

# Broken Top Loop Trail Concept Plan



Craters of the Moon National Monument • Idaho

## ***BROKEN TOP LOOP TRAIL***

### ***Background***

The general management plan for Craters of the Moon National Monument recommended that the Big Sink area be developed for interpretation and indicated that additional study was needed to determine appropriate facilities and media. Park management wishes to implement this portion of the GMP and two options have been developed for consideration in addition to the original concept identified as Alternative One in this plan.

#### **Alternative Two:**

Develop a trailhead and trail spur from the existing Big Sink parking area to a view point on a hill above the parking area.

#### **Alternative Three:**

Develop an interpretive loop trail that would begin at the existing Tree Molds parking area and then follow along an existing trail which would include a new spur to the same viewing area as above.

The advantage of providing an interpretive overlook in the location the park prefers is that it would provide an opportunity to interpret the Big Sink as it relates to other prominent features of the park. The vantage point preferred by the park provides excellent views of the Spatter Cones area, Big Sink and also views to the northeast over the Caves area.

This site plan has been prepared to compare the options shown above and to provide direction for future trail development in the area around Broken Top Cone.

## **ALTERNATIVES**

### ***Alternative One***

Relocate Big Sink parking lot to opposite side of road and construct trail over lava flow to Big Sink.

#### **Development Requirements:**

- Construct new parking lot on opposite side of road from current location
- Remove former parking area and rehabilitate site
- Construct new trail over rough terrain

#### **Advantage-**

- Direct access and close-up view of Big Sink

#### **Disadvantages-**

- No opportunity to comprehend the larger relationships of park geology and full magnitude of this site.
- Trail would severely impact the fragile crust covering the lava flows.

- Trail development would potential create a visual impact on one of the parks unique features

This option was a preference of the park several years ago. However, the sentiment now is that this alternative would be too damaging and intrusive upon park resources and the visitor experience.

### ***Alternative Two- Big Sink Spur***

Construct trail access from the existing Big Sink parking lot and provide an interpretive overlook on Broken Top Cone. This overlook site would provide a relatively close view of Big Sink and provides an opportunity for visitors to understand the relationships of Big Sink to other prominent features of the park.

Development Requirements:

- Expand parking to accommodate school buses
- Construct new trail segment
- Develop overlook

Advantages:

- Close access from parking to overlook
- Strong associative relationship between the parking area which is adjacent to Big Sink and the interpretive theme of the overlook. This relationship fits within the classic auto tour interpretive format.

Disadvantage:

- Access from the parking lot to the overlook location would involve opening up a new trail in a less than ideal location. Because of the high vertical to horizontal ratio between the parking lot and overlook the trail would be steep and involve a great number of switch backs.

### ***Alternative Three- Broken Top Loop Trail***

Develop trailhead and loop trail from the existing Tree Molds parking area with a spur trail to the same overlook area as identified in alternative two.

Development Requirements:

- Construct new sidewalk along east edge of roadway from Tree Molds back to the base of Broken Top Cone.
- Provide new orientation signage at Tree Molds to direct visitors to Big Sink overlook and Broken Top Loop Trail.
- Construct trail spur to the new Big Sink overlook
- Develop overlook
- Develop a directional system to assist trail users in finding their way across the lava flow from the Buffalo Cave area back to the sidewalk trail head.
- Develop a boardwalk or bridge structure to allow visitors to cross the last 300 feet of lava flow that is very irregular, rough and difficult to navigate.

Advantages:

- Provides visitors with a loop trail experience and an opportunity to experience several different environments (forested area, cinder cone, lava flows, lava tubes and caves) within a relatively short distance.
- Utilizes an existing trail and would involve only a small amount of new resource disturbance from construction.
- Comfortable and scenic trail alignment- not too steep or long with a good combination of both distant views and close-up views.
- Many opportunities for interpretation along the trail.

Disadvantage:

- Loss of associative relationship of natural feature to parking and view (under this option the Big Sink interpretive overlook would lose it's destination status and become just one of several interpretive nodes along the trail)
- Since the interpretive site would be further away some visitors may not feel they have the time or be in condition to reach the Big Sink Overlook.
- May be opening up a portion of the park to resource impact from off trail use

***Discussion***

Alternative One- This Alternative is no longer considered viable because of the negative impacts on park resources that could occur if it were implemented.

Alternative Two- If the Big Sink Spur Trail is developed it would provide close access to the overlook site and would provide a good vantage point for interpretation. Access from Big Sink parking lot would be convenient and allow visitors with a limited amount of time to better experience the park.

The trail would be steep with several switch-backs and trails of this design often invite short-cutting which would cause resource impacts including soil compaction and erosion and leave visual scars on the landscape. Impacts could also develop on top of the hill once the overlook area is developed and curious visitors begin cutting across the slope to find out where the wilderness trail (that can be seen from here) leads. A link will develop between the trails and the park could end up with a combination of alternative two and three by default.

Alternative Three- If the Big Sink Loop Trail is developed it would provide a visitor experience that is not currently available in the park. It gives visitors an opportunity to get away from the auto tour route and get a feel for the back country with the comforting knowledge that a loop trail will lead them back to their car. The trail alignment is almost completely in place now but requires definition through design and promotion by park staff. Construction impacts will be minimal except for crossing of the lava flow west of Buffalo Cave.

This alternative makes it less convenient for visitors to reach the Big Sink overlook, and there is also a possibility that social trails will develop to reach the Big Sink parking lot. However, this is much less likely than the Option two scenario because the Big Sink parking lot cannot be seen from above (and may be removed).

### ***Recommendation***

Alternative Three is recommended because it provides a new type of experience for park visitors. The park and view experience is commonly available in many other locations in the park but there are no other loop trail experiences of this distance or character available within the park.

Development of this alternative should include redesign of the Big Sink parking area to reduce it's size to discourage school bus parking. The three options for this parking area are:

1. Leave the existing lot unchanged
2. Remove the existing lot and replace with a smaller parking area.
3. Obliterate the existing lot, re-contour and re-vegetate the site.

Option 2 is preferred, the redesign should include repair of the eroded cut slope and involve revegetation of all site disturbance. A small parking lot should remain here because this site is an attractive spot for picnics.

### ***Impact on future FHWA Road Work -***

The following items need to be incorporated into future FHWA work if Option Three is developed:

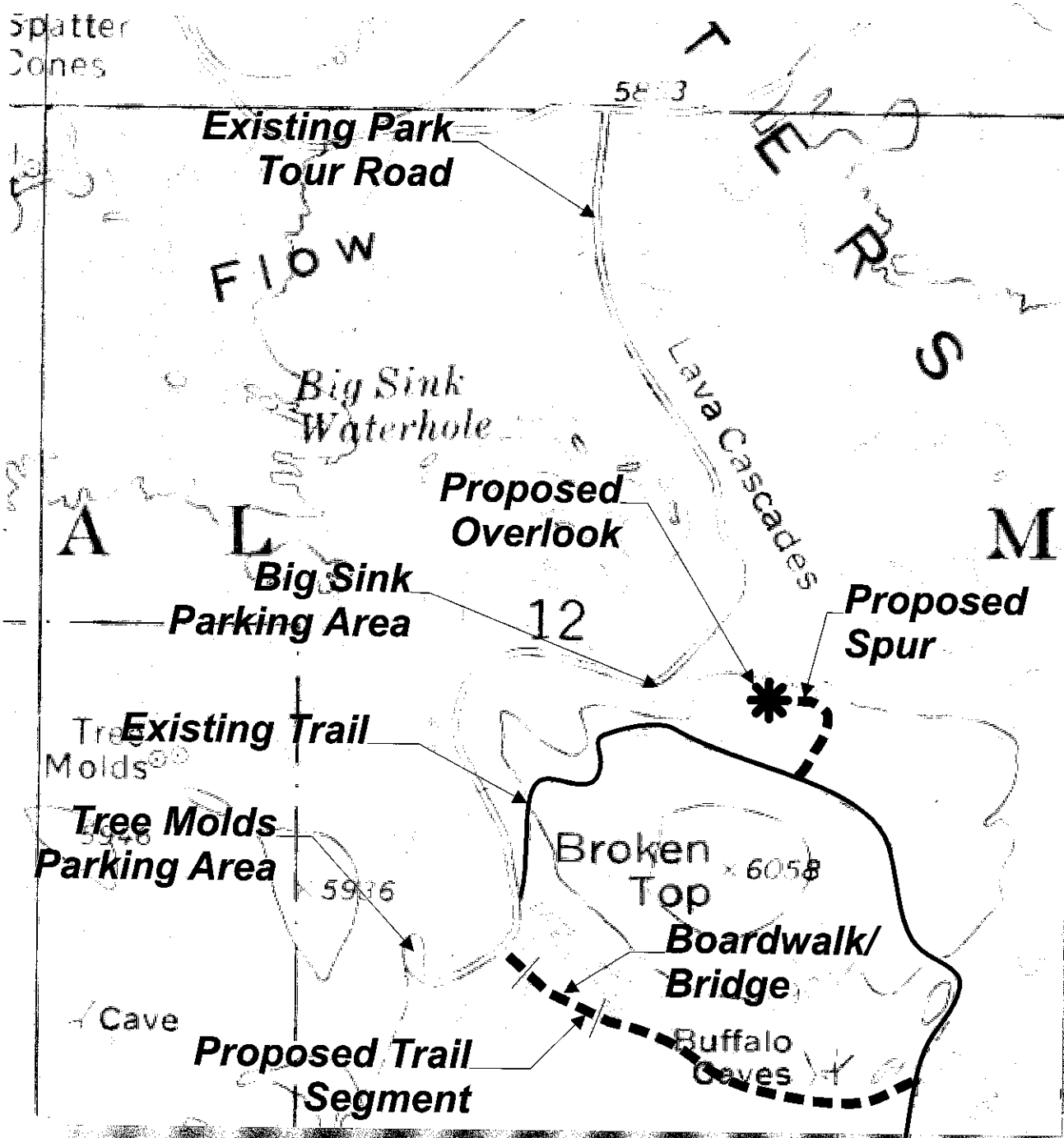
1. Redesign the Big sink parking to area to make it smaller for accommodating two passenger vehicles or one RV. Reconfiguring this site will allow for repair of the cut slope that is eroding.
2. Include a trailhead at Tree Molds parking area and a sidewalk along the east side of the road leading back to Broken Top Mountain.

### ***Site Plans***

- Broken Top Loop Trail- shows an overall view of the proposed development.
- Proposed Broken Top Trail and Trailhead- shows a more detailed view of the improvements required at and near the Tree Molds Parking area.
- Preferred Option, Parking near Big Sink- Illustrates one of three options for the future use of this area.
- Proposed Big Sink Overlook- shows a concept for the Big Sink overlook area

**Class C Estimate  
for Broken Top  
Loop Trail**

ITEM	ITEM DESCRIPTION	UNIT TYPE	UNIT	UNIT COST	NET COST
Wayside Exhibits:					
1	Wayside Exhibit- Trailhead	EA	1	\$ 6,000.00	\$ 6,000.00
2	Wayside Exhibit- Big Sink	EA	1	\$ 6,000.00	\$ 6,000.00
Tree Molds Parking Area Work:					
3	Concrete Sidewalk	SY	280	\$ 55.00	\$ 15,400.00
4	Concrete Curb	LF	500	\$ 35.00	\$ 17,500.00
5	Concrete Stairs	FLT	2	\$ 4,500.00	\$ 9,000.00
6	Boardwalk or Bridge	SF	900	\$ 40.00	\$ 36,000.00
New Trail:					
7	Cinder Surface Trail	SY	280	\$ 16.00	\$ 4,480.00
Big Sink Parking Lot:					
8	Parking Lot Obliteration	SY	225	\$ 14.50	\$ 3,262.50
9	Site Restoration	SY	120	\$ 8.00	\$ 960.00
10	Concrete Curb	LF	160	\$ 35.00	\$ 5,600.00
11	Concrete Sidewalk	SY	110	\$ 55.00	\$ 6,050.00
12	Option 2 Parking Lot	EA	1	\$ 14,000.00	\$ 14,000.00
Big Sink Overlook					
13	Benches	EA	2	\$ 1,300.00	\$ 2,600.00
14	Stone Wall	CF	500	\$ 40.00	\$ 20,000.00
<b>TOTAL</b>					<b>\$ 146,852.50</b>

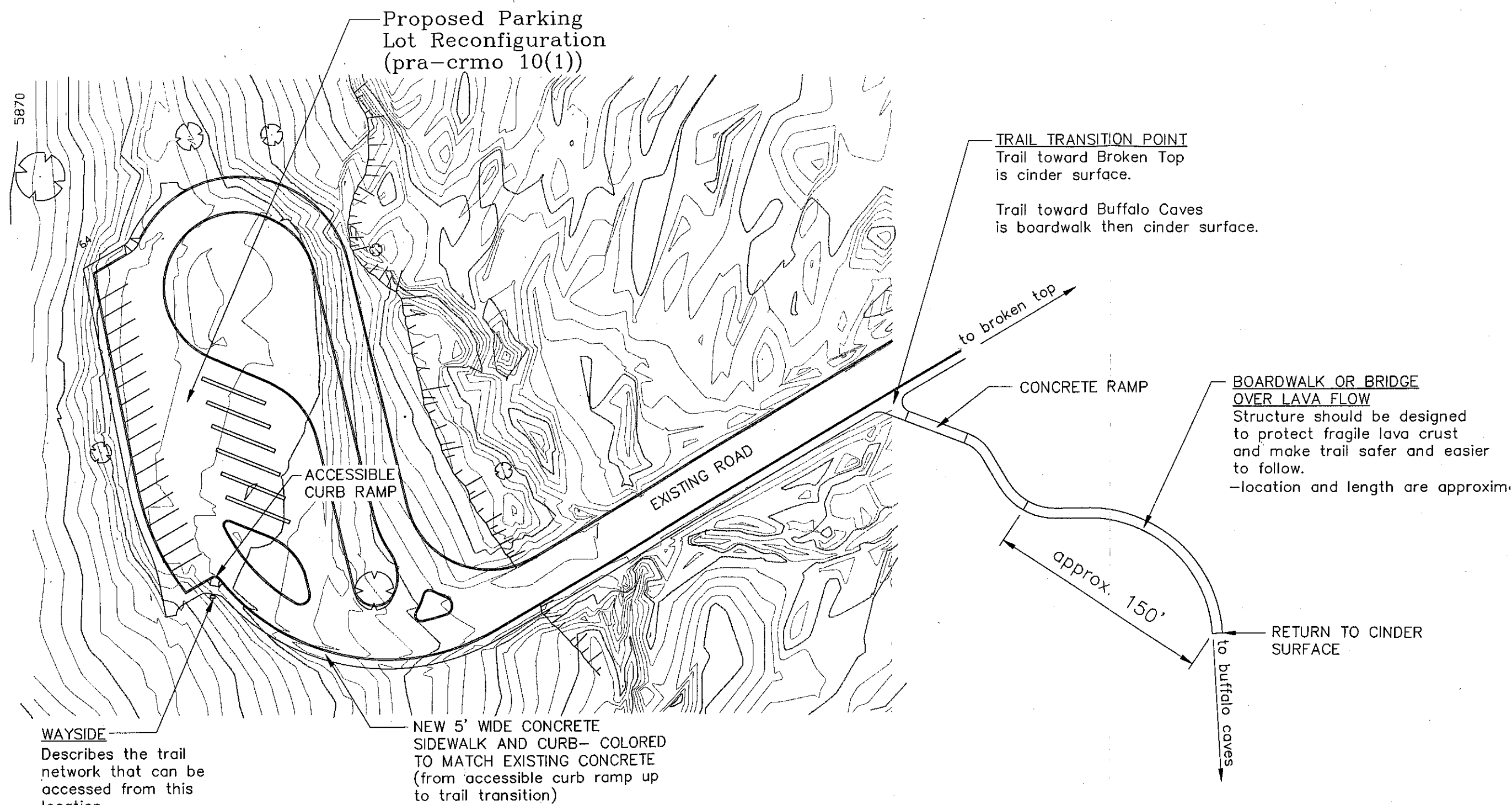


# BROKEN TOP LOOP TRAIL

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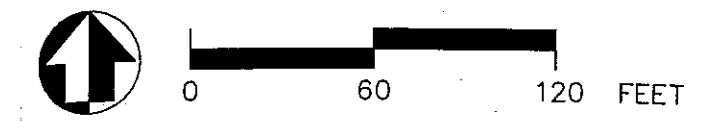


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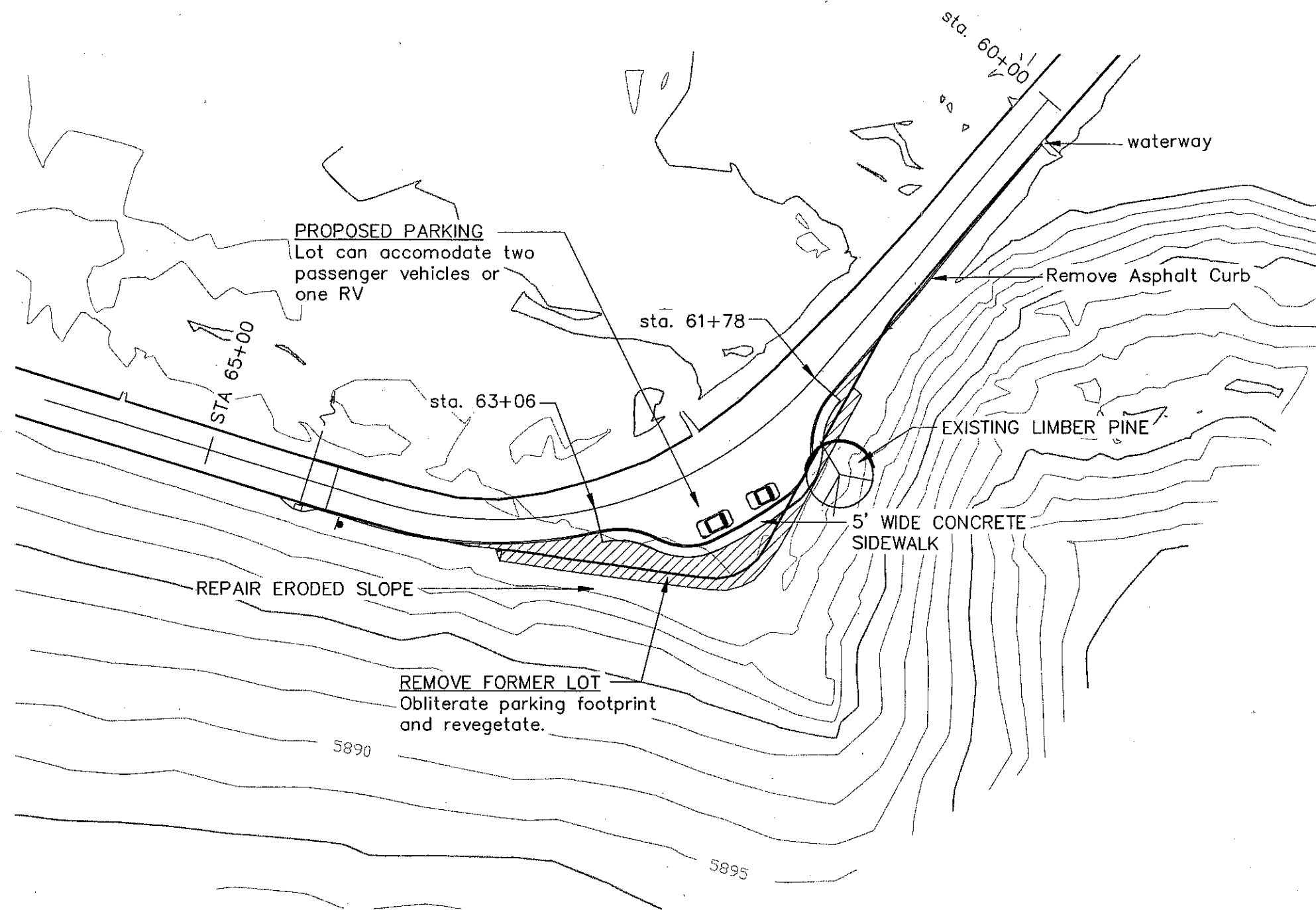


### Proposed Broken Top Trail and Trailhead at Treemolds Parking Area

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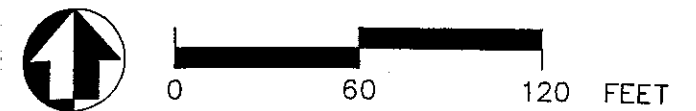


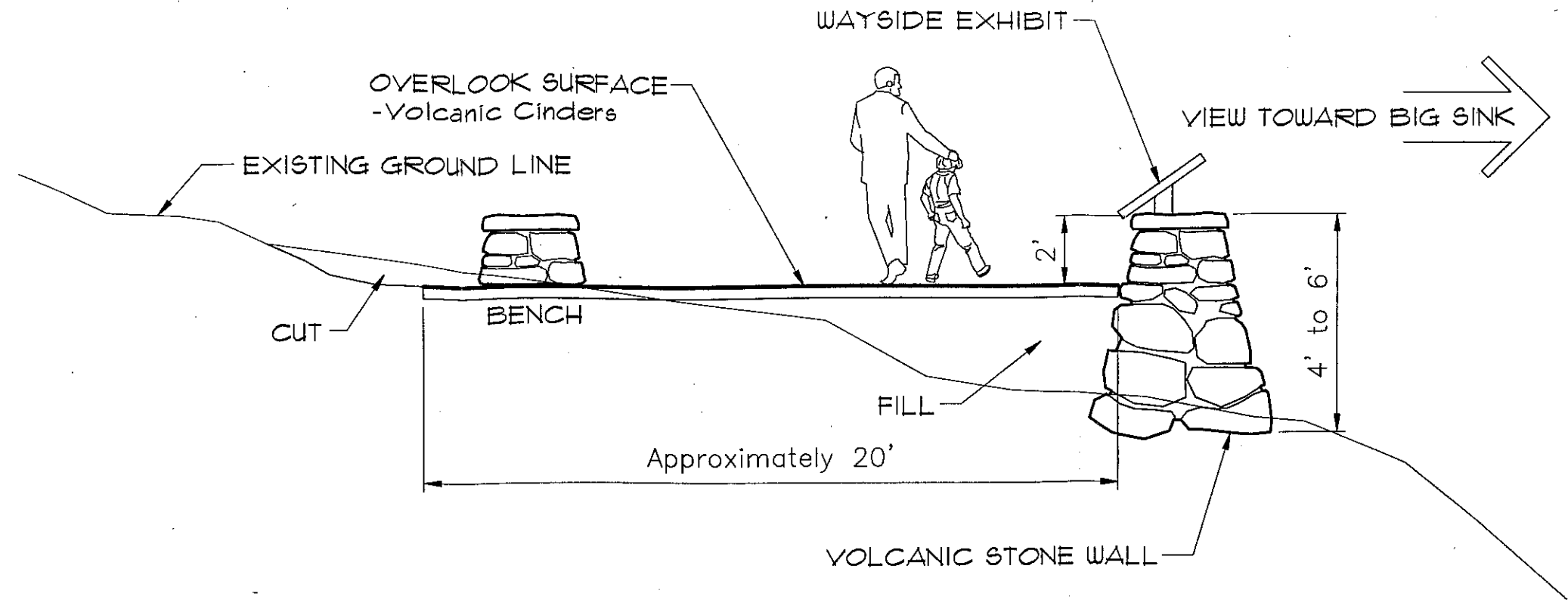
### Options for Big Sink Parking Lot

1. Leave existing lot unchanged
  - \* 2. Remove existing lot and replace with smaller lot (as shown)
  3. Obliterate existing lot, recontour and revegetate site.
- \* PREFERRED

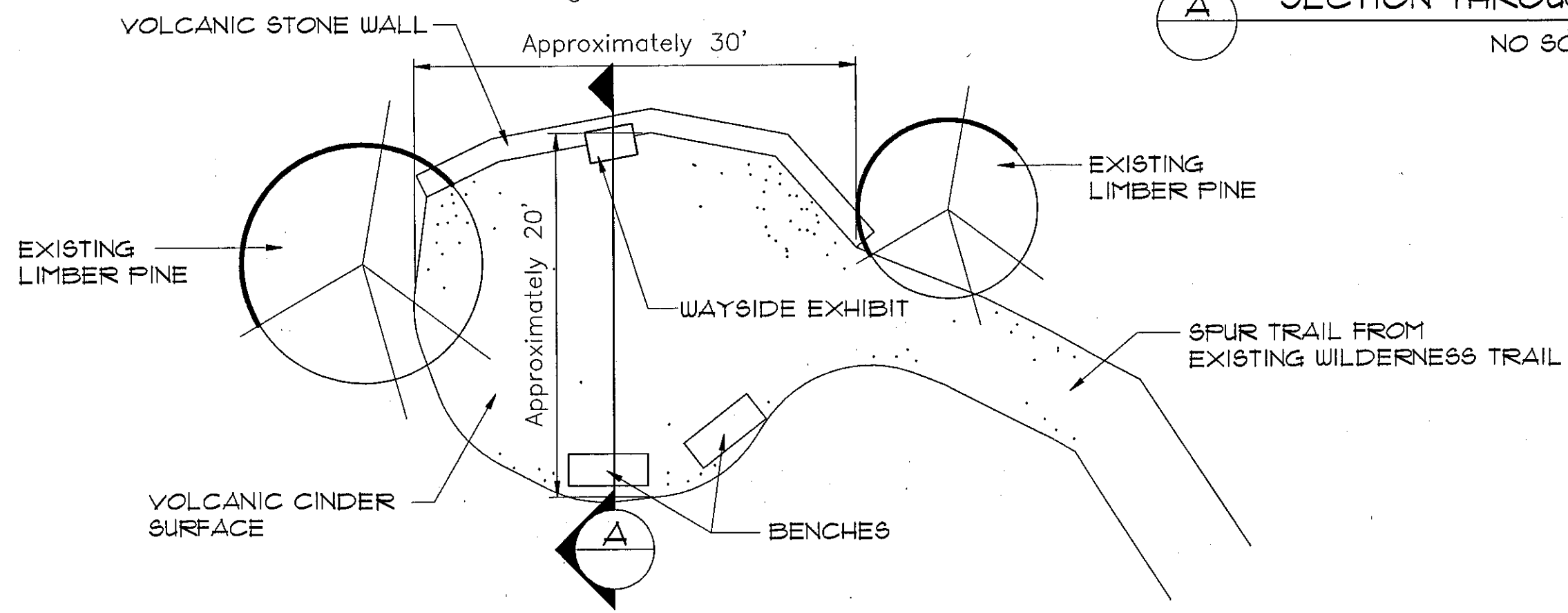
### PREFERRED OPTION Parking near Big Sink

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**A** SECTION THROUGH OVERLOOK  
NO SCALE



**B** OVERLOOK- PLAN VIEW  
NO SCALE

**PROPOSED  
BIG SINK OVERLOOK**

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