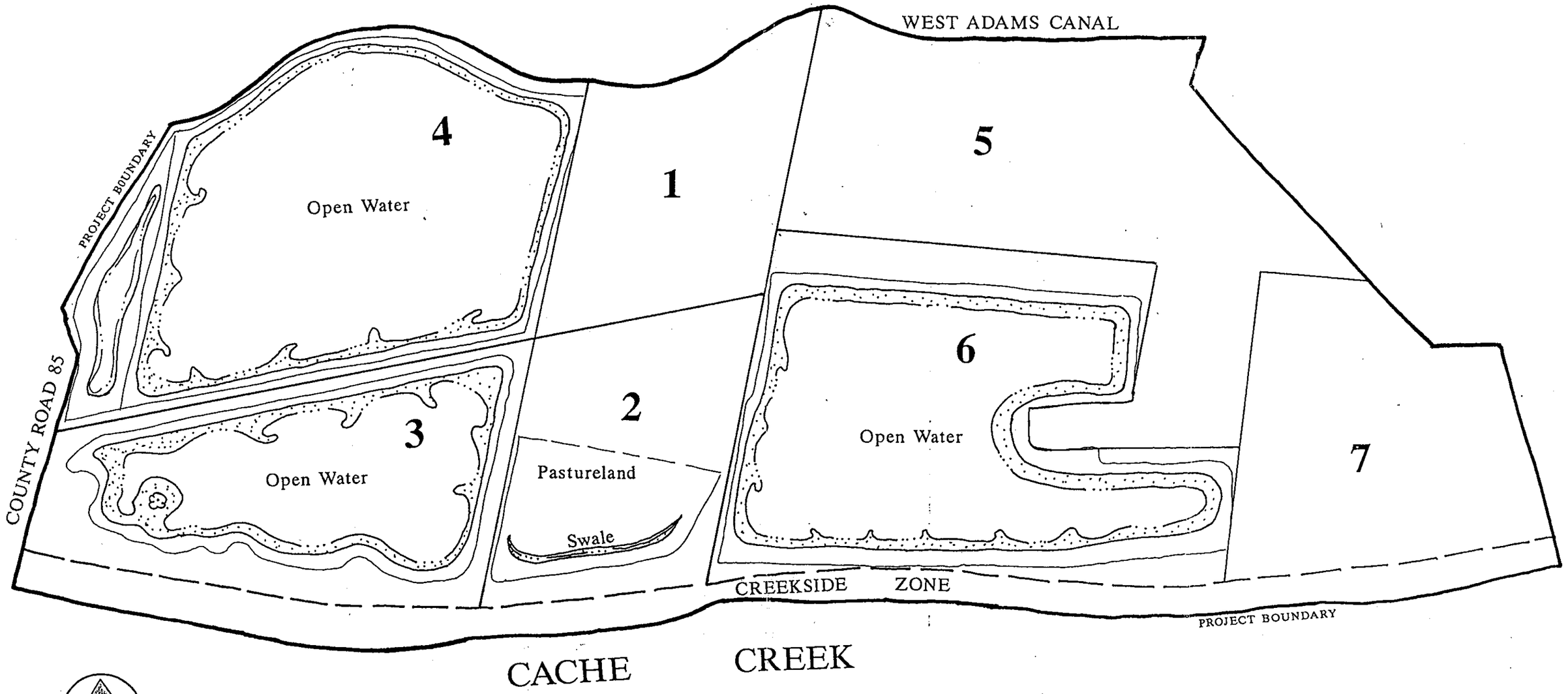

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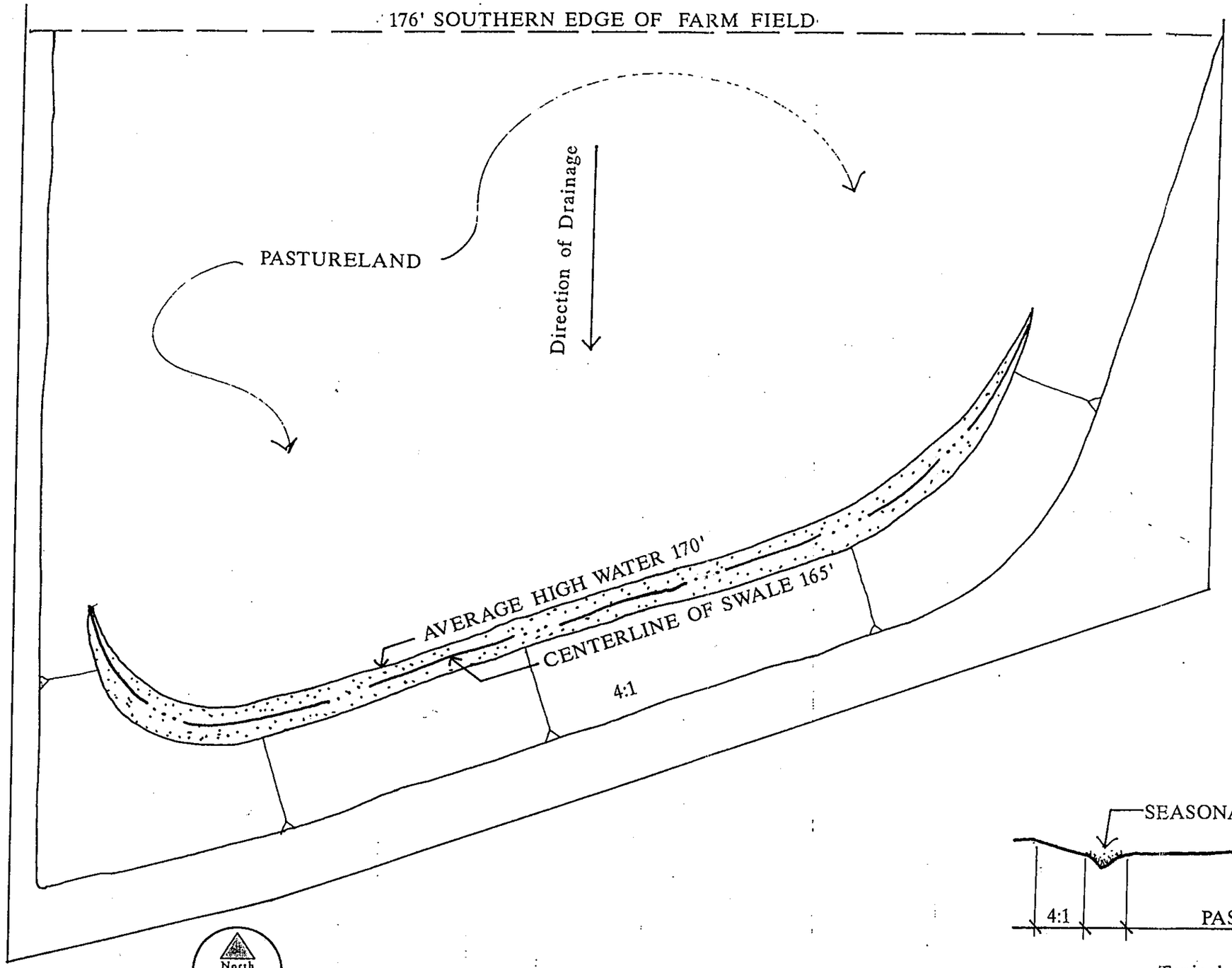
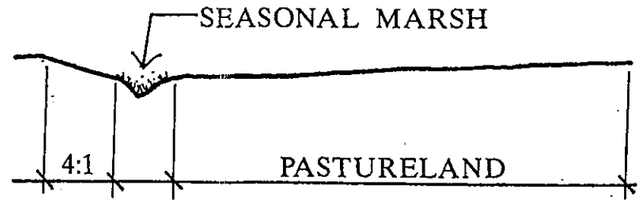
Restoration Plan

FIGURE 2



SCALE: 1" = 100'-0"



Typical Cross-Section

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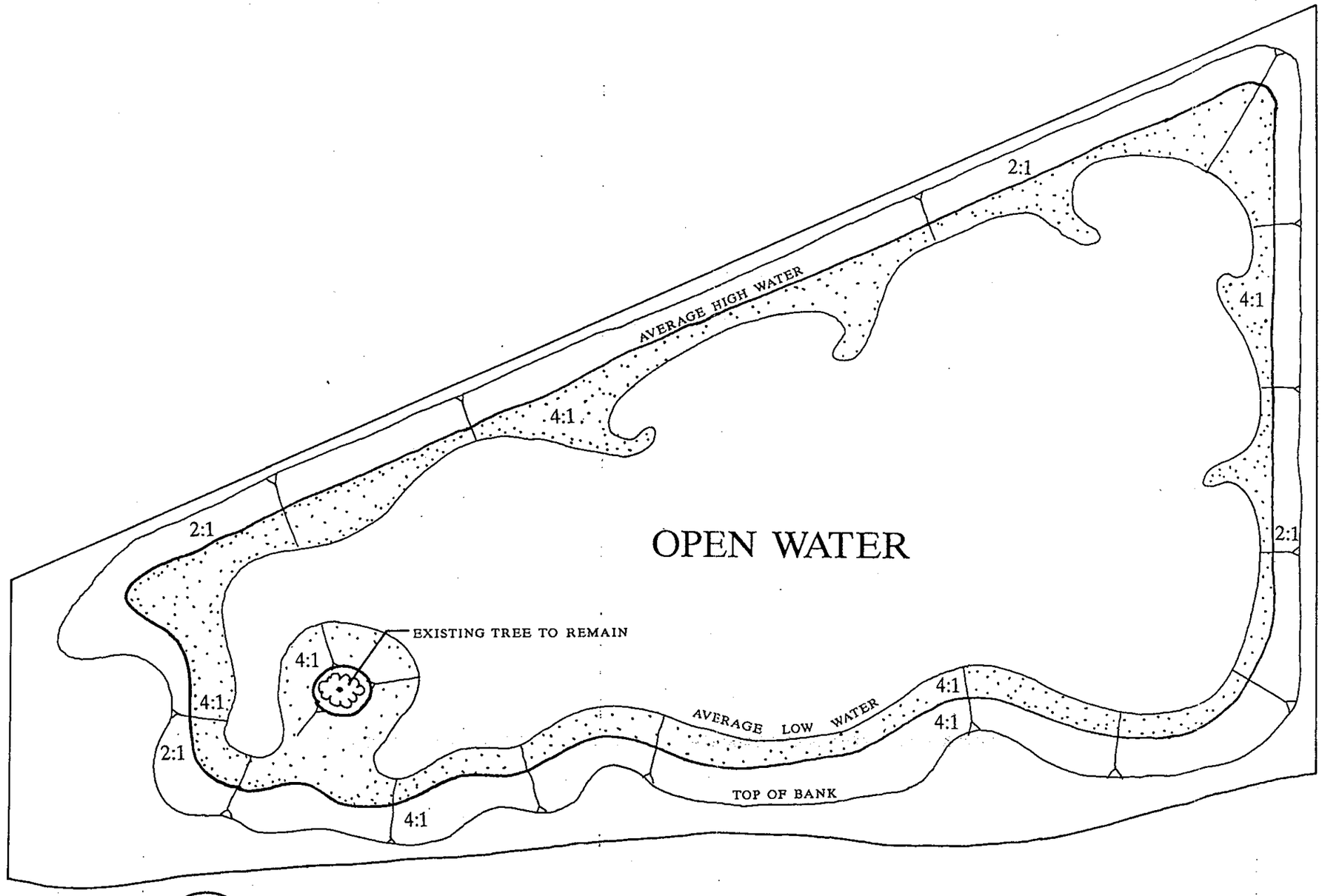
Area 2 Plan View and Cross-Section

FIGURE 3



SCALE: 1" = 200'-0"

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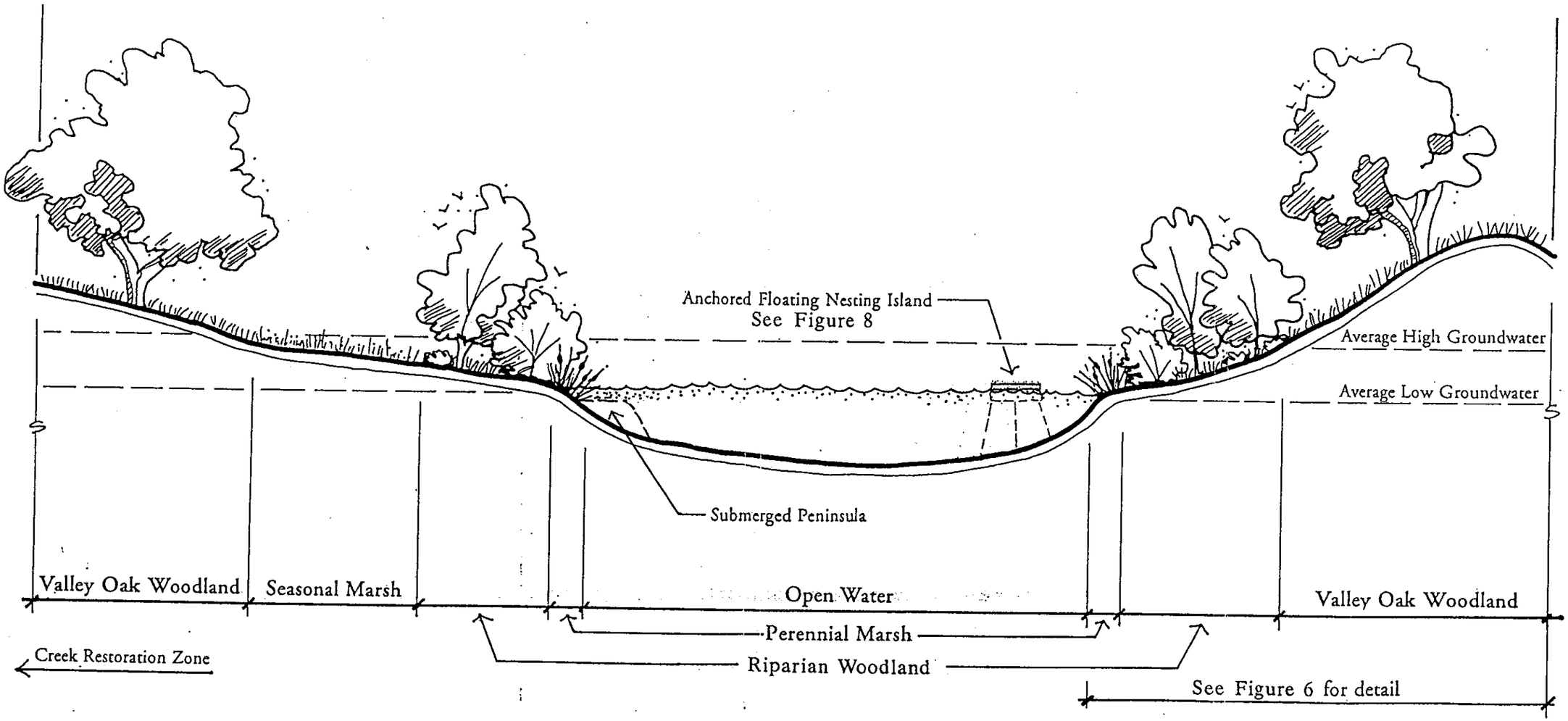
Area 3 Plan View

FIGURE 4



NOT TO SCALE

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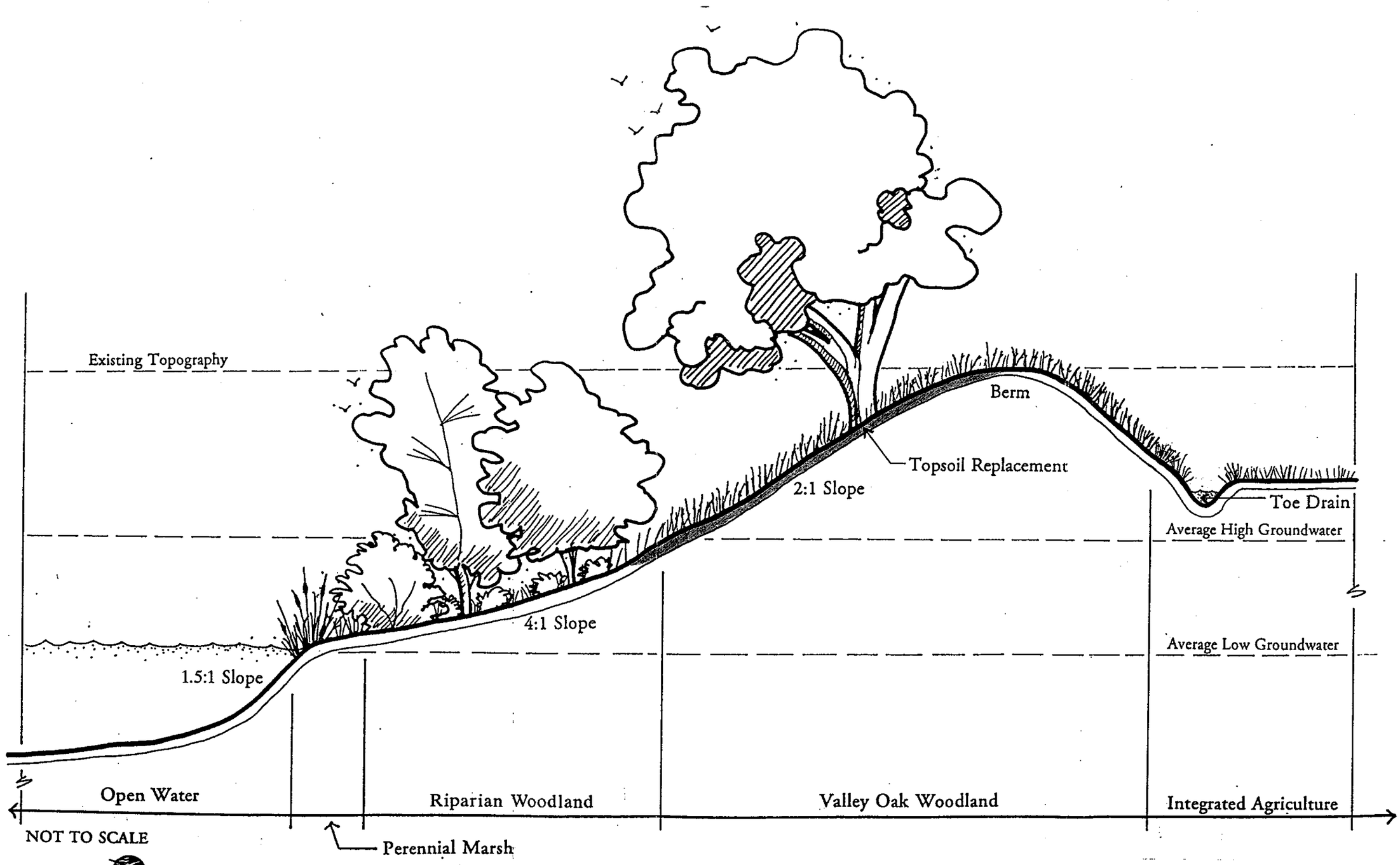
RESTORED WET PIT WETLAND & ASSOCIATED UPLANDS RESTORATION

Area 3 Cross-Section

FIGURE 5



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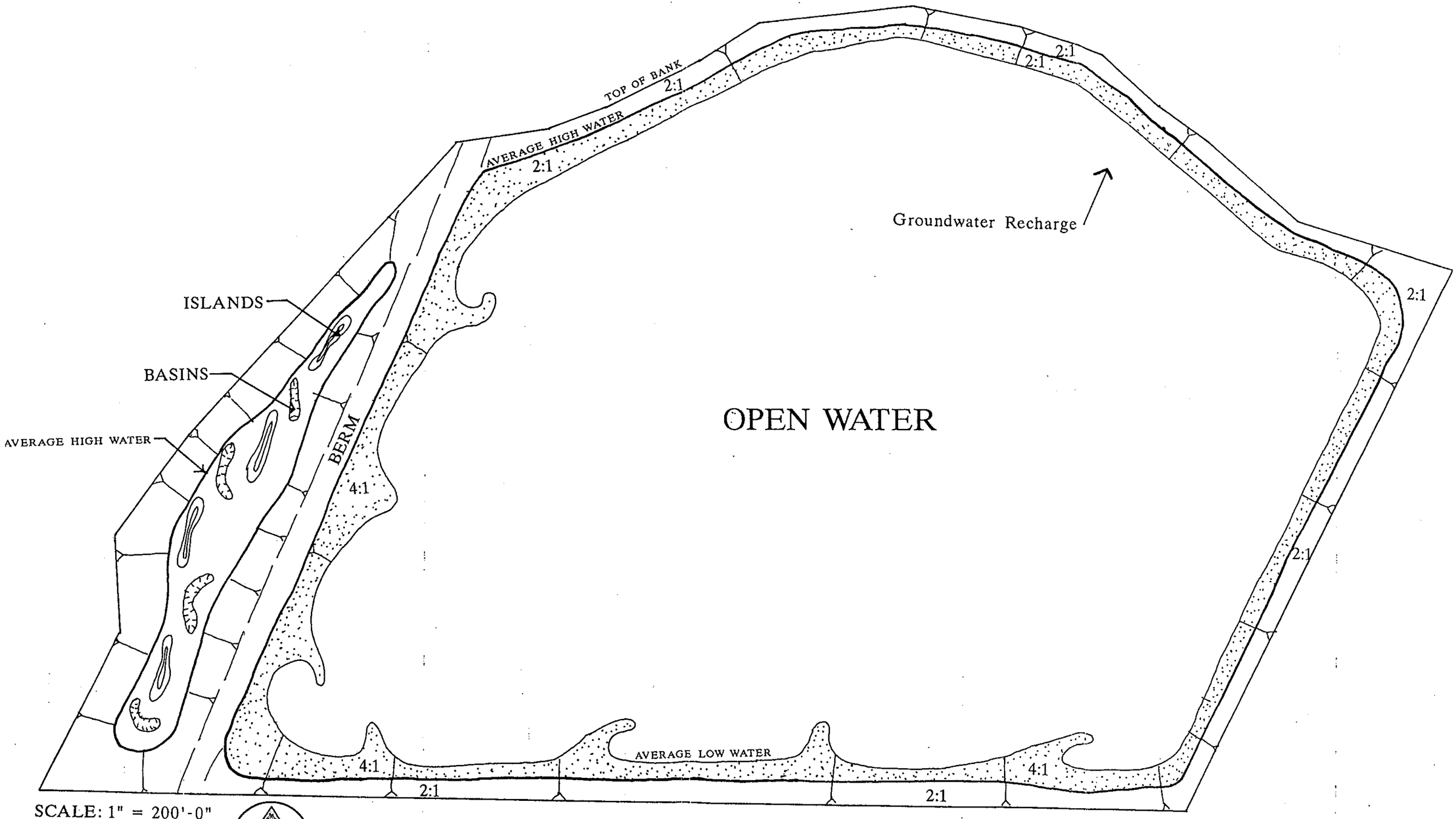
WETLAND & ASSOCIATED UPLANDS RESTORATION

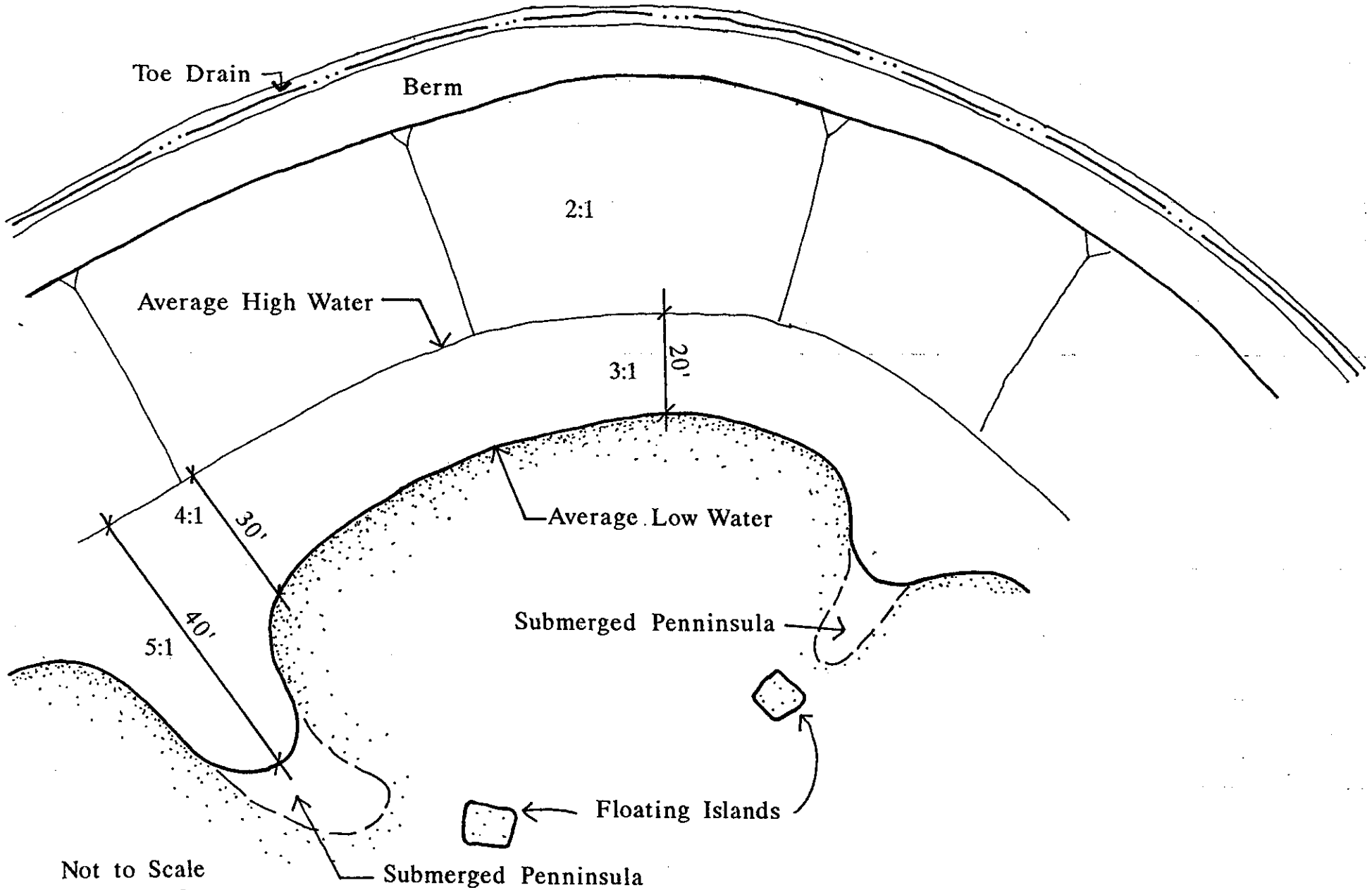
Area 3 Detail

FIGURE 6



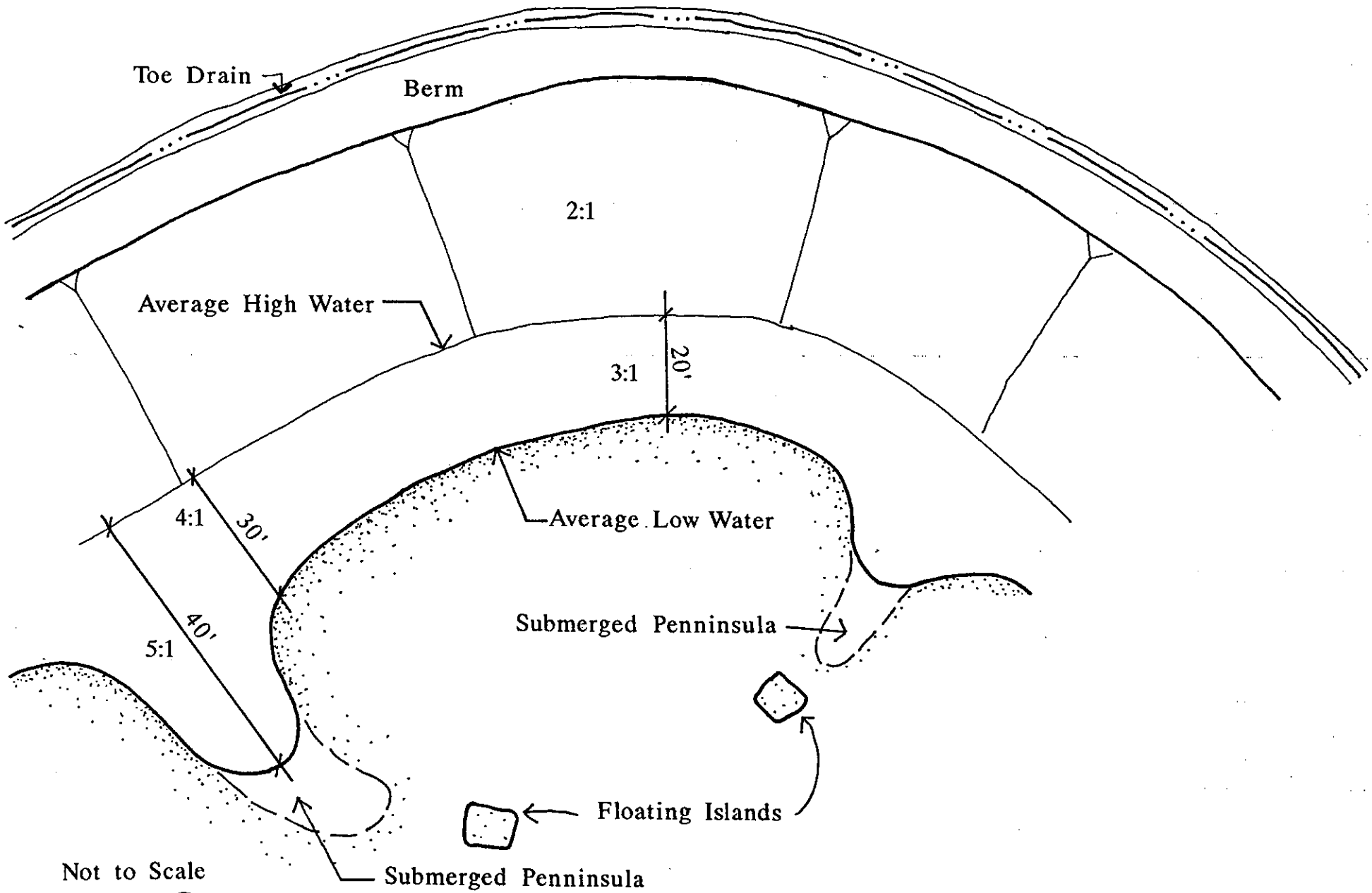
Area 4 Plan View

FIGURE 8



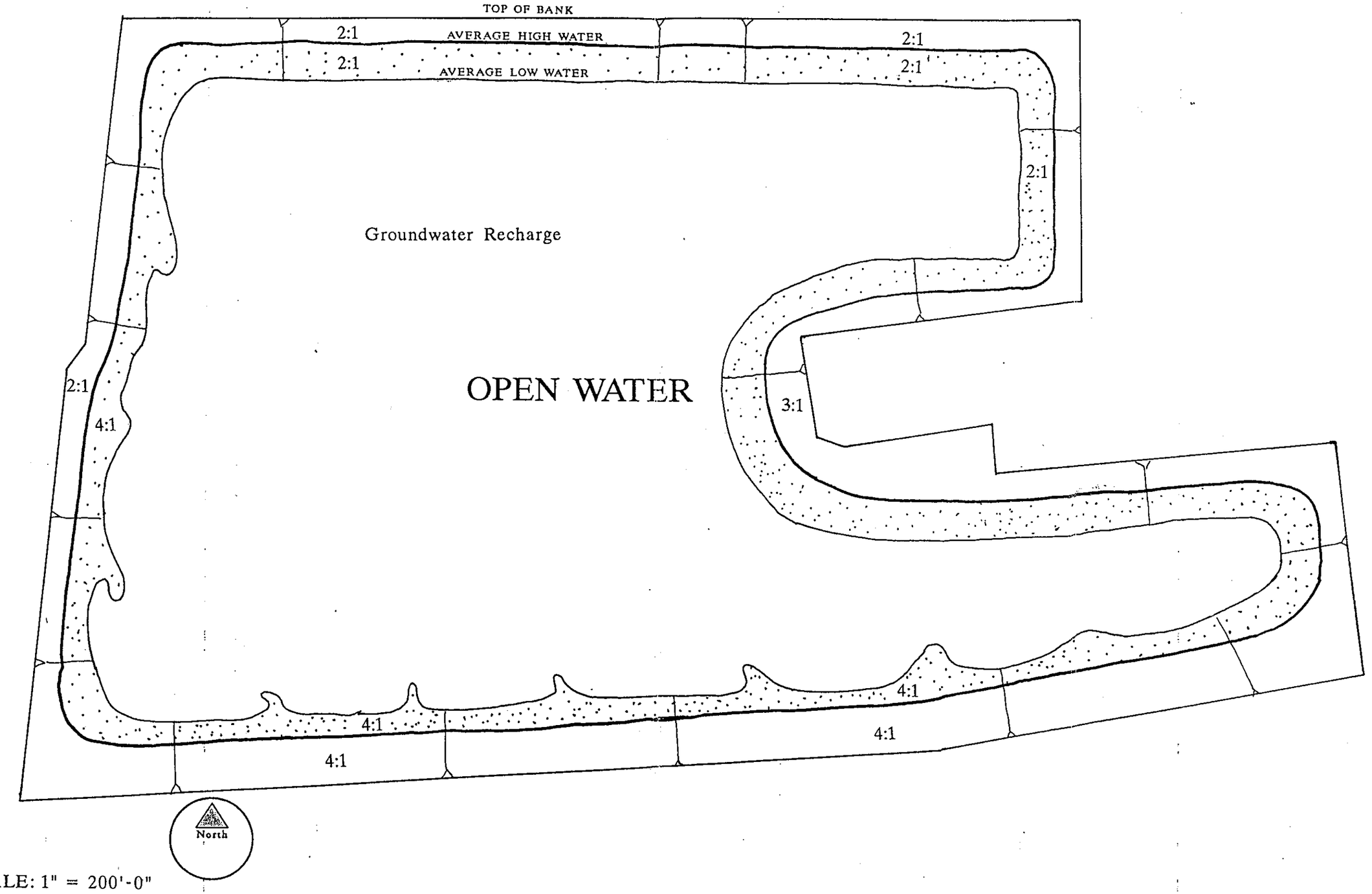
Penninsulas and Floating Islands Plan View

FIGURE 7



Penninsulas and Floating Islands Plan View

FIGURE 7



SCALE: 1" = 200'-0"

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Area 6 Plan View

FIGURE 9

10. Creek Zone

The conceptual framework for restoration of the creek zone has been established in the CCRMP; this program is similar to the *Cache Creek Restoration Program: Mining Reach Plan*, prepared by Zentner and Zentner for the FCWCD in 1994. Basically, the creek zone (which does not include the creek bottom) will be terraced to provide for greater flood conveyance and slope stability. *Figures 11 and 12* provide cross-sections from two locations in the CCA creek zone.

The CCRMP did not consider the relationship between terrace height and vegetation association. Streams commonly create terraces at different flood levels due to the force of the water and its ability to move different size sediments at different flood stages. Typically, the lowest terrace forms at about the mean annual flood elevation and is dominated by willows (*Salix* spp.) and cottonwoods (*Populus fremontii*). A second terrace forms between about the 10-year and 50-year flood level and is dominated by a variety of species depending on the soil type. The third terrace forms at or near the 100-year flood plain and is dominated by digger pines (*Pinus sabiniana*) and valley oaks.

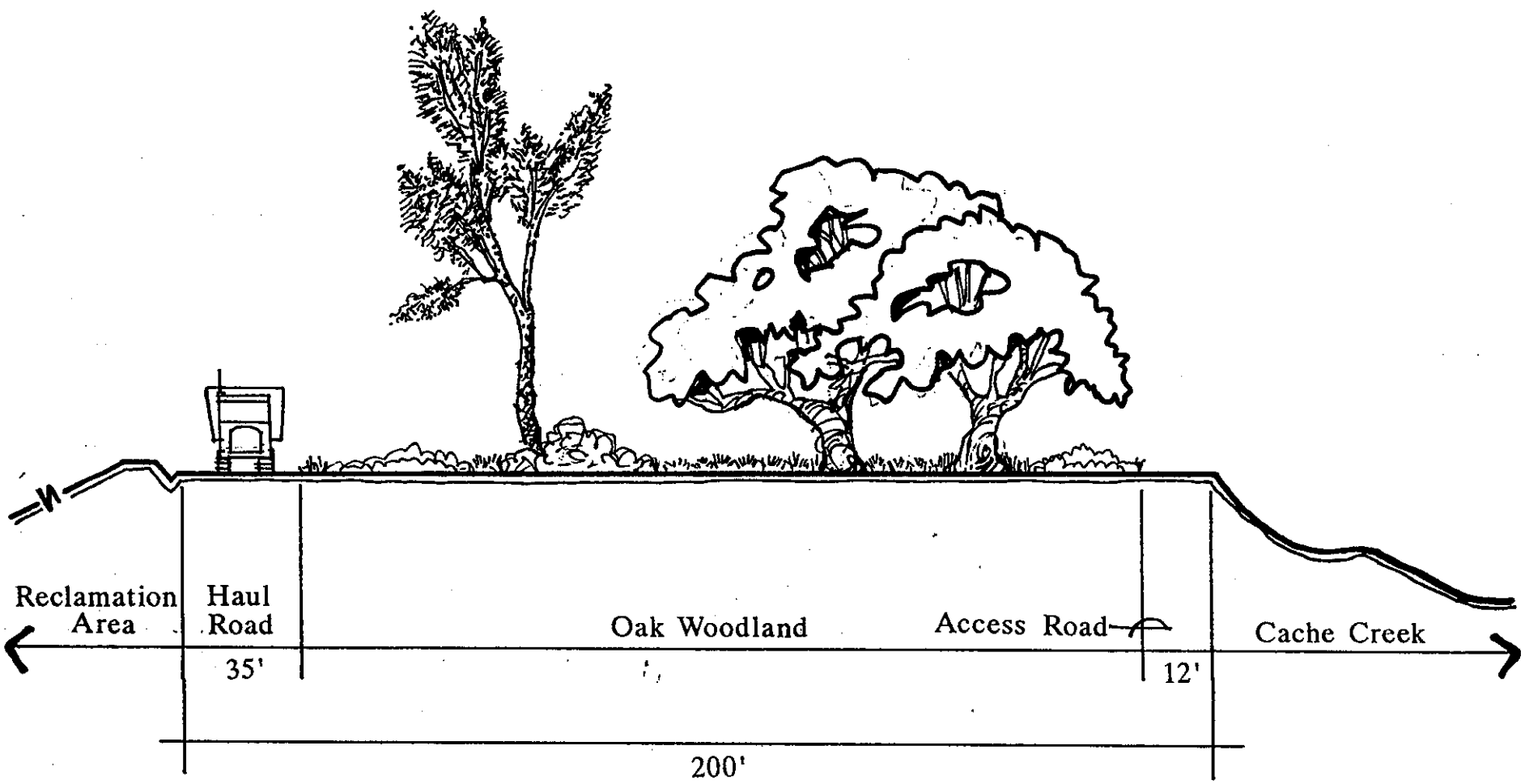
On this site, the creek zone will be mostly preserved with some intervening high ground either excavated or sloped back to create a series of terraces and relatively gentle slopes. These will then be planted with the appropriate vegetation association depending on their height relative to flood levels. This will increase flood capacity and desynchronization (slowing flood flows to reduce peak discharges downstream), increase groundwater recharge (by slowing flows and allowing increased percolation), and increase natural habitat and wildlife values (by replacing a relatively steep levee slope with few native plants with a gentler slope dominated by natives) by replicating features of the natural topography.

11. Hedgerows

Hedgerows are traditional and important components of any diverse agricultural system. In this project, hedgerow areas will be provided on the edges of the reclaimed agricultural lands. The slopes will be planted with a diverse mix of native grassland species which should eventually provide foraging habitat for the Swainson's Hawk.

12. Vegetative Screen

To screen mining operations from adjacent uses, a strip of trees will be planted alongside Road 85 and on the northeastern edge and maintained. The strip will consist of staggered rows of cottonwoods and valley oaks as shown in *Figure 13*. The cottonwoods are fast-growing and can reach 10 to 12 feet in height in 2 years. However, they are relatively short-lived and may last for only 50 years. Valley oaks, on the other hand, are slow-growing but long-lived and by age 50 will be reaching 20 to 30 feet in height with another 200 years of continued slow growth.



SCALE: 1" = 30'-0"

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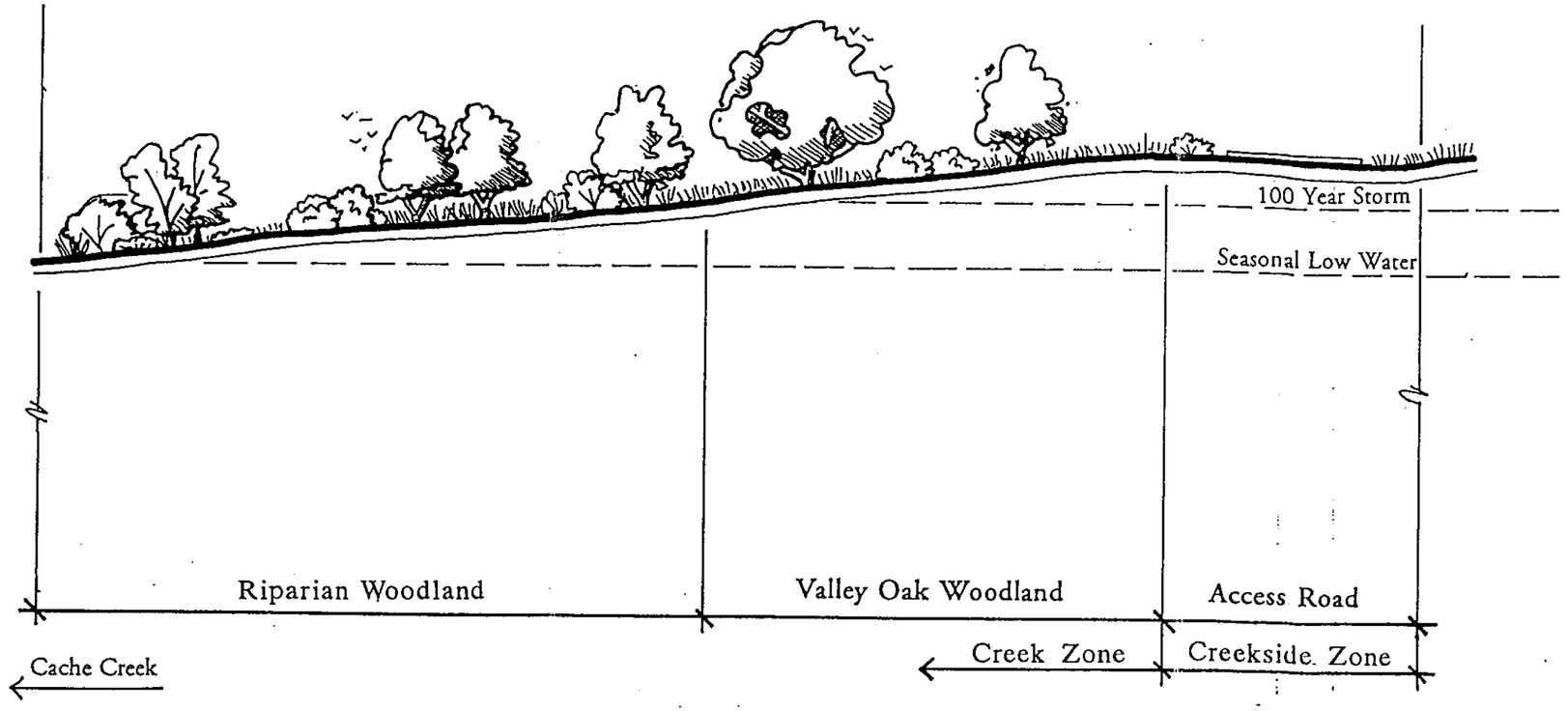
Creekside Zone Cross-Section

FIGURE 10



SCALE: 1"=30'-0"

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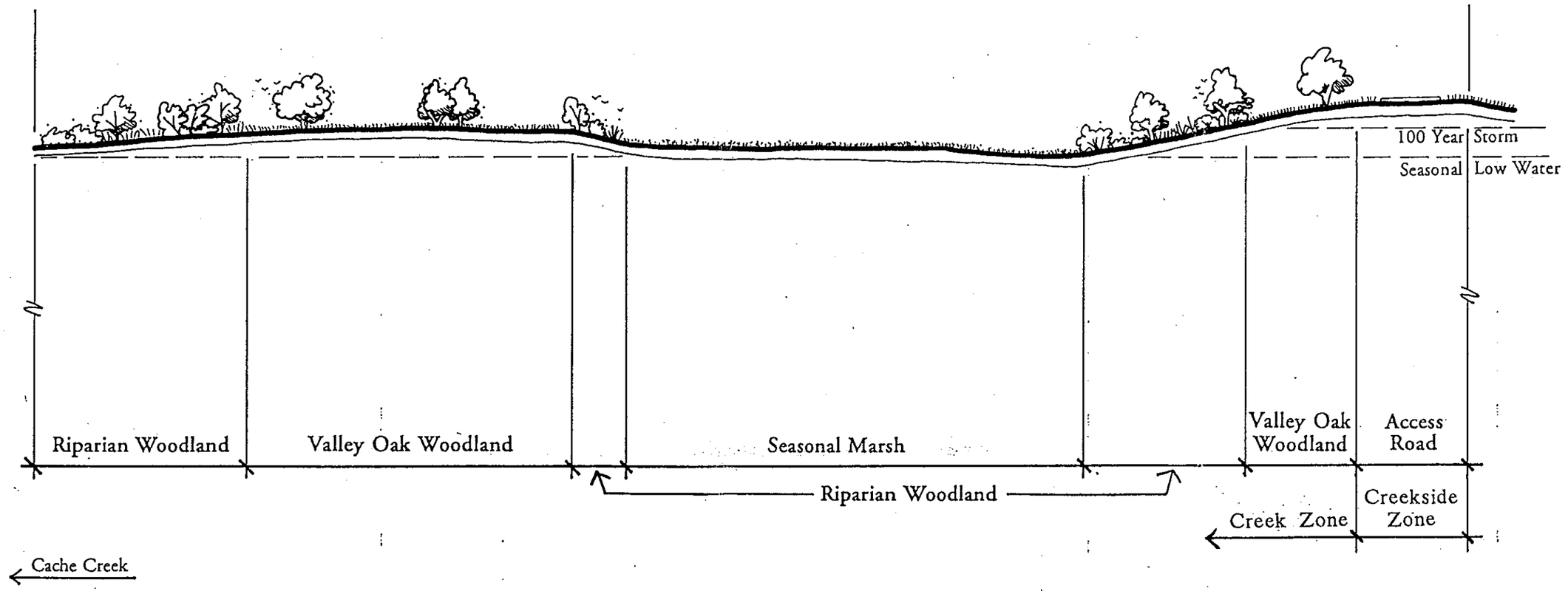
CREEK BANK RESTORATION

Cross-Section After Reclamation:

FIGURE 11



SCALE: 1"=50'-0"

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CREEK BANK RESTORATION

Cross-Section After Reclamation:

FIGURE 12