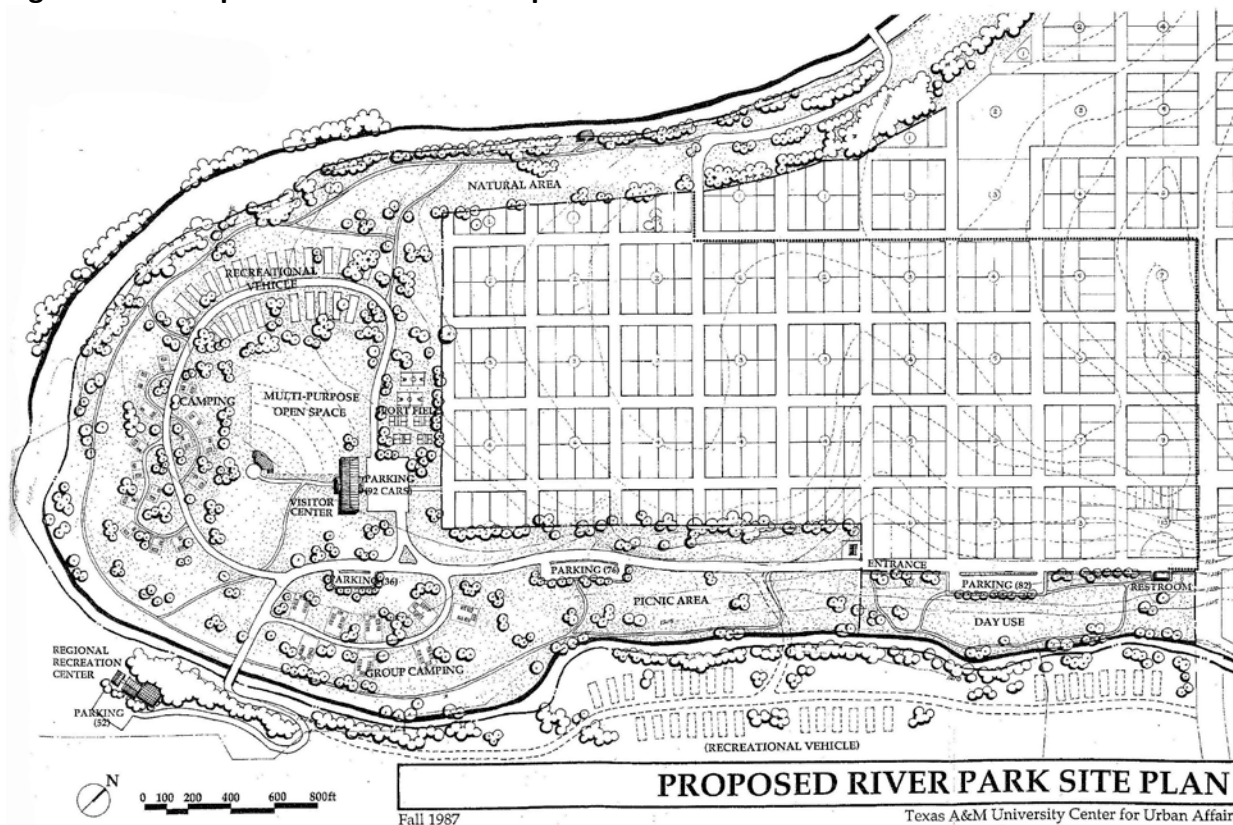


Figure #28 – Proposed River Park Site Plan

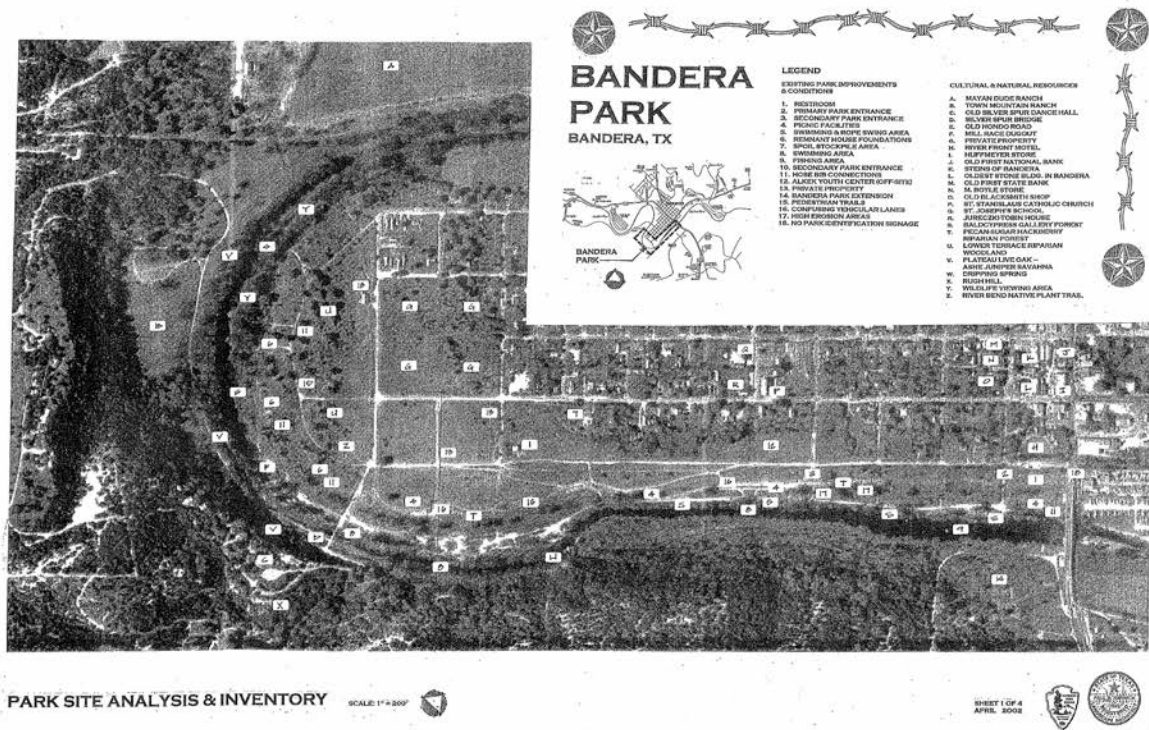


Figure #29 – Park Site Analysis & Inventory

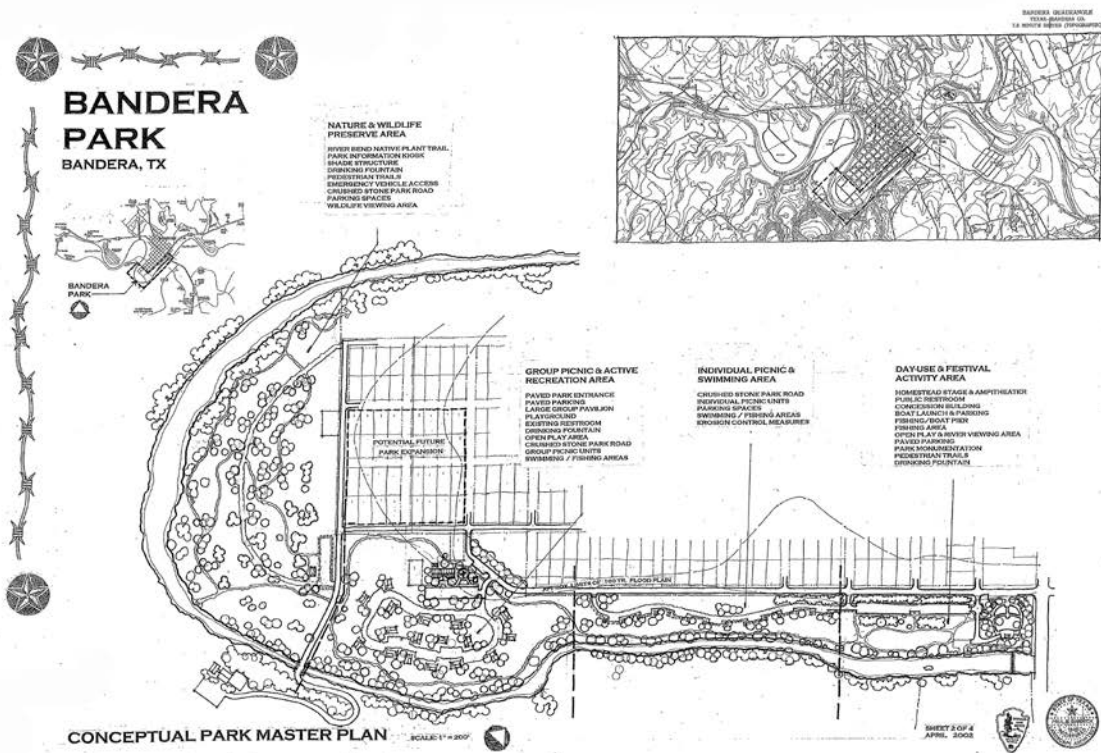


Figure #30 – Conceptual Park Master Plan

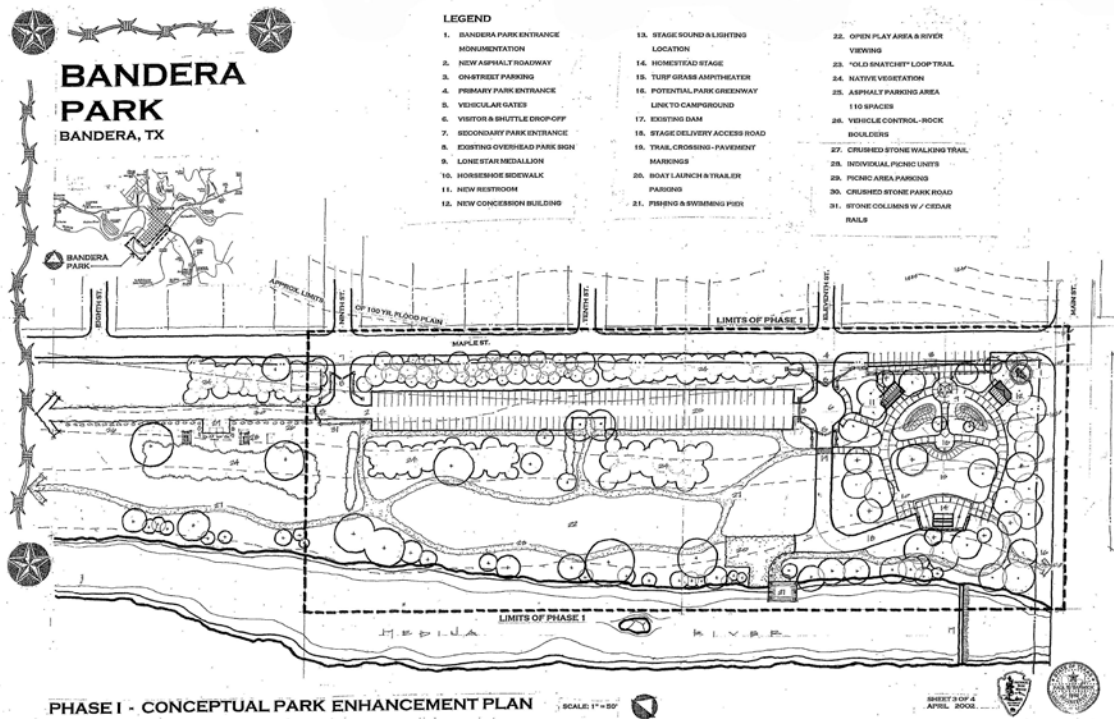


Figure #31 – Conceptual Park Enhancement Plan

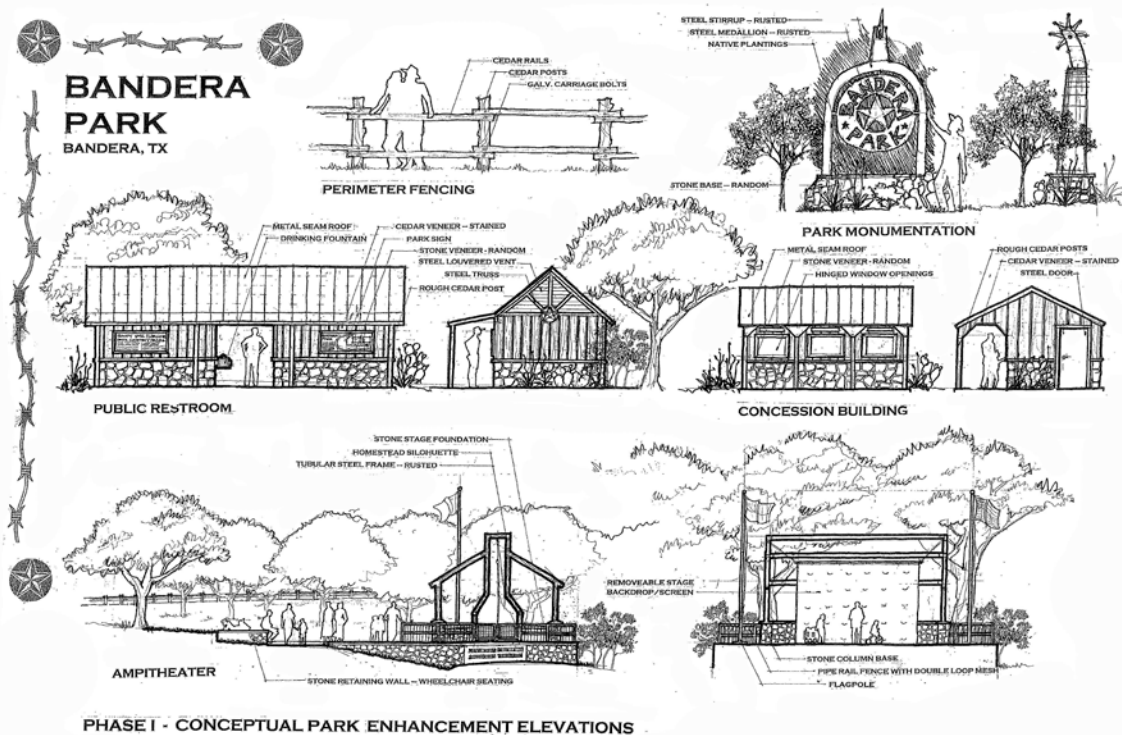


Figure #32 – Phase I – Conceptual Park Enhancement Elevations



Figure #33 – Bandera Park Plan – 2009

Appendix

Plant species observed at Riverside Park in Bandera, Bandera County, Texas, 17 April 2001. Habitats: U = rarely flooded uplands; S = mostly wooded slope along river; B = frequently flooded river bottom. Perceived abundance (within park): a = abundant; c = common; f = frequent; o = occasional; r = rare.

Trees, Shrubs and Woody Vines

Scientific Name	Common Name	Habitat/Abundance		
		U	S	B
<i>Acacia minuta</i> (<i>A. farnesiana</i> , <i>A. smallii</i>)	huisache	o	o	o
<i>Baccharis neglecta</i>	baccharis			c
<i>Berberis trifoliolata</i>	agarito	o		
<i>Bumelia lanuginosa</i> (<i>Sideroxylon lanuginosum</i>)	gum bumelia	o	o	
<i>Carya illinoensis</i>	pecan	f	f	
<i>Celtis laevigata</i>	sugar hackberry	c	c	
<i>Cephalanthus occidentalis</i>	buttonbush			o
<i>Colubrina texensis</i>	hog plum, Texas colubrina	c	o	
<i>Cornus drummondii</i>	roughleaf dogwood	r	c	
<i>Fraxinus pensylvanica</i>	green ash		o	
<i>Ilex decidua</i>	possumhaw, deciduous holly, winterberry		o	
<i>Juglans microcarpa</i>	little walnut			r
<i>Juniperus ashei</i>	Ashe juniper, cedar	f	f	
<i>Lantana horrida</i>	Texas lantana	r		
<i>Ligustrum japonicum</i>	Japanese ligustrum		o	o
<i>Ligustrum sinense</i>	Chinese ligustrum		r	r
<i>Melia azedarach</i>	Chinaberry		o	o
<i>Morus rubra</i>	red mulberry		r	
<i>Opuntia lindheimeri</i>	Lindheimer pricklypear	o		
<i>Quercus fusiformis</i>	plateau live oak	f	f	
<i>Parthenocissus quinquefolia</i>	Virginia creeper	o	o	
<i>Platanus occidentalis</i>	eastern sycamore			c
<i>Prosopis glandulosa</i>	honey mesquite	r		
<i>Ptelea trifoliata</i>	wafer ash	r		
<i>Rhus lanceolata</i>	flameleaf sumac	o		

Scientific Name	Common Name	Habitat/Abundance		
		U	S	B
<i>Rhus toxicodendron</i>	poison ivy	f	c	
<i>Rhus trilobata</i> var. <i>trilobata</i> (<i>R. aromatica</i>)	fragrant sumac	r		
<i>Rubus trivialis</i>	southern dewberry	o	o	o
<i>Salix nigra</i>	black willow			f
<i>Sapindus saponaria</i> var. <i>drummondii</i>	western soapberry	o	o	
<i>Sapium sebiferum</i>	Chinese tallow			o
<i>Smilax bona-nox</i>	common greenbriar	c	c	
<i>Taxodium distichum</i>	baldecypress		o	c
<i>Ulmus crassifolia</i>	cedar elm		r	
<i>Ungnadia speciosa</i>	Mexican buckeye		r	
<i>Vitis mustangensis</i>	Mustang grape	o	c	o
<i>Vitis</i> sp.	grape		o	
<i>Yucca rupicola</i>	twistleaf yucca	r		
<i>Zanthoxylum hirsutum</i>	toothache-tree	f		

Grasses and Grass-like Plants

Scientific Name	Common Name	Habitat/Abundance		
		U	S	B
<i>Aristida purpurea</i> (sensu lato)	threeawn	c		
<i>Bothriochloa ischaemum</i> var. <i>songarica</i>	King Ranch bluestem			o
<i>Bromus japonicus</i>	Japanese brome	o	o	
<i>Bromus unioloides</i>	rescuegrass	c	c	
<i>Carex cherokeensis</i>	Cherokee sedge		r	
<i>Carex emoryi</i>	Emory sedge			c
<i>Carex microdonta</i>	smalltooth sedge		r	
<i>Carex planostachys</i>	cedar sedge	c		
<i>Cladium jamaicense</i>	sawgrass			r
<i>Cynodon dactylon</i>	Bermudagrass		o	c
<i>Chasmanthium latifolium</i>	creek oats		c	
<i>Dichanthelium oligosanthos</i> (<i>Panicum oligosanthos</i>)	Scribner panicgrass		f	

Scientific Name	Common Name	Habitat/Abundance		
		U	S	B
<i>Elymus virginicus</i>	Virginia wildrye		f	
<i>Eragrostis intermedia</i>	plains lovegrass	o		
<i>Erioneuron pilosum</i>	hairy tridens	c		
<i>Hordeum pusillum</i>	annual barley	o	o	
<i>Limnodea arkansana</i>	Ozarkgrass	c		
<i>Lolium multiflorum</i> (L. perenne)	English barley		o	o
<i>Melica nitens</i>	shining melic	o	c	
<i>Panicum virgatum</i>	switchgrass			
<i>Schizachyrium scoparium</i>	little bluestem	o		
<i>Sorghum halepense</i>	Johnsongrass			c
<i>Stipa leucotricha</i>	Texas wintergrass	c	c	
<i>Tripsacum dactyloides</i>	eastern gamagrass	o	c	
<i>Tridens texanus</i>	Texas tridens	o		
<i>Vulpia octoflora</i>	sixweeksgrass	o		

Forbs (Broad-leaved Herbaceous Plants)

Scientific Name	Common Name	Habitat/Abundance		
		U	S	B
<i>Allium canadense</i> var. <i>canadense</i>	Canada wild onion		f	c
<i>Allium drummondii</i>	Drummond wild garlic	c		
<i>Allium tricoccum</i>	leek	r		
<i>Ambrosia psilostachya</i>	western ragweed	o		
<i>Ambrosia trifida</i>	giant ragweed		c	c
<i>Anemone berlandieri</i>	tenpetal anemone	o	o	
<i>Aphanostephus</i> sp.	lazy-daisy	c		
<i>Arenaria benthamii</i>	Bentham sandwort	o		
<i>Argemone</i> sp.	prickly-poppy			r
<i>Artemisia ludoviciana</i>	western mugwort		o	
<i>Asclepias asperula</i>	antelopehorn milkweed	o		
<i>Astragalus nuttallianus</i>	Nuttall milkvetch	o		
<i>Astragalus wrightii</i>	Wright milkvetch	r		

Scientific Name	Common Name	Habitat/Abundance		
		U	S	B
<i>Calyptracarpus vialis</i>	straggler daisy	c	c	c
<i>Carduus nutans</i>	nodding thistle		o	c
<i>Carduus tenuiflorus</i>	slenderbristle thistle			r
<i>Carlowrightia torreyana</i>	Torrey carlowrightia	c		
<i>Chaerophyllum tainturieri</i>	chervil	c	c	c
<i>Chaetopappa bellidifolia</i>	hairy leastdaisy	c		
<i>Chamaesaracha</i> sp.	false ground-cherry	r		
<i>Ciclospermum leptophyllum</i> (<i>Apium leptophyllum</i>)	wild celery			r
<i>Cirsium</i> sp.	thistle			r
<i>Clematis drummondii</i>	old man's beard	o	o	o
<i>Cnidoscolus texanus</i>	Texas bullnettle	o		
<i>Cocculus carolinus</i>	Carolina snailseed	o	o	
<i>Conium maculatum</i>	poison hemlock		c	c
<i>Convolvulus equitans</i>	common bindweed	o		
<i>Coreopsis</i> sp.	coreopsis	c		
<i>Croton</i> sp.	croton			c
<i>Cucurbita foetidissima</i>	stinking gourd	r		
<i>Daucus pusillus</i>	little carrot	f		
<i>Desmanthus velutinus</i>	velvet bundle-flower	o		
<i>Dichondra recurvata</i>	Tharp ponyfoot	r		
<i>Draba platycarpa</i>	whitlow-wort			r
<i>Engelmannia pinnatifida</i>	Engelmann daisy	c	c	
<i>Erigeron philadelphicus</i>	Philadelphia fleabane			o
<i>Erodium texanum</i>	Texas cranes's-bill	o		
<i>Eupatorium serotinum</i>	late boneset			o
<i>Euphorbia marginata</i>	snow-on-the-pasture			o
<i>Euphorbia spathulata</i>	warty spurge	o		
<i>Evax prolifera</i>	flathead rabbit-tobacco	c		
<i>Evax verna</i>	roundhead rabbit-tobacco	o		
<i>Gaillardia pulchella</i>	Indian blanket	c		

Scientific Name	Common Name	Habitat/Abundance		
		U	S	B
Gaillardia suavis	pincushion daisy	o		
Galium aparine	clinton bedstraw		c	
Galium virgatum	wand bedstraw	c	c	c
Gaura sp.	gaura	r		
Geranium sp. (G. texanum?)	wild geranium	o		
Hedeoma acinoides	annual pennyroyal	c		
Hedeoma drummondii	limoncillo	o		
Hermannia texana	Texas hermannia	o		
Heterotheca sp. (H. canescens?)	golden aster	r		
Hymenopappus scabioseus var. corymbosus	woollywhite	r		
Hymenoxys linearifolia (Tetraneuris linearifolia)	slenderstem bitterweed	c	c	
Hymenoxys scaposa (Tetraneuris scaposa)	stemless bitterweed	f		
Indigofera lindheimeriana	creekbed scarlet-pea			o
Justicia americana	American water-willow			r
Lactuca sp. (L. ludoviciana?)	wild lettuce		r	
Lepidium austrinum	hairy pepperweed	o		
Lesquerella recurvata	plateau bladderpod	o		
Linum rigidum	stiff flax	o		
Lithospermum incisum	fringed puccoon			r
Lygodesmia texana	Texas skeletonplant	o		
Medicago minima	least burclover	c		
Nama jamaicense	fiddleleaf nama			r
Oenothera laciniata	cutleaf evening-primrose	o		
Oenothera speciosa	pink evening-primrose	f		
Oxalis dillenii	yellow sourclover	o	o	
Parietaria pensylvanica (P. obtusa)	cucumberweed	c	c	c
Pedimelum rhombifolium	red scurfpea	o		
Phlox pilosa	hairy phlox		o	
Phyla nodiflora (P. incisa)	fog-fruit			o
Phyllanthus polygonoides	knotweed leaf-flower	r		

Scientific Name	Common Name	Habitat/Abundance		
		U	S	B
<i>Physalis</i> sp.	ground-cherry	r		
<i>Pinaropappus roseus</i>	white rock-lettuce	r		
<i>Plantago helleri</i>	Heller plantain	c		
<i>Plantago patagonica</i>	bracted plantain	r		
<i>Plantago rhodosperma</i>	redseed plantain		c	c
<i>Polanisia dodecandra</i>	clammyweed			r
<i>Polytaenia</i> sp.	meadow parsnip	o		
<i>Pyrrhopappus</i> sp. (<i>P. multicaulis</i> ?)	false dandelion	o	o	o
<i>Rapistrum rugosum</i>	yellow rocket		c	
<i>Ratibida columnaris</i>	Mexican hats	o	o	o
<i>Ruellia</i> sp.	wild petunia		f	
<i>Salvia coccinea</i>	scarlet sage	r		
<i>Salvia farinacea</i>	mealy sage		f	c
<i>Salvia texana</i>	Texas sage	f		
<i>Schoenocaulon texanum</i>	Texas green-lily	o		
<i>Schrankia roemeriana</i>	sensitive-briar	r		
<i>Scutellaria drummondii</i>	annual skullcap	c		
<i>Sherardia arvensis</i>	field madder	r		
<i>Silene antirrhina</i>	sticky catchfly	r		
<i>Silphium aspernum</i>	roughleaf rosinweed		c	
<i>Sisyrinchium scabrum</i> (<i>S. ensigerum</i>)	blue-eyed grass	o	o	
<i>Solanum dimidiatum</i>	western horse-nettle	o		o
<i>Stillingia texana</i>	Texas queen's delight	o		
<i>Teucrium canadense</i>	American germander		o	
<i>Thamnosma texanum</i>	Texas desert-rue	o		
<i>Thelesperma filifolium</i>	slender greenthread	c		
<i>Tillandsia recurvata</i>	ballmoss	o	o	o
<i>Tinantia anomala</i>	widow's tears	f	c	
<i>Torilis arvensis</i>	sockbane		c	
<i>Tradescantia</i> sp.	spiderwort	o		
<i>Tragia brevispica</i>	climbing noseburn		f	

Scientific Name	Common Name	Habitat/Abundance		
		U	S	B
<i>Triodanis perfoliata</i>	common Venus' looking-glass		o	o
<i>Valerianella amarella</i>	corn-salad	f		
<i>Valerianella</i> sp. (<i>V. radiata</i> ?)	cornsalad		f	f
<i>Verbascum thapsus</i>	rabbitear mullein			o
<i>Verbena bipinnatifida</i>	Dakota vervain	f		o
<i>Verbena brasiliensis</i>	Brazilian vervain		o	
<i>Verbena halei</i> (<i>V. officinalis</i> ssp. <i>halei</i>)	Texas vervain	o		
<i>Verbena</i> sp. (<i>V. canescens</i> ?)	gray vervain	o		
<i>Verbesina virginica</i>	frostweed, iceplant	c	c	c
<i>Vicia leavenworthii</i>	Leavenworth vetch	o	o	o
<i>Wedelia hispida</i> (<i>Zexmenia hispida</i>)	hairy zexmenia	o		
<i>Xanthium strumarium</i>	cocklebur, porcupine-eggs			r
unknown Asclepiadaceae (<i>Cynanchum unifarium</i> ?)	milkvine		r	

Ferns and Fern Allies

Scientific Name	Common Name	Habitat/Abundance		
		U	S	B
<i>Equisetum laevigatum</i>	horsetail			r
<i>Thelypteris ovata</i> var. <i>lindheimeri</i> (<i>T. kunthii</i>)	Lindheimer shieldfern			o

BANDERA CITY PARK					
City of Bandera, Texas					
Project No: 011-2013					
Prepared By: Paul Barwick, ASLA					
6/27/14					
Opinion of Probable Construction Costs - Conceptual Phase I Park Improvements					
Trade	Item Description	Unit	Quantity	Unit Cost	Item Total
	Demolition/Disposal - restroom			Allow	\$4,000
	Sitework/Grading			Allow	\$15,000
	Silt Fencing			Allow	\$5,000
	Tree Protection			Allow	\$7,500
	Construction Entrance			Allow	\$3,000
	Utilities - Electrical/Restroom/Amphitheater/Event			Allow	\$85,000
	Utilities - Water Main/Connection/Valves/Service Line			Allow	\$9,500
	Utilities - Sanitary Sewer for Restroom			Allow	\$5,000
	Utilities - Stormwater abatement w/bioswales, detention areas			Allow	\$20,000
	Lighting - Parking/Security			Allow	\$25,000
	ADA Restroom -3 stalls ea./Concession Bldg/Dumpster Screen		1	Allow	\$210,000
	ADA Restroom - 2 stalls ea. adjacent addition to Existing Pavillion		1	Allow	\$100,000
	Asphalt Parking Stalls/Wheelstops			Allow	\$25,000
	Maple Street Asphalt Roadway Demolition & Construction			Allow	\$90,000
	BCP Asphalt Roadway Demolition & Construction			Allow	\$110,000
	River Access Concrete Paving			Allow	\$35,000
	Roadway Access Control Gate		6	Allow	\$30,000
	Park Signage/Monumentation/Public Art at SH 173 & Maple St.		1	Allow	\$15,000
	Park Signage/Monumentation at Maple St. & 11th St.		1	Allow	\$8,500
	Fee Collection Booth		1	Allow	\$20,000
	Playground Area/Fence/Surface/Drainage/2 Shade Structures			Allow	\$150,000
	Concrete Sidewalk/Trail			Allow	\$60,000
	Perimeter Post & Cable Barrier			Allow	\$35,000
	Terraced Amphitheater w/Concrete Walkway/Steps/Stage Pad		1	Allow	\$65,000
	Drinking Fountains - ADA/Pet Dish		2	Allow	\$7,000
	Individual Picnic Units		15	Allow	\$40,000
	Interpretive Signage/Sign Pedestals		10	Allow	\$20,000
	Boulder Seating			Allow	\$10,000
	Trees & Landscape			Allow	\$25,000
	Landscape Irrigation			Allow	\$15,000
Subtotal					\$1,249,500
General Contractor - Mobilization/Overhead/Profit/Bond/Insurance		%	0.15		\$187,425
Construction Contingency		%	0.05		\$62,475
Opinion of Probable Construction Hard Costs					\$1,499,400
Professional Fees					
	Landscape Architect			Allow	\$85,000
	Civil Engineer			Allow	\$20,000
	Architect (Restroom/Concession Bldg.)			Allow	\$9,000
	Mechanical/Electrical/Plumbing			Allow	\$20,000
Surveys, Permits, Testing & Bidding					
	TDLR Review Fee			Allow	\$750
	Historic Resources Survey			Allow	\$4,000
	Survey - Trees, Spot Elevations, Utilities, Improvements			Allow	\$7,500
	Geotechnical Testing			Allow	\$5,000
	Concrete/Materials Testing			Allow	\$5,000
	Printing & Advertising			Allow	\$1,000
Opinion of Probable Project Soft Costs					\$157,250
Opinion of Probable Project Costs - Phase I					\$1,656,650