On 30 April 2006, the Israeli cabinet approved a revised route of the West Bank Barrier. The previous map was issued on 20 Feb 2005.

The revisions include:

The Emanuel and Ari’el settlement groups are split into two "fingers".

Together these "fingers" surround more than 25,000 Palestinians on three sides with one access route on the east side of the Barrier.

The Ari’el finger encircles three villages: Deir Ballut, Rafat and Az Zawiya.

The Alfe Menashe settlement is reduced in size. Sections of the completed Barrier will be dismantled and rebuilt placing three Palestinian villages and some of their adjacent lands on the east side of the Barrier.

The route is moved approximately one and a half kilometres further north from Road 465 and incorporates fewer olive groves and land from Rantis village.

The route is closer to Ofarim settlement, allowing 'Abud village residents to remain connected to their olive groves.

The new route removes Beit Iksa village and its surrounding lands from the Jerusalem side of the Barrier and places it within the Biddu/Beit Surik group of West Bank villages. This area is surrounded by the Barrier on three sides and Road 443 to the north.

Al Walaja village will be encircled by the Barrier. The route will incorporate most of all the village infrastructure, however, it will isolate the village from its farm land.

Al Jaba’ will be in the Gush Etzion settlement group.

Several sections of the route that were planned to be on the Green Line have been moved north, inside the West Bank.

The "bubble" created by the Barrier around Eshkolot settlement is reduced; the quarry will remain on the West Bank side of the Barrier.