



DATE: June 08, 2022

MEMO TO: Board of Directors

THROUGH: Ana Ruiz, General Manager *aruiz*

FROM: Scott Reeves, Senior Capital Project Manager

SUBJECT: Bear Creek Redwood Open Space Preserve Phase II Trail Improvements – North-East Trailhead Equestrian Access

This memorandum summarizes the feasibility of equestrian access in the proposed north-east trailhead at the Bear Creek Redwoods Open Space Preserve (Preserve).

Background

In January 2017, the Midpeninsula Regional Open Space District (District) Board of Directors (Board) approved the Bear Creek Redwoods Preserve Plan (Preserve Plan) and certified the Environmental Impact Report ([R-17-15](#)), which identified a phased implementation of trail networks. Phase II of the Preserve Plan, currently in permitting, will improve the trail network in the north-east portion of the Preserve for hikers, bicyclists, and equestrians. It includes a new trailhead at the Bear Creek Road/Highway 17 interchange; refer to Attachment 1. The trailhead is located within the Caltrans right-of-way and will require a Caltrans encroachment permit. The encroachment permit is a reimbursement requirement for a California National Resource Agency (CNRA) River Parkway Grant, which commits the District to trailhead and trail crossing improvements at this location. The grant is providing \$2.4M in funding.

North-East Trailhead in the Preserve Plan

Two locations in the Preserve Plan discuss the north-east trailhead:

- **Table 4-1 Implementation Actions- Public Use and Facilities Objective 1.4a**
Work with partner agencies to formalize a trail connection to Lexington Reservoir County Park. Partner with Santa Clara County and Caltrans to provide a safe pedestrian crossing (crosswalk and/or additional stop sign) of highway off-ramp and Bear Creek Road. Obtain Caltrans encroachment permit to improve safety and security (fencing, signage) and formalize trail entry at northeast corner of Preserve.
- **Table 3-3 Multi-Use Trail Link 7**
Obtain Santa Clara County and Caltrans encroachment permits, and install additional traffic control and pedestrian safety measures at intersections of Bear Creek Road and Alma Bridge Road (HWY 17 interchange) and Summit Road. Partner with these agencies to formalize NE trailhead.

Equestrian Considerations at the North-East Trailhead

The Phase II trail network will be used by hikers, bicyclists, and equestrians. Staff carefully evaluated how to best provide access into the preserve for each user group at the north-east trailhead location. Due to the steep terrain, staff determined that hikers and dismounted cyclists could access the preserve through a staircase or a sloping trail; refer to Attachment 2 for an example image of a staircase for dismounted bicyclists. Between the two options, staff concluded that a staircase would be the more cost-effective solution because it would have a smaller footprint, requiring fewer retaining walls and grading than the sloping trail. Additionally, the sloping trail would potentially pose line-of-sight challenges for vehicles on Bear Creek Road due to its larger footprint and therefore could complicate the Caltrans approval process.

Staff considered if equestrians could access the preserve through a staircase here as well. A traditional staircase is too steep for horses; the stair treads would need to be elongated by 400% to allow use by horses. The staircase would also need to be widened significantly to provide adequate space for pedestrians, dismounted cyclists, and dismounted equestrians to navigate. Similarly, staff considered if a sloping trail for equestrians would be feasible in this location. Given the steep topography, a sloping trail would require significant grading and engineering. And similar to the staircase, a sloping trail shared with hikers and bicyclists would need to provide ample width for all user groups, increasing the size, complexity, and cost of the structure. To accommodate equestrians access, both the staircase and sloping trail pose significant permitting and budget concerns given the magnitude of engineering required, and therefore do not align with the overall project and grant timeline.

There are currently limited regional equestrian facilities or connections beyond the north-east trailhead. Although the Bear Creek Road overcrossing of Highway 17 allows for equestrians, the narrow concrete sidewalk, coupled with loud highway noises, may be a barrier to most riders. Additionally, the overcrossing connects to minimal equestrian trails along the west side of Lexington Reservoir; refer to Attachment 3. There is no equestrian access to District and county park trails on the east side of Lexington Reservoir

Next Steps

Given the project commitments, topographic limitations at the trailhead, and lack of adjacent regional equestrian connections, it is appropriate to defer equestrian access improvements at the north-east trailhead until regional connectivity is improved in the area. Staff proposes to bring these improvements back to the Board for consideration when regional connectivity beyond the Preserve is improved. In the meantime, the north-east trailhead staircase will be designed for pedestrians and dismounted bicyclists, and the placement of the staircase will accommodate potential improvements for an equestrian trail in the future, pending funding availability and permitting of the structure in the Caltrans right-of-way; refer to Attachment 4.

The trailhead design was awarded to BKF Engineers (BKF) on June 09, 2021([R-21-77](#)), who completed the initial site analysis, geotechnical investigation, and 35% conceptual design. BKF is currently preparing the 65% design plans and Caltrans encroachment permit application.

Attachments:

1. Public Access Plan from the Bear Creek Redwoods Preserve Plan (Figure 3.1)
2. Dismounted Cyclist Staircase Example
3. Equestrian Regional Connections
4. Future Sloping Trail Location

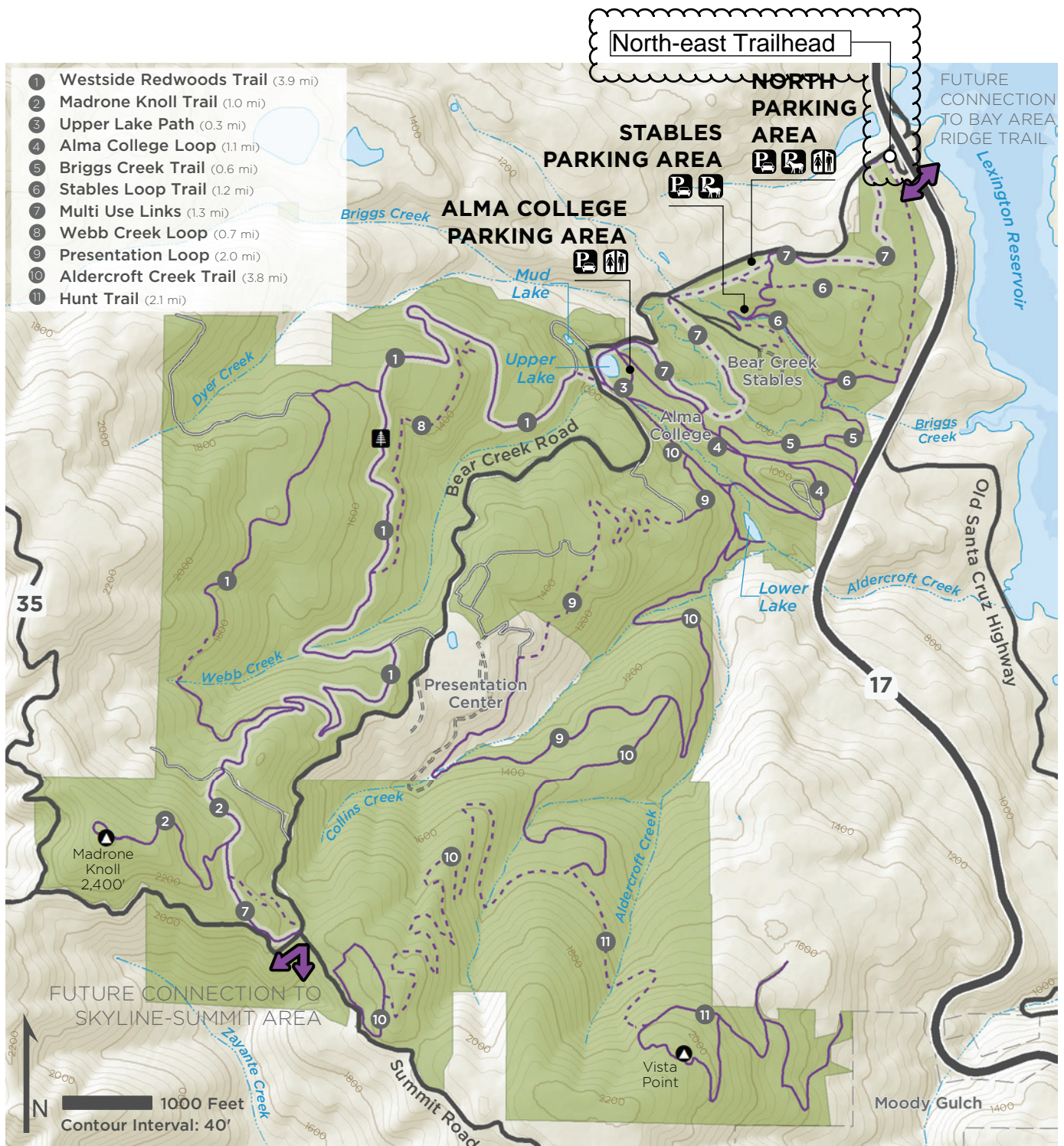


FIGURE 3-1 Public Access Plan

LEGEND

ROADS

- Highway
- Major
- Public
- Private
- Patrol Use Only

TRAILS

- Improve Existing Road/Trail for Increased Use
- Construct New Trail
- Multi-use

FEATURES

- Point of Interest
- Old Growth Redwoods
- Regional Connection

PUBLIC ACCESS PLAN

ATTACHMENT 1



GROOVE FOR
BIKE TIRES

**EXAMPLE STAIRCASE
ATTACHMENT 2**



Attachment 3 - Equestrian Regional Connections

Trail Types

- Paved Road (no equestrian access)
- Unpaved All-Season Road (equestrians allowed)
- Unpaved Seasonal Road (equestrians allowed)
- Trail (equestrians allowed)
- Abandoned / Unmaintained Road (equestrians allowed)

Midpeninsula Regional
Open Space District
(MROSD)



5/16/2022



Data Source(s): Esri, Airbus DS, USGS, NGA, NASA, CCGAR, N Robinson, NCEAS, NIS, OS, NMA, Geobase, NREL, Rijkswaterstaat, GSA, Geobase, FEMA, Intermap and the GIS user community



FUTURE SLOPING TRAIL RELATIVE TO STAIRCASE
ATTACHMENT 4