

CITY OF BIG BEAR LAKE

PEDESTRIAN, BICYCLE AND EQUESTRIAN

master plan



Outdoor Economy Growth Engine for the Big Bear Valley

California Trails and Greenways Conference
Palm Springs, CA
April 9, 2014

\ 'en-jən \

: a machine that changes energy into motion

: something that produces a particular and usually desirable result

Fig. 2.

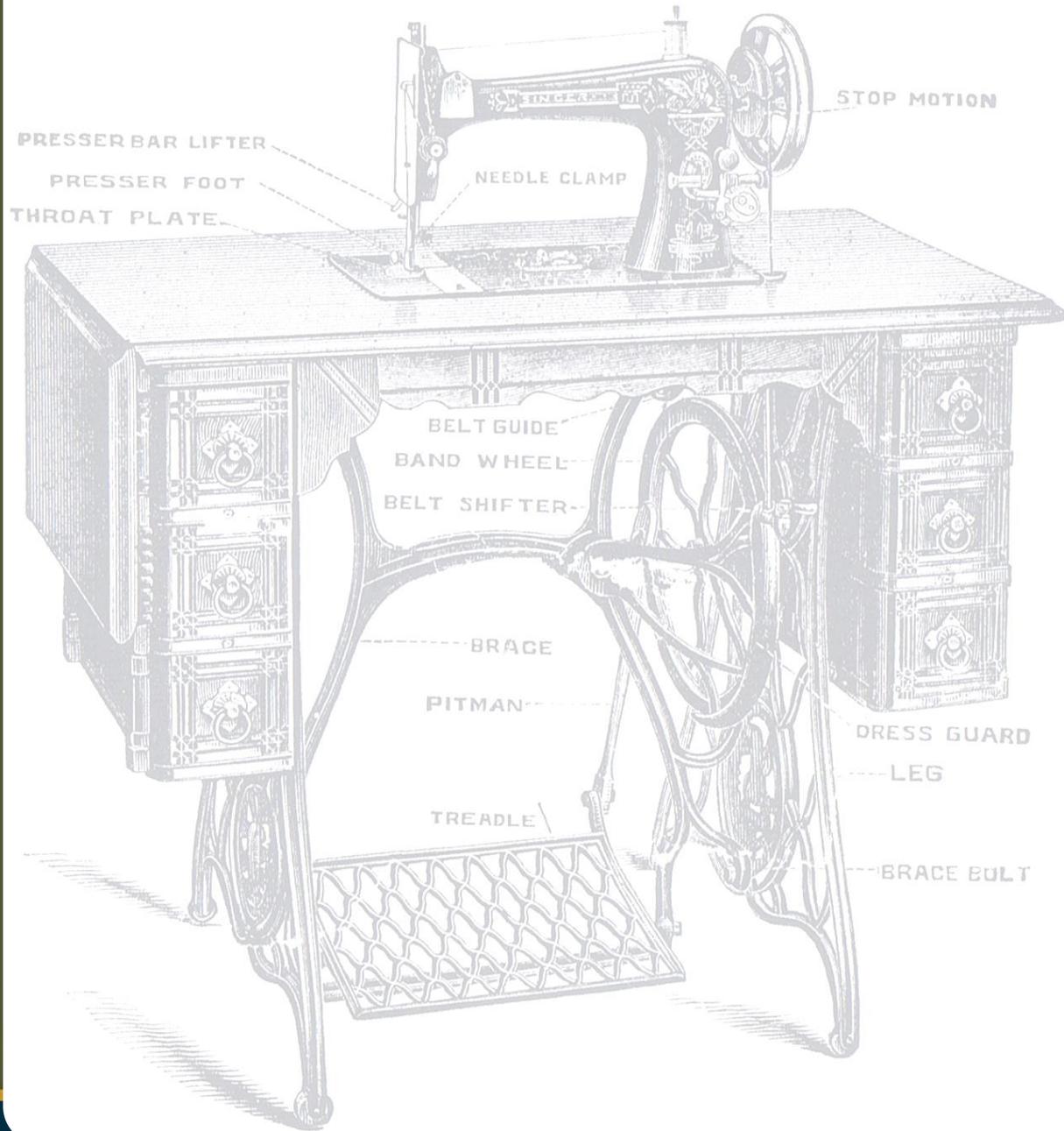
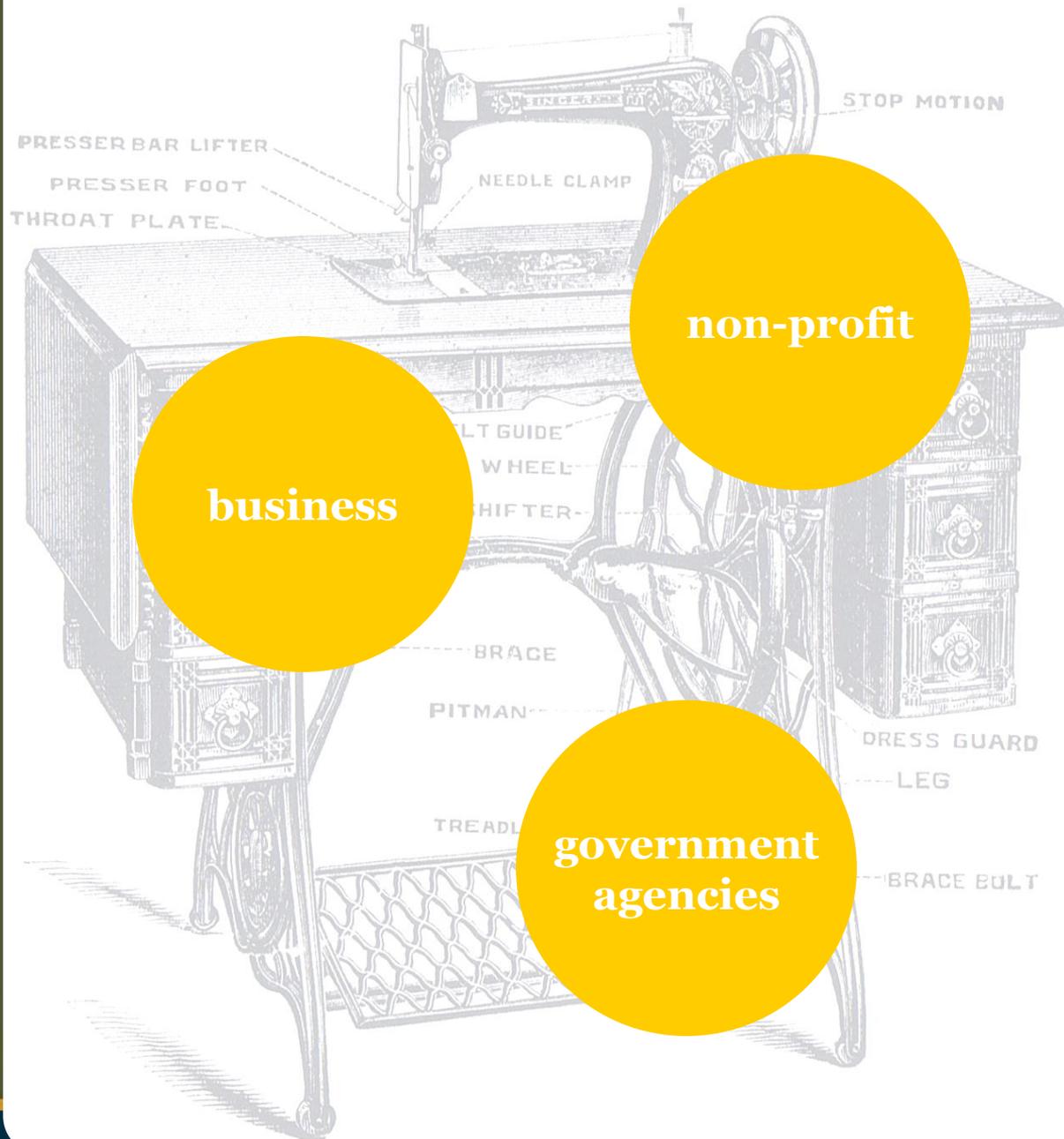


Fig. 2.



Welcome



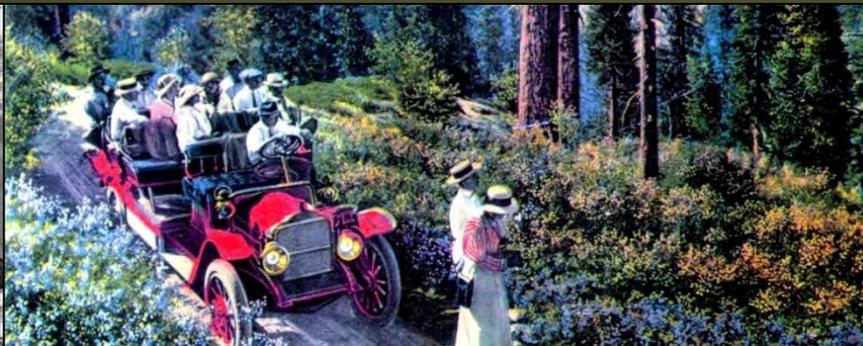
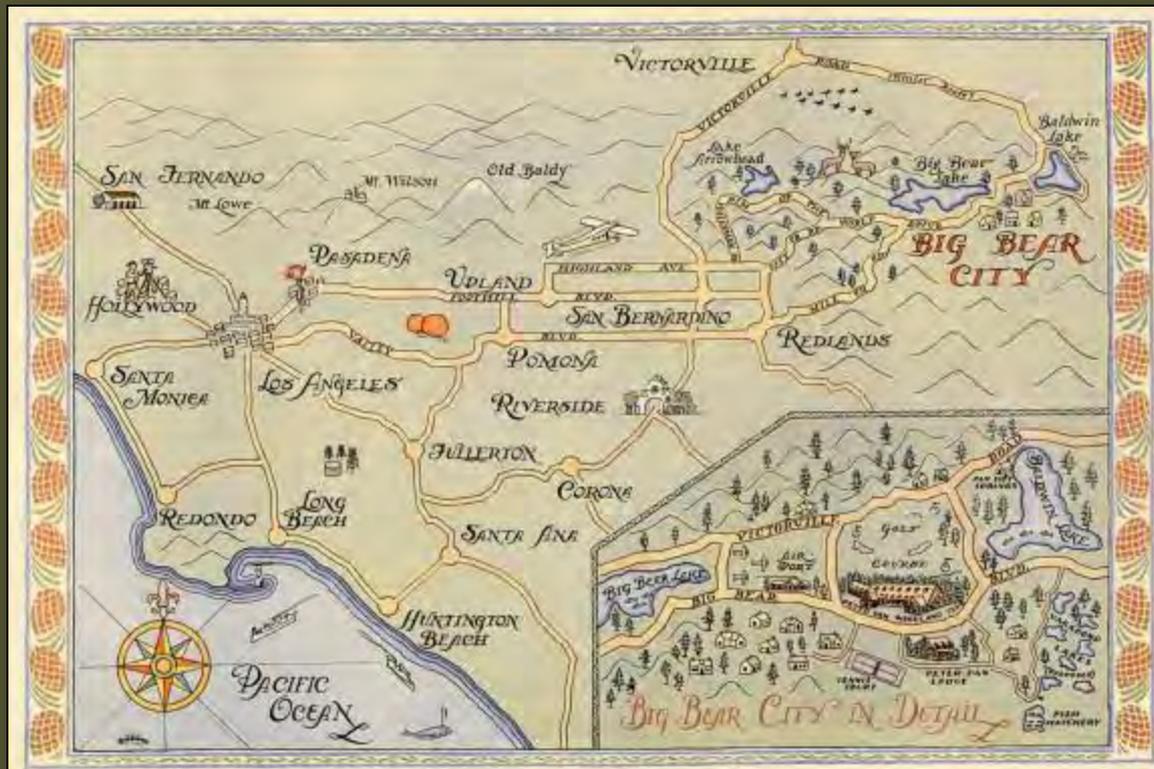
Siri Eggebraten
City of Big Bear Lake

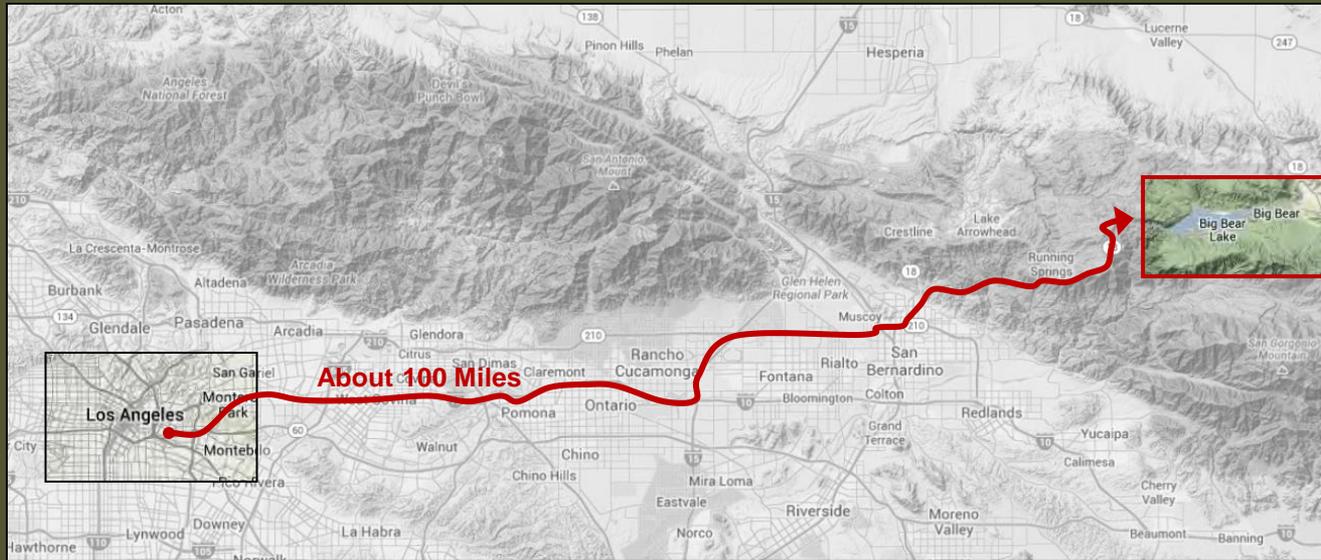


Jay Renkens
MIG



Jan Hancock
Hancock Resources LLC

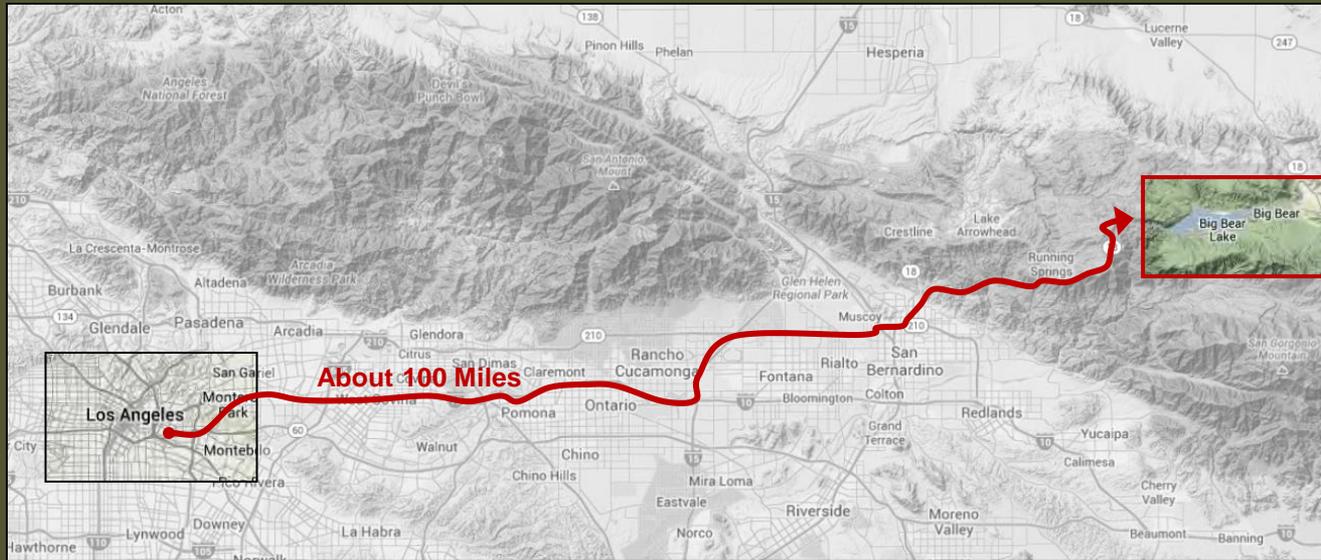




Central Los Angeles

BIG BEAR VALLEY





Central Los Angeles

BIG BEAR VALLEY







“Not exactly what I expected...” ●●●●○

Review of Big Bear Lake Mallard Bay Resort



41 traveler photos

Enter dates for best prices

Check In

Check Out

mm/dd/yyyy

mm/dd/yyyy

Show Prices



Palmer A
Camarillo, California

2 reviews

“Not exactly what I expected...”

●●●●○ Reviewed 3 days ago

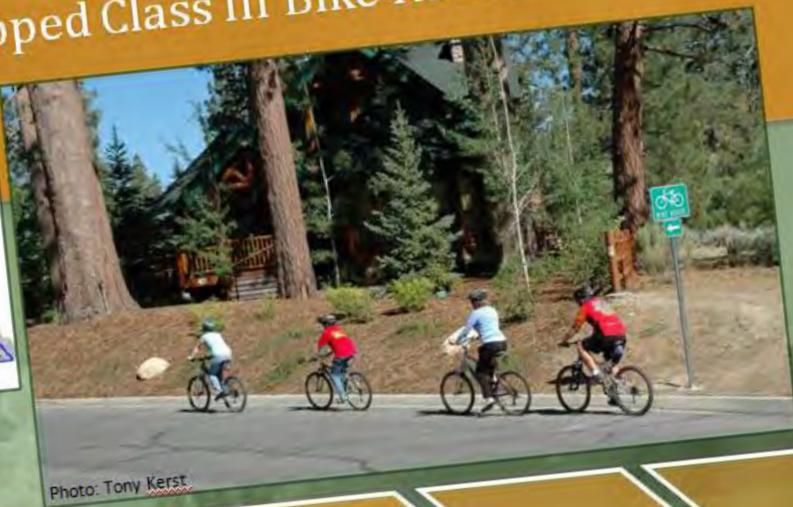
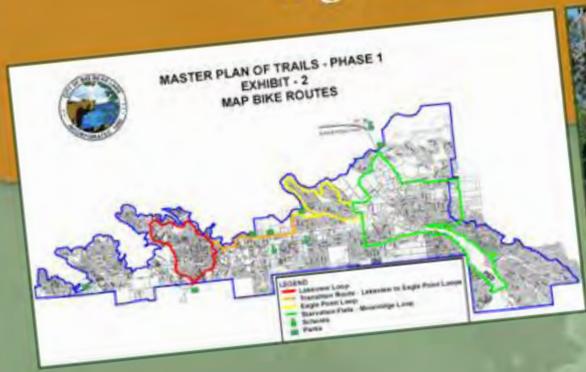
NEW

I'd like to start off by saying this review is for Cabin #15 (single queen bed with a full kitchen), which I believe to be the absolute worst cabin



MASTER PLAN BACKGROUND

Adopted Master Plan of Trails – Phase I Signed & mapped Class III Bike Routes



what do we do to fix these problems?

: generate and focus energy to set about the motion of change

: create a document that meets legal mandates and can be used to by a variety of actors to produce pedestrian pathways, bicycle routes, equestrian trails, related amenities, and economic stimulus for our an outdated economy

MASTER PLAN BACKGROUND

Applied for 2011-12 Caltrans
Community Based Transportation Planning Grant

Fiscal Year 2011-12
TRANSPORTATION PLANNING GRANT
APPLICATION

Environmental Justice
 Community Based Transportation Planning

County of San Bernardino Planning
Community Planning
Department of Public Works Planning
Department of Public Works Planning

PROJECT LOCATION: 101 Bear Valley Parkway, Big Bear Lake, California
Big Bear Valley (City of Big Bear Lake, County of San Bernardino)

APPLICANT		SURRECIPIENT	
Executive Director and title	City of Big Bear Lake	Executive Director and title	County of San Bernardino
Contact Person and title	Jim Miller, Director of Building and Planning	Contact Person and title	Christine Kelly, Director
Mailing Address	PO Box 10,000	Mailing Address	385 North Arrowhead Avenue, First Floor
City	Big Bear Lake	City	San Bernardino
Zip Code	92315	Zip Code	92415-0162
E-mail Address*	jmiller@citybigbearlake.com	E-mail Address*	tkatman@lusc.sbcounty.gov
Telephone Number	(909) 866-5831	Telephone Number	(909) 987-4373





PLANNING DEPARTMENT

REQUEST FOR PROPOSALS

PLANNING CONSULTANT SERVICES

FOR PREPARATION OF

The Big Bear Valley Pedestrian, Bicycle, and Equestrian Master Plan:

*A Non-Motorized Transportation and
Economic Development Plan for the Big Bear Valley*



Submission Deadline:
July 25, 2012, at 4:30 p.m.

Submit Proposals to:

Big Bear Lake Planning Department

Attn: City Clerk

39707 Big Bear Boulevard

Post Office Box 10,000

Big Bear Lake, CA 92315

| Physical Address for Hand Delivery

| Mailing Address for Delivery by Post

Crafting the Team

Community's Vision:

- A pedestrian- and bicycle-friendly Valley interwoven by Complete Streets;
- A community of healthy residents;
- A mountain destination for trail-based outdoor recreation and adventure-sports; and
- An incubator for recreation- and trail-related economic development.

An Integrated Approach . . .

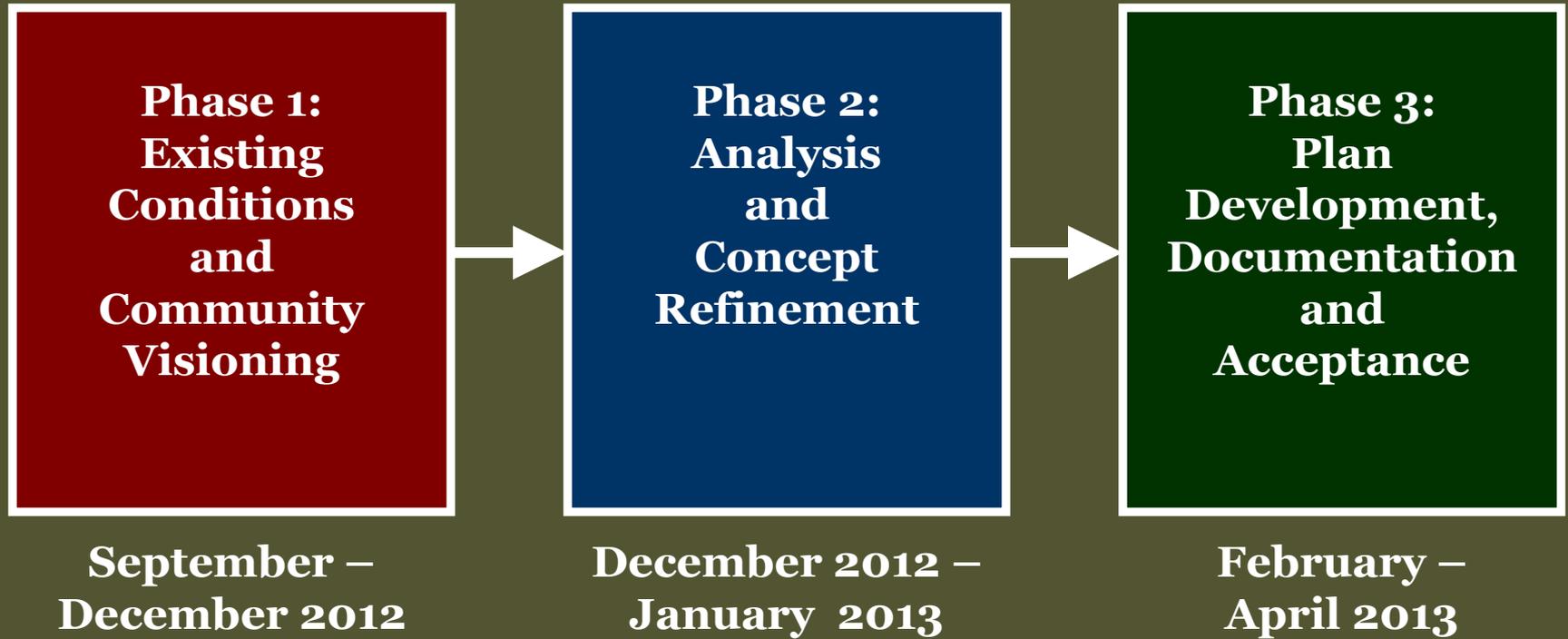


The Consultant Team

- **MIG, Inc.**
 - Community Planning and Design & Recreation Planning and Design
 - Complete Streets, Universal Design and Accessibility
 - Community and Stakeholder Engagement and Visioning
- **BAE Urban Economics**
 - Market Analysis & Economic Strategy
- **KOA Corporation**
 - Multi-Modal Circulation, Access & Parking
- **Livable Communities, Inc.**
 - Pedestrian and Bicycle Planning and Design
 - Business Development
- **Hancock Resources, LLC**
 - Equestrian Planning

Engaging Stakeholders Process

Plan Process



Committee Direction and Review

- Technical Advisory Committee
- Recreational Industry Advisory Committee
- Stakeholder Advisory Committee



Community Involvement Activities

- Community Field Activities
- Focus Groups and Stakeholder Interviews
- Complete Streets/Smart Mobility Workshop
- Community Workshops and Open House
- Community Questionnaire
- Project Website
- Joint City Council/Planning Commission Meetings



PHASE 1: Existing Conditions and Community Visioning



Ongoing Project Coordination



Kick-Off Meeting and Stakeholder Advisory Tour



Stakeholder and Technical Advisory Committee Meetings



Stakeholder and Technical Advisory Committee Meetings



Complete Streets/Smart Mobility Workshop



Design Team Meeting



Community Field Activities



Community Survey



Complete the Street Art Contest



Public Workshop #1: SWOC Analysis



Project Website and Updates



Collect and Review Existing Data and Plans



Survey Results



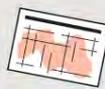
Community Vision and Goals Summary



Base Mapping



Performance Measure Matrix



Opportunities and Constraints Map



Preliminary Streetscape and Trail Concept Alternatives

SEPTEMBER 2012

OCTOBER

NOVEMBER

Master plan



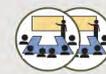
PROCESS SCHEDULE

Concept Refinement

PHASE 3: Plan Development, Documentation and Acceptance



Stakeholder and Technical Advisory Committee Meetings



Stakeholder and Technical Advisory Committee Meetings



Planning Commission/City Council Meeting



City Council Acceptance



Public Workshop #2: Draft Plan Concept



Planning Commission/City Council Report and Discussion



Public Workshop #3: Revised Master Plan



Implementation Strategy



Refine Streetscape and Trail Designs



Draft Master Plan



Revised Draft Master Plan



Final Master Plan



Design Guidelines and Standards

JANUARY 2013

FEBRUARY

MARCH

APRIL 2013

COMMUNITY AND STAKEHOLDER ENGAGEMENT

PLANNING AND ANALYSIS

Project Website

www.gettherebigbear.com

get there BIG BEAR

The Big Bear Valley Pedestrian, Bicycle, and Equestrian Master Plan

About the Project Community Meetings Library Calendar Send Us a Comment

welcome

This interactive forum is for the Big Bear Valley Pedestrian, Bicycle, and Equestrian Master Plan project. Use this site to find, share, and exchange information and ideas about getting around Big Bear Valley by foot, bike, hoof, and transit. Receive updates on the project via email, view the latest documents, and learn about upcoming events.

join us

Attend an **event or meeting.**



image gallery

now playing: **PAUSE II** 5 seconds

You've seen all photos in the set **Big Bear Valley Photos**. Would you like to start again from the beginning?



project news

Thanks for a Great Community Workshop!



The first Community Workshop was held at the Performing Arts Center (City Hall) on Tuesday, November 13th from 6:30pm-9pm.

the Community Workshop allowed the public to learn about the purpose of the project, the process and comment on system-wide needs, challenges and opportunities.

[Keep reading...](#)

upcoming events

Joint briefing to City Council and Planning Commission

Dec 12, 2012 (11:00am - 11:45am)
Hofert Hall of the Performing Arts Center, City Hall, 39707 Big Bear Blvd.
[Keep reading...](#)

Recreation Industry Advisory Committee

Dec 12, 2012 (1:30pm - 3:30pm)
Hofert Hall of the Performing Arts Center, City Hall, 39707 Big Bear Blvd.
[Keep reading...](#)

Public Workshop #2

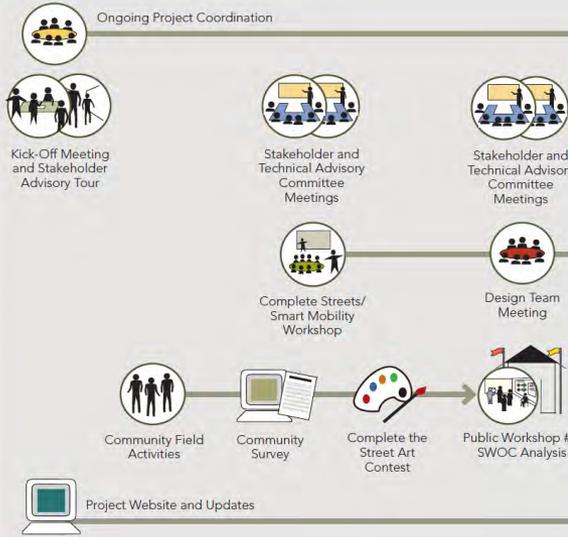
Jan 30, 2013 (7:00pm - 9:00pm)
TBD
[Keep reading...](#)

[ALL EVENTS >](#)

CITY OF BIG BEAR LAKE PEDESTRIAN, BICYCLE AND TRANSPORTATION PLAN

PHASE 1: Existing Conditions and Community Visioning

COMMUNITY AND STAKEHOLDER ENGAGEMENT

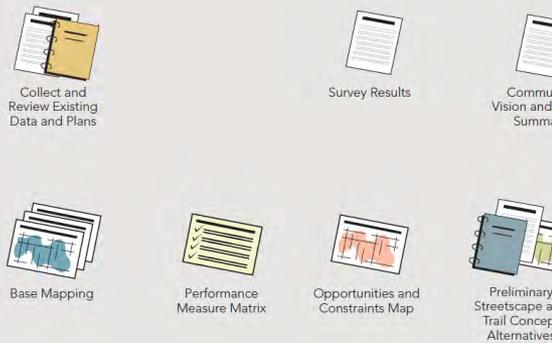


SEPTEMBER 2012

OCTOBER

NOVEMBER

PLANNING AND ANALYSIS



SEPTEMBER 2012

OCTOBER

NOVEMBER

PHASE 2: Analysis and Concept Refinement



Stakeholder and Technical Advisory Committee Meetings



Design Team Meeting



Planning Commission/City Council Report and Discussion



Public Workshop #2: Draft Plan Concept

ANALYSIS



Refine Streetscape and Trail Designs

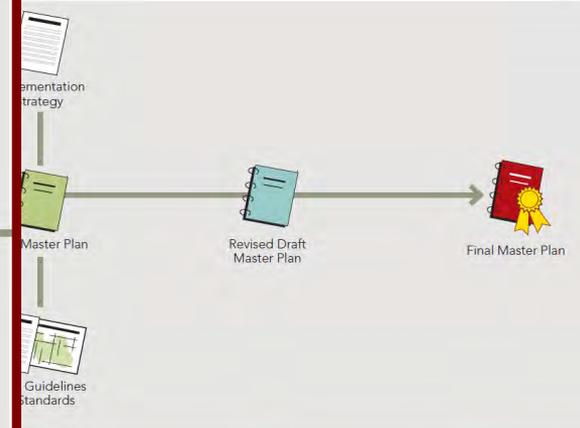
DECEMBER

JANUARY 2013



PROCESS SCHEDULE

PHASE 3: Plan Development, Documentation and Acceptance



FEBRUARY

MARCH

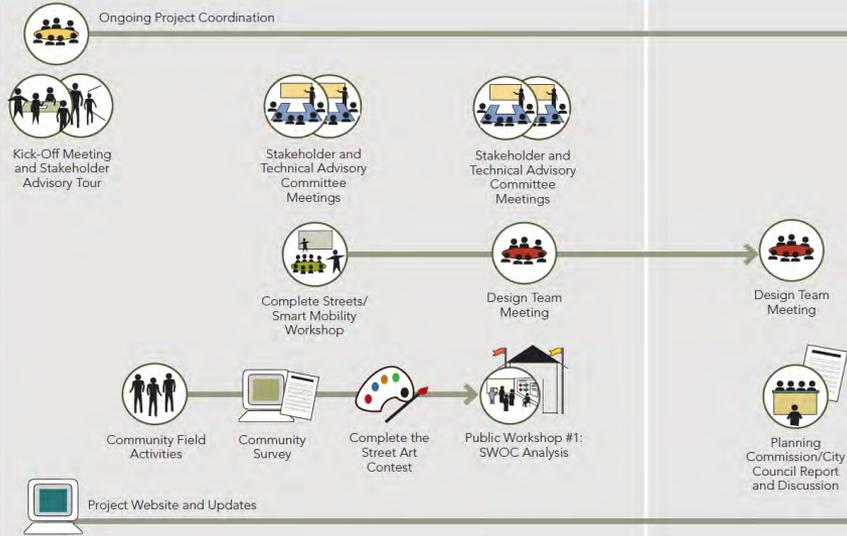
APRIL 2013

CITY OF BIG BEAR LAKE PEDESTRIAN, BICYCLE AND EQUESTRIAN master plan

PHASE 1: Existing Conditions and Community Visioning

PHASE 2: Analysis and Concept Refinement

COMMUNITY AND STAKEHOLDER ENGAGEMENT



PLANNING AND ANALYSIS

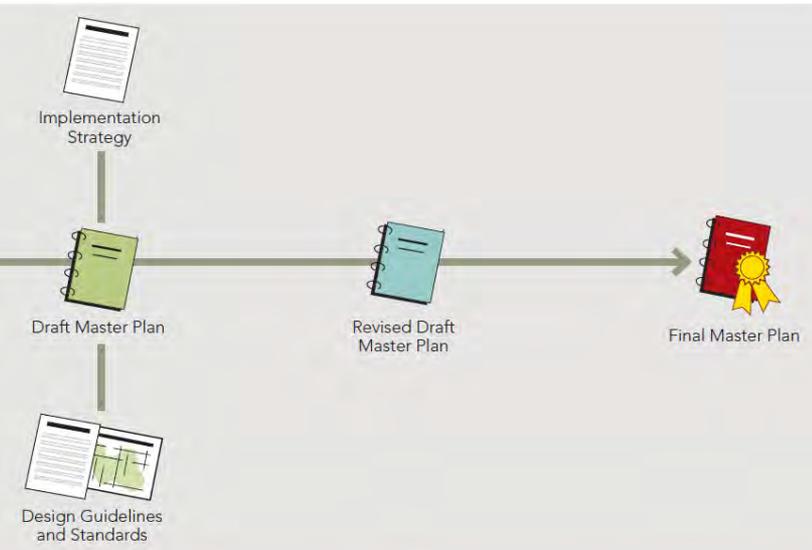


SEPTEMBER 2012

OCTOBER

NOVEMBER

DECEMBER



FEBRUARY

MARCH

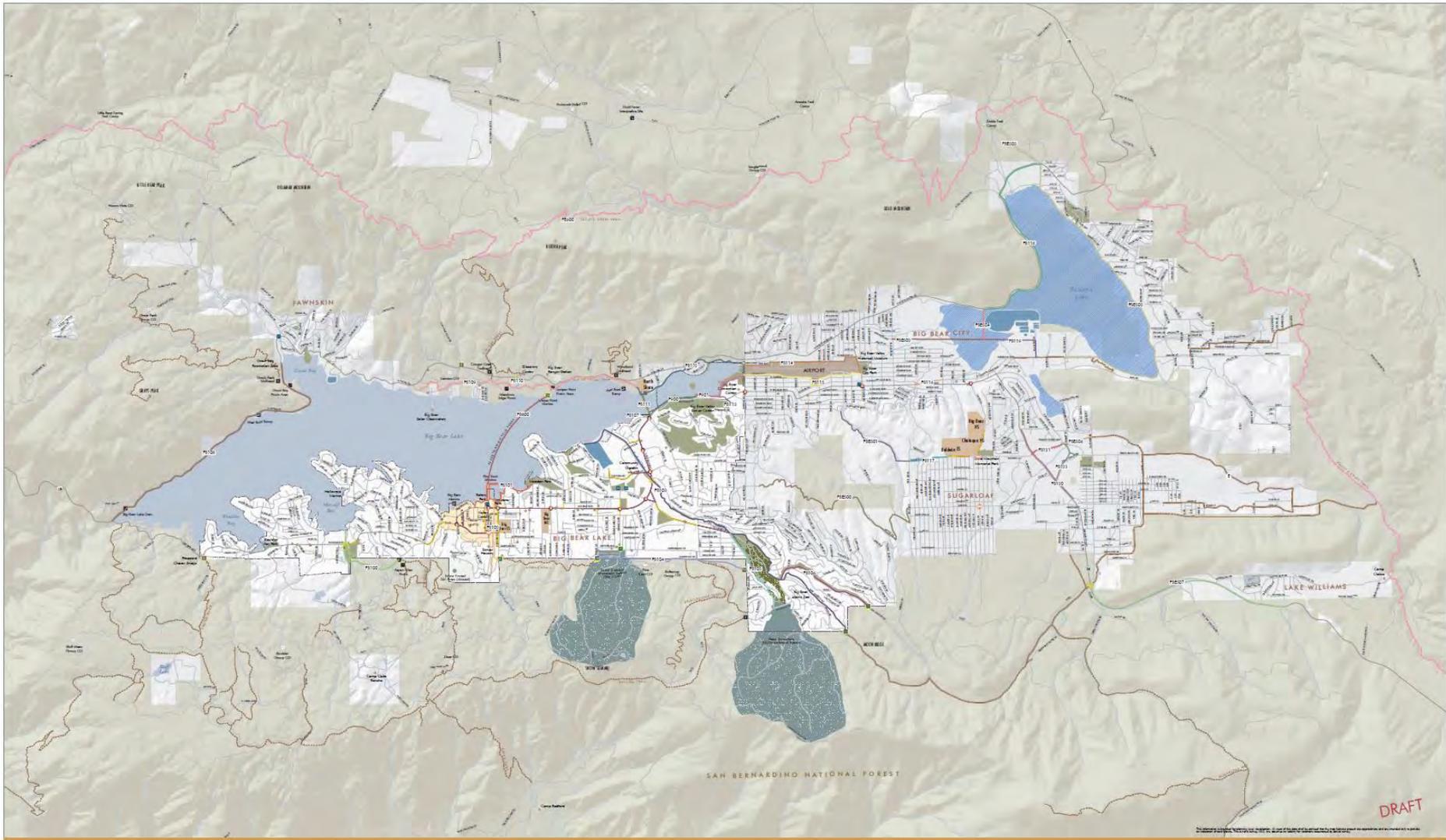
APRIL 2013

Key Plan Elements

Plan Elements

- Existing Conditions
- Planning Process
- Vision and Planning Principals
- Multimodal Network
- Pedestrian Network
- Bicycle Network
- Equestrian Network
- Outdoor Recreation Economy
- Implementation
- Design Guidelines





The Big Bear Valley Pedestrian, Bicycle and Equestrian Master Plan

Proposed Pedestrian Facilities and Amenities

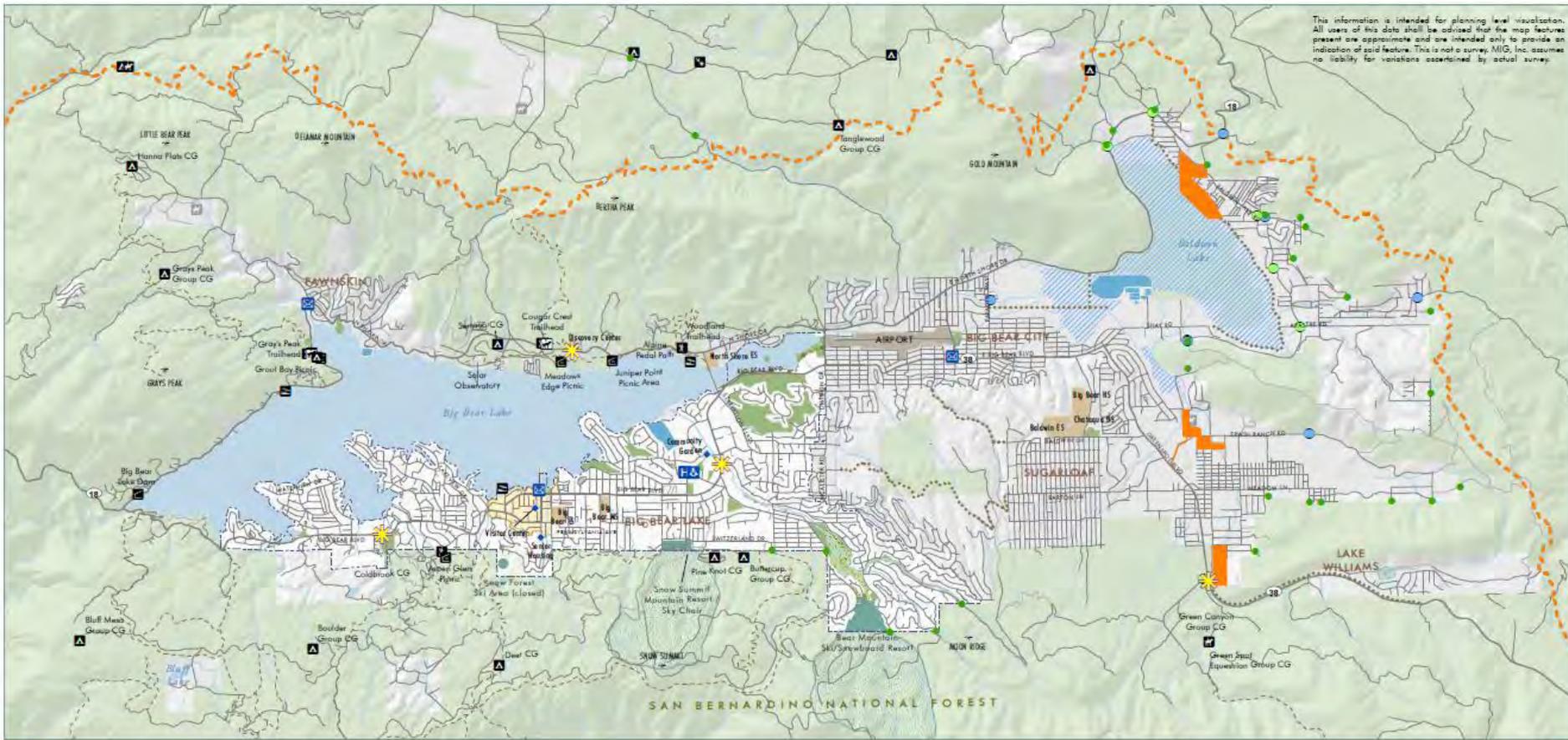
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|--|---|---|--|--|--|--|---|---|
| <ul style="list-style-type: none"> ■ Commercial ■ Water Access ■ Day Use Area ■ Temporary Use ■ Technical ■ Public Use | <ul style="list-style-type: none"> • Trail • Park • Linking • Discontinuity • Open Reservation | <ul style="list-style-type: none"> ■ Trail Office ■ Trailhead ■ Camp ■ Shuttle Stop ■ All Way Stop | <ul style="list-style-type: none"> ■ Proposed Trailhead ■ Proposed Water Access ■ Proposed Temporary Use ■ Proposed Technical ■ Proposed Public Use | <ul style="list-style-type: none"> ○ Proposed Crossing ○ Proposed Pedestrian Facility ○ Proposed Water Access ○ Proposed Trail ○ Proposed Water | <ul style="list-style-type: none"> — Existing Class Trail — Proposed Class Trail — Proposed Water Access — Trail — Proposed Trail | <ul style="list-style-type: none"> — Major Road — Local Road — Linking Road or Class Road — Roadway — Unimproved Roadway — Pacific Class Trail | <ul style="list-style-type: none"> ■ Lake/Pond ■ Reservoir ■ Stream/Run ■ Open Reservation ■ Open Reservation Boundary | <ul style="list-style-type: none"> ■ City Limits ■ Village Specific Plan Area ■ Power Facility |
|--|---|---|--|--|--|--|---|---|

0 0.25 0.5 1 MILE

Scale: 1" = 1000'

August 2013 | City of Big Bear, San Bernardino County, USC & USFS, and local residents.
140 1933 Sun Point California, PMB 2001, CA

This information is intended for planning level visualization. All users of this data shall be advised that the map features present are approximate and are intended only to provide an indication of said feature. This is not a survey. MIG, Inc. assumes no liability for variations ascertained by actual survey.



- | | | | | | | | | | |
|--|-------------------------------|--|-------------------|--|---|--|------------------------------|--|----------------------------|
| | Campground | | Day Use Area | | Proposed Separated Grade Crossing | | Major Road | | Park/Open Space |
| | Equestrian Camp | | Water Access | | Neighborhood Forest Access Point | | Local Road | | Forest Service |
| | Equestrian Facility (private) | | Interpretive Site | | Proposed Crossing with Equestrian Enhancements | | Alley, Private or Other Road | | Snow Recreation |
| | Equestrian Trailhead | | Hospital | | Proposed Trailhead with Equestrian Enhancements | | Lake/Pond | | Snow Recreation Boundary |
| | Trailhead | | Post Office | | Proposed Equestrian Staging Area | | Reservoir | | Golf Course |
| | Potential Trailhead | | Library | | Pacific Crest Trail (Equestrian Use) | | Swamp/Marsh | | Village Specific Plan Area |
| | Picnic Site | | Peak | | Trail | | Stream/River | | City Limits |
| | | | | | Boardwalk | | | | |

The Big Bear Valley Pedestrian, Bicycle and Equestrian Master Plan

Map 8.1: Existing and Proposed Equestrian Network

0 0.25 0.5 1 Miles

January 2013 | Data Sources: City of Big Bear, San Bernardino County, UGGS, USDA & Planning Project Stakeholders.







BIKES IN HEAD
WHEN LIGHTS FLASH
SPEED 30

PLEASE USE
YOUR BIKE
WARNING
LIGHTS





BIKES IN HEAD
WHEN LIGHTS FLASH
SPEED 30



PLEASE USE
YOUR BIKE
WARNING
LIGHTS







SHARE
THE
ROAD

Design Guidelines Overview

Regulatory and Design Framework

- California Manual on Uniform Traffic Control Devices (MUTCD)
- NACTO Urban Bikeway Design Guide
- AASHTO Green Book
- California Vehicle Code
- Caltrans Highway Design Manual
- LA County Living Streets Design Manual
- San Bernardino County Non-Motorized Transportation Plan

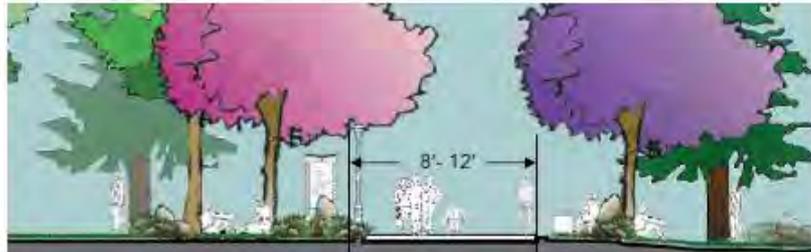
MULTI-MODAL FACILITIES

M.1 Paved Multi-Use Path (Class 1)

Facility Description

A shared use, paved path allows for two-way, off-street bicycle and pedestrian use and also may be used by skaters, wheelchair users, joggers and other non-motorized users. Shared use paths can also include amenities such as lighting, signage, and fencing (where appropriate). Class 1 paths should be used to serve corridors not served by streets and highways or where wide right of way exists, permitting such facilities to be constructed away from streets and highways.

Recommended Design



Design Considerations

- The minimum width of two-way paths is eight feet.
- Ten-foot wide paths are usually best for accommodating all uses, and better for long-term maintenance and emergency vehicle access.
- Twelve-foot wide paths are preferred and should be constructed when feasible.
- If trees are adjacent to the path, a root barrier should be installed along the path to avoid root uplift.
- A minimum 2-foot wide shoulder composed of the same pavement material as the path or all weather surfaces, free of vegetation, shall be provided adjacent to the traveled way of the path when not on a structure.
- The minimum separation between the edge of pavement of a one-way or a two-way bicycle path and the edge of travel way of a parallel road or street shall be 5 feet plus the standard shoulder width.

Design Example



Maintenance Considerations

- Thicker surfacing and a well-prepared sub-grade will reduce deformation over time and reduce long-term maintenance costs.
- Paths should be designed with sufficient surfacing structural depth for the sub-grade soil type to support maintenance and emergency vehicles.

Additional Design Guidance

- Caltrans Highway Design Manual (Chapter 1000 Section 1003.1(1) and (2), and 1003.5)
- AASHTO Guide for the Development of Bicycle Facilities, Chapter 2
- California MUTCD Chapter 9B. Signs Guidelines for Accessible Public Rights-of-Way

Facility
Description

Recommended
Design

Design
Considerations

Maintenance
Considerations

Design
Example

Additional
Design Guidance

Class 1. Multi-Use Path

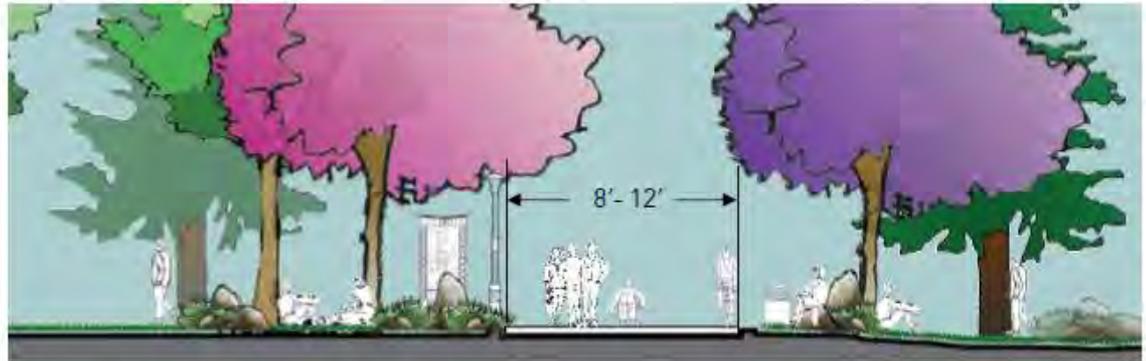
- Allows for two-way traffic
- 8-12 foot width
- 2-foot shoulder
- 5-foot separation from street

11.4.1 Paved Multi-Use Path (Class 1)

Facility Description

A shared use, paved path allows for two-way, off-street bicycle and pedestrian use and also may be used by skaters, wheelchair users, joggers and other non-motorized users. Shared use paths can also include amenities such as lighting, signage, and fencing (where appropriate). Class 1 paths should be used to serve corridors not served by streets and highways or where wide right of way exists, permitting such facilities to be constructed away from the influence of parallel streets.

Recommended Design



Design Considerations

The minimum width of two-way paths is eight feet.

Ten-foot wide paths are usually best for accommodating all uses, and better for long-term maintenance and emergency vehicle access.

Twelve-foot wide paths are preferred and should be constructed when feasible.

If trees are adjacent to the path, a root barrier should be installed along the path to avoid root uplift.

A minimum 2-foot wide shoulder composed of the same pavement material as the path or all weather surface, free of vegetation, shall be provided adjacent to the traveled way of the path when not on a structure.

The minimum separation between the edge of pavement of a one-way or a two-way bicycle path and the edge of travel way of a parallel road or street shall be 5 feet plus the standard shoulder width.

Maintenance Considerations

Thicker surfacing and a well-prepared sub-grade will reduce deformation over time and reduce long-term maintenance costs.

Paths should be designed with sufficient surfacing structural depth for the sub-grade soil type to support maintenance and emergency vehicles.

Design Example



Additional Design Guidance

Caltrans Highway Design Manual (Chapter 1000 Section 1003.1(1) and (2), and 1003.5)

AASHTO Guide for the Development of Bicycle Facilities, Chapter 2

California MUTCD Chapter 9B. Signs Guidelines for Accessible Public Rights-of-Way

Class 2. Bike Lane

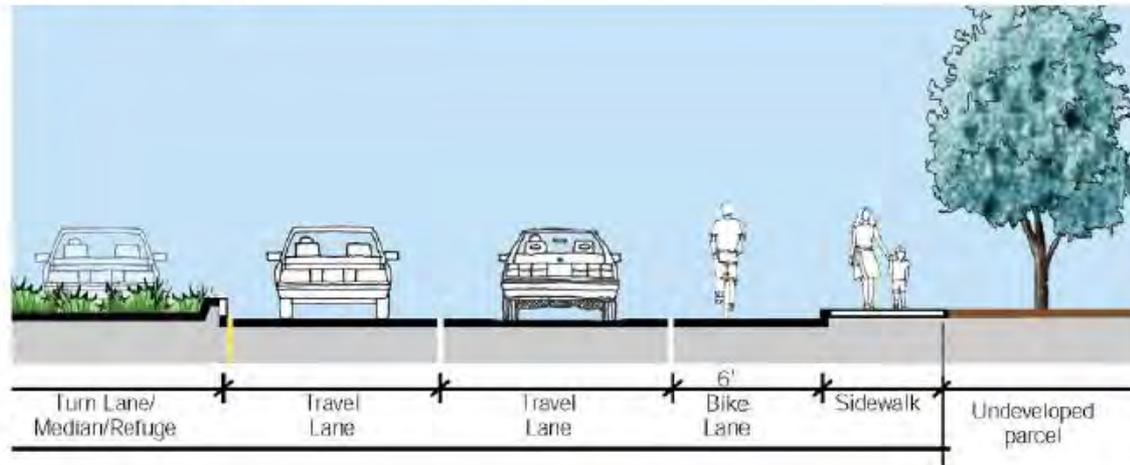
- Pedestrian Access Route = Clear path of travel from public ROW to entry point.

11.6.2 Bike Lane (Class 2)

Facility Description

A class 2 bike lane is defined as a portion of the roadway that has been designated by striping, signage and pavement markings for the preferential or exclusive use of bicyclists. They enable bicyclists to ride at their preferred speed without interference from prevailing traffic conditions and facilitate predictable behavior and movements between bicyclists and motorists.

Recommended Design



Design Considerations

The minimum class II bike lane width shall be 4 feet.

Where adjacent to on-street parking, the minimum bike lane width should be 5 feet.

Where posted speeds are greater than 40 mph, the minimum bike lane width should be 6 feet.

On highways with concrete curb and gutter, a minimum width of 3 feet measured from the bike lane stripe to the joint between the shoulder pavement and the gutter shall be provided.

As grades increase, downhill bicycle speeds increase, warranting the need for increases in bicycle lane width.

Maintenance Considerations

Bike lane striping should be maintained to be legible

Bike lanes should be cleared of snow, glass, potholes and other hazardous materials

If utility cuts are needed, they should be filled back to the same grade and smoothness as the original surface.

Design Example



Additional Design Guidance

NACTO pages 5-57

Highway Design Manual, Chapter 300

California MUTCD, Section 9C.04.

Class 2.5: Bike Blvd

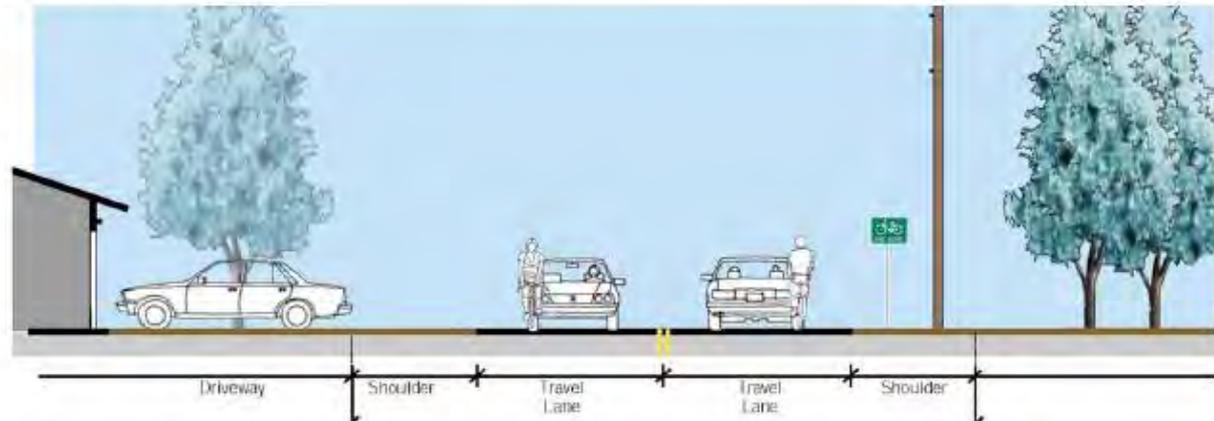
- Maintain low vehicle speeds
- Provide through and direct travel for cyclists

11.6.3 Bike Boulevard (Class 2.5)

Facility Description

A bike boulevard is a shared bicycle facility on a residential or local street enhanced with traffic calming treatments that slows traffic, reduces cut through traffic and where bicycle traffic is given priority.

Recommended Design



Design Considerations

Bike Boulevards are designed to promote bicycle travel by maintaining low vehicular speeds and volumes by incorporating traffic calming treatments such as roundabouts, pop-outs, pavement markings and signage.

The route provides through and direct travel in bicycle-demand corridors.

Shared lane markings can be used as a standard element in the development of bicycle.

Design Example



Maintenance Considerations

The smoothness of the riding surface affects the comfort and safety of bicyclists. As pavements age it may be necessary to fill joints or cracks or overlay the pavement to maintain a suitable and even cycling surface

Additional Design Guidance

AASHTO Guide for the Development of Bicycle Facilities, Chapter 2

Bicycle boulevards are not defined as bikeways by Caltrans Highway Design Manual

Below-Grade Trail Crossings

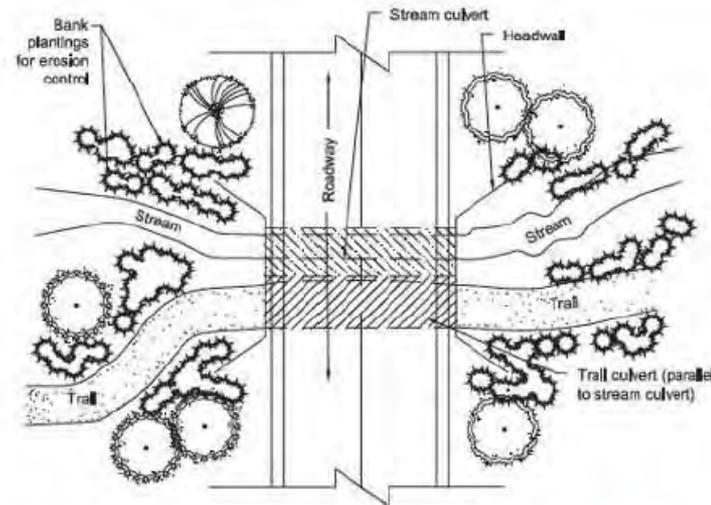
- 8-foot clear width tunnel
- Use of natural soils or textured concrete
- Mounting blocks at tunnel entrance/exit

11.7.2 Below-Grade Trail Crossings

Facility Description

- Below-Grade Trail Crossing of Highway 18 at Rathbone Creek and Similar Locations

Recommended Design



A culvert shared by a stream and the trail. When flooding occurs, both courses channel floodwater.

Graphic illustrates a culvert that carries water and also includes a trail. Inside the culvert, a channel along the outer edge of the trail carries water out of the culvert.

Abutments direct the water to a recessed, reinforced catchment area below the trail tread for erosion control and to reduce water damage to the trail tread.

Design Considerations

- Culvert a minimum of 8 feet clear in width and 10 feet in height, with 14-foot height preferred
- Raised trail corridor at north and south culvert approaches with decomposed granite or other natural stabilized surface material
- Trail inside culvert flush with base of culvert
- Trail tread approach to and inside culvert to be natural soils or textured with water-washed concrete aggregate surface or concrete grooves at right angle to travel direction of equestrian users
- Mounting blocks at each end of a culvert should be provided for equestrian use
- Provide lighting at approaches to and inside culvert
- Water abutments to deflect water into catchment area to slow water flow to help reduce scouring and other water flow damages to trail surface

Design Example



Maintenance Considerations

- Regular maintenance to maintain trail tread surface, removal of vegetative and rock material that may flow into the culvert, and replacement of materials washed away from the catchment pond area.
- Repair and replacement of any lighting installed in

Additional Design Guidance

- *Equestrian Design Guidebook for Trails, Trailheads and Campgrounds*, Federal Highway Administration, U.S. Department of Transportation; 2009
- U.S. Department of Defense, Army Corps of Engineers – "Recreation Planning and Design Criteria;" 2004

Equestrian Campground/ Recreation Site

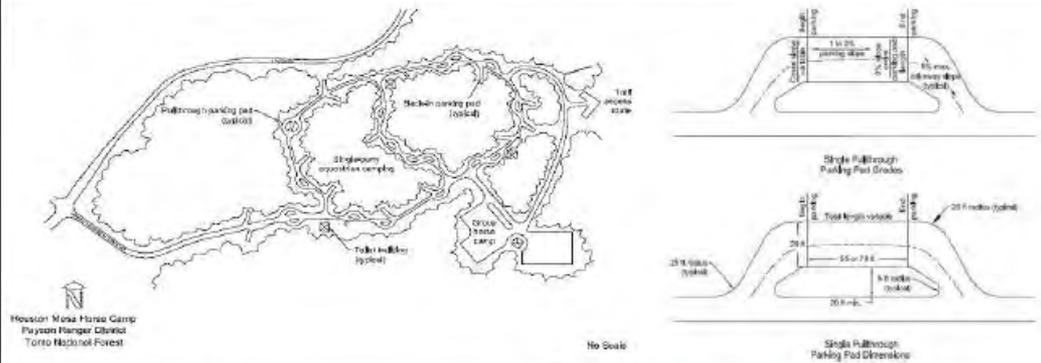
- Perimeter fencing
- Provide a range of camping sites in different configurations
- Perimeter restrooms/showers

11.7.7 Equestrian Campground/Recreation Site

Facility Description

- Overnight camping and recreation sites may have more amenities than day use only recreational facilities

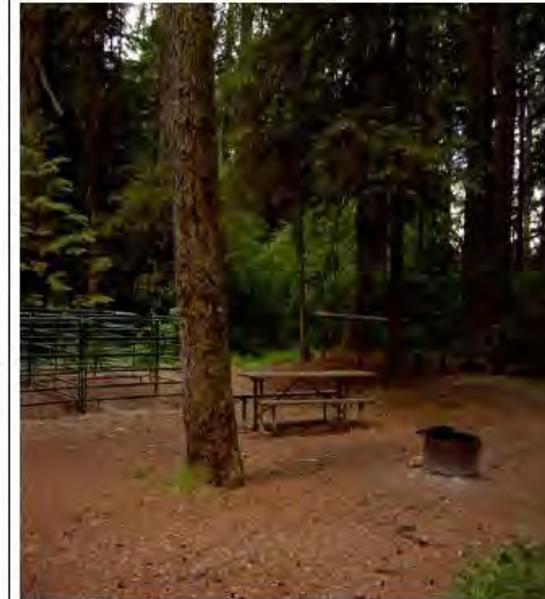
Recommended Design



Design Considerations

- Camp units are designed for overnight use and can provide spaces for both riders and their stock
- Campground must have perimeter fencing
- Camp units can include ways to confine stock, such as a corral, hitching post, or highline, which should be level and drain away from living areas.
- Parking pad space in a camp unit provides a space for a towing vehicle and horse trailer and it must be level or not more than a 1 to 2 percent grade
- Parking spaces can be configured for pulling in, backing in, or the preferred pullthrough design
- Campground facilities can provide many amenities, including access to trails, water sources such as hydrants and troughs, round pens, wash racks, utilities, lighting, manure disposal sites, and various structures such as toilet and shower buildings, shelters, picnic tables, lantern posts, and fire rings
- Prevailing wind should not carry smoke and odors into campsite and stock areas of campsite
- All surfaces in campground should be horse friendly and ribbon curbing should be utilized
- Camping sites can be designed for individual, shared, or large group camping areas
- Restroom and shower buildings should be located on the perimeter of the campground roadways

Design Example



Maintenance Considerations

- Control of manure and flies is important to the comfort of campers and stock; provide instructions to campers on how they are to handle manure
- Refrain from the use of wood for corrals, hitching posts, and protect trees from highline damage

Additional Design Guidance

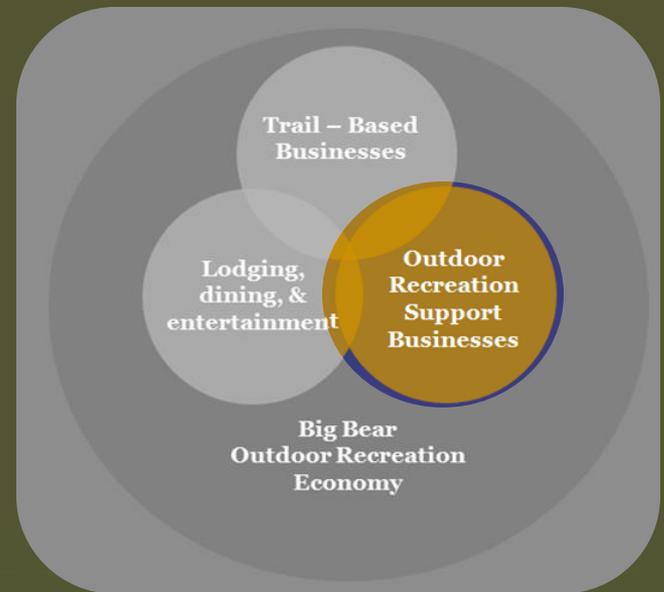
- [Equestrian Design Guidebook for Trails, Trailheads and Campgrounds](#), Federal Highway Administration, U.S. Department of Transportation; 2009
- Published "Leave No Trace" and "Tread Lightly" User Guidelines available from these organizations

Outdoor Recreation Economy



What might be The Ahwahnee Hotel of Big Bear Valley?







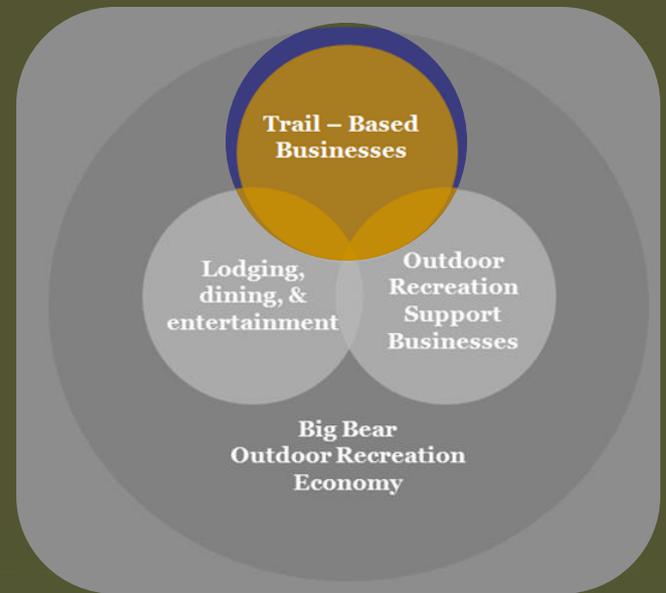
RUNNING CLINIC

JUNE 24TH FROM 12PM TO 5PM

with Certified Crossfit Endurance Coach
>>> Brian Harkins <<<

SIGN UP NOW

CIVILIAN MILITARY COACHING



Planning for Trails-Based Economic Development

*Guiding principles for trail-based economic development, from
“Implementing Trail-Based Economic Development Programs”
Iowa Department of Transportation*

- Understand community capacity
- Understand community desire
- Target markets are based on trail characteristics
- **Community’s relationship to the trail system is important** – i.e., Big Bear is at the hub of a system

Planning for Trails-Based Economic Development, continued

- Choose trailhead sites based on desired user markets and impacts
- Locate trailheads in town boundaries to maximize economic impacts
- Build off existing markets
- Cultivate partnerships

Examples of Strategies & Leads

Clearly define markets	Non-profits
Broaden marketing materials & redefine image	Non- profits
Establish a common design aesthetic across Valley	Government
Expand tourist offerings (such as guided activities, classes, beginner lessons)	Businesses
Develop Moonridge/Rathbun Corridor as “recreation row”	Government
Establish new permit types to encourage new enterprise	Government

CITY OF BIG BEAR LAKE

PEDESTRIAN, BICYCLE AND EQUESTRIAN

master plan



Equestrian
Economic Development Opportunities

USDA

United States
Department of
Agriculture

Forest Service

Technology &
Development
Program

2300 Recreation
December 2007
0723-2816-MTDC



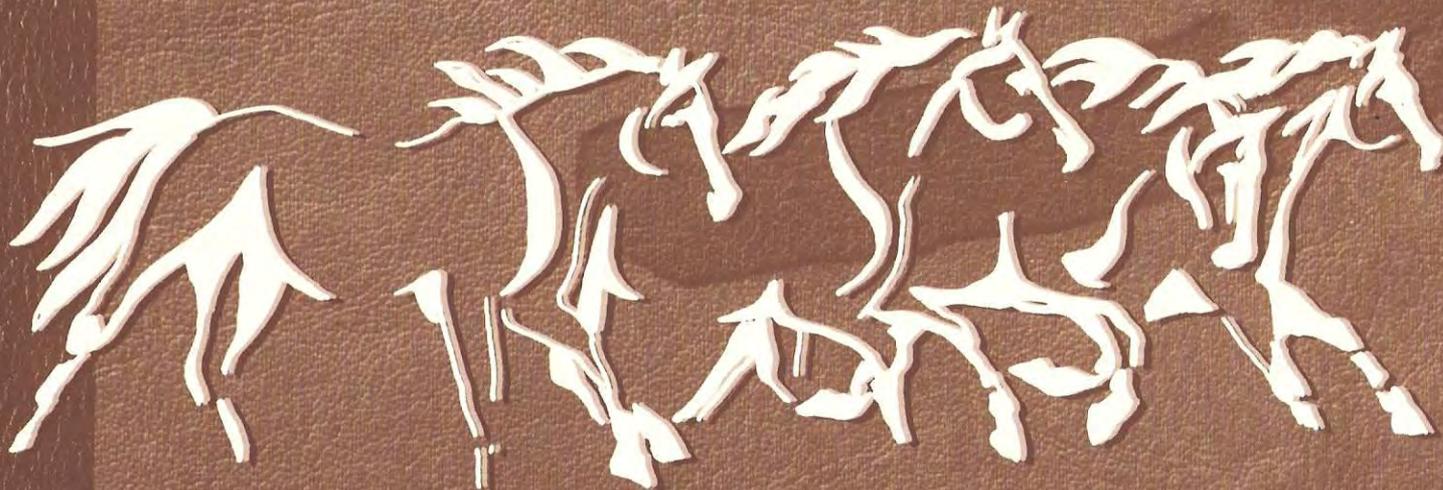
In cooperation
with

United States
Department of
Transportation

Federal Highway
Administration



Equestrian Design Guidebook for Trails, Trailheads, and Campgrounds



Equestrian Economics by the Numbers

“A Ghost Industry”

- 9.2 million horses in the U.S. (Where are they?)
- What states have the largest numbers of horses?
- How big is the horse industry? \$_____billion
- The horse industry pays \$_____billion in taxes
- One out of every _____Americans are involved with the horse industry.

Equestrian Key Elements

1. Preserve existing trail access locations
2. Retain the unique character of Big Bear
3. Increase equestrian opportunities
4. Provide improved wayfinding, maps, and trail descriptions for equestrians
5. Encourage trail etiquette with all users
6. Plan with equestrian safety as a priority

Equestrian Policies & Programs



- Develop Increased Equestrian Tourism
- Expand Equestrian Network Regionally
- Attract New Equestrian-Oriented Businesses, Events, Services and Sustainable Activities

Equestrian Policies & Programs



- Create Horse Programs for Youth, Underprivileged, Therapy and Paralympics
- Increase Equestrian Safety, Public Education and Users Policy Enforcement
- Establish Valley-wide Equestrian Right-of-Way Guidelines for All Trail Users

Equestrian Socioeconomic Needs



- Trailhead access and horse trailer parking
- Horse stabling, corrals, and RV parking
- Campground facilities for extended stays
- Developed trail systems for riders, concessionaires and competitive events



Equestrian Socioeconomic Needs



- Highway, roadway, and trail wayfinding system
- Trail features and water locations for horses
- Trail maps with details, mileages & elevations
- Equestrian services and industry infrastructure
- Safe trails & roads system

Typical Equestrian Supplies & Services

- Feed Stores
- Tack Stores
- Farriers
- Veterinarians
- Apparel Stores
- Service Stations
- Grocery Stores
- Boarding Stables
- RV Campgrounds
- Equestrian B&B's

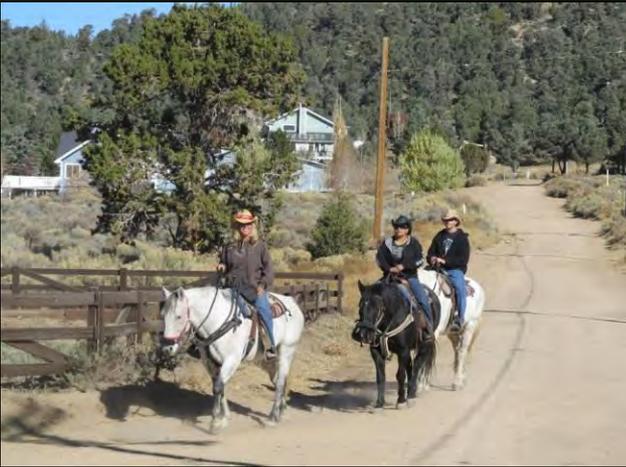


Related Equestrian Economic Drivers

- Horseshows
- Rodeos & Ropings
- Endurance Rides
- Riding Lessons
- Horse Training
- Wounded Warriors
- Therapeutic Riding
- Horse Expos
- Olympics Training



Increasing Equestrian Opportunities

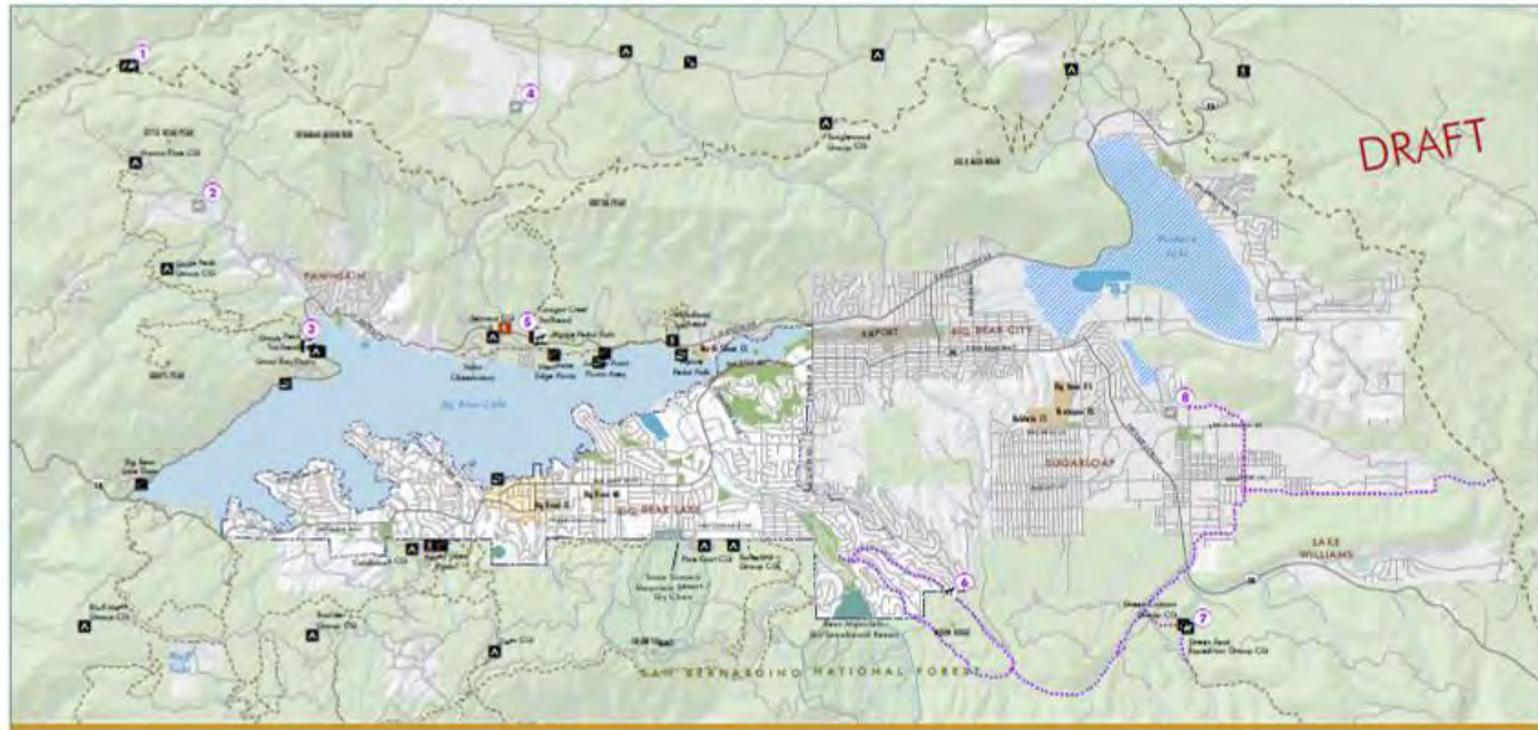


- Expand parking at existing trailheads
- Create new trailheads at strategic locations
- Develop loop trails to the Pacific Crest Trail
- Provide increased equestrian amenities
- **Link the Valley's trails**

Existing Equestrian Opportunities

- 1 - Little Bear Springs Trail Camp
- 2 - Harold F. Whittle Camp
- 3 - Grays Peak Trailhead
- 4 - Old Baldy Scout Camp
- 5 - Cougar Crest Trailhead
- 6 - Green Spot Equestrian Group Camp
- 7 - **Los Vaquero's Rodeo Arena**

Map Identifying Existing Facilities



- | | | | | | |
|---|---|---|---|---|---|
| 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 | 5 |
| 6 | 6 | 6 | 6 | 6 | 6 |
| 7 | 7 | 7 | 7 | 7 | 7 |
| 8 | 8 | 8 | 8 | 8 | 8 |
- | | | | | | |
|---|---|---|---|---|---|
| 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 | 5 |
| 6 | 6 | 6 | 6 | 6 | 6 |
| 7 | 7 | 7 | 7 | 7 | 7 |
| 8 | 8 | 8 | 8 | 8 | 8 |
- | | | | | | |
|---|---|---|---|---|---|
| 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 | 5 |
| 6 | 6 | 6 | 6 | 6 | 6 |
| 7 | 7 | 7 | 7 | 7 | 7 |
| 8 | 8 | 8 | 8 | 8 | 8 |
- | | | | | | |
|---|---|---|---|---|---|
| 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 | 5 |
| 6 | 6 | 6 | 6 | 6 | 6 |
| 7 | 7 | 7 | 7 | 7 | 7 |
| 8 | 8 | 8 | 8 | 8 | 8 |

The Big Bear Valley Pedestrian, Bicycle and Equestrian Master Plan

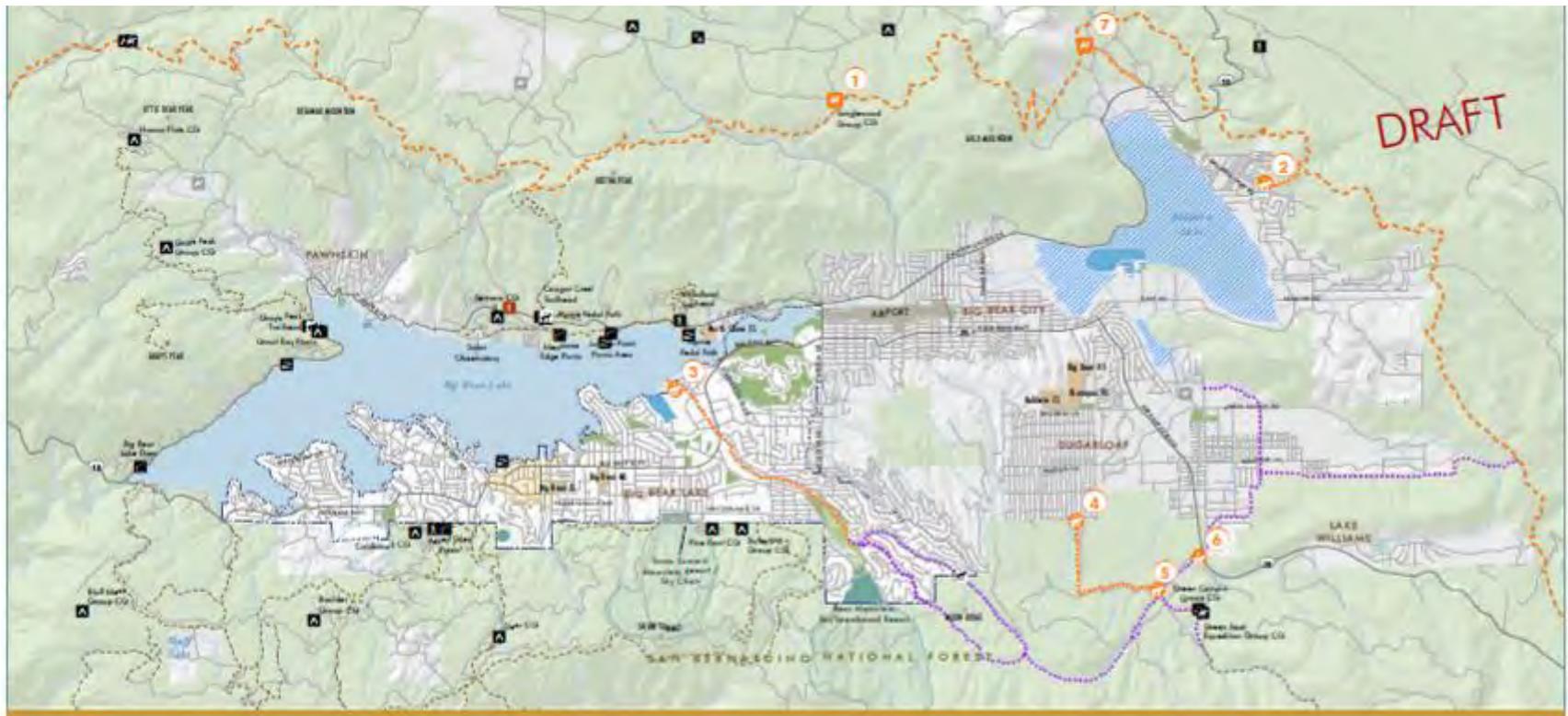
Existing Equestrian Facilities and Amenities

January 2015 | Date Revisions: City of Big Bear Lake Planning Department
 County: USCIG, USGS & Planning Product Specifications.

Proposed Equestrian Opportunities

- 1 - Tanglewood Group Camp
- 2 - Baldwin Lake Road/FR 2N02 Trailhead
- 3 - City of Big Bear Lake Equestrian Center
- 4 - Rathbone Creek Trail Corridor
- 5 - Doble Trail Trailhead and Campground
- 6 - Cushenberry Summit Trailhead
- 7 - Van Dusen Canyon Trailhead and Trails
- 8 - Trailhead Hub on State Highway 38

Map Identifying New Opportunities



- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|-------------------------------|------------------------------------|---------------------------|-------------|--------------|--------------|-----------|-----------|-----------|-----------|-----------|-------------|-----------------|--------------------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Tanglewood Grove Camp | Baldwin Lake Area Trailhead | Big Bear City Equestrian Center | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf | Sugarloaf |
| Proposed Equestrian Camp | Proposed Equestrian Trailhead | Pacific Crest Trail Equestrian Use | Proposed Equestrian Trail | Picnic Site | Day Use Area | Water Access | Fork | Trail | Boardwalk | Lake/Pond | Reservoir | Swamp/Marsh | Snow Recreation | Snow Recreation Boundary | Golf Course | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

The Big Bear Valley Pedestrian, Bicycle and Equestrian Master Plan

Proposed Equestrian Facilities and Amenities

Equestrian Specific Facilities



Design Guidelines

- Linked Loop Trails
- Trailhead Parking
- Campgrounds
- Water Amenities
- Roadway Crossings
- Signs & Sharrows
- Gates & Fencing

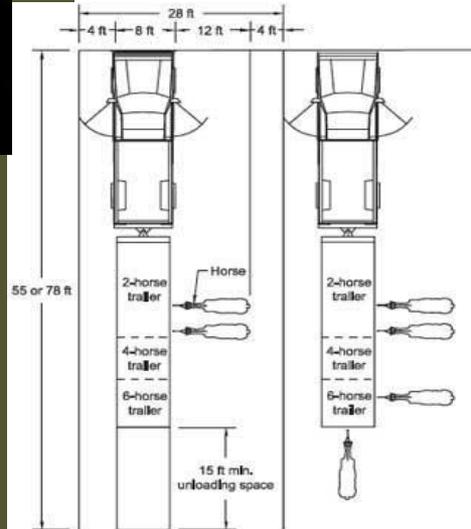
11.7 EQUESTRIAN-SPECIFIC FACILITIES

11.7.1 Equestrian Parking and Staging

Facility Description

Trailheads and other parking and staging areas designated for equestrian use

Recommended Design



A 19-foot (5.8-meter) pickup truck towing a bumper pull, two-horse trailer would require a total length of 55 feet (16.8 meters) to park and unload safely. This includes a 15-foot (4.6-meter) unloading area plus walking space at both ends of the vehicle.

A four-horse gooseneck trailer drawn by a 19-foot pickup truck would need 78 feet (23.8 meters) for parking and loading. A 78-foot-long parking space covers most parking and loading needs. Forty-two-foot (12.8-meter) motorhomes pulling six-horse trailers with interior living quarters may need a space 110 feet (33.5 meters). If these long trailers are common or expected in the facility, provide several longer spaces for them. If local riders commonly use two-horse trailers, provide some 55-foot- (16.8-meter-) long spaces for them.

Minimum turning radius required into and within trailhead parking area is 25 feet, with designated turning lanes for safer entry/exit both into/out of trailhead from paved highway due to slower speeds of vehicles turning with horse trailers. Ideal parking space width is 28 feet.

Design Considerations

- Suitability of Trailhead Location:
 - Publicly managed access location
 - Adequate acreage
 - Generally Flat Topography
 - Ease of Roadway Access
 - Appropriate sightlines for safe access/egress
 - Adequate roadway and trailhead signage
 - Appropriate parking area surface treatment
- Access to water source with drain features
- Perimeter fencing and equestrian gate design
- Conflicting user groups near trailhead (target shooting, model airplanes, hot air balloons, etc.)
- Dark skies compliant lighting fixtures
- Mounting blocks and/or mounting ramps

Maintenance Considerations

- Establish land manager agreements regarding the removal of manure, trailhead surface maintenance, seasons of use, and appropriate closures to use.
- Possible closure due to snow, ice and snow removal to provide a safer recreational experience

Design Example



Additional Design Guidance

- [*Equestrian Design Guidebook for Trails, Trailheads and Campgrounds*](#), Federal Highway Administration, U.S. Department of Transportation; 2009
- [*Safe Fencing for Horses*](#), Kevin Kline, Ph.D. University of Illinois; 2005

Implementation & Lessons Learned

Fig. 2.

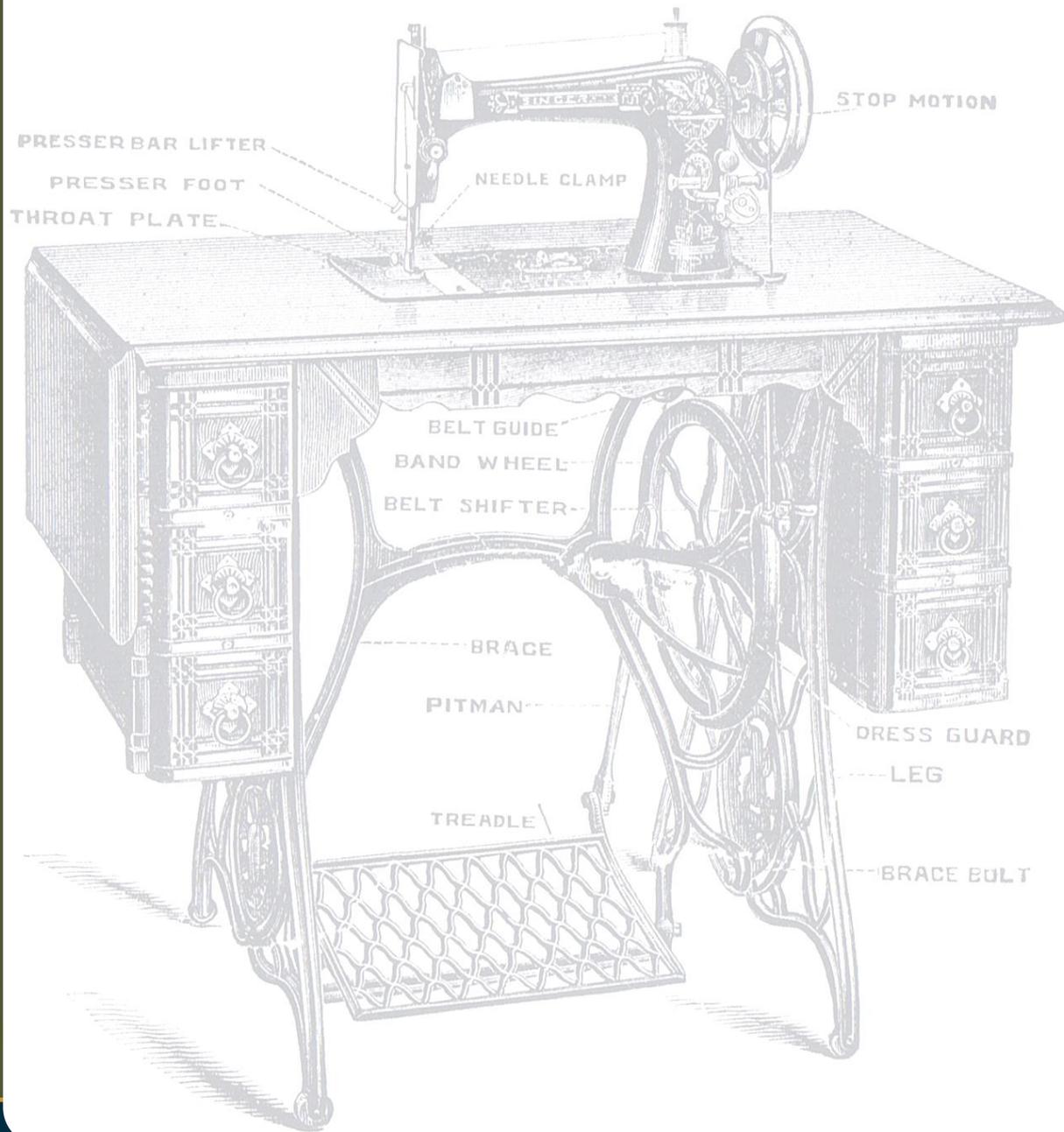


Fig. 2.

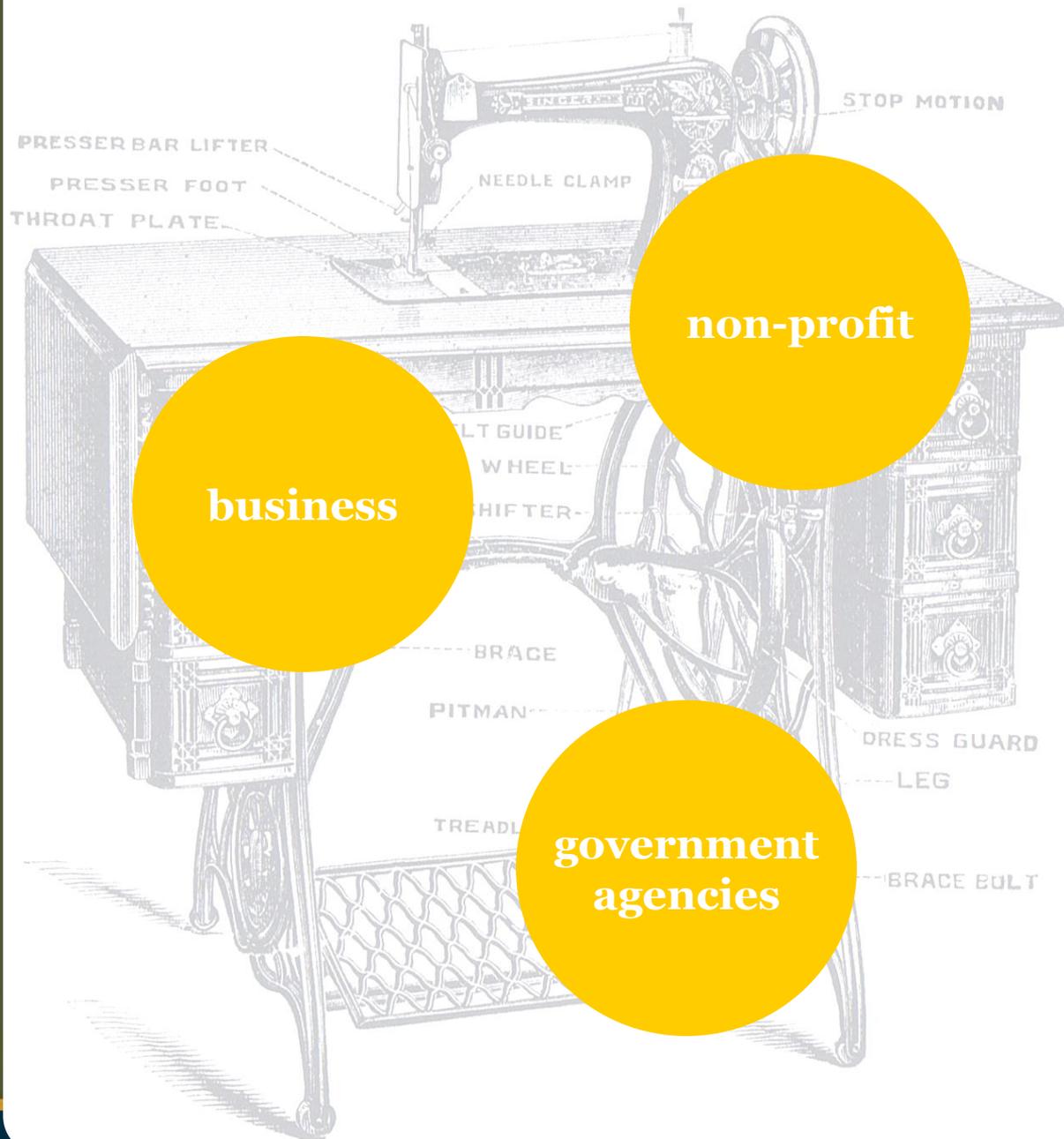
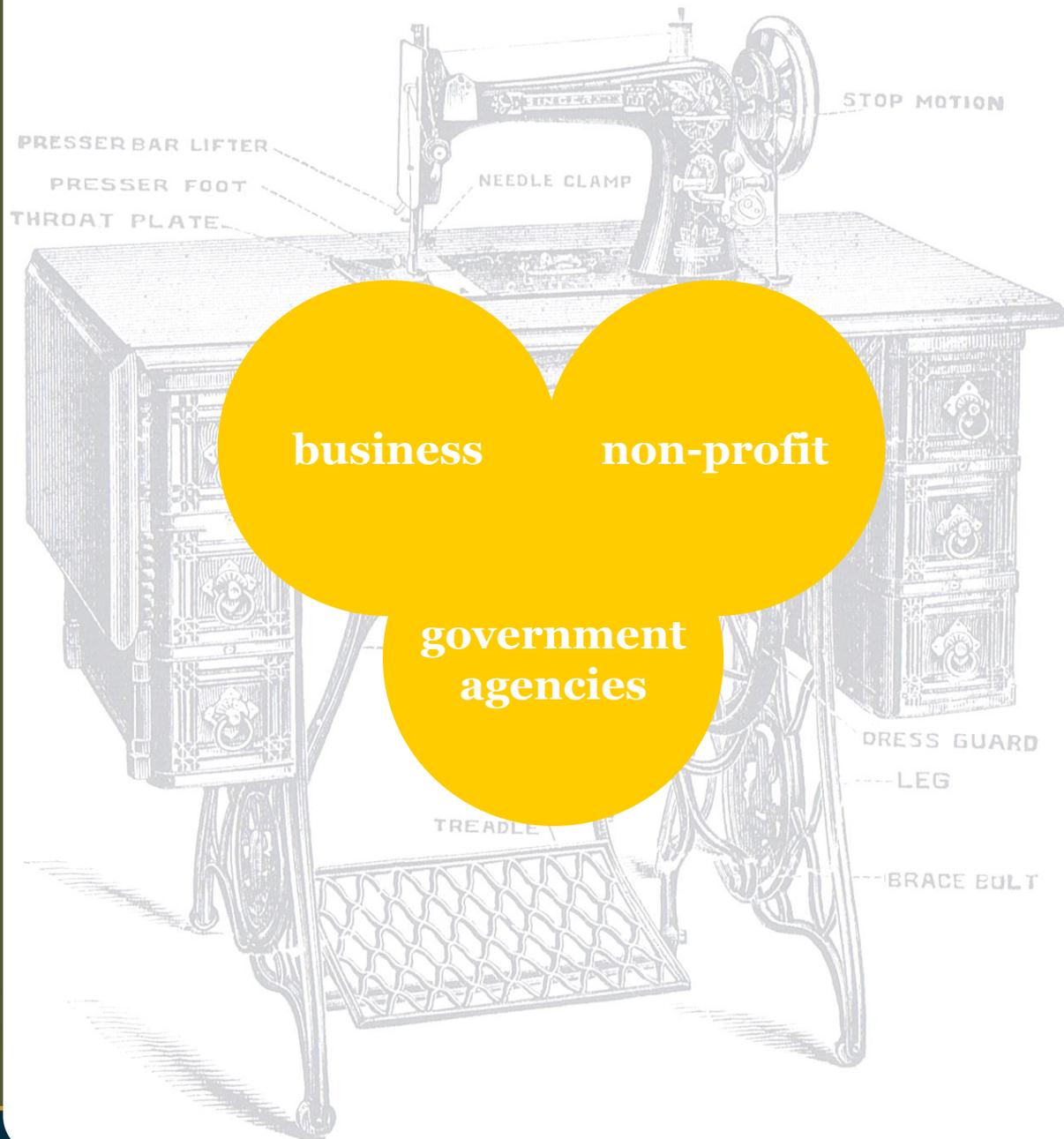


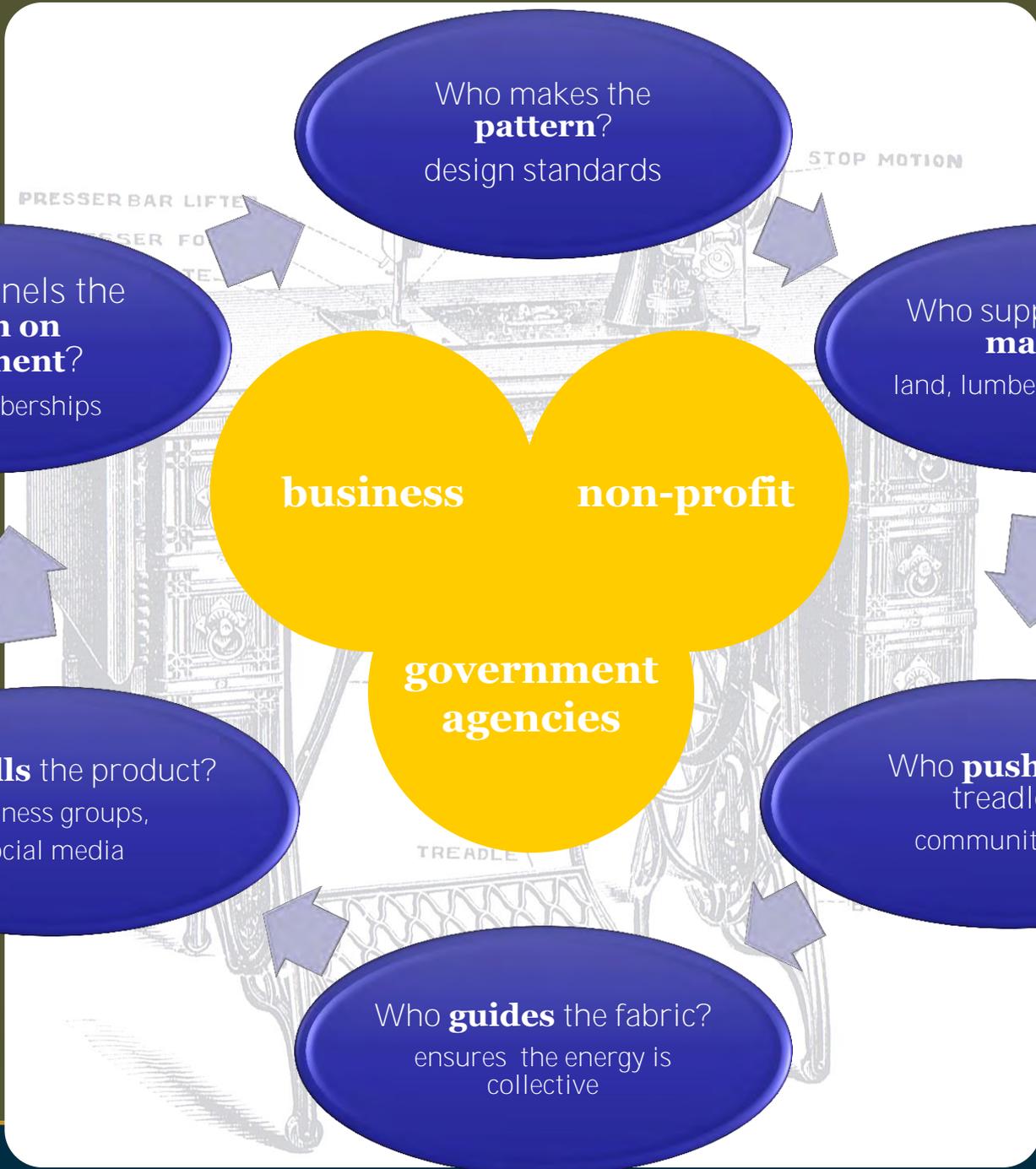
Fig. 2.



business

non-profit

government
agencies



Who makes the **pattern**?
design standards

Who supplies the **raw material**?
land, lumber, dirt, trees, etc.

Who channels the **return on investment**?
taxes, memberships

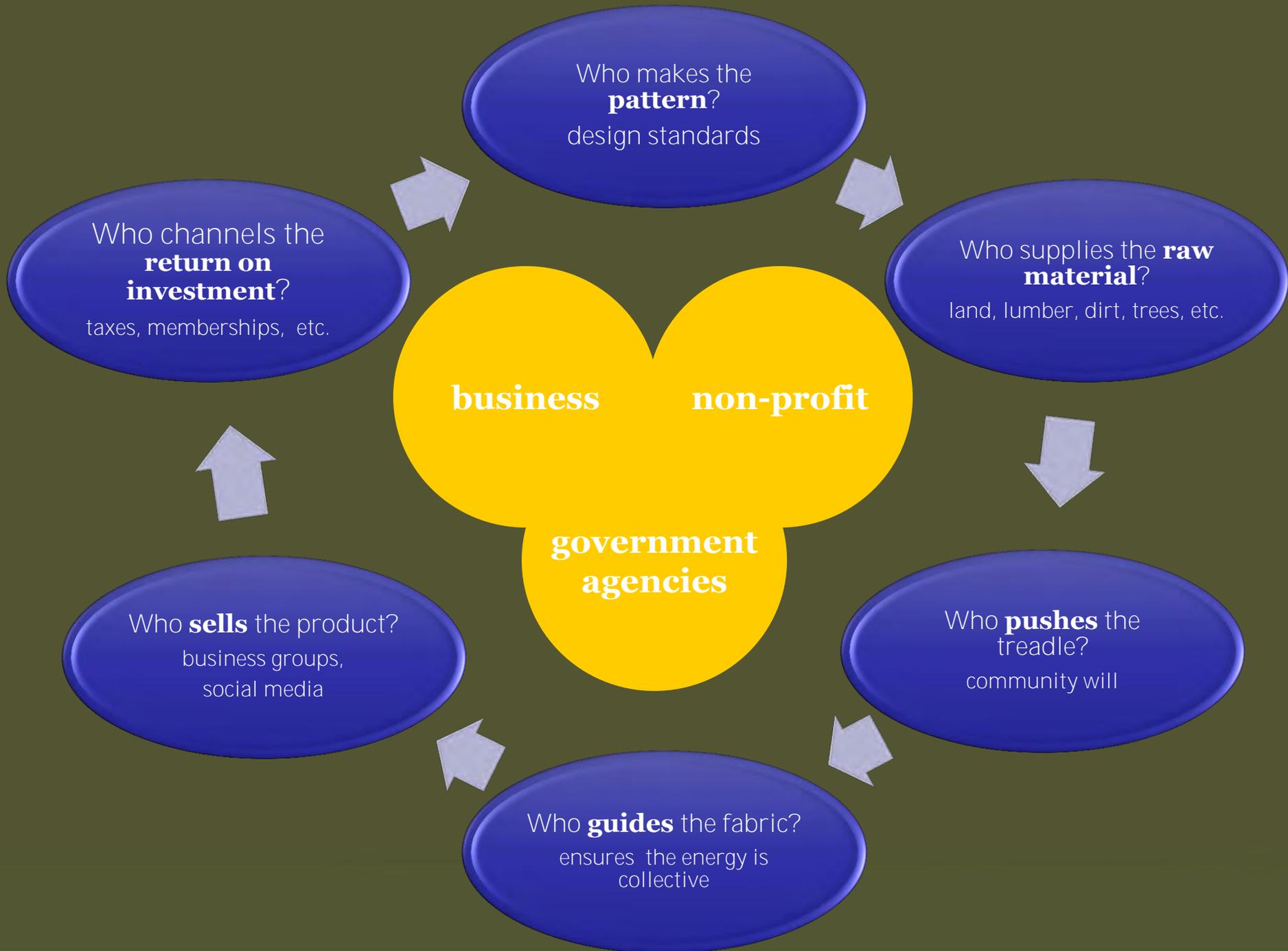
business **non-profit**

government agencies

Who **pushes** the treadle?
community will

Who **sells** the product?
business groups,
social media

Who **guides** the fabric?
ensures the energy is
collective



Thank you



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