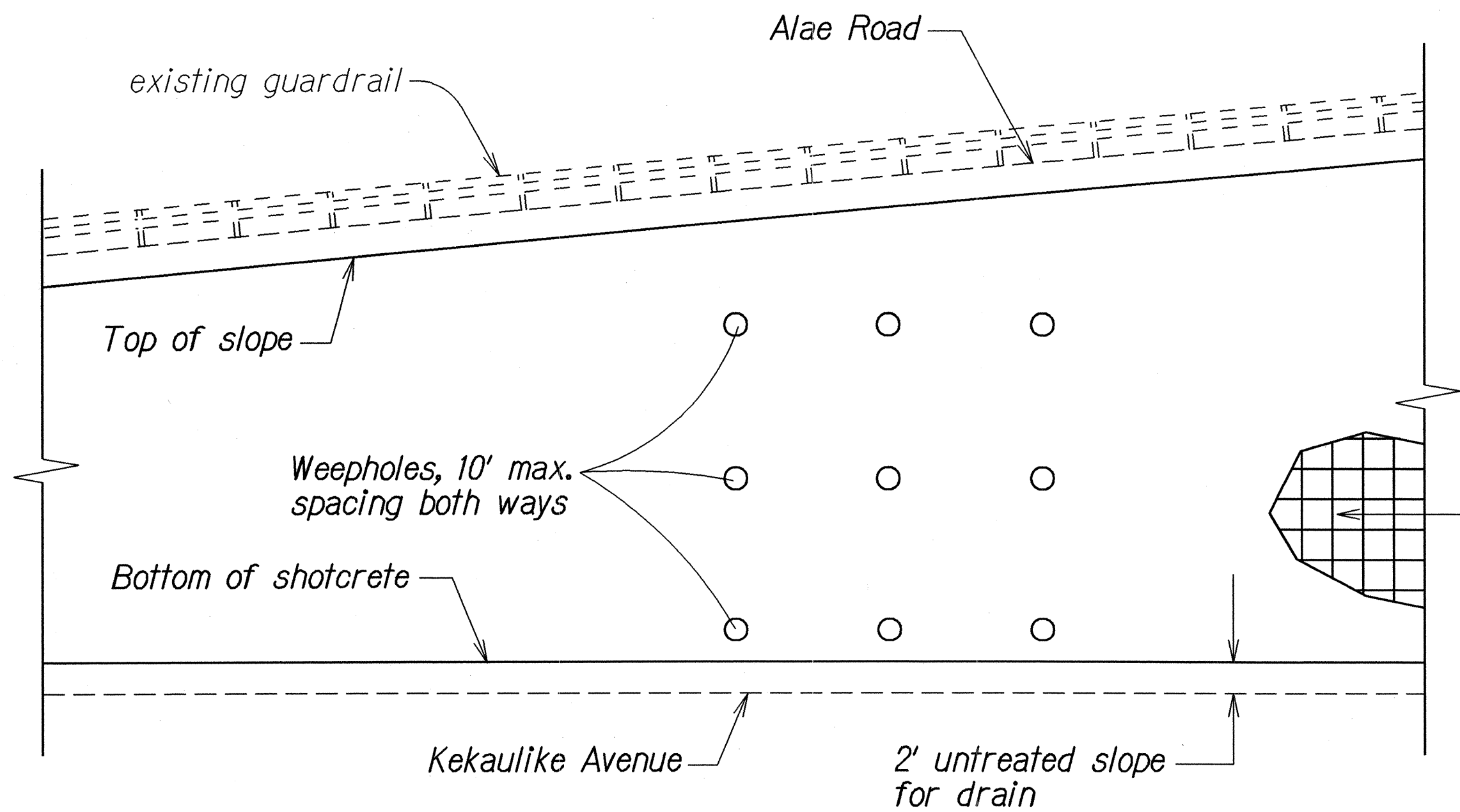
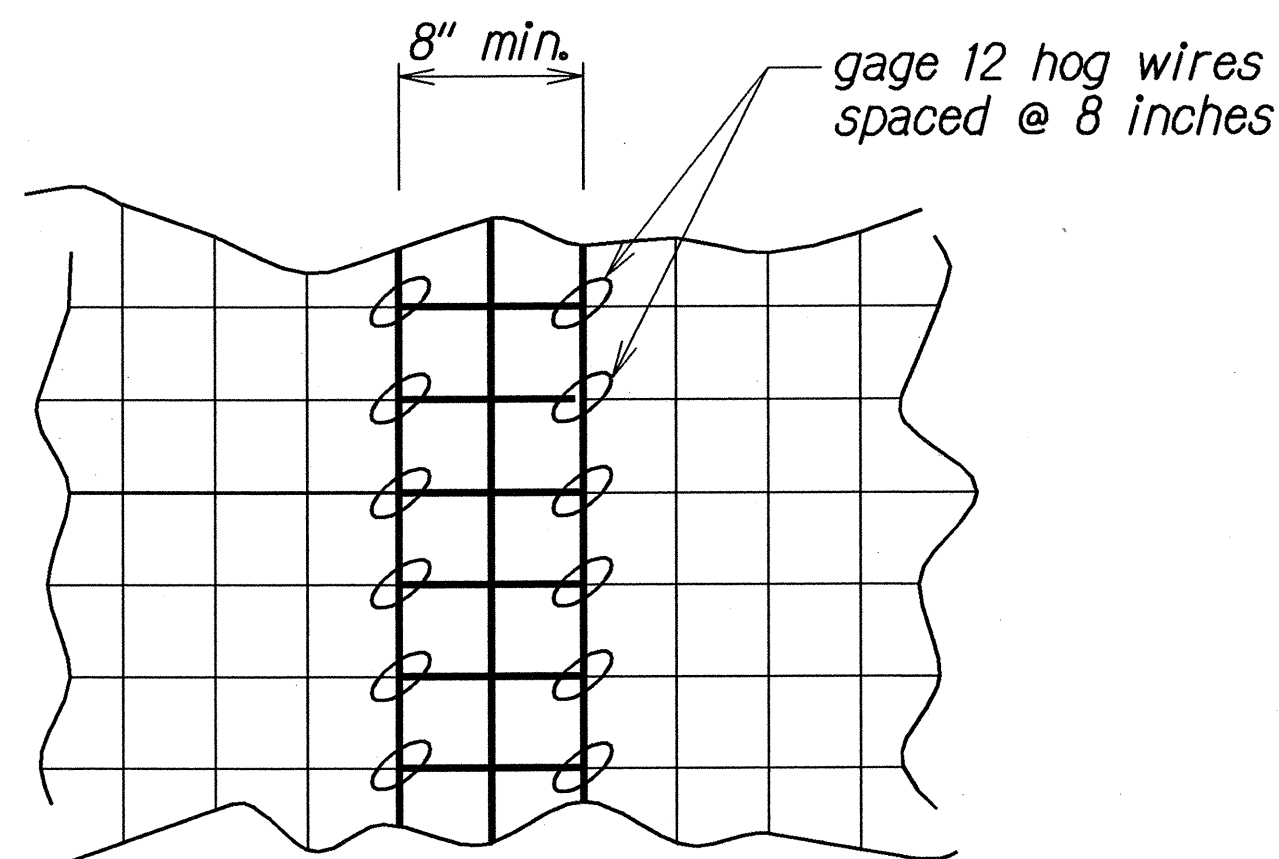


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	377A-01-03M	2003	ADD.16	16

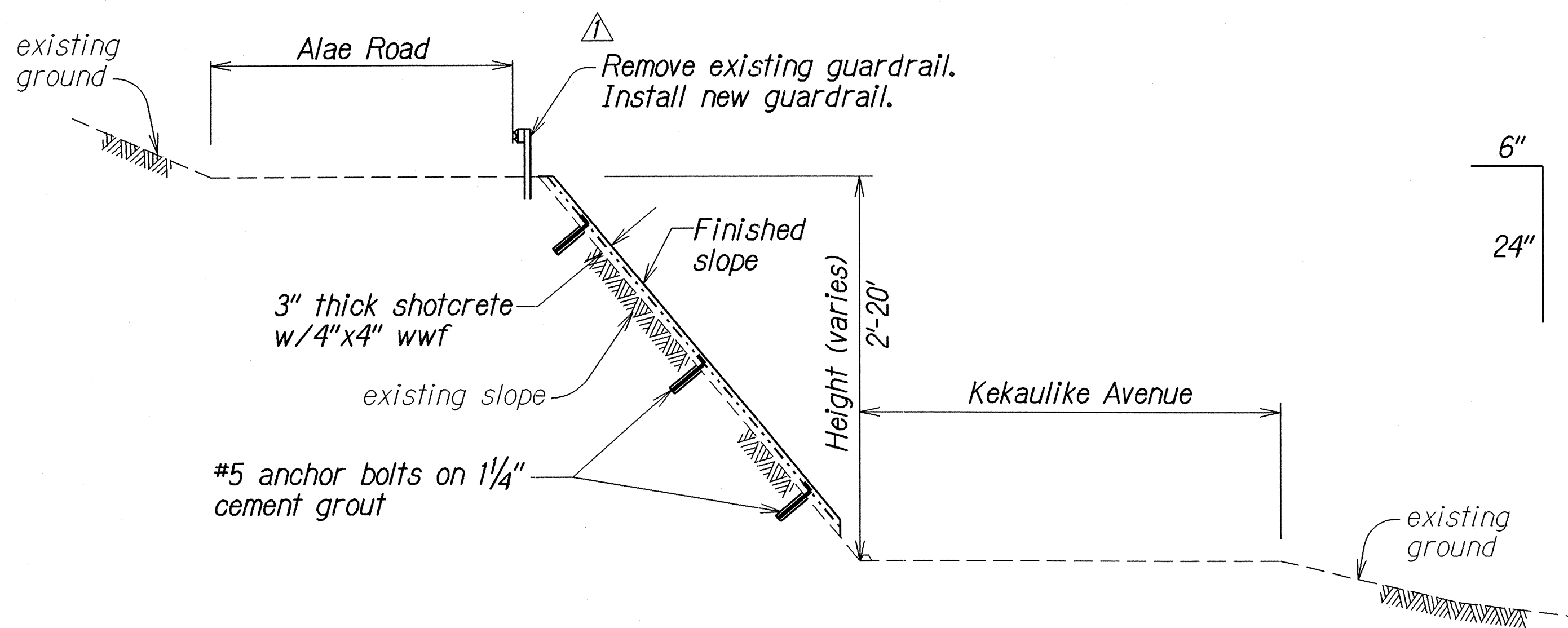


PLAN - SLOPE TREATMENT @ ALAE ROAD
3" SHOTCRETE
Scale: 1/8" = 1'-0"

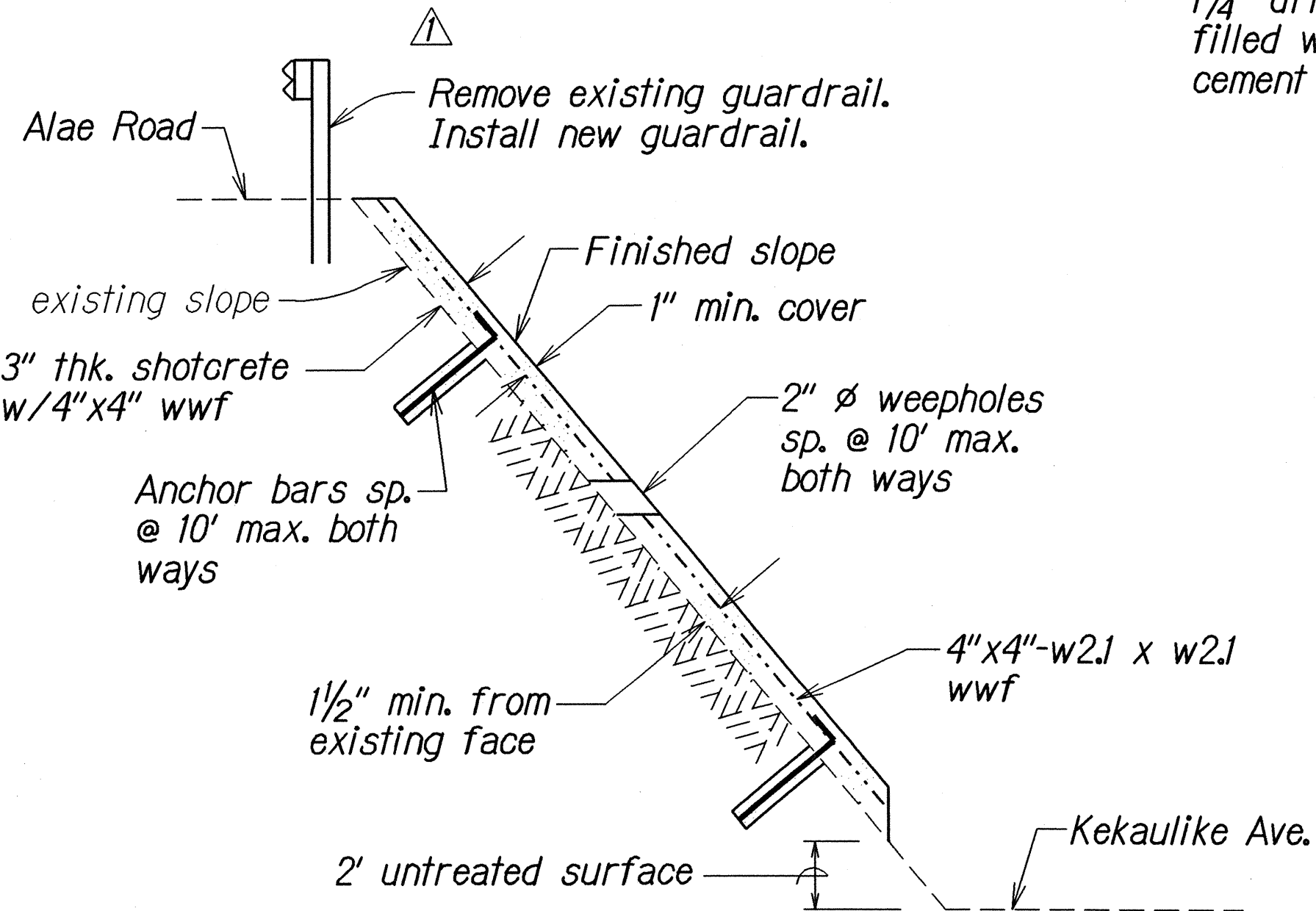


OVERLAP DETAIL
Not To Scale

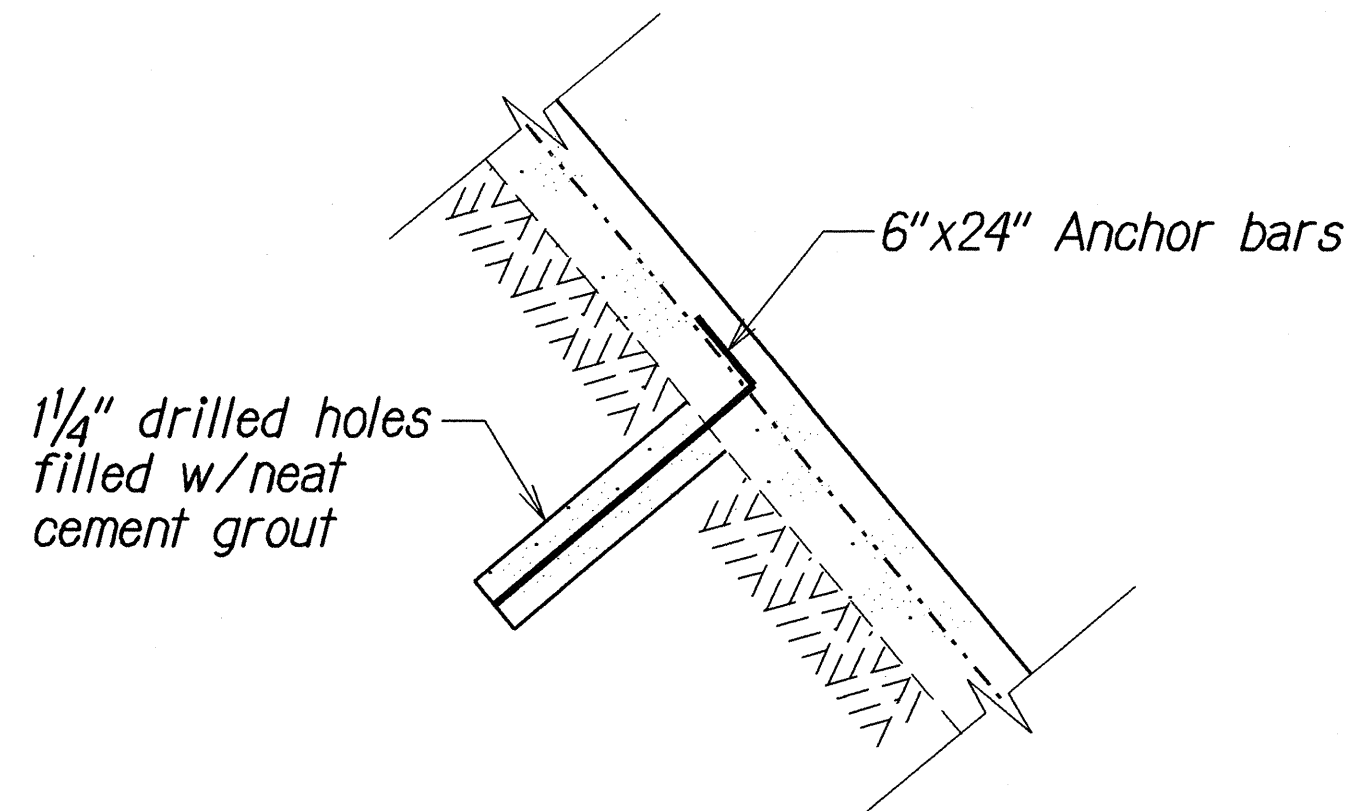
- NOTES:
- Anchor bars shall consist of No. 5 reinforcement bar bent into L shape such that the shorter leg is 6" and the longer leg is 24". They shall be placed at approximately 6-foot centers maximum, both horizontal and vertical, in a 1 1/4-inch holes drilled into the rock or soil approximately 24" deep. The drilled hole shall be filled with neat cement grout using a grout tube extending to the bottom of the hole.
 - Welded wire fabric reinforcement shall be nongalvanized 8 gage with 4-inch by 4-inch mesh meeting the requirements of AASHTO M55. The WWF shall be clean and free from loose mill scale, rust, oil and other coatings interfering with bond.
 - Shotcrete shall be capable of attaining 3,000 psi of compressive strength at 28 days as determined by AASHTO T 22 (ASTM C39-84) testing of compression test cylinders.
 - Immediately prior to shotcrete application, rock surfaces of the areas to be shotcreted shall be scaled of all contaminating and loose material and be thoroughly cleaned by use of air or water jets, or other means approved by the Engineer. Soil surfaces shall be cleaned of loose materials by air jet.
 - Shotcrete shall be 3" thick. A minimum of 1" shotcrete cover shall be placed over the welded wire fabric reinforcement. The lower 2 feet of the slope shall not be shotcreted to allow drainage.
 - Weep holes shall be provided throughout the shotcrete mat at 10-foot centers, horizontal and vertical.
 - Splicing of WWF reinforcement shall be limited to vertical only. No horizontal splicing shall be permitted.



SECTION - SLOPE TREATMENT @ ALAE ROAD
Not To Scale



INSTALLATION DETAIL - (3" SHOTCRETE)
Not To Scale



DRILLED HOLE DETAIL
Not To Scale

6/16/03	Revised Notes.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
SLOPE PROTECTION PLAN	
KEKAULIKE AVENUE REPAIRS AND MAINTENANCE AT VARIOUS LOCATIONS	
Haleakala Crater Road to Kula Highway	
Project No. 377A-01-03M	
Scale: As Shown	Date: April, 2003
SHEET No. 1 OF 1 SHEETS	