CHAPTER 5. SIGNAGE & WAYFINDING

The following chapter details Corbin Design's analysis of the existing conditions, challenges and requirements of the Town of Mammoth Lakes trail system signage. As the Town of Mammoth Lakes undergoes substantial development, use of the extensive trail system is growing, and the Town has made a significant commitment to work to connect its visitors and residents with nature through signage and wayfinding. It should be noted that trail system signage and wayfinding implementation will need to occur with recognition of a variety of jurisdictions and of other signage systems already in place, including MMSA, USFS, and TOML Municipal.

Note: The design guidance provided in this chapter is considered subject to change. It will be incorporated into the Signage and Wayfinding section of the Mammoth Lakes Trail System Standards Manual and/or the Town of Mammoth Lakes Public Works Standards Manual, as appropriate, and available for use by the USFS if determined appropriate by that agency. The Standards Manual will be a living document intended to provide uniform guidance for the development of the Mammoth Lakes Trail System.

5.1. Signage

The Town of Mammoth Lakes, in partnership with Mammoth Lakes Trails and Public Access (MLTPA), Alta Planning + Design and Trail Solutions, has asked Corbin Design to analyze trail wayfinding and make recommendations for an attractive, consistent and expandable wayfinding and signage system. Our analysis is the result of our participation in CAMP: Winter, site tours, and discussions with various stakeholders. Our recommendations consider the development of design standards that address all types of users, as well as the objectives of the various jurisdictional entities.

The majority of Mammoth Lakes residents and visitors are outdoor enthusiasts with a range of interests and needs. The area boasts beautiful scenery in wooded and mountainous settings, combined with challenging venues for skiing, mountain biking and other sports. The Town of Mammoth Lakes competes with other resort towns for tourism dollars, and so desires to set itself apart from the rest, just as its geographical features distinguish it from other areas. A priority is making the connection between people and the environment a simple one.

Signage and Wayfinding is identified as a key component in the Trail System Master Plan. Visitors who feel comfortable and empowered will keep coming back to an area, and an effective wayfinding system is key to creating that comfort level. Wayfinding also plays an important role in trail use safety, connecting users with emergency services.

The challenge is to create a system that is consistent at every point in the user's experience. It is our recommendation that signage and wayfinding for the trail system, the Town of Mammoth Lakes, and Mammoth Mountain Ski Area (MMSA) all be considered elements of an overall wayfinding system, so that users will have a consistent experience as they move between the venues. Consistency facilitates a system with anticipatory value, which breeds comfort, which enhances the visitor experience. This will require a careful blending of the objectives of all of the jurisdictional partners.

A comprehensive system should consider every point along a visitor's journey where they will connect with the Mammoth "brand"—whether through the Town, the Mountain, or the trails. The following page illustrates our vision of the "Journey Map," and describes those touchpoints. As part of a larger scope of work, we recommend analyzing each of these points in detail with respect to an overall wayfinding system for the trails, the Town, and the Mountain.

The current scope includes analysis and recommendations for the trail system, including an initial design concept. The term "trail system" refers to all types of trails including Sustainable Trails, Natural-Surface Trails, Multi-Use or Shared-Use Trails, Bike Paths and all winter trail types as defined in the Terms and Definitions document. As part of our future work, and as a result of an analysis of an overall wayfinding system, we recommend revisiting the concept as an element of an overall system, and undertaking a thorough review and approval process involving the various jurisdictional partners to arrive at an approved comprehensive design standard adaptable to various Mammoth venues.

Figure 5-1. Journey Map
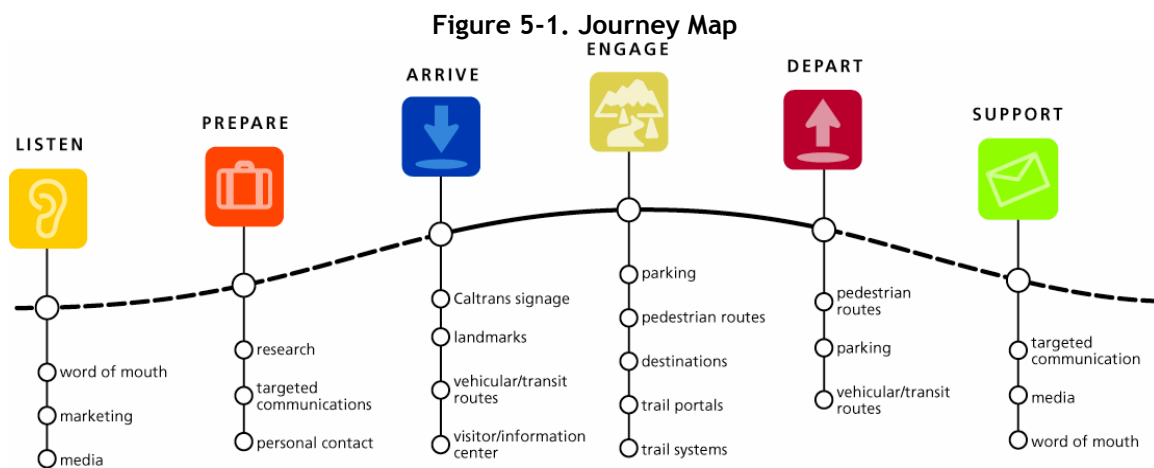
This map depicts each potential point of contact with a given visitor. We believe that in order for a wayfinding system to be most effective, visitors must create a picture of the physical environment "in their mind's eye" prior to arrival. In this way, the signs in the environment reinforce what they already know about the area.

Communication across this continuum must be consistent. We know that a diverse audience uses many different resources to navigate an environment, so the verbal and visual landmarks expressed must be consistent across media. Web, broadcast, print and signage elements will speak in the same voice as the visitor learns about the environment.

Educated, empowered visitors feel confident and capable as they move toward their destinations, and are more likely to return.

5.2. Analysis

The following section details Corbin Design's analysis of the existing conditions, challenges and requirements of the Town of Mammoth Lakes trail system, specifically the Main Path. The Main Path is a Class 1, paved and non-motorized trail system that loops around the

urban growth boundary of Mammoth Lakes. The alpine views from the southern section of this path earned the trail the highest rating possible from the California Inline Skating tour website. As the Town of Mammoth Lakes undergoes substantial development, use of this extensive trail system is growing, and the Town has made a significant commitment to work to connect its visitors and residents with nature.

5.2.1.   Audiences

The trail system serves activities in all seasons for a variety of users, both non-motorized and motorized. These users—hikers, runners, snowshoers, bikers, cross-country skiers, motorbikers, snowmobilers, etc.—approach the trails with a multitude of different needs and equipment. The users bring with them many different levels of experience and physical ability, together with different wayfinding needs and expectations.

First-time Users

First-time visitors have unique requirements when it comes to trail system wayfinding: their perceived safety and comfort while venturing onto the trail system will impact their impression of the experience and their desire to return. The first-time visitor experience must be a positive one to keep them coming back. Likewise, frequent trail users may at some time become first-time visitors to trail sections in the system that they have not visited before; consistent wayfinding standards will make the experience more understandable, comfortable and enjoyable. It should be easy for users to match the trail with their experience level and ability, as well as their desired experience relative to other trail users.

Casual Users

Many people use the Main Path for walking, dog-walking and other casual activities. Casual visitors are likely repeat users who encounter a trail close to their home, school or workplace. While these visitors are generally comfortable with the trails, effective wayfinding signage can encourage them to explore further along their familiar trail or venture to new ones. Signage can identify destinations near or along the trail that they may not have otherwise encountered. It can also help them identify amenities they may access from time to time, such as parks with picnic tables, skating parks and the like.

Figure 5-2. Snow Blocking Signage

Athletes

Runners, joggers, bikers, inline skaters and cross-country skiers are specialized trail users who demand more from the trails than casual users. Due to the competitive nature of their activities, details such as distance tracking are important to them. Consistently communicated guidelines for trail use will help athletes understand their rights and obligations when sharing the trail with other users, and will help them feel comfortable in doing so.

Commuters

Commuters typically cover only a certain section of the trail that will allow safe passage between their home and work. They may require information regarding distance, amenities along the way, and guide information. Seasonal conditions and ease of accessibility play a large part in whether the Main Path will become a commuter route for these users.

Special Users

The trail system presents special challenges to older adults, children and users of varied physical abilities. Highly readable, visible and simple messages will allow for easier, quicker comprehension. Clear safety, accessibility and regulatory information help special users to avoid hazards, and help all users avoid collisions and injury. Consideration should be given to the use of Trail Access Information labels on signage, to help users understand the types of terrain and obstacles they will encounter along the way.

Figure 5-3. Potential for Consolidation of Signage

5.2.2.   Subject Area

The Town of Mammoth Lakes Trail System consists of a series of paved and unpaved trails, pathways, staging areas, and trailheads currently in place, as well as projects that are planned for implementation in the near future, including the Lake Mary Road Bike Path. The system provides the users with several miles of trails that support easy access to town while providing connections to other local, state and federal properties.

Due to the undeveloped soft-surface trails that pass through private lands to connect with public trails, intersections through roadways and connections with developments and destinations can be difficult to recognize. It may be difficult for users to understand their location within the larger trail system. Winter snow depth creates many access issues. Accessibility and wayfinding is also affected by jurisdictional concerns, particularly over the issue of snow removal; Caltrans has jurisdiction on the right-of-way off Main Street and prohibits snow removal on sidewalks located within the right-of-way to avoid potential conflicts between pedestrians and snow removal equipment. Many of these sidewalks are dedicated to or connect with Main Path trails.

Signage on the trails is minimal and inconsistent. Critical information at intersections and roadway crossings is not present. Trailhead signage varies in style, size and function. Sometimes trail access falls within a park, but there is no indication on the park signage that a trail is accessible there.

Signage is inconsistent at both trail entrances and exits. Some signage includes incorrect or outdated information, and may incorrectly promote an activity that is not supported on the trail, e.g., a sign denoting a groomed cross-country trail that is no longer maintained.

Existing signage materials are not designed to withstand the abuse of harsh winters, deep snow, and snow removal equipment. Many signs are severely damaged, or are missing altogether. Others are buried in snow, and so are ineffectual for winter users.

On some trailheads, trail maps have been posted to give users "You Are Here" information. These are generally not constructed from materials that hold up to the elements and are in disrepair. They are also not oriented relative to the viewer's position (i.e., with the top of the map showing the direction that the viewer is facing), and are difficult to interpret.

The trail system does not clearly support tracking distances with mile markers to help users gauge how far they have traveled.

Vehicular regulatory signage on roadways that intersect with trails is not standardized, or is not present at all. Drivers are not provided with sufficient warning, and may not always stop for crossing trail users. This can create a dangerous situation along particularly busy roadways with higher rates of speed.

Regulatory signage appears to be posted randomly. Signs appear in many sizes, colors and formats, and the font size is often too small to be read from a distance. For these reasons, regulatory messages lack authority and are often ignored.

5.2.3. Wayfinding Logic

After considering the wayfinding challenges for the trails, the following section details Corbin Design's recommended wayfinding logic. These cover information organization, physical signage, presentation and suggestions to make trail system wayfinding more effective.

Essential Steps for Effective Wayfinding

Design for the First-Time Visitor
It is important to welcome the visitor, clearly define trail networks and accessibility, and provide understandable guide information. It should be easy for visitors to understand their position within the trail system, to give them a sense of safety and comfort.

Philosophy of Positive Signing
There is a fine balance between establishing rules and regulations and setting a negative signage tone. Signs should first focus on establishing the correct behaviors before correcting a negative one. Always show approved users on a trail and approved behaviors. When working with Jurisdiction partners, encourage them to do the same. This creates the "language" of the signage system that visitors and residence will learn to understand.

Ensure User Participation
Accurate information is key to the program's success. The use of Geographic Information Systems (GIS) to generate accurate maps and data is essential. Encourage participation of key representatives from the various jurisdictional entities to ensure that appropriate objectives are agreed upon and met.

Structure Information
Develop an information hierarchy to organize the messages that will be imparted by the wayfinding system. The hierarchy should establish a layered system of disseminating information, so that users are getting only the information they need at any given point, rather than becoming overwhelmed by too much information too soon. An effective

wayfinding system leads rather than points the way. Certain sign elements will display maps, jurisdictional information, and trail identification; others will display mile marking and guide information.

5.2.4.   Signage for the Trail System

The challenge of a comprehensive trails signage system is to represent a wide variety of information clearly, consistently and attractively. Identification information, orientation devices, safety and regulatory messages and a unifying identity element or elements (to serve as a visual "brand") will all be part of the system.

Further, it is important to respect the natural environment by avoiding sign clutter and unnecessary messages. A wayfinding system should be apparent when you need it and transparent when you don't. The system must be designed to work year-round to support four-season public access. Signage elements must be designed to remain effective through winter conditions and significant snowfall.

Finally, the system should be adaptable to all trail projects within the Town of Mammoth Lakes, including private developments, United States Forest Service (USFS) projects, and other local, state and federal projects.

5.2.5.   Information Categories

The wayfinding system needs to convey five categories of information:

- Category 1: Identification
- Category 2: Orientation
- Category 3: Safety and Regulatory
- Category 4: Brand Identity
- Category 5: Interpretive or Desired

Each wayfinding element will serve a specific function, but they should all be visually integrated to present a seamless system to users.

Category 1: Identification

- Portal and trailhead entrances
- Parks that include trail access
- Neighborhood and resort exits/entrances
- Indication of transitions between Town and/or private, state or federal land ownership
- Underpasses and cross streets
- Seasonal trail types
- Landmarks, historical sites or other points of interest along the trail

Figure 5-4. Identification Sign

Category 2: Orientation

- "You are Here" maps placed at trailheads and major entrances to the trail
- Maps placed along the path to help users gauge their progress along the trails
- Signs pointing to major destinations
- "Distance to…" and length of trail information
- Mile and/or Kilometer markers
- Cardinal directions and GPS coordinates

Figure 5-5. Orientation Sign

Category 3: Safety and Regulations

- Stated rules and regulations
- Trail Access Information label
- Signage on trails warning users of upcoming roadway crossings
- Roadway signage to inform drivers of an upcoming trail crossing (handled through the Town and Caltrans)
- Signage to inform users when the trail ends, possibly also indicating distance
- Vehicular guides on surrounding roadways directing to parking areas (handled through the Town and Caltrans)
- All regulatory signs shall conform to the Manual on Uniform Traffic Control Devices (MUTCD).

Figure 5-6. Safety and Regulation Sign

Category 4: Brand Identity

- Unifying identity element or elements serve as the "brand"
- Consistent aesthetic standard communicates brand
- Private or organizational sponsorship information where needed

Category 5: Interpretive

- Provide visitors with historic, scenic or interesting information along the trail
- Design should coordinate visually with the wayfinding signage

Figure 5-7. Wayfinding Sign with

5.2.6. Sign Placement and Hierarchy

As previously stated, wayfinding signage should be apparent when you need it and transparent when you don't. In an effort to keep the trail as natural and uncluttered as possible, we propose locating signage in clusters at intersections, rather than placing sign elements randomly along the trail. This would concentrate signage locations at portal and trailhead entrances/exits and intersections (decision points).

Exceptions to this rule include mile/kilometer markers and accompanying regulatory information. As these will occur every quarter mile or kilometer, they should be designed at a small scale to avoid disrupting the trail experience.

5.2.7. The Sequence of Encounter

The diagram to the right lays out a simplified version of the order that a typical trail user will encounter the various sign types in the system. This sequence plays a large role in determining the type and amount of information that will be included on each sign type.
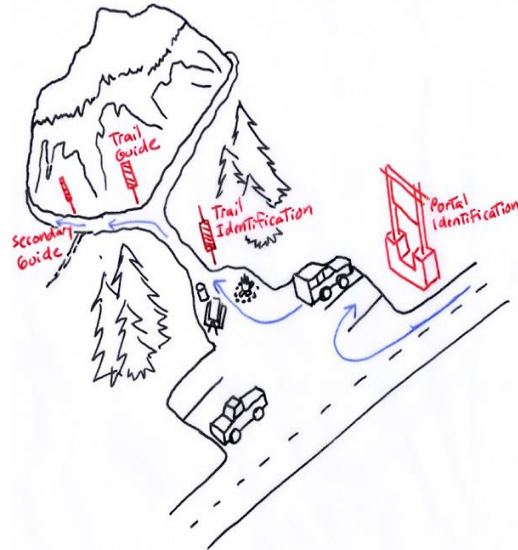

Figure 5-8. Sequence of Encounter

5.2.8. Use of Symbols

Throughout the system, many recreational opportunities, amenities, regulatory messages and safety warnings must be conveyed. A comprehensive vocabulary of symbols will allow much of this information to be conveyed through the use of single images as needed. Symbols offer quick recognition, are cross-cultural and, when used throughout the system, will offer character and consistency. Symbols should be consistent with MUTCD standards.

5.2.9. Recreation Amenities

Standard recreation symbols typically used by federal agencies identifying the variety of trail activities and other resources would be displayed on main identification signage at trailhead entry points. This will inform visitors that, although they are entering a trail system, recreation opportunities like parks, soccer fields or picnic areas can be found along the way. These symbols may also be used on maps and guide signs.

Figure 5-9. Recreation Symbols

5.2.10. Regulatory and Safety Symbols

Abstract concepts such as rules and regulations can be difficult to convey in the form of a symbol and may ultimately confuse rather than inform. Short, easily remembered messages combined with simple symbols will more clearly convey this type of information. These messages could accompany the mile marker signs along the trail as a repeated reminder. Similar messages conveying safety and warning information should be placed along the trail where necessary. The combination of symbols and short messages will allow users to quickly interpret and comprehend the information, including those who are not proficient in English.

Reducing the number of messages that must be repeated will allow signs, symbols and messages to be used sparingly. Regulatory messages that do not have safety implications should be posted at relevant entrances only, rather than being repeated along the trails.

5.2.11. Distance Markers

Mile markers are important to visitors who use the trails for athletic and therapeutic purposes; they also have important safety purposes, and need to be placed regularly and accurately. We recommend placing the zero point (labeled 'zero') at the main portal or trailhead of each existing trail, counting upward along the trail; it may be advisable to always number trails up heading in a north or east direction, so users understand that if the numbers are going down, they are generally headed south or west. Any trails that branch off of the main trail can be numbered starting at zero as well and working upward as they progress away from the parent trail, or according to the cardinal direction. For example, trails that are located within a parent trail such as the Meridian Loop connecting with the Main Path need to be identified by name and be marked with a zero point at the intersection connecting the trails. The mile marker system on the connecting loop should count upward along the trail. A Trail Guide sign would be positioned at the intersection to identify the loop and provide directions together with total miles of the loop and other primary destinations from that point.

When new sections of trails are added, mile marking will continue up the trail in this fashion, or they may need to be readjusted if existing sections of trail are newly connected. The challenge will be determining where they begin, how to handle intersections and breaks in the system, and how the system can accommodate organic trail growth.

5.2.12. Americans with Disabilities Act (ADA)

Our strategic approach for marking accessibility will be to label those areas that are not accessible. This will be particularly important where there may be steep slopes at sections of the trail, or terrain that may be impassable for users of limited physical ability. Warning signage should be placed so that users do not start down a steep slope and find themselves in a compromised position. Trail Access Information symbols posted at trailheads will help match users with trail sections that suit their experience and ability.

Where trails intersect roadways, Caltrans signage should warn drivers to yield to users in crosswalks. Crosswalks should be accentuated for driver visibility with pavement markings, yellow yield signs (which may also incorporate flashing lights), and possibly rumble strips as well; the signage will be most important for winter users. From the user's perspective,

roadway crossings should be highlighted with yellow striping on school routes and white striping on non-school routes, and warning signage that is visible in all seasons.

As part of our future scope of work, we can provide recommendations for roadway signage (designs, messaging and locations) following MUTCD standards that can be presented to Caltrans, along with an executive summary supporting implementation.

5.2.13. GIS/GPS

Geographic Information Systems (GIS) and Global Positioning Systems (GPS) play a central role in the trails planning process; the possibility of delivering wayfinding system information to handheld device users on the trail system should be explored.

These systems offer a number of advantages, the foremost being safety. In the event of an accident or injury, stated GPS coordinates can allow users to call for help and provide their exact location to emergency responders.

5.2.14. Trail Naming

Trails are easier to find if the name of the trail is carefully defined. Aligning trail names with an existing vernacular that is comfortably used for either a nearby road that supports primary access to the trail or a famous landmark in or near the trail will help users develop a mental map that locates the position of the trail within the environment. Also see **Recommendation G1: Naming Conventions**.

5.2.15. Strategic Implementation Plan

To successfully implement the new wayfinding system along a section of trail, the following schedule of activities/tasks should be completed:

- Inventory of existing and legacy signage systems(s) and analysis as to their desirability for potential inclusion in a new system or removal from field.
- Confirmation of circulation patterns and access points
- Development of a destination list with nomenclature recommendations
- Approval of all information aspects of the program
- Development and review of initial design concepts
- Design direction selection and further development
- Development and refinement of a Sign Message Schedule and Sign Location Plans
- Complete inventory of existing signage
- Discussion with all participating jurisdictions and agencies concerning the implementation of the plan

Once approvals have been given on the above, the following activities are required to complete the implementation of the complete wayfinding system:

- Documentation of the signage system for pricing and fabrication
- Bidding
- Fabrication period
- Installation period

- Preparation of the final signage reference document

Exact timing would be determined by the progress and complexity of the project as it develops along with scheduled reviews by the project team. Typically, the bidding, fabrication and installation activities take thirteen to fifteen weeks.

5.3. Wayfinding

The wayfinding system's intent is to provide necessary information to users without disrupting the natural experience that the trails provide. For this reason, the design should avoid bright colors and decorative elements. The signs should appear utilitarian but friendly, in keeping with the overall physical environment. Using different shades of the same or similar colors to create a visual hierarchy among different sign categories, rather than a selection of brighter colors, can achieve this goal. Certain safety and hazard messages should employ bright colors to create contrast and command attention.
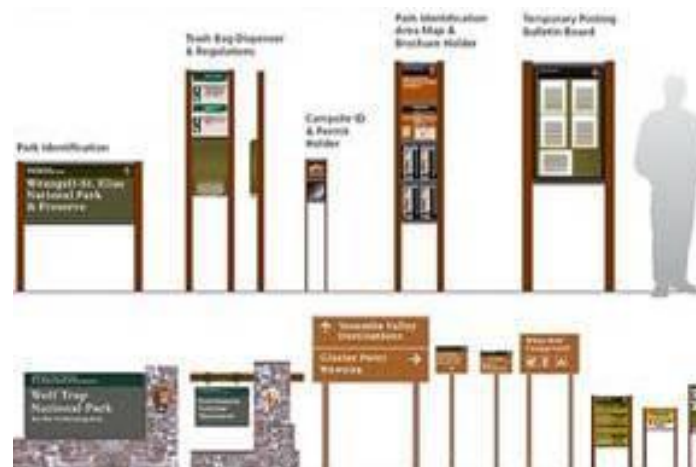

Figure 5-10. UniGuide Sign Program

The system should be unique, both in function and in design, and reflect the character of the area. Select native and natural materials should be applied as both aesthetic and functional elements. The National Park Service's UniGuide Sign & Information System sets standards to which the USFS seeks to adhere; we will use these standards as the benchmark for our design standards, either equaling or surpassing the standards.

The system should be designed so that all components are equally appropriate and effective on all trail sections, as well as on future trails. The system would not be tailored to fit particular conditions on a specific section of trail, but instead would be a "kit of parts" that could be reconfigured depending on specific trail conditions. These standards should address the majority of conditions experienced on the trails; given exceptions, certain special conditions may require the design of custom elements.

Flexibility is to be built into the system. It is important that the post and panel system be able to accommodate various panel sizes that will be appropriate to certain applications.

Performance requirements are multi-dimensional. The signs must be simply constructed, easy to install and update, yet extremely durable and resistant to vandalism. They must also

be designed to be adaptable to changing environmental conditions, most notably snow depth. Consideration must also be given to snow removal equipment that will operate in close proximity to signs. Another consideration is the environmental impact of the materials and construction methods. "Green" materials will be used whenever practical, keeping in mind that the longevity and durability of a sign is often as important as its material construction. Posts and sign panels should be made of recycled materials (not wood) where practical.

Various design considerations, including jurisdictional indicators, may affect the design direction dramatically. Following is a brief exploration of those effects.

5.4. Pros and Cons of Design Considerations

5.4.1. Design all wayfinding elements for the trails to reflect USFS or National Park Service system standards.

a. Pros
    i. The Town of Mammoth Lakes trail system connects to the USFS trail system

    ii. The USFS visual style is "established" and contributes to a sense of familiarity and anticipation for users

    iii. Fabrication is simple, and can be handled by most sign fabricators

    iv. Management and replacement of damaged parts is inexpensive

b. Cons
    i. Would give the impression to the public that non-USFS trails are controlled by the Forest Service

    ii. Requires the addition of site-specific branding elements for trails outside the USFS system

    iii. The future development of a Town of Mammoth Lakes wayfinding system could result in an aesthetic disconnect, making it difficult to build a consistent experience and anticipatory value between the two systems

    iv. Would not provide the dynamic look and feel of a more unique system that could help separate the Town of Mammoth Lakes from its peers in the outdoor recreation field

5.4.2. Design a completely new and original wayfinding system that incorporates historic elements and local materials, for a system specific to the Town of Mammoth Lakes.

a. Pros
    i. Could include a single, well-designed icon that would "brand" the partnership of the jurisdictional entities and be used throughout the trail system

ii. Could eliminate the visual disconnect from the future Town of Mammoth Lakes wayfinding system, if the future system incorporates elements from the standard

iii. Choosing the right natural materials will allow the system to fit better within its surroundings, and to better reflect the character of the area

iv. A custom system will allow for built-in functional adjustments that overcome the challenges of sign visibility and maintenance caused by winter conditions

b.   Cons

i. The initial investment could be higher than a system modeled after the USFS system

ii. Development of a system that incorporates the interests of the various stakeholders is a longer process, and will not result in an immediate design

Rather than limiting the wayfinding and signage system to one approach or the other, we propose a hybrid system based on the positive aspects of both—using aspects of the established USFS visual style and simple fabrication methods, and incorporating them within a unique framework that better fits with the surroundings and responds to the changing seasons.

5.5. *Signage Vocabulary*

Trail Identification Markers

These signs identify the trail. They should be large enough to be visible and readable for drivers, with appropriately sized typography. Information to be displayed could include the name of the portal, a jurisdictional branding element, parking information and whether the trail is accessible for motorized and/or non-motorized users.

Trail Information Kiosks

These provide the universe of information including a trail map, distances to destinations, trail conditions, trail experiences, connection with area amenities, and regulatory and safety information (hours of operation, rules, etc.). The size of these directories (small or large) will depend on the type and popularity of the particular trail.

Secondary Trail Identification Markers

These are placed at regular intervals along the trails to assure users that they are on the correct trail. International activity symbols would be posted here together with trail access information.

SYSTEM LOGO

DIFFICULTY RATING

TRAIL DISTANCE

APPROVED USERS

TRAIL NAME

SPECIAL STATUS

FOREST SERVICE LOGO

Figure 5-11. Typical Trail Marker on Public Land

Directional Signs

These are typically placed at road and trail junctions (decision points) to guide trail users toward a destination or experience.

Assurance Markers

These are typically placed along a road or trail corridor to assure the trail user they are still traveling in the correct direction. Assurance markers are typically a single symbol, or trail name, with no other information. They should be placed at regular intervals between junctions.

Distance Markers

These function as smaller versions of the Secondary Trail Identification Markers. They provide distance traveled, symbols of allowable activity and GPS coordinates.

Interpretive Signs

These provide educational information to trail users to help establish not only knowledge of the area, but a relationship with the trail experience. The ultimate goal is to convey stewardship in the minds of the users.

Figure 5-12. Trail Signage Concept Array

COLOR CODING SYSTEM
Different background colors for each of the three primary entities to identify their associated trails and destinations
COLOR PALETTE
Earthtones/soft natural colors to compliment the environment and mitigate natural effects of weathering

US Forest Service

Town of Mammoth Lakes

Mammoth Mountain Resort

Standard structural steel beams with chemical finish to prevent oxidation

Stone base to coordinate with existing town architectural and signage elements. Ledger stone base utilizing indigenous type stone. Minimum flexible adhesive mortar between courses to prevent long term freeze damage.

Space for additional message line

Portal name

Trail user symbols

Trail access info available

Message Fields

Trail information

Trail Authority

Trail access information symbol

Fixed Position Panel
The height determined to allow year-round viewing

Figure 5-13. Portal Identification Marker

Standard structural steel beam

Sliding metal bracket with simple gravity
lock to secure the panel into summer or
winter conditions
*This physical element will be developed and
engineered in the design development phase*

Panel will lift to lock in place and
lift again to release and lower

Design inspiration image

Metal base plate

Endcap with reflective
vinyl inserts

Narrow profile makes panels
less likely to be struck and easier
to pull from the snow to raise

adjustable panel height

**Mammoth
Rock**
TRAIL HEAD

Designated trail users only

Hiking Permits are Required
Please register at the station
ahead.

— Trail name

— Trail user symbols

— Trail information

— Tread lightly
message

— Map artwork
field with trail
accessibility
information
panel

— GPS information

— Trail Authority

Message Fields

Ground mounting to be engineered to
withstand extreme weather conditions
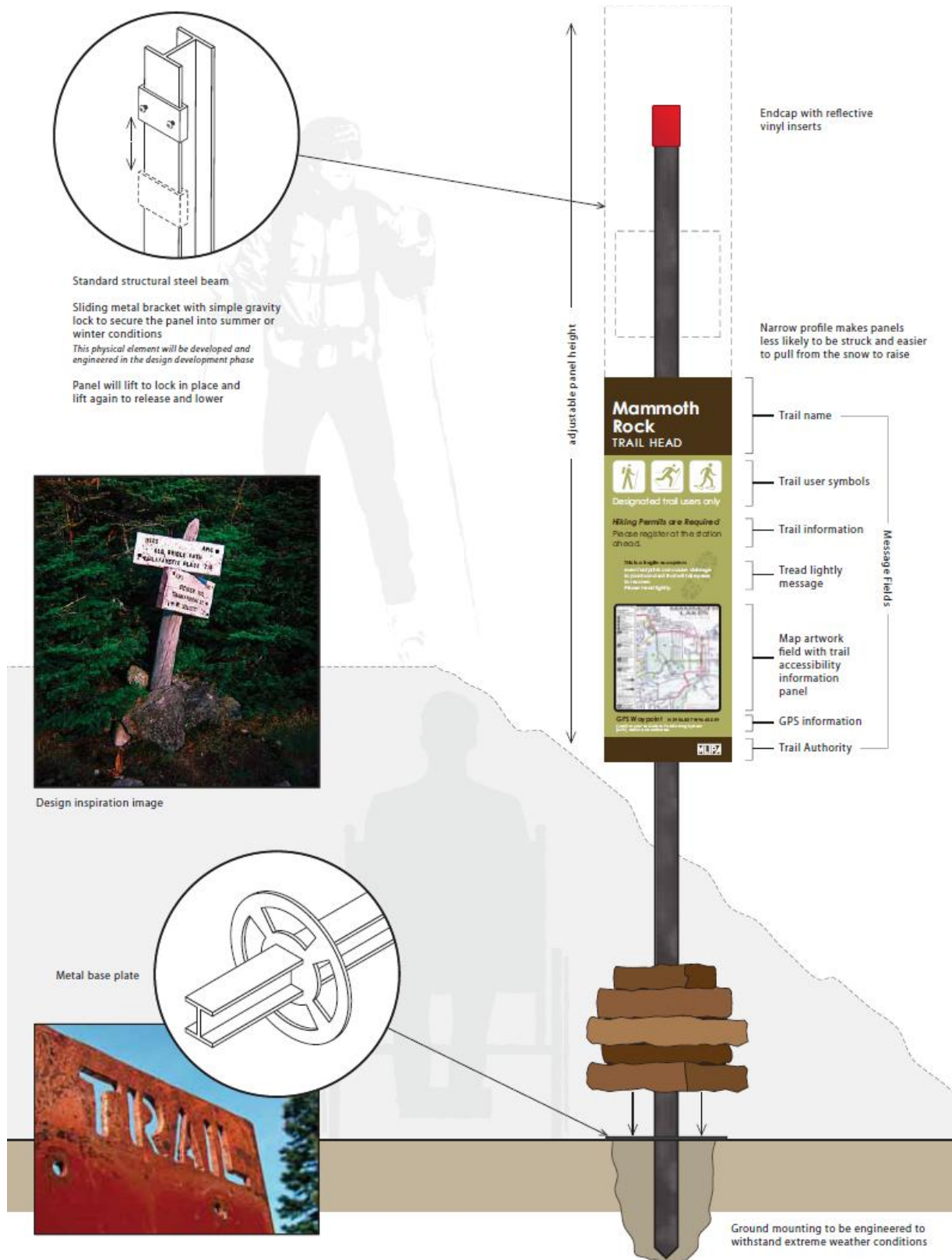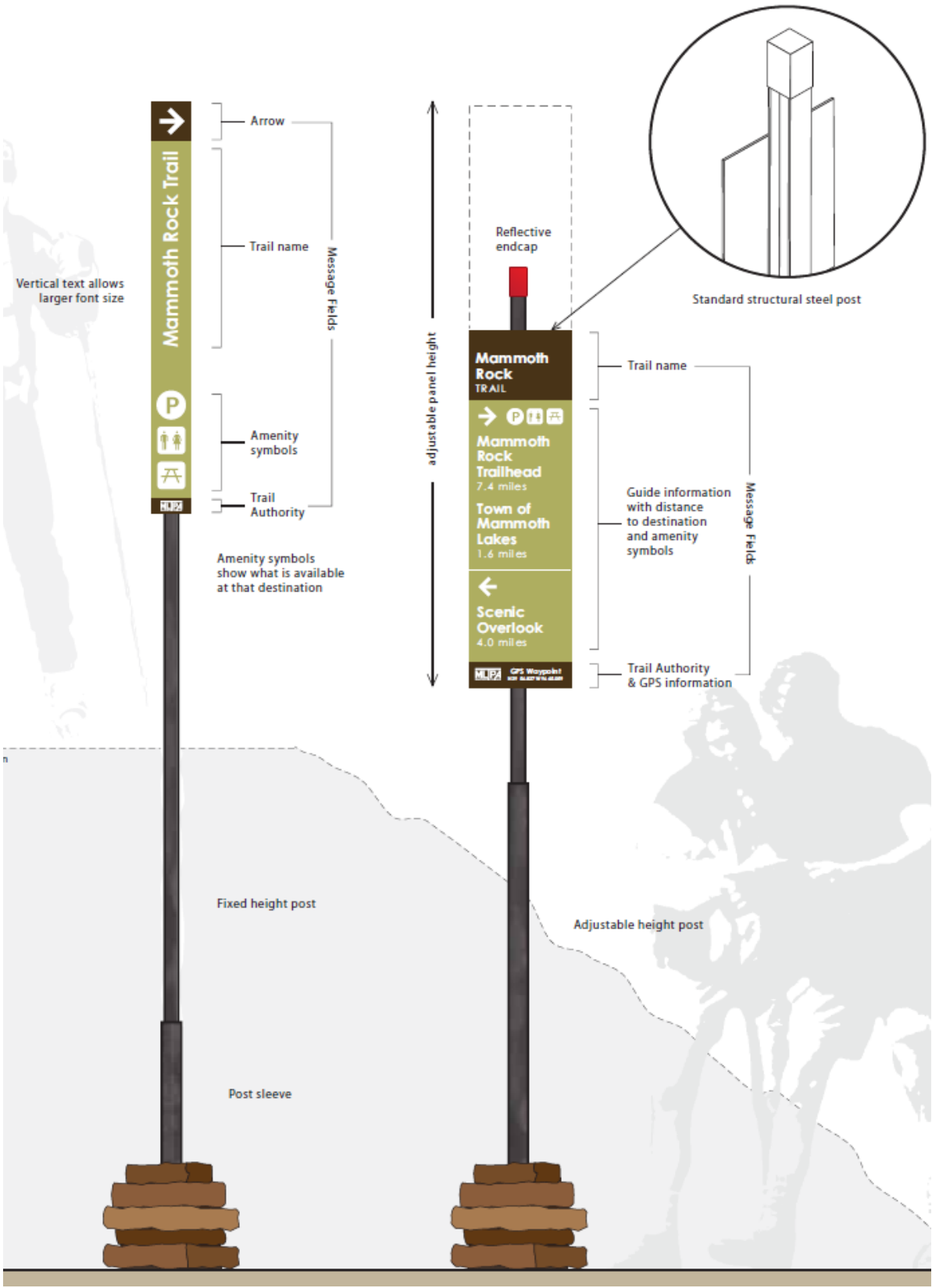
Figure 5-14. Trail Information Kiosk

Figure 5-15. Trail Guide Signs

5.6. Conclusion

The challenge is to create a comprehensive system that will convey a wide range of information clearly, consistently, and attractively at all points along a visitor's journey. Further, it is important to respect the natural environment by avoiding sign clutter, unnecessary messages, and design elements that may disrupt the natural experience. Finally, we understand that the objectives and interests of multiple jurisdictional partners must be considered throughout the process. In order to fully realize these goals, we recommend that a full process of design development be undertaken.

This involves creation of a Core Working Team, made up of representatives from all appropriate partners, who will review and respond to design concepts, working toward development of a full system of sign types. It is most important to consider the creation of a single, comprehensive system with elements that are adaptable to the various experiences, rather than to view each jurisdictional partner as having its own unique signage system. Corbin Design is prepared to bring the various interests together to achieve this unified system.

5.7. Updated Framework

Corbin Design has been retained by the Town of Mammoth Lakes (TOML) to continue the development of a wayfinding program for the Town and the Mammoth area. The focus of this effort will result in the incorporation of additional site analysis and design recommendations into the Trail System Master Plan document. To help encourage adoption of the trails wayfinding and signage system by local stakeholders, the Town will implement a demonstration project at the Welcome Center and along a segment of the Main Path. Corbin Design will incorporate additional system refinements into the final Trail System Master Plan as needed based on inspection, review and comments of the demonstration project prototypes.

5.7.1.   Winter 2008/2009 Phase

- Representatives from the TOML, MLTPA and Corbin Design performed a site inspection Nov. 8-9. Various trail system nodes were surveyed to determine their wayfinding needs. Five types of nodes were surveyed: Parks, Recreation and Activity Centers, Portals, Trailheads, and Access and Egress points.

- The goal of the site inspection was to establish a pattern for applying the various wayfinding elements at each site. The inspection also provided more details about the information needed to inform the users at each particular site.

- It was determined that the various destinations listed as GIC points should not be labeled as official node types until further discussions are held with the jurisdictional partners for each GIC point. It was agreed that the node designations would be treated as future projects for wayfinding application once the jurisdictional partners agree and grant permission.

- The Welcome Center will be used as a demonstration site for testing full-size prototype signs for the trails wayfinding and signage system. A comprehensive system will be planned for the Welcome Center site together with select section of the Main Path. The myriad of existing signs on the Welcome Center grounds will be evaluated and some will

be replaced with the new wayfinding system while all unnecessary signage will be removed.

- The implementation and manufacturing cost estimates for the prototype signs will be pursued through a qualified fabricator.

5.7.2.   November 8th & 9th Site Inspection Results

- Corbin Design will add four new sign type designs to the system array. The full sign type family includes the following:
  - Type 1 - Portal Identification Markers
  - Type 2 - Trail Information Kiosks
  - Type 3 - Parks Identification Markers
  - Type 4 - Access/Egress Information Signs
  - Type 5 – Vehicular Guide Signs
  - Type 6 - Trail Guide Signs
  - Type 7 – Interpretive Kiosk (sample only)
- The system will be value engineered so that the final products will be affordable and changeable, and can be adjusted as needed to respond to seasonal conditions.
- A project goal is to have the demonstration signs be built by a local fabricator. Local fabricators will be researched and contacted for qualifications and pricing.

5.7.3.   Other Important Issues

Rescue Indicator

Corbin recommends that a locator ID number designed to provide trail users with reliable locating information be applied to all trail-related signs. User safety is critical, and a rescue indicator number that is unique to each sign will become the reference point for any needed rescues. The system numbering will need to be discussed with emergency services personnel throughout the Mammoth area, and approved locator numbers need to be recorded in the TOML trail system database.

GPS Reference Point

Update the GIS program with the GPS position for each sign location. MLTPA has expressed the capacity to perform the task of collecting and documenting the GPS position of each wayfinding signage element as the system is installed.

Topography Mapping

As a design element for the interpretive sign background, a topographic pattern of the area could be used as the standard. TOML GIS Coordinator would be the contact person for accessing the topographic artwork.

Interpretive Story

The information for the prototype interpretive sign will focus on the trails wayfinding and signage system. The story will explain the system's purpose, function, highlights, and act as the system "owner's manual" for trail users. This unit will be placed adjacent to the Tourism and Recreation building near the trailhead of the Main Path.

Solar Lighting

The possibility of using solar power to provide limited external illumination for Trail Information Kiosk signs (type 2 above) will be explored. This would make the kiosks more visible at night and improve safety.