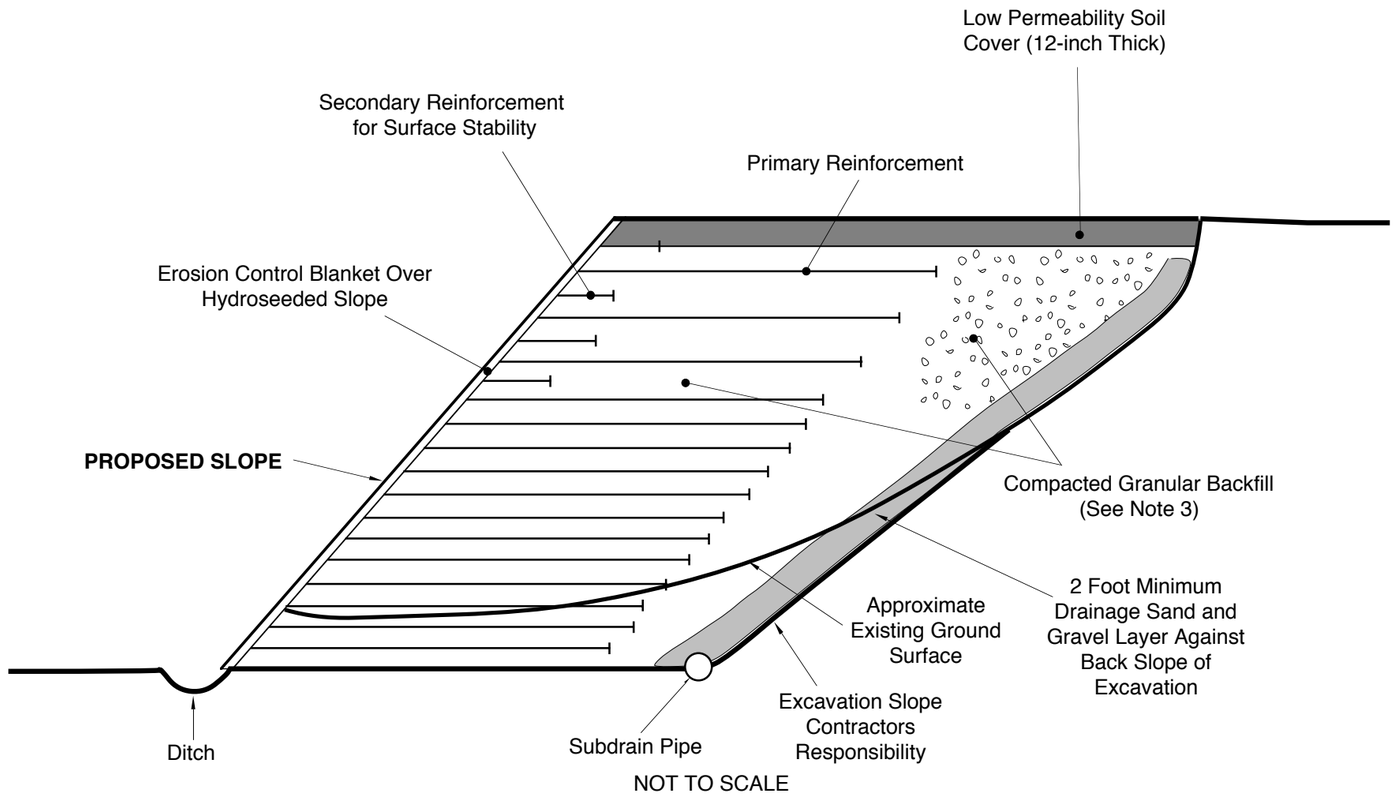

NOT TO SCALE

NOTES

1. This figure is not for construction. It should only be used for information pertaining to potential design concepts. Final design should be based on site-specific conditions and accomplished by a geotechnical engineer licensed as a professional engineer.

2. The following construction sequence is typical.

(a) Mobilize and prepare the site including placing erosion control measures, excavating the landslide debris in the proposed reinforced zone and hauling this material temporarily off-site, and recompacting the subgrade.

(b) Construct slope including geotextile placement, place backfill and compact.

(c) Place 12 inches of low permeability soil cover at the top of the reconstructed bank.

(d) Hydroseed the slope face and the top of the bank.

(e) Place geosynthetic erosion control blanket on the slope face.

(f) Demobilize, including removing erosion control measures and cleanup.

3. Compact backfill in 6" maximum loose lifts to at least 95% of Modified Proctor maximum dry density (ASTM D-1557).

4. Keep the excavation free of water. A geotechnical engineer should evaluate the prepared subgrade before placing fill.

5. If loose or soft materials are present in the subgrade, they should be removed and replaced with compacted granular backfill.

MATERIALS

1. Drainage Sand and Gravel should meet the following gradation (Modified City of Seattle Mineral Aggregate Type 26):

Sieve Size	% Passing by Weight
1-inch	100
3/4-inch	85 to 95
1/4-inch	30 to 60
No. 8	20 to 50
No. 50	3 to 12
No. 200 (by wet sieving)	0 to 1 (non-plastic fines)

An alternative to drainage sand and gravel is a 50-50 mixture of washed pea gravel and washed sand (Mineral Aggregate Type 6).

2. Washed Pea Gravel to Meet City of Seattle Mineral Aggregate Type 9.

3. Granular backfill to consist of suitable on-site or imported clean, well-graded sand and gravel or crushed rock; either material must meet the following gradation criteria (City of Seattle Mineral Aggregate Type No. 17);

Sieve Size	% Passing by Weight
3-inch	95-100
1/4-inch	25 -75
No. 200 (by wet sieving)	0 to 5 (non-plastic fines)

4. SUBDRAIN PIPE

a. Perforated or slotted pipe; tight joints; sloped to drain (6"/100' min. slope); provide clean-outs; min. diameter: 4 inches.

b. Perforated pipe holes (1/8-in. to 3/8-in. dia.) to be in lower half of pipe with lower quarter segment unperforated for water flow.

c. Slotted pipe to have 1/8-in. max. width slots.

d. Envelope subdrain with 6" minimum of washed pea gravel. Place suitable filter fabric (non-woven geotextile) between pea gravel and on-site soils.)

Seattle Landslide Study
Seattle Public Utilities
Seattle, Washington

TYPICAL SECTION
GEOTEXTILE-REINFORCED SLOPE

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SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. 2-17